

**MILK PRODUCER -- FRIENDLY -- CONSUMER**

**WHITE REVOLUTION  
THROUGH  
QUIET EVOLUTION**

**PROJECT INITIATED AND BEING IMPLEMENTED**

**BY**

**INTERNATIONAL IMPROVEMENT MISSION**

**WITH ACTIVE PARTICIPATION AND SUPPORT**

**OF**

**MISSION ASSOCIATES**

**IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA**

**&**

**INNOVATIVE BUSINESS IMPROVEMENTS PRIVATE LIMITED INDIA**

Regd. Office: # 53-A, Sector 18-A, Chandigarh-160018

Tel: 0172-2724872 Cell: 09815961853

Website: <http://apnidairy.com>

**CAMPAIGN AGAINST ADULTERATION, DILUTION & MANIPULATION IN MILK**

# WHITE REVOLUTION THROUGH QUIET EVOLUTION

## VISION

**Provide glass of pure milk meeting with international quality requirements for everyone, every day, anywhere at globally competitive but reasonable price.**

## MISSION

**Establish chain of state of the art dairy plants in India procuring pure raw milk directly from milk producers, produce pasteurized milk and other value added dairy products strictly conforming to international specifications in terms of purity of contents, microbiological safety, shelf- life and deliver the same to consumers on their doorsteps through consumer friendly marketing network.**

## STRATEGY

**Eliminate all middlemen from conventional value chain and replace them with service providers financially and otherwise accountable to the company for ensuring cost effective business operations.**

## POLICY

**Companies associated with our Mission will follow transparent ethical policies for dealing with milk producers, consumers, employees, service providers and general public**

## GOALS & OBJECTIVES

**The procedures to be followed for achieving specified goals and objectives specified by "Mission" will cover procurement activity for purchase of raw milk at competitive rates as per business needs of the companies directly from target group of ethical milk producers, ensuring good quality of milk (without adulteration, dilution or manipulation) and also provide technical inputs to them in a cost effective manner. Besides creating sound farmer friendly and consumer friendly infrastructure as per innovative "APNI DAIRY" system companies will eliminate all middlemen from value chain by replacing them with service providers working on reasonable cost plus basis.**



# INTERNATIONAL IMPROVEMENT MISSION

REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160 018 Tel. : 0172-2724872



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MISSION ASSOCIATES : INNOVATIVE BUSINESS IMPROVEMENTS (P) LTD., CHANDIGARH INDIA  
IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA

IIM-2014

13.09.14

Director & Vice chancellor

National Dairy Research Institute Karnal

Subject: INDIA BECOMING NO.1 MILK EXPORTING COUNTRY & WINNING GOLD IN DAIRY OLYMPICS

Respected Sir

I am extremely grateful to you, sir, for your prompt response to my communication IIM-2014 dated 08.09.14. Focus of our Mission has been to develop innovative milk processing technology that under the conditions now prevailing in India would empower small/medium scale progressive dairy farmers to process and market their produce directly to consumer through direct fly over link between milk producer and consumer. We have successfully achieved this objective by adopting a dairy farmer of this category living in a village near Chandigarh. Concerned dairy farmer is working on our concept for the last more than three years. He is now earning more than Rs. 3000/buffalo/month by hygienically producing milk and marketing the same (without any manipulation, adulteration or dilution) to informal group of knowledgeable consumers in Chandigarh. Your valuable quote published in the latest issue of "Indian Dairyman" {Indian dairying is classic example of production by masses rather than mass production. Small holder dairying is back bone of Indian dairying that contributes to more than 80% of total milk} is very much in line with our Mission concept.

Dairy industry in India for last many decades is facing following chronic unresolved problems/core issues:

1. How to procure absolutely pure milk on commercial scale without any intermixing, manipulation, adulteration or dilution?
2. How to process and market pasteurized milk strictly meeting with international quality requirements in terms of purity of contents, microbiological safety and shelf life?
3. How to eliminate all middlemen from value chain or replace them with service providers willing to discharge their obligation on cost plus basis?
4. How to drastically reduce ever widening gap between farm gate price reaching the milk producers and price of pasteurized milk being charged by dairy plants from urban consumer?

Incidentally we did not find any dairy company in our country procuring absolutely pure buffalo/cow milk without intermixing/ dilution/manipulation or marketing pasteurized milk strictly meeting with international quality requirements mentioned above. Pasteurized milk being marketed by one and all needs boiling before consumption. As such there is literally no value addition in such milk and Rs.10 to Rs. 15 being spent on milk handling are going waste from consumer's point of view. Ironically hygienically produced raw chilled milk remains good for consumption for 5 to 7 days (under refrigeration) while labelled shelf life of pasteurized milk in poly pack supplied to consumers in India is 1 to 3 days only. As per conceptual model for India specially conceived by our Mission associates considering prevalent ground realities, our dream goals of increasing farm gate price by Rs. 5.00/Litre, reducing consumer price by Rs. 5.00/Litre and still ensuring reasonable profit margin for ethical dairy business entrepreneur is not unrealistic but easily possible proposition. P.T.O.

Mission with active participation of our associates supporting our missionary activities has carried out deep probe in to these problems and successfully evolved arithmetically accurate and scientifically logical solutions for all these problems. Solutions evolved by our associates are not only cost effective but quite easy to implement under the conditions now prevailing in our country. We have documentary /video evidence for all such claims and contentions relating to these problems and logical solutions.

Besides it we are also in a position to provide live demonstration for our farmer and consumer friendly unique business concept: " APNA DOODH, APNI DAIRY APNI MANDI".

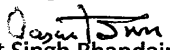
Unfortunately despite our sincere efforts to highlight these core issues and projected solutions before eminent dairy institutions, administrators and political leadership of our country so far did not produce any fruitful results. As a last attempt we addressed a communication to Honourable Prime Minister Sh. Narendra DamodarDass Modi on the auspicious day of his taking oath as prime minister of our motherland. I was invited by Agriculture Ministry to make a presentation at "Krishi Bhavan" on 25.07.14 before elite group of professional experts/scientists of premier dairy institutions. We also made similar presentation three years ago at NDRI Karnal in response to our communication addressed to Sh. Manmohan Singh Honourable Prime Minister of India. Latest presentation by me on the topic "Scientific Innovations for optimising profits and Global competitiveness" was made during IDEA seminar at NDRI Karnal on 08.09.14. Power point presentations and correlated documents highlighting all these issues is being sent herewith (Email attachments) for your ready reference and kind perusal. Video clips of our presentations on this subject and correlated documents are also available on our website <http://apnidairy.com> for kind information and perusal of scientists/professional dairy experts of premier dairy institutions.

I would most humbly request your good self to invite critical professional comments from Scientists /Dairy experts working at NDRI regarding arithmetical accuracy and scientific logic behind all our claims and contentions projected on our website. Let them list out specific pertinent questions and clarifications considered necessary for evaluating our professional recommendations before the scheduled meeting. You may kindly fix any date (as per your convenience) in the last week of this month for our proposed meeting.

Keeping in view the facts stated above we propose interactive session with NDRI scientists in your benign presence during which I would answer all questions and offer required clarifications relating to our presentations/ claims /contentions and make a serious attempt to evolve with our collective wisdom a strategy to transfer this technology to ethical segment of prime beneficiaries' i.e. needy milk producers, innocent consumers and ethical dairy business entrepreneurs. After this session we would like to discuss with your good self, few confidential issues relating to actual implementation plan as per policy guidelines framed by governing council of our Mission. Implementation of structured short term and long term action plans prepared by our Mission will surely usher in an era of yet another white revolution in India creating millions of sustainable employment opportunities in the rural sector for illiterate/semiliterate families and that too without any financial investment/ subsidy by state or central Government. All that we only expect from Government is logical amendments in existing statutory regulations and strict implementation of food safety measures/ applicable laws against adulteration in milk/dairy products.

Our Mission is quite optimistic about the outcome of our sincere collective efforts to make our country No.1 milk exporting country and win Gold in Dairy Olympics within shortest possible time frame.

With kind regards and high hopes

  
(Jaswant Singh Bhandair)

Mission Director





राष्ट्रीय डेरी अनुसंधान संस्थान  
NATIONAL DAIRY RESEARCH INSTITUTE  
(मान्य विश्वविद्यालय)  
(Deemed University)  
(भारतीय कृषि अनुसंधान परिषद)  
(Indian Council of Agricultural Research)  
करनाल-132001, (हरियाणा) भारत  
KARNAL- 132001, (Haryana) India



प्रोफेसर (डा.) ए. के. श्रीवास्तव  
निदेशक  
Prof. (Dr.) A. K. Srivastava  
Director

संदर्भ सं./Ref. No. 9-8/Dir/14/632  
दिनांक /Dated 10/9/14

Dear Sh. Bhandair

Thank you very much for your letter No.IIM-2014 dated 08.09.2014 sending therewith bottle of cow milk produced on 25.08.2014 in a "GAUSHALA" located in village Binewal, District Hosiarpur, which will remain good for consumption for at least one year and is absolutely with no chemicals/preservatives. I highly appreciate your efforts which will help dairy business entrepreneurs.

You also want to meet me to share your concept, system/technology etc. You may plan your visit to meet me on any mutual convenient date.

Once again thank you very much for the same.

with regards

Yours sincerely,

  
(A.K. Srivastava) 9/9/14

Sh. Jaswant Singh Bhandair  
Mission Director  
International Improvement Mission  
Regd. Office #53-A, Sector18-A  
Chandigarh-160018.



# INTERNATIONAL IMPROVEMENT MISSION

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IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA

IIM-2014

08.09.14

Director & Vice chancellor

National Dairy research Institute

Karnal

Subject: GURU DAKSHINA

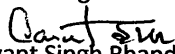
Respected Sir

India is well on its way to become No1 milk exporting country and win Gold in dairy Olympics. Your good self is well aware of missionary activities of our voluntary organisation established in 1998 by NRI dairy professionals and managed by them to help Indian dairy industry to compete well in the global market.

NDRI is my GURUKUL and I owe my professional skills and knowledge mainly to this institute that converted a mechanical engineer in me in to a Dairy Engineer in 1965. As a token of my gratitude to this institute I would like to dedicate our mission achievements as Guru dakshina to my Gurukul. You are kindly requested to accept this bottle of Cow milk produced on 25.08.14 in a "GAU SHALA" located in village Binewal, distt. Hosiarpur (Punjab). Milk has been sterilised by one of our mission associate using innovative milk processing technology and it will remain good for consumption for at least one year. As claimed by our associate milk is absolutely pure with no chemicals/preservatives and total milk processing cost is only a nominal amount. On recurring basis cost of utilities (water/steam/electricity) is Zero. NDRI may analyse the contents of milk sample for its purity, microbiological safety and shelf life.

I would like to seek an opportunity to meet with your good self to share our concept, system and technology so as to and devise a strategy to use this technology in India to benefit needy milk producers, innocent consumers and ethical dairy business entrepreneurs.

With kind regards

  
(Jaswant Singh Bhandair)

Mission Director

Respected Swami Krishna Nand Jee

I would like to express my heartfelt gratitude to your good self and your unique institution for the opportunity given to me yesterday to see through your selfless activities for a noble cause of "GAU SEWA". Our Mission associate has processed the cow milk sample taken from your "GAUSHALA" yesterday using innovative milk processing technique (T.E.P.T). I will arrange to send four bottles of sterilised milk (Shelf life one year when stored at dark cool place without refrigeration). You May get these milk samples microbiologically tested from any accredited quality assurance laboratory at interval of three months to verify our claims and contentions highlighted in our discussion with you yesterday .

I was asked by governing council of our Mission to visit different GAUSHALA institutions located in north India and identify the best organisation in each state. I am glad to inform you that our Mission intends to associate with your organisation for developing a self-sustaining working model of GAU SHALA institutions in Punjab. In case our proposal is acceptable to your institution You may kindly depute your authorised representative or committee to visit" Mission Home" located in sector 18, Chandigarh on a mutually convenient date to see cost effective Micro processing unit (T.E.P.T.) for milk pasteurisation /sterilisation using solar energy and also to discuss terms and conditions for such a joint venture with our mission associated companies.

Thanking you once again

Yours truly

  
(Jaswant Singh Bhandair)

Mission Director

International Improvement Mission

Regd Office: # 53-A, Sector 18-A, Chandigarh -160018

Tel: 0172-2724872 Cell: 9815961853



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IIM-2014

21.08.14

Madam Rajni Shekhri Sibal I.A.S.

Joint Secretary (Government of India) Department of animal Husbandry, Dairying and Fisheries

Ministry of Agriculture New Delhi

Subject DOODH KI MEHANGAIE AUR MILAWAT SE AZADI {Ref F.No.14-1/2012-DP}

Respected Madam


It was indeed a wonderful experience for me at Krishi Bavan on 25.07.14 to interact with elite group of eminent scientists/professional dairy experts from premier dairy institutions who now hold the reins to shape the destiny and future of Indian dairy industry. Dairy professionals working for our Mission and companies associated with us and supporting our missionary activities also have a role to play as they while sharing their life time experiences would like to focus the attention of premier dairy institutions on chronic unresolved core issues and techno commercial problems that could come in our way to face emerging cut throat global competition. Common cherished goal of all the dairy professionals now working for premier dairy institutions of India should be to make our country No.1 milk exporting country and to win Gold in dairy Olympics in the shortest possible time.

Keeping in view our expertise in the dairy field, our Mission has suggested an innovative system of creating millions of jobs in the rural sector where illiterate/semiliterate families would generate income sufficient to meet their basic needs of "ROTI, KAPDA AUR MAKAN" by maintaining herd of five to ten animals. Unique feature of our scheme is that it will not need any investment/subsidy from central/state Govt.

We can provide live demonstration with video/documentary evidence for conceptual model " APNA DOODH, "APNI DAIRY and "APNI MANDI" specially designed for India by our Mission associates to eliminate all middlemen from value chain at Mission home Chandigarh before authorised expert committee constituted by P.M.O./G.O.I.

We do hope that by now Government of India might have analysed the facts presented by our Mission before dairy scientists/professional experts on 25<sup>th</sup> July giving due consideration to critical professional comments of scientist/dairy experts from NDRI/NDDDB who were present in the meeting. Our Mission would feel grateful to your good self if the decision taken on our proposal is communicated to us so that we can brief Governing Council of our Mission for pursuing this case further to achieve our cherished mission objectives.

With Kind regards

  
(Jaswant Singh Bhandair)

Mission Director

Dear Mr Jaswant singhji

It is nice to know that your idea has been seen by the officers of Government of India and it will now spread to increase the milk production in the country and help all of us to get better quality of milk at low cost. Although I am not involved in Dairy Sector at the moment but will like to remain involved in your mission's activity. Please let me know progress in this matter. If I can be of any help you may contact me anytime.

Thanks & Regards

VK Singh

On Fri, Aug 8, 2014 at 6:42 AM, Bhandair Jaswant Singh <iuhumber@gmail.com> wrote:

Respected Sh. V.K. Singh Jee

It was indeed a wonderful experience for me at Krishi Bavan on 25.07.14 to interact with elite group of eminent scientists/professional dairy experts from premier dairy institutions who now hold the reins to shape the destiny and future of Indian dairy industry. Elderly dairy professionals like me also have a role to play like that of coach who while sharing his life time experiences will focus their attention on chronic unresolved core issues and techno commercial problems that could come in our way to face emerging cut throat global competition. Common cherished goal of all the dairy professionals now working for premier dairy institutions of India should be to make our country No.1 milk exporting country and to win Gold in dairy Olympics in the shortest possible time span.

During my brief interaction with Madam Rajni Sekhri Sibal I.A. S. Joint Secretary Government of India, I found her possessing rare qualities of head and heart, besides being exceptionally good administrator. Professional team of key officers of Government of India now working under her leadership have the opportunity to steer the dairy industry out of present unhappy situation relating to socio-economic issues like Mehangaiee ,Milawat , Bharashtachar and Berozegari .

Incidentally needy dairy farmers, innocent consumers, ethical entrepreneurs and downtrodden in our country who voted in favour of dynamic / most popular political leader on this globe today Hon. Prime Minister Sh. Narendra Damodar Das Modi and his committed team of ministers are eagerly looking forward to "ACHHE DIN" " promised to them in the manifesto .

Please find herewith copy of my presentation and correlated documents as attachments for your information and perusal. Our Mission stands committed to provide free guidance to ethical milk producers, consumers and dairy business entrepreneurs.

Your critical professional comments on this presentation would be treated as valuable input for future course of our Mission activities. Kindly feel free to communicate with me for any additional information or clarification relating to my presentation and documents/video evidence projected on our website <http://apnidairy.com>

Our Mission firmly believes that only administrators like you can help our country to usher in era of yet another white revolution through quiet evolution to help needy dairy farmers and innocent consumers.

With kind regards and good wishes for achieving success in our common cherished dream goals

(Jaswant Singh Bhandair)

  
Mission Director

International Improvement Mission Regd. Office: #53-A, Sector 18-A, Chandigarh-160018

By Speed Post

F. No. 22-3/2010-DP  
Government of India  
Ministry Agriculture  
Department of Animal Husbandry, Dairying & Fisheries  
R.No. 334, Krishi Bhavan, New Delhi,  
Dated the 15<sup>th</sup> July, 2014

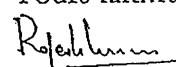
To,  
✓ Shri Jaswant Singh Bhandair,  
Mission Director,  
International Improvement Mission,  
Regd. Office 53A, Sector 18A, Chandigarh - 160018

Sub: - Presentation on Logical solutions for socio-economic problems of needy dairy farmers and health concerns of innocent consumers by International Improvement Mission (IIM) Chandigarh-

Sir,

I am directed to refer to your letter dated 26.5.14, addressed to Hon'ble Prime Minister on the above mentioned subject and to say that the Mission Director, IIM is invited, for making a presentation on the innovative solutions developed by the Mission on 25<sup>th</sup> July 2014 at 3:30 PM in conference Room No 243 Krishi Bhawan, New Delhi along with the following information to ascertain feasibility and commercial viability of such technology developed by IIM.

- i. Cost break up details for setting up of innovative conceptual model called "Apna Doodh Apni Dairy, Apni Mandi"
- ii. Cost break up details of innovative processing technique for Pasteurization & sterilization of milk by the thermo electric processing technology.
- iii. Cost break up details of the innovative software called Doodh ka Doodh aur Pani Ka Pani.
- iv. As indicated in a letter dated 8.3.2013 by NDRI Karnal, the details of time temperature combination used for processing of milk/or its impact on vital component of milk and equivalent status with HTST combination universally adopted by the dairy industry needs to be ascertained.

Yours faithfully,  
  
15.7.14  
(R.K. Gupta)  
Deputy Commissioner (DD)

Copy with the request to depute concern officer for participation in the above said presentation to:

- I. Managing Director, National Dairy development Board (NDDB) Anand, 388001, Gujarat,
- II. Director, National Dairy Research Institute (NDRI), Karnal 132001, Haryana.
- III. Managing Director, Gujarat Cooperative Milk Marketing Federation Ltd, Anand 388001 Gujarat.

Copy for information to PS to JS(C&DD)/ Director (DD)/ All Tech. Officers / AC(DD) in Dairy Division.



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IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA

IIM - 2014

26.05.14

Sh. Narendra Damodar Das Modi

Honourable Prime Minister of India

C/O Prime Minister's office, 7 Race course Road,

New Delhi

Subject: Magical but Logical solutions for socio-economic problems of needy dairy farmers and health concerns of innocent consumers (Mehangaie Aur Milawat se Azadi)

Honourable Sir

Kindly refer to our communications IIM-2012 dated 21.05.12, IIM-2013 dated 15.03.13, IIM-2013 dated 13.08.13 addressed to Prime Minister's office and correlated correspondence on the subject exchanged with Sh. R.K. Gupta Deputy Commissioner (Dairy Development) Govt. of India vide reference file No.14-1-2012 D.P.

While availing this opportunity to extend our heartiest congratulations to your good self on your becoming Prime minister of India on the auspicious day today, We would like to share a good news (Achhe Din Aane Wale Hein) with needy milk producers, helpless consumers and ethical dairy business entrepreneurs in India.

Under the conditions now prevailing in India, premier dairy institutions of our country tend to presume that it is professionally impossible task to achieve socio-economic goals listed below.

1. Increase farm gate price being paid to milk producers by dairy plants by Rs.5.00/Litre.
2. Reduce price of pasteurized milk being charged from consumers by Rs.5.00/litre.
3. Increase productivity/profitability of ethical dairy business entrepreneurs by Rs.5.00/litre.

(From prevalent levels)

Our Mission has carried out "S.W.O.T" analysis of dairy business in India and conducted deep probe in to following age old unresolved techno-commercial problems being faced by one and all associated with our dairy industry.

P.T.O.

1. How to procure on commercial scale raw milk without any manipulation, adulteration or dilution
2. How to produce Pasteurized milk and value added products strictly meeting with specified international requirements relating to purity of contents, microbiological safety and shelf life?
3. How to eliminate all middlemen from value chain to improve quality, productivity and profitability of dairy business?

We are glad to inform you Sir, that with our collective wisdom, professional skills and resources available with premier dairy institutions in India, we can now easily tackle these unresolved problems/core issues for achieving our common cherished goals that will benefit millions of needy dairy farmers and helpless consumers.

Unique feature of solutions evolved by our Mission associates to tackle these problems is that no subsidy or financial support will be required from state or central government for implementing our professionally scientific recommendations. Logical legal amendments in existing regulatory mechanism and strict implementation of laws against adulteration in milk are the only requirements from the Government for successful implementation of this scheme being proposed by our Mission.

Our Mission associates will not only provide live demonstration, documentary / video evidence related with our concept, system and techniques but also share micro details for implementing these proposed solutions especially creation of direct flyover link between milk producers, processing plants and consumers by eliminating all middlemen from value chain. India can thus easily become No.1 Milk exporting country by trading its White gold (Pure Milk) meeting with specified international requirements at the exchange price of black gold (crude oil).

Through copy of this communication we are requesting premier dairy institutions of India i.e. National Dairy Development Board, National Dairy Research Institute and A.M.U.L. for offering their expert professional comments on the facts stated above directly to P.M.O. and also to depute their authorised professional experts for live demonstration/counter verification of co-related Mission claims and contentions highlighted by our associates on our website <http://apnidairy.com>

Our Mission earnestly seeks your blessings, intervention and kind patronage for translating our national dreams in to reality with in shortest possible time span.

With kind regards

(Jaswant Singh Bhandair)

Mission Director

C.C1: Hon. Mrs. Kirron Kher ( M.P.) for her kind information and initiating necessary action for implementation of innovative milk supply scheme for Chandigarh (presented to her by our Mission before elections) for eliminating adulteration in milk and reducing consumer price of milk.

C.C.2: Chairman National Dairy development Board Anand, Director N.D.R.I. Karnal and M.D. AMUL Anand for their kind information and necessary action.





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IIM-2014

19<sup>th</sup> July 2014

Dr. R.K.Gupta

Deputy Commissioner (D.D.)

Government of India

Ministry Agriculture

Department Of Animal husbandry, Dairying and Fisheries

Krishi Bhavan New Delhi-11001

Subject: Presentation on Logical solutions for socio-economic problems of needy dairy farmers and health concerns of innocent consumers

Dear Sir

Thank you very much for your communication dated 15<sup>th</sup> July,2014 inviting me to make a presentation on the subject before professional dairy experts of Govt. of India, NDDB,NDRI and AMUL.

I gratefully accept your invitation and confirm my participation for this meeting at 3.30 P.M. on 25.07.2014. I will try to reach little earlier than scheduled time for informal interaction meeting with your good self for sharing relevant documentary /video evidence in support of our claims and contentions.

Regarding specific information and clarifications sought by you in your recent communication we would like to clarify the same as under:

1. Cost break up details for setting up of innovative conceptual model called "Apna Doodh. Apni Dairy, Apni Mandi":

Cost of setting up required infrastructure for implementing our conceptual model will depend upon milk handling capacity required by progressive dairy farmers but as per our cost projections it will be nearly 50% of setting up conventional milk processing unit for equivalent capacity. Investment on setting up required infrastructure will be phased out in three easy instalments so that it does not put unnecessary financial strain on the dairy farmers while making such investments for gradually upgrading and expanding their business.

P.T.O.

2. Cost breakup details of innovative processing technique for pasteurisation & Sterilisation of milk by "Thermo Electric Processing Technique":

Comparative cost analysis of these expenses as carried out by our mission associates indicate that these will be nearly 40% of prevalent expenses on conventional processing/milk handling thus enabling prime beneficiaries i.e., milk producers and consumers to share the resultant cost saving benefits with each other.

3. Cost break up details of innovative software called "Doodh ka doodh aur pani ka pani":

We are glad to inform you that our associate in Canada has generously allowed us to share this software (D.K.D & P.K.P.) free of cost and the same is now available on our website <http://apnidairy.com> (Free down load facility). Digital analysis of actual milk bills of a premier dairy institution in India as carried out by us using this software indicated annual hidden loss of more than Rs. 100 crores only due to dilution and manipulation (Assuming no adulteration other than added water). Concerned professional executives of this institution in the presence of their Chief executive admitted that these hidden losses are beyond their control as no practically feasible solution is available with them to control or eradicate this menace. We do hope that dairy business entrepreneurs suffering huge losses in milk purchase transactions on this account will derive due benefit from this facility.

4. As indicated in a letter dated 8.3.2013 by NDRI Karnal ,the details of time temperature used for processing of milk/or its impact on vital components of milk and equivalent status with HTST combination universally adopted by the dairy needs to be ascertained:

As per universally adopted scientific principles milk processing plants follow under mentioned time temperature combinations:

Pasteurisation:

- (a) Heating milk at 61-65 degree Celsius for not less than 30 minutes (Holder method or Home pasteurization).
- (b) Heating milk at 71-73 degree Celsius for not less than 15 seconds (High temperature short time or H.T.S.T.)
- (c) Sterilisation:
  - (a) Heating milk at 104-112 degree Celsius for 20 minutes to one hour.

Thermo Electric Processing Technique also follows the same principles using specified time temperature combinations as mentioned above so there is no possibility of any adverse impact on milk components. We however ensure that packing material used is perfectly clean/ sanitized and no post pasteurization or post sterilisation contamination takes place.

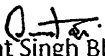
My presentation will be based on the contents/documentary/video evidence presented on our website mentioned above, brochure for "Interactive open workshop cum seminar" being conducted by our Mission associates and my latest article titled "SCIENTIFIC INNOVATIONS FOR OPTIMISING PROFITABILITY & ATTAINING GLOBAL COMPETITIVENESS (Copies enclosed).

I will request you to kindly inform the participating dairy experts attending the meeting on 25.07.14 to examine these documents and browse through our website for result oriented professional interaction during the proposed meeting.

Good news for ethical dairy professionals and eminent dairy institutions of India like N.D.R.I.(our Gurukul), "AMUL" ( Our Role model), N.D.D.B. (our Mentor) and I.D.A (our Professional associate) is that there is no need to wait for long to realize our collective cherished dream of winning gold in dairy Olympics and becoming No.1 milk exporting country. With active participation of ethical dairy professionals supporting our Mission and blessings of management of our prestigious dairy institutions mentioned above, we can easily achieve all this with in coming five to ten years.

With kind regards

Yours truly

  
(Jaswant Singh Bhandair)

Mission Director

C.C. Director NDRI, M.D.NDDB, M.D. AMUL for their kind information

IIU CANADA



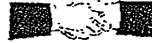
We Innovate

<p><b>BUSINESS IMPROVEMENT SERVICES FOR OPTIMUM PROFITS</b>  <b>INDO-CANADIAN JOINT VENTURE</b>          (Associate of International Improvement Mission)</p>
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IBI INDIA



We Improve



We Serve

GOOD NEWS

FOR

**ETHICAL DAIRY BUSINESS ENTREPRENEURS & PROFESSIONAL EXECUTIVES**

(Participate in interactive open workshop cum seminar and win prize of Rs. one lac)

Program Theme

**MANAGEMENT INNOVATIONS**

FOR

**OPTIMIZING PROFITABILITY OF DAIRY BUSINESS**

**Theme Statement**

"Dairy business is most profitable business among F.M.C.G. sector in India"(Over 10 to 20 % profits).You may find it difficult to believe this statement but to the delight of ethical segment of dairy business entrepreneurs, we consider it as our proud privilege to authentically confirm that it is true.

**Program Director**

Jaswant Singh Bhandair

**Venue**

City beautiful Chandigarh

Organized by:



<p><b>INTERNATIONAL IMPROVEMENT MISSION</b>          REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160 018          Tel.: 0172-2724872 E-mail: iuhumber@gmail.com Web: www.apnidairy.com</p>
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**ALL FOR ONE & ONE FOR ALL**

## OBJECTIVES:

1. Reduce hidden loss due to manipulation, adulteration and dilution (M. A. D.) in milk purchase transactions up to Rs.5.00/Litre and procure absolutely pure raw milk on commercial scale.
2. Reduce total milk handling cost for pasteurized milk up to Rs. 5.00/Litre and achieve specified international quality requirements relating to purity of contents, microbiological safety and shelf life.
3. Manage dairy business with "PARTHA" based transparent accounting system and innovative business management techniques to improve net profit to optimum levels (more than 10 to 20% of turnover)

## CORE ISSUES AND UNRESOLVED TECHNO COMMERCIAL PROBLEMS OF INDIAN DAIRY INDUSTRY:

1. How to procure on commercial scale raw milk without any manipulation, adulteration or dilution?
2. How to produce Pasteurized milk strictly meeting with specified international requirements?
3. How to eliminate all middlemen from value chain to optimize profitability of dairy business?

## PROGRAM HIGHLIGHTS:

- **QUIZ COMPETITION;** based on questions directly related to quality/productivity/profitability.
- **"SAWAL SAU CRORE KA";** actual case study of a premier dairy institution in India losing over rupees one hundred crores /year only due to dilution and manipulation in milk purchase transactions.
- **SHARING OF INFORMATION;** relating to Innovative dairy business management techniques applicable under conditions now prevailing in India to produce process and market pure pasteurized milk conforming to international quality requirements and shelf life.
- **VISIT TO PILOT PROCESSING UNIT** established at Chandigarh by Indo Canadian joint venture (using cost effective innovative technologies and without any conventional dairy equipment) to produce pasteurized milk and sterilized milk conforming to international quality requirements.

- **SHARING OF TESTIMONIALS AND DOCUMENTARY EVIDENCE** related to success stories of actual case studies undertaken in India and abroad by international Improvement Mission and companies associated with Mission activities.

**METHODOLOGY:** The program will be conducted through an appropriate blend of lectures, power point/video presentations, experience sharing, group discussions, quiz competition, case study method and application of digital hydro-analysis technique for analyzing and controlling hidden losses in dairy business operations.

**PROGRAM FACULTY:** The program would draw upon the expertise available with Mission associated consulting companies and the research findings of actual case studies undertaken by them in India and abroad.

## SAWAL SAU CRORE KA

(Actual case study of a premier dairy institution based on summary statement of their milk bills)

Category	Qty. Lac Kgs.	Fat Lac Kgs.	S.N.F. Lac Kgs	Price Paid	Lac Rs
B.M.	69.69	4.97	6.00	13.92	970.08
C.M.	71.33	2.66	5.60	8.99	641.25
M.M.	141.02	7.63	11.60	11.63	1640.06

### Specified basic rate for B.M.:-

Rs.200/Kg. Fat (6.50% Fat, 8.84% S.N.F., 15.34% T.S. and 29.C.L.R.)

$(141.02 \times 11.63) = 1640.06$  but

$(970.08 + 641.25) = 1611.3415$

{Do you know How & Why?}

As per milk purchase transactions quoted in this case study, concerned institution suffered hidden loss of Rs.2.57/Kg due to manipulation by dilution (Assuming only dilution with water but no other adulterants). Keeping in view milk handling and installed capacity of this institution, it amounts to over Rs.100 crores per year.

During this program dairy experts associated with our organization would justify and explain above mentioned hidden loss (Accurate up to nine decimal points) using only simple arithmetical equations, 60:40; formulae in vogue and scientific logic related with specified C.L.R. calculations.

Majority of dairy professionals in India feel that it is almost impossible to procure raw milk on commercial scale without any manipulation, adulteration and dilution. During this program we will share with

participants, micro details of implementing innovative "APNI DAIRY" milk procurement system designed by us to achieve this prime objective.

- \* Participant providing arithmetically correct and scientifically logical proof contrary to our contention and proves that institution referred in the case study did not suffer hidden loss of Rs.2.57/Kg. in the milk purchase transactions would be eligible for Prize of Rs. one lac.
- \* Institution participating in the program and procuring more than one lac Kgs. milk per day would also be eligible for a prize of Rs. One lac provided net digitally analyzed hidden loss (due to dilution and manipulation but assuming that there is no other adulteration) in milk purchase transactions for one year is less than Rs. one crore. In case more than one organization participating in this program qualifies to eligible category then prize money of Rs. one lac will be distributed proportionately among them.

#### TEN QUESTIONS RELATED TO CORE ISSUES AND UNRESOLVED PROBLEMS

##### Affecting

(Quality, productivity, profitability and results of dairy business)

Under the conditions now prevailing in India, is it possible to:

1. PROCURE on commercial scale raw milk without any adulteration, dilution and manipulation?
2. Analyze: raw mixed milk for exact % of Buffalo milk/ Cow milk / added water and find out actual analytical value of its constituents in mixed milk and work out its net worth?
3. Process and market pure & microbiologically safe pasteurized milk meeting international quality requirements and having shelf-life of more than 15 days when stored under refrigeration?
4. Control total milk handling costs (procurement to marketing) for dairy plants below Rs.5.00/Litre?
5. Attain breakeven point for dairy plants handling even less than 10,000 Litre milk per day?
6. Increase purchase price of raw milk up to Rs.5.00/Litre decrease consumer price up to Rs.5.00/Litre from prevalent levels and still attain net profit margin of more than 10% of turn over?
7. Develop technology to process milk without using any conventional dairy equipment or costly inputs and still attain shelf life of more than ten days for

treated milk kept under refrigeration?

8. Evolve system that ensures 100% product traceability between milk producers and consumers.
9. Provide loss insurance cover for ethical dairy plants against hidden losses in dairy business?
10. Upgrade with commitment the existing low profits making /sick dairy plants suffering losses?

Would you like to know how can we convert these impossible propositions in to easily possible?

During the seminar our dairy experts would answer these complex questions using case study method, scientific logic, documentary/video evidence and provide live demonstration of digital hydro analysis of milk bills using soft ware solution developed by our mission associate in Canada.. All answers would be justified with arithmetical calculations, scientific logic, documentary evidence and live demonstration where ever possible.

- \* Participant providing accurate proof as answers to these questions based on scientific logic, arithmetical calculations and documentary evidence besides giving live demonstration would be entitled to receive prize of Rs. one lac.
- \* During the seminar samples of milk produced in India and pasteurized/packed here using unconventional innovative technology developed by our Mission associates in Canada (having shelf life of more than 15 days and meeting with international quality requirements) without any additives, chemicals or preservatives would be presented to professional experts participating in the program.

#### TESTIMONIALS AND DOCUMENTARY EVIDENCE

We have been sharing our research findings and practical experiences with dairy professionals through papers periodically published in dairy journals. Feedback given to us by professional friends working for reputed dairy entrepreneurs indicated to us that these are only theoretical concepts impossible to implement under the prevailing field conditions especially the cut throat competition in milk procurement among commercial dairy plants.

In order to diffuse their unfounded fears and regenerate confidence among dairy professionals, we would like to share following results of actual case studies undertaken by our organization with the help of companies associated with the International Improvement Mission.

- \* Commercial dairy plant in India successfully purchased/received on dairy dock nearly 1 Lac Kgs. raw milk per day (monthly average) containing 6.65% Fat , 8.82% S.N.F with 15.47% total milk solids and incurring only negligible hidden transit loss in milk purchase transactions.
- \* Commercial dairy plant in India successfully purchased/received on dairy dock during first year of its inception 282 Litres milk per village dairy centre having 6.60% Fat, 8.75% S.N.F with 15.35% Total milk solids and incurring only nominal hidden loss in transit.
- \* Commercial dairy plant in India successfully purchased/received on dairy dock in the second year of its inception 367 Litres milk per village dairy centre having 6.70 % Fat, 8.81% S.N.F. and 15.51% total milk solids and incurring only nominal hidden loss in transit.
- \* Prominent commercial dairy institution purchasing diluted/manipulated raw milk is suffering hidden loss of over Rs. 100 crores per year. Controlling such hidden losses that cannot be normally identified with conventional accounting calculations, in fact, holds the master key to attain profitability levels like 10 to 20% of turnover.
- \* A Commercial dairy plant implementing unique productivity oriented innovative management systems and techniques earned net profit of Rs. 1.60 crores in one year .(Profit amount almost equals total investment on that dairy plant).
- \* A Commercial dairy plant implementing "Management for results" earned profit of over Rs. 50 Lacs per month.
- \* A commercial dairy plant using "PARTHA" based financial accounting system attained daily profitability level of Rs. 2.00 lacs/day.
- \*\* These success stories would be elaborately illustrated by our experts with relevant documents as authentic evidence and shared with participants attending the open workshop cum seminar.

**MANAGEMENT INNOVATIONS FOR OPTIMIZING PROFITABILITY OF DAIRY BUSINESS"**

{INTERACTIVE OPEN WORKSHOP CUM SEMINAR}

This program is dedicated to living memory of Dr. V. Kurien "Father of white revolution in India" and Chairman National Dairy Development Board whose inspiring words addressed to me quoted below still remain the unseen driving force behind our missionary efforts to realize his cherished dreams.

"I am glad indeed to learn that the Ludhiana milk union continues to perform better year after year under your leadership. The good results achieved by you in the face of severe competition from the private sector is truly commendable".

(April 21, 1989)

Dr. V. Kurien

(Jaswant Singh Bhandair)

Mission Director

**TWO DAYS NON RESIDENTIAL PROGRAM**

FOR

Individual participants & Special group sponsored program for dairy institutions

Specific dates and time schedules as per mutual convenience

**PROGRAM FEE & PAYMENT TERMS:**

- Sponsored or non-sponsored individual participants: - Rs. 10000 per participant
- {Special sponsored group program for dairy institutions: - Rs. One lac for 10 to 15 Participants
- Full fee is payable in advance by D.D. in favor of Innovative Business Improvements Pvt. Ltd. Chandigarh
- Last date for the receipt of nominations along with bank draft is 30 days prior to specified schedule
- Individual participants would please make their own arrangements for stay and travel at their cost. Dairy Institutions sponsoring group program would also make similar arrangements for their participants besides providing required facilities for conducting this program at Chandigarh in a hotel of their choice.
- All correspondence and communications regarding these programs be addressed to:

Managing Director

Innovative Business Improvements Private Limited

Regd. Office:

# 53-A, Sector 18-A, CHANDIGARH-160018

Phone 0172-4629053, 0172-2724872

Cell: 9815961853, Email: iiuhumber@gmail.com



## SCIENTIFIC INNOVATIONS FOR OPTIMISING PROFITABILITY

&

## ATTAINING GLOBAL COMPETITIVENESS

Jaswant Singh Bhandair\*

Keeping in view the ever widening gap between farm gate price of milk being paid by dairy plants to dairy farmers and prevalent price of pasteurized milk charged by them from urban consumers, dairy business appears as most profitable business proposition among F.M.C.G segment. Surprisingly actual balance sheets of many reputed dairy business entrepreneurs are either in red or indicate only nominal profits. Need of the hour is to realistically analyse the underlying reasons for low net profits and devise ways and means to optimise profitability through scientific analysis and initiating corrective measures by implementing innovative business management techniques.

Milk procurement, processing, marketing and financial management are key performance functions that ultimately determine bottom line results of dairy business. Through this presentation I would not only highlight following unresolved core issues and techno-commercial problems that come in our way as obstacles in optimising profits and attaining global competitiveness but also suggest practical scientific solutions for converting seemingly impossible tasks in to easily possible propositions.

1. How to procure on commercial scale buffalo or cow milk without any intermixing, adulteration, dilution or manipulation?
2. How to eliminate all middlemen from the value chain or replace them with ethical service providers willing to discharge their obligations on reasonable cost plus basis?
3. How to procure process, pack and market absolutely pure pasteurized buffalo or cow milk meeting with international quality requirements having shelf life of two to three weeks when stored under refrigeration?
4. How to reduce abnormally high gap (Rs.10-15/Kg.) between farm gate prices reaching the milk producers and that being charged from the consumer?

Solutions to these problems /core issues have been eluding the dairy business entrepreneurs for the last many decades. During this period many short cut quick fix solutions and undesirable conventions have gradually emerged and become accepted practices for the organized sector of Indian dairy industry. You will agree with me that all these issues are closely connected to quality, productivity, profitability and ultimately global competitiveness of dairy business. I would also like to avail the opportunity of sharing with fellow dairy professionals summary findings of our research on this subject and also explain to you as to why we could not solve these problems for so long.



**1. How to procure on commercial scale buffalo or cow milk without any Intermixing, Manipulation, Adulteration and Dilution?**

Unlike India most of the advanced dairy countries have only cows so they fix per unit purchase price for standard cow milk say 3.50% Fat & 8.50% S.N.F, 12% milk solids, 88% natural water that corresponds to 30 as corrected lactometer reading (C.L.R.).

Based upon freezing point of milk of this composition they measure corresponding refract meter index reading and calibrate the same using cryoscopy to find out % of added water in diluted milk. No payment is made for added water in milk and if the dilution is more than prescribed limit then that milk cannot be sold to milk plants processing and marketing pasteurized milk. Product manufacturing plants offer relatively lower price to such milk thus discouraging intentional or unintentional dilution with added water. Due to strict implementation of stringent quality regulations in those countries, chances of adulteration other than unavoidable normal dilution during milk collection/processing becomes a remote possibility. Dairy plants, therefore, get microbiologically safe and pure raw milk on their dairy docks so production of dairy products conforming to international quality requirements. is easily possible.

Countries like India where we have buffaloes and cows and mixed milk is being sold and purchased using 60:40 two axis formulae based on C.L.R. for working out S.N.F. content in raw milk. Application of empirical thumb rule by allocating  $\frac{1}{2}$  of specified per kg. Fat rate to fat content in mixed milk and  $\frac{2}{3}$ rd for S. N.F component is helpful in controlling dilution and manipulation to a certain extent for determining actual worth of mixed milk. Due to collection of milk in small quantities from large number of milk suppliers at village level within short span of time, it becomes practically difficult to measure quantity. Fat and S.N.F of milk for each milk purchase transaction accurately and simultaneously carry out its cross comparison with gravimetric results.

Taking undue advantage of this practical problem unscrupulous middlemen over a period of time have devised perfect ways and means to manipulate ,adulterate and dilute raw milk thus syphoning out up to 30 % of cost of raw milk as hidden gain for themselves. Even knowledgeable dairy experts will find it difficult to believe that unethical traders in our country can produce milk at a cost less than Rs. 5/litre. (Please watch a video telecast by TV channel sometimes ago on the following link <http://www.ndtv.com/video/player/news/video-story/252023>)

Digital analysis of milk bills of reputed dairy plants in north India as carried out by our Mission associate in Canada clearly indicates that majority of the commercial dairy plants in private sector, multinational companies and milk co-operatives are purchasing diluted milk having 10-30% water.

Digital analysis of actual milk bills of one such premier dairy institution indicated annual hidden loss of more than Rs. One hundred crores only due to dilution and manipulation.(Assuming no adulteration other than added water). Concerned professional executives of this institution in the presence of their chief executive admitted that these hidden losses are beyond their control as no practically feasible solution is available with them to control or eradicate this menace .Raw milk with heavy dose of added water is more prone to adulteration with edible or even dangerously harmful chemicals /adulterants to substitute milk fat with vegetable fat and add starch, sugar ,salt, urea, melamine etc. to increase S.N.F content.

Most of the professionally qualified dairy experts employed by commercial dairy plants in India are thus facing impossible task of converting such badly manipulated/adulterated/ diluted (M.A.D.) raw milk in to dairy products conforming to international quality parameters. Even the best cook in the world cannot make a good omelette out of rotten egg so it is unfair to blame the dairy professionals who are only helpless spectators of this kind of melodrama.

Problem of improving raw milk quality over a period of time has become so complicated and complex that it is now almost impossible to solve it even by using sophisticated chemical analysis or allied tests. Freezing point of standard buffalo milk (6.50% Fat, 8.84% S.N.F, 15.34% Milk solids, 84.66% natural water corresponding to corrected lactometer reading 29(C.L.R.) will vary with change in S.N.F./Fat Ratio and simultaneous dilution with added water. Due to multiple complex equations resulting out of such manipulated formulations it becomes extremely difficult to work out exact % of added water so hidden losses remain undetected with conventional milk billing calculations.

Term Manipulation by dilution in milk is a unique problem unknown to most of the dairy experts or software engineers who design conventional software programs for milk billing calculations(Based on two axis 60:40 formula) used by one and all in India to work out payable dues for milk purchase transactions. It is not easy to comprehend as to how 60:40 is converted in to 40:60 and added water becomes milk and gets paid as milk causing corresponding hidden loss to purchaser.

This kind of hidden loss cannot be calculated with conventional milk billing calculations. Innovative solution for this problem is cost analysis using Hydro analysis and Digital Analytical Technique (I.P. of our Mission associate in Canada). Software Called D.K.D & P.K.P. (Doodh Ka Doodh aur Paani Ka Paani) based on this technique as designed by our associate is capable of calculating such hidden losses with accuracy up to 10 decimal points. (This software is now available with free download facility on our website <http://apnidairy.com>)

#### LOGIC BEHIND MANIPULATION BY DILUTION IN MILK:

Assume 100 Kgs. buffalo milk (6.50% Fat, 8.84% S.N.F, 15.34% milk solids, 84.66% natural water corresponding to corrected lactometer reading 29)

1. Manipulator will take out 20 Kgs. milk out of this and replace that quantity with 20 Kgs. added water so the ratio of milk to added water becomes 80:20 i.e. 4:1
2. He will again take out 20Kgs. milk out of this modified milk and add equivalent quantity of water (Please note that this replacement is done from 100% of already modified milk and not from 80% of original milk. Therefore the ratio of milk to added water becomes 60:40 i.e. 3:2
3. Repeating the same act once again will result in modifying the ratio to 40:60 i.e. 2:3

Reversal of ratio from 60: 40 to 40:60 will help the manipulator to convert 20 Kgs. added water as milk and get hidden gain of equivalent amount. Practical solution of this problem is only possible with accurate hydro digital analysis of milk bills relating to milk purchase transactions. Alternatively we should purchase cow milk and buffalo milk without any intermixing with each other and do not allow milk suppliers to temper natural S.N.F /Fat ratio and specific gravity of each kind of milk while it remains in transit between milk collection points and dairy plants.

Gravimetric testing of raw buffalo milk and cow milk separately for each purchase transaction and its close monitoring till such time milk is finally received at dairy dock is essential prerequisite to eliminate such losses. **Silver lining in this exercise is that buffaloes and cows are incorruptible because they cannot manipulate or change their natural S.N.F.: Fat ratio (Unique for each species of animals).**

Dairy institution purchasing milk directly from actual milk producers by taking all possible precautions mentioned above will have no difficulty in procuring raw milk on commercial scale without any intermixing, manipulation, adulteration and dilution.

**2. How to eliminate all middlemen from the value chain or replace them with ethical service providers willing to discharge their obligations on reasonable cost plus basis?**

More than 80% cost of dairy business is the amount spent on raw milk purchase. Unfortunately majority of dairy plants in organized sector of Indian dairy industry have delegated this job to network of middlemen operating in the unorganized sector. Three tier system comprising of milk man (Dudhia), small contractor and big contractor are neither qualified to scientifically handle this perishable commodity nor willing to follow ethical trade practices so vital for maintaining its purity and microbiological safety.

During the last six decades these middlemen have further tightened their noose on the organized sector of Indian dairy industry and also increased their bargaining strength/ undesirable dominance. Public Private Partnership (P.P.P.) initiatives being introduced by Government in different fields is likely to further complicate this issue in dairy segment and may also cause irreparable damage to successfully operating co-operative infrastructure based on original Anand pattern of Gujarat.

Milk co-operative sector is also working on three tier system i.e. cooperative society at village level for milk collection, district union for milk processing and state federation for marketing operations. Only the co-operative institutions having well established deep rooted milk procurement infrastructure at village level and operating genuinely on Anand pattern principles are procuring undiluted pure milk suitable for producing dairy products meeting with international quality requirements. Due to better business realization these institutions are not only paying remunerative rates to milk producers regularly but also progressing well as profitable business ventures. Major reason for the co-operative dairy plants that are suffering losses and offering low price to milk producers is weak milk procurement infrastructure and gross violation of fundamental principles of original Anand pattern conceived by Dr.V.Kurien (legendry professional and father of Indian dairy industry). These units due to this reason become easy victims of manipulation by dilution and start procuring manipulated, adulterated and diluted raw milk. They also suffer heavy hidden losses on this account thus paying much lower price to milk producers as compared to their genuine and successful counterparts.

Professionally managed dairy plants interested in attaining global competitiveness by improving quality of raw milk will ultimately be left with no option but to create their own infrastructure for procuring pure raw milk directly from milk producers. Basic fundamental principles of original Anand pattern program followed by many Gujarat co-operatives are quite appropriate for achieving success in this objective.

Our Mission with the assistance of our associates has designed a unique conceptual system like "Anand Pattern" for procuring raw milk directly from a self-sustaining network of genuine and ethical milk producers. This system called "APNI DAIRY" is based on unconventional concept of informal co-operatives (N.G.O.'s), farmer friendly policies, fool proof organized system for purchasing pure raw milk without any dilution or inter-mixing of buffalo milk with cow milk. It not only eliminates almost all middlemen from the value chain but works in a self-governing cost effective manner thus helping the beneficiary institution to drastically reduce its milk procurement and processing costs.

Service providers deployed for milk collection, chilling and transportation of milk to dairy plant get reasonable remuneration for their service contribution while remaining fully accountable for milk contents in their custody while milk remains in transit, exactly like cashiers handling cash for banking operations.

Unique advantage of "APNI DAIRY" concept and system of milk procurement is that dairy plants will get assured regular supply of pure and safe raw milk ideally suitable for producing dairy products conforming to international quality requirements.

**3. How to procure process, pack and market absolutely pure pasteurized buffalo or cow milk meeting with international quality requirements having shelf life of two to three weeks when stored under refrigeration?**

All professionally managed dairy plants in advanced dairy countries worldwide procure, process, pack and market microbiologically safe and pure pasteurized milk having shelf life of more than two weeks.

Consumer can safely consume that milk within specified period even without heating or boiling. Contrary to this concept there is no company at least in our knowledge in India that may be marketing pasteurized milk meeting with these international quality requirements. It has become almost customary for all processing plants in India to label shelf life of one to three days on pasteurized milk packs. As compared to designated shelf life of such pasteurized milk even raw milk produced under normal farm conditions in India just by taking basic sanitary precautions remains good for consumption for 5-7 days when stored under refrigeration at temperatures below 4 degree Celsius. It is quite unfair proposition from consumer's point of view as virtually no value addition has taken place in this kind of pasteurized milk. Urban consumer in this situation has no option but to purchase such milk that needs boiling before consumption even though he is paying Rs.10- 15 per Kg. more than farm gate price of raw milk paid to milk producers by dairy business entrepreneurs.

Frankly speaking pasteurized milk available in poly packs to urban consumer in India has no third party guarantee for its purity and bacteriological safety.

Pilot scale research project sponsored by our Mission and implemented by one of our Mission associate in India brought a sigh of relief and joy to us when we found that it is only a myth that we in India cannot procure, process, pack and market pasteurized meeting with international quality requirements for purity, microbiological safety and shelf life.

As per our research findings if pure milk produced in India is scientifically pasteurized, packed in sanitary environment using food grade sanitized temper proof packing material, without any post pasteurization contamination and stored/transported under refrigeration at temperatures below 4 degree Celsius till it is finally delivered to the consumer at his door step then that milk also remains good for consumption for more than two weeks.

**4. How to reduce abnormally high gap (Rs.10-15/Kg.) between farm gate prices reaching the milk producers and that being charged from the consumer?**

Due to big leap in scientific developments worldwide during the last few decades, technology for food processing, packing and management of business operations has undergone sea change. Unfortunately majority of Dairy business entrepreneurs in India continue to follow same age old conventional techniques for milk production/collection/chilling/processing and managing overall business operations. Due to manifold increase in cost of energy and other inputs total milk processing/handling cost has become abnormally high.

Gap between farm gate price of raw milk and consumer price for pasteurized milk has been constantly on the increase and has almost doubled during the last one decade. Due to simultaneous increase in cost of buffaloes /cows, feed concentrates, fodder and other milk production inputs dairy business is fast becoming unprofitable especially for landless/marginal farmers.

Need of the hour is to invent cost effective new techniques to process milk at farm level itself without using any conventional dairy equipment or capital intensive processing machinery. One of our Mission associate who has been carrying out research on this subject for the last one decade has achieved significant breakthrough in evolving innovative processing technique called Thermo Electric Processing Technology (T.E.P.T) for milk pasteurization and sterilization. This technology when introduced for commercial use of ethical dairy business entrepreneurs in India would usher in era of yet another white revolution and benefit millions of needy dairy farmers and innocent consumers. Time has come for us to even think of introducing the concept of consumer cooperatives by ensuring supply of pure raw chilled to consumers on their door steps and empowering them to pasteurise milk and produce conventional dairy products of daily use in their own kitchen.

Thermo Electric Processing technology would be ideally suitable for commercial dairy farmers besides consumer dairy business entrepreneurs located in cities where installation of solar systems is being encouraged and subsidised by the government. This technique is based on solar/bio energy and does not require capital intensive conventional dairy equipment. Recyclable environment friendly packaging material with temper proof seal can be used for pasteurized /sterilized milk. New Innovative conceptual model (Producer to consumer) called "APNA DOODH-APNI DAIRY-APNI MANDI" when implemented along with this technology will establish direct flyover link between milk producer and consumer thus eliminating all middlemen from the value chain. It will not only cut down total milk handling costs by more than 50% as prevalent now but also ensure perfect product traceability between the two prime beneficiaries of dairy business i.e. producer and consumer. Cost savings in this process will result in upgrading dairy business in India to such levels that it will become most profitable among F.M.C.G. business propositions.

As per techno-commercial cost benefit projections of this innovative technology, it will play a major role in transforming rural agro based economy of our motherland. Dairy farmer maintaining a herd of about ten animals would be able to generate sufficient income from dairy business alone to comfortably meet all his family expenses relating to his basic needs i.e. "ROTI KAPDA AUR MAKAN".

**Unique feature of solutions evolved by our Mission associates to tackle these unresolved problems is that no subsidy or financial support will be required from state or central government for implementing these professionally scientific recommendations. Logical legal amendments in existing regulatory mechanism and strict implementation of laws against adulteration in milk are the only requirements from the Government for successful implementation of this scheme being proposed by our Mission.**

Good news for ethical dairy professionals and eminent dairy institutions of India like N.D.R.I.(our Gurukul), "AMUL"( Our Role model), N.D.D.B. (our Mentor) and I.D.A (our Professional associate) is that there is no need to wait for long to realize our collective cherished dream of winning gold in dairy Olympics and becoming No.1 milk exporting country. With active participation of ethical dairy professionals supporting our Mission and blessings of management of our prestigious dairy institutions mentioned above, we can achieve all this with in coming five to ten years.

On behalf of our Mission and professional associates supporting our Mission I would like to extend cordial invitation to authorized representatives of premier dairy institutions and ethical entrepreneurs owning dairy business in India for contacting us to seek any allied information or clarification. They may also scrutinize relevant documentary /video evidence available with our Mission. We can also provide live demonstration of all our claims and contentions mentioned in this presentation including the software D.K.D & P.K.P. Besides it we can also provide samples of milk produced in India and pasteurized /sterilized by us using innovative cost effective "Thermo Electric Processing Technology" for authentic counter verification of purity, microbiological safety and shelf life of such milk.

\* Mission Director International Improvement Mission

&

Managing Director Innovative Business Improvements Pvt.Ltd.

Email: [iiuhumber@gmail.com](mailto:iiuhumber@gmail.com)



**INNOVATIVE BUSINESS IMPROVEMENTS (P) LTD.**

REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160 018 TEL. 724872



**APNA DUDH - APNI DAIRY - APNI MANDI**

ASSOCIATE OF IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA.

IBI-2013

5<sup>th</sup> October 2013

President & C.E.O

Improvement Innovations Unlimited Inc.

14, Quail Valley Drive, Brampton, Ontario, Canada L6R0N3

Subject: Progress report and extension of agreement

Dear Sir

Please find enclosed herewith a copy of progress report of our company pertaining to our unique research and development activities. We have evolved an innovative process for milk processing based on use of environment friendly energy resources, recyclable packaging material, temper proof cap seal, exemplary shelf life meeting with international requirements besides few more salient features projected in the said report.

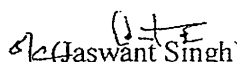
With the help of documentary/video evidence coupled with live demonstration we have proved that all our claims and contentions mentioned in our communication addressed to Hon Prime minister of India on 21.05.12 and 15.03.13 ) are arithmetically accurate, scientifically logical and easily implementable under the conditions now prevailing in India. Not only our claims have been testified by National Dairy research Institute Karnal but none of the premier dairy institutions like National Dairy Development Board and AMUL have contested or disclaimed our contentions and research findings.

Our website apnidairy.com is working satisfactorily for the last many years and more than 50,000 visitors have visited this website. Dairy business management software prepared by Director of your company has also been projected on our website with free download facility to help ethical segment of Indian dairy industry to work out hidden loss in milk purchase transactions due to dilution and manipulation.

Innovative processing technology and unique dairy business management systems evolved by our joint venture are not only cost effective but universally applicable.

Please extend the agreement that our company had signed few years ago for a period of another ten years. You may also explore the possibility of marketing this technology in the countries other than India. Our company will focus on ethical segment of Indian dairy industry for providing result oriented consulting/advisory services in this field.

Yours truly

  
(Jaswant Singh)  
Managing Director



## INTERNATIONAL IMPROVEMENT MISSION

REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160018 TEL. 2724872



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MISSION ASSOCIATES : INNOVATIVE BUSINESS IMPROVEMENTS (P) LTD., CHANDIGARH INDIA  
IMPROVEMENT INNOVATIONS UNLIMITED INC.CANADA

IIM-2013

13.08.13

Dr. Manmohan Singh jee Hon.' Prime minister of India C/O P.M.O.  
New Delhi

Sub: Logical solutions for socio-economic problems of needy dairy farmers and health concerns of innocent consumers

Respected Sir

Kindly refer to our communications dated 21.05.12 and 15.03.13 on the subject cited above. On behalf of Ministry of agriculture Dr. R.K. Gupta Deputy commissioner (Dairy Development) remained in communication with our Mission on this subject.

During the intervening period we made all possible efforts to provide documentary /video evidence coupled with live demonstration to prove that suggested solutions related with our claims and contentions are arithmetically accurate, scientifically logical and easily implementable under the conditions now prevailing in India.

Our latest communication on the subject addressed to concerned Ministry (copy enclosed for your kind information) explains the latest status of proceedings and progress of this case. We have also requested Ministry of agriculture to forward their fact finding summary report/professional comments to P.M.O for further appropriate action.

We have successfully justified all our claims and contentions mentioned in our first communication addressed to your good-self. We feel that Indian dairy industry with active involvement of our premier dairy institutions can usher in an era of yet another white revolution benefitting millions of needy dairy farmers and milk consumers.

Socio-economic evolutionary movement initiated by our Mission for national cause will ultimately transform our country from No.1 milk producing country in to No.1 milk exporting country. Realizing our cherished dream goal of exporting our white gold (pure milk) at the exchange price of black gold (crude oil) can easily become a reality.

On behalf of our Mission I would most humbly request your good-self to grant personal hearing (less than five minutes) to our Mission delegation for a brief presentation and to seek your kind blessings for the success of our ultimate goal mentioned above.

Yours truly

  
(Jaswant Singh Bhandair)

Mission Director

CC: Dr. R.K.Gupta Deputy Commissioner (D.D.) Govt. Of India for information





# INTERNATIONAL IMPROVEMENT MISSION

REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160018 TEL. 2724872



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IMPROVEMENT INNOVATIONS UNLIMITED INC.CANADA

IM-2013

13.08.13

Dr. R.K.Gupta Deputy Commissioner (D.D.) Govt. Of India  
Ministry Agriculture (Department of Animal Husbandry, Dairying & Fisheries)  
Krishi Bhavan, New Delhi

Sub: Logical solutions for socio-economic problems of needy dairy farmers and health concerns of innocent consumers

Dear Sir

Please refer to our communications dated 21.05.12 and 15.03.13 addressed to Hon, prime Minister of India on the subject cited above. Our Mission highlighted vital core issues and unresolved techno-commercial problems affecting global competitiveness and overall performance of India dairy industry. We also suggested innovative solutions for providing long overdue relief to prime beneficiaries of dairy business in our country i.e. needy dairy farmers and innocent consumers.

During the intervening period we made all possible efforts to provide documentary /video evidence coupled with live demonstration to prove that suggested solutions related with our claims and contentions are arithmetically accurate, scientifically logical and easily implementable under the conditions now prevailing in India.

Our Mission is grateful to Ministry of agriculture and National Dairy Research Institute Karnal for extending all possible help and support that enabled us to justify all claims and contentions mentioned in our communication addressed to Hon prime Minister of India.

In response to your communication dated 10th April 2013 addressed to premier dairy institutions i.e. N.D.R.I, N.D.D.B and AMUL, seeking their comments on our claims and contentions, commercial viability and practical difficulty under the prevailing conditions to implement the innovative solutions developed by our Mission, you must have by now received their comments. Since we have so far not received any communication from your office or these institutions on this issue so we can presume that they agree with us that these problems are genuine and projected solutions suggested by our Mission can be practically implemented.

Point wise summary of proceedings and status of core issues on this subject is as follows:

Core Issue:-1 How to procure on commercial scale buffalo or cow milk without any intermixing, adulteration, dilution or manipulation?

If our recommendations projected in our communication dated 13.05.13 addressed to Hon.' Prime Minister of India are accepted and implemented by Govt. Of India then this age old unresolved problem can be permanently solved. Every commercial dairy plant in India (without exception) is suffering hidden loss of crores of rupees due to dilution and manipulation (Assuming no adulteration other than added water). Milkfed Punjab as per digital analysis of their milk purchase record was suffering hidden loss of over Rs.100 crores annually six years ago and the same has now further increased alarmingly. No one has so far challenged /contested the arithmetical accuracy or scientific logic of our analysis report to claim prize of Rs.. One lac announced by our Mission. As per our assessment and projected calculations relating to this major unresolved problem being faced by one and all, total hidden loss on this account for all dairy plants in India put together will be an unimaginable astronomical figure. Ironically no individual is responsible for this anomaly as no practical solution of this problem for analyzing actual net worth of manipulated mixed milk (Buffalo milk+ Cow milk + added water) at present is available with management of any dairy business organization in India.

Cost analysis software solution evolved by our Mission associate in Canada "Doodh Ka doodh aur paani ka pani" now available as free down load facility on our website [apnidairy.com](http://apnidairy.com) is not only accurate but it can work as an effective management tool to eradicate/ minimize such hidden losses. As a result of control on these hidden losses in milk purchase transactions dairy plants in India will be able to procure pure raw milk on commercial scale meeting with international quality requirements. These plants can then easily pay 10 to 20 % higher farm gate price to milk producers as compared to prevalent levels out of their consequential savings. Dairy farming would thus become profitable and self- sustaining business activity for rural masses. It will not only arrest present trend of migration from rural to urban locations in search of alternate gainful employment but also uplift socio economic status of millions of needy farmers.

Core issue: -2. How to eliminate all middlemen from the value chain or replace them with ethical service providers willing to discharge their obligations on reasonable cost plus basis?

As a case study our Mission adopted a milk producer living in a village near Chandigarh and helped him to upgrade quality of his raw milk by following good dairy farming/allied practices and encouraged him to supply pure milk directly to health conscious informal group of milk consumers in Chandigarh. Pilot scale project initiated by us is working quite satisfactorily for the last more than two years. By eliminating middlemen form value chain in this way, concerned milk producer is now getting remunerative price for the milk being produced by him and informal consumer group members are exceptionally happy and satisfied because they are receiving pure milk on their doorstep regularly.

Raw milk is pasteurized by members using home pasteurization method. However to ensure purity of contents and transparent business transactions (fair play system) effective quality check and control system with penalty clause is also being simultaneously implemented by us to safeguard interests of consumer members.

Core issue 3:- How to procure process, pack and market absolutely pure pasteurized buffalo or cow milk meeting with international quality requirements having shelf life of two to three weeks when stored under refrigeration?

In order to testify our claim on this issue we submitted samples of pasteurized/sterilized milk processed by our Mission associate using environment friendly innovative milk processing technique (Thermo Electric Processing Technique) to N.D.R.I Karnal On 22nd November 2012. Copy of analysis report (F. Cons/analysis /2013 dated 6<sup>th</sup> March 2013) as received by our Mission from this institute testifying our claims has already been supplied to you for your information and perusal.

Live demonstration provided by us and documentary evidence available with our Mission proves that it is only a myth that pasteurized milk produced, processed and packed under conditions now prevailing in India cannot meet with international quality requirements for purity, microbiological safety and shelf life. We can provide repeat live demonstration on this aspect to any authorized representative of Government of India or our premier dairy institutions mentioned above.

4. How to reduce abnormally high gap (Rs.10-15/Kg.) between farm gate prices reaching the milk producers and that being charged from the consumer?

Comprehensive innovative system and technique conceived by our Mission can successfully reduce this abnormal gap by more than 50% from prevalent levels. Benefit of consequential savings can be appropriately shared by milk producers and consumers. Milk producer adopted by our Mission confirmed to us that effectively well managed dairy farm while dealing directly with informal consumer group under this scheme can easily generate net income of more than Rs. 3000/month per milch animal. Need of the hour is to provide sustainable income to dairy farming families now struggling hard for survival of their dairy business. In order to justify and reconfirm our contention on this issue our Mission can arrange personal interview of such farmers being helped by us with authorized representatives of our premier dairy institutions or Government of India.

Our Mission strongly believes that only self- sustaining and professionally well managed dairy institutions can protect the interests of needy dairy farmers and innocent consumers in our country. Conceptual model "Apna Doodh, Apni Dairy, Apni Mandi" developed by our Mission is a self-sustaining business proposition for progressive dairy farmers. It will on one hand help milk producer families to generate income sufficient to meet their "Roti, Kapda, Makaan" expenses from milk income alone while on the other hand ensure supply of pure milk meeting with international quality requirements for microbiological safety and shelf life to urban consumers.

Transparent business transactions would also ensure perfect product traceability and accountability for adulteration, dilution and manipulation while milk remains in transit between milk producer and consumer.

Once our overall concept after due confirmation and verification of claims and contentions projected in our presentation is accepted by premier dairy institutions like N.D.R.I., NDDB, AMUL and other ethical dairy institutions in India, we will gladly share micro details of our implementation plan with these institutions.

Unique feature of our proposal is that it will not need any financial support or investment from Central or state governments. Essential modifications (suggested in our presentation and proposed solutions) in the existing regulatory mechanism/ administrative policies of state and central government and strict implementation of these regulations will solve unresolved core issues/chronic problems. It will thus usher in a new era of yet another white revolution in India. It will convert prevalent unviable milk production business in to self-sustaining and remunerative business activity for dairy farmers besides addressing vital health concerns of consumers by eliminating middlemen for value chain and controlling unhealthy trade practices relating to adulteration in milk.

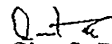
Prime objective of our Mission and professionals/institutions supporting our activities is to upgrade performance of ethical segment of Indian dairy industry so that it can face emerging global challenges relating to quality, productivity and overall business profitability. We, therefore, earnestly seek only moral and professional support from premier dairy institutions for a genuine national cause. We are quite sure that with our collective efforts India can ultimately succeed in exporting its white gold (pure milk) at the exchange price of black gold (crude oil) to become No.1 milk exporting country.

Delegation of our Mission intends to request Prime Minister's office for a meeting with Hon.' Prime Minister of India for seeking his intervention and kind patronage so as to achieve our cherished goals and objectives highlighted in our first communication.

You are therefore requested to submit your comprehensive fact finding professional report on this subject to PMO office at your earliest convenience to enable our mission to proceed further for pursuing this issue to its logical missionary goal. Copy of this report may please be endorsed to our Mission office to enable us to furnish clarifications or /explanatory justification on contentious issues if any before our intended meeting with Hon.' Prime Minister.

Thanking you in anticipation

Yours truly

  
(Jaswant Singh Bhandair)  
Mission Director



**INTERNATIONAL IMPROVEMENT MISSION**

REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160018 TEL. 2724872



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MISSION ASSOCIATES : INNOVATIVE BUSINESS IMPROVEMENTS (P) LTD., CHANDIGARH INDIA  
IMPROVEMENT INNOVATIONS UNLIMITED INC.CANADA

**SALIENT FEATURES  
OF  
OUR INNOVATIVE MILK PROCESSING TECHNOLOGY**

- Pure pasteurized milk with original farm fresh taste & flavor.
- Raw milk produced by healthy Buffaloes & Cows is processed.
- Scientific milk processing/packing under strict quality controls.
- Complete processing using only unconventional dairy equipments.
- Environment friendly energy resources are used for processing.
- Environment friendly recyclable packaging materials are used.
- Temper proof cap seal to control pilferage/adulteration in transit.
- Exemplary shelf life meeting with international requirements.
- Unique milk producer/consumer friendly distribution network.
- Most remunerative proposition for milk producers.
- Most economical and safe proposition for consumers.
- Good profitable proposition for ethical entrepreneurs.
- Reasonably low total milk handling costs ( Below Rs.3.50/Liter)
- Unique system of product traceability and accountability.
- Low investment high utility milk handling infrastructure.
- No constraints for long distance safe transportation of Milk.
- Milk producer and consumer friendly business infrastructure.

**Mission policy: International Quality at Reasonable Cost**

## HOME PASTEURIZATION

1 Set up a double-boil system.

- Fill a large stainless steel pot with about 3 to 4 inches (7.62 to 10.16 cm) of water.
- Place a slightly smaller stainless steel pan into the water of the first pan.
- Set the pans onto the stove.
- Pour your raw milk into the second pan.
- Clip a thermometer to the side of the second pan into the milk.

2 Prepare an ice bath.

- Put a stopper in the drain of your sink. Fill the sink with cold water and ice. Because the process of heating the milk is fairly quick, preparing the cooling procedure ahead of time prevents overheating the milk.

3 Heat the milk.

- Crank the heat to high.
- Stir repeatedly to prevent burning the milk. Milk that reaches boiling or higher temperatures can cause scorching.
- Keep the milk at 161 degrees Fahrenheit (71.66 degrees Celsius) for 30 seconds. You might need to decrease or increase the burner in order to keep a steady temperature of 161 degrees Fahrenheit (71.66 degrees Celsius).

4 Remove the pans from heat and place them immediately into the ice bath. • Cool the milk to 40 degrees Fahrenheit (4.44 degrees Celsius), stirring constantly. This can take as much as 40 minutes. The milk will cool slowly and unevenly if you do not stir.

5 Sterilize glass jars by placing them in boiling water for 30 seconds to 1 minute.

6 Transfer the milk from the pan to the glass jars, close them tightly and place them in the refrigerator for more cooling.

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IMPROVEMENT INNOVATIONS UNLIMITED INC.CANADA

IIM-2012

1.06.13

Managing Director  
Punjab State co-op Milk Producers Federation Ltd.  
S.C.O. 153-155 Sector 34-A  
Chandigarh-160022

Subject: Un-detected hidden losses to MILKFED Punjab in milk purchase Transactions.

Respected Madam

MILKFED Punjab was suffering hidden loss of over Rs. 100 crores per year six years ago in milk purchase transactions only due to dilution and manipulation in milk billing (Assuming no adulteration other than added water for dilution and manipulation). These calculations are based on monthly statement handed over to me by M.I.S incharge of your organization when Our Mission conducted training program cum seminar for senior professionals managing dairy business for your organization. Our Mission has also announced a prize of one lac rupees to any dairy professional who would prove our claim and contention regarding these losses to your organization as arithmetically wrong, scientifically illogical or difficult to control under the conditions now prevailing in Punjab. No one has claimed this prize till date.

Sh. V.K. Singh I.A.S. who was M.D. of MILKFED at that time vide his D.O. letter dated 12.07.06 acknowledged our contribution and informed us that MILKFED will take appropriate measures to control such losses. As per our assessment MILKFED can establish two ultra- modern milk plants every year with the money saved by controlling these losses.

We are extremely sorry to inform you that these losses over a period of time have further increased and become alarmingly high as per analysis carried out by our Mission based on the facts stated in a press release of MILKFED. As per our contention MILKFED can easily pay remunerative milk purchase price (Equal or higher than AMUL) to needy dairy farmers struggling hard for survival of their dairy business by eliminating such hidden losses caused by dilution and manipulation in milk purchase.

Our Mission stands committed to help ethical dairy institutions like MILKFED Punjab procuring milk directly from milk producers to minimize and control such hidden losses so that these institutions can also pay remunerative milk purchase price like AMUL.

M/s Improvement innovations Unlimited Inc. Canada (our Mission associate) has developed a new software called "Doodh Ka Doodh aur Pani ka Pani" to solve age old unresolved problem of Indian dairy industry. We have decided to provide free service for digital analysis of monthly milk bills summary using digital analytical technique and this software for ethical dairy institutions in India. This software is now available (Free download facility) on our website apnidairy.com. We can also arrange to provide live demonstration of this software to your concerned professionals in our Mission office here at Chandigarh as per mutually convenient date.

I would also like to avail this opportunity to convey to you our sincere good wishes for the success of your new export oriented ventures and milk handling capacity expansion plans.

With kind regards

Yours Truly

  
(Jaswant Singh Bhandair)  
Mission Director

CC: Dr. R.K.Gupta Deputy Commissioner (D.D.) Govt. Of India  
Ministry Agriculture (Department of Animal Husbandry, Dairying & Fisheries) for information. Our Mission obtained information under R.T.I. Act from milk co-operative federations in north India and analyzed data pertaining to milk purchase transactions. We find that hidden losses due to dilution and manipulation (assuming no adulteration) are alarmingly high. We would therefore suggest that critical professional comments on our presentation may also be obtained from Managing Directors of all milk co-operative state federations. Our mission would gladly offer required clarifications and address all their concerns related to subject matter of our presentation.



**INTERNATIONAL IMPROVEMENT MISSION**

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IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA

IIM-2013

20.04.13

Dr. R.K.Gupta Deputy Commissioner (D.D.) Govt. Of India  
Ministry Agriculture (Department of Animal Husbandry, Dairying & Fisheries)  
Krishi Bhavan, New Delhi

Sub: Logical solutions for socio-economic problems of needy dairy farmers and health concerns of innocent consumers

Dear Sir

Thank you very much for your communication on the subject dated 10<sup>th</sup> April 2013. Prime objective of our Mission and professionals/institutions supporting our activities is to upgrade performance of ethical segment of Indian dairy industry so that it can face global challenges relating to quality, productivity and overall business profitability.

Our Mission strongly believes that only self-sustaining and professionally well managed dairy institutions can protect the interests of needy dairy farmers and innocent consumers in our country. Conceptual model "Apna Doodh, Apni Dairy, Apni Mandi" developed by our Mission is a comprehensive business proposition for progressive dairy farmers. It will on one hand help milk producer families to generate adequate income from milk while on the other hand ensure supply of pure milk and dairy products meeting with international quality requirements for microbiological safety and shelf life. Besides it will also ensure perfect product traceability and accountability for adulteration, dilution and manipulation while milk remains in transit between milk producer and consumer.

Once our overall concept after due confirmation and verification of claims and contentions made in our presentation is accepted by premier dairy institutions like N.D.R.I., NDDB, AMUL and other ethical dairy institutions in India, we will gladly share micro details of our implementation plan with these institutions.

Unique feature of our proposal is that it will not need any financial support or investment from Central or state governments. Essential modifications (suggested in our presentation and proposed solutions) in the existing regulatory mechanism and administrative policies of state and central government will solve unresolved core issues/chronic problems and usher in a new era of yet another white revolution in India. It will convert prevalent unviable milk production business into self-sustaining and remunerative business activity for dairy farmers besides addressing vital health concerns of consumers by eliminating unhealthy trade practices relating to adulteration in milk.

P.T.O

Scientists from N.D.R.I did not visit our Mission office to watch pilot scale milk processing facility set up by us to pasteurize and sterilize milk using solar energy and un-conventional dairy equipment. (Thermo Electric Processing Technique) As desired by Dr. Patel chairman consultancy cell N.D.R.I Karnal our Mission made a presentation At N.D.R.I. Karnal on 22.11.12 and submitted samples of pasteurized and sterilized milk processed by using this technique. We once again extend cordial invitation to N.D.R.I. scientists to have look at this facility and also watch live demonstration of software designed by our Mission associate to control hidden losses in milk purchase transactions.

Specific Information and clarifications required by you are furnished below:

I. Cost for setting up required infrastructure for implementing our conceptual model will depend on milk handling capacity required by progressive dairy farmers but as per our cost projections it will be nearly 50% of setting up conventional milk processing unit for equivalent capacity. Investment on setting up required infrastructure will be phased out in easy installments so that it does not put unnecessary financial strain on the dairy farmers while making such investments for expanding their business.

II. Recurring total milk handling cost using innovative processing technique and management systems being propagated in our mission presentation will be nearly 40% of prevalent expenses on conventional processing thus enabling prime beneficiaries i.e. milk producers and consumers to share the cost benefit of these savings with each other.

III. We are glad to inform you that our associate in Canada has generously allowed us to share their software (D.K.D & P.K.P) free of cost with intended dairy business entrepreneurs and the same is now available to all on our website [apnidairy.com](http://apnidairy.com) (free download facility). Digital analysis of actual milk bills of a premier dairy institution in India as carried out by us using this software indicated annual hidden loss of more than Rs.100 crores only due to dilution and manipulation (Assuming no adulteration other than added water). Concerned professional executives of this institution in the presence of their chief executive admitted that these hidden losses are beyond their control as no practically feasible solution is available with them to control or eradicate this menace. We do hope that dairy business entrepreneurs suffering huge losses in milk purchase transactions on this account will derive due benefit from this facility.

IV. As per universally adopted scientific principles milk processing plants generally follow under mentioned time temperature combinations:

Pasteurization:

- (a) Heating milk at 61-65 degree Celsius for not less than 30 minutes (holder method or Home pasteurization)
- (b) Heating milk at 71-73 degree Celsius for not less than 15 seconds (High temperature short time or H.T.S.T)

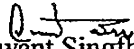
**Sterilization:**

(a) Heating milk at 104-112 degree Celsius for 20 minutes to one hour Thermo Electric Processing Technique also follows the same principles using specified time temperature combinations as mentioned above. We, however, ensure that Packing material used is perfectly clean / sterilized and no post pasteurization contamination takes place.

Please feel free to share with us the comments on our claims and contentions as and when received by you from premier dairy institutions. We would like to assure you that we will ultimately convince all concerned with our ideology through technically logical clarifications, information sharing communications and live demonstration.

Thanking you

Yours truly

  
(Jaswant Singh Bhandair)  
Mission Director

F.No. 14-1/2012-DP  
Government of India  
Ministry Agriculture  
Department of Animal Husbandry, Dairying & Fisheries  
(DP Section)

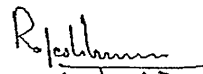
Krishi Bhavan, New Delhi,  
Dated the 10<sup>th</sup> April, 2013

Subject:- Comments on a letter from International Improvement Mission (IIM), Chandigarh regarding logical solutions for socio-economic problems of needy dairy farmers and health concerns of innocent consumers -

Sir,

I am directed to enclose a copy of letter dated 15.3.2013 from International Improvement Mission (IIM), Chandigarh, addressed to Hon'ble PM on the above mentioned subject and to request that the comments on the claims and contentions, commercial viability and practical difficulty to implement the innovative solutions developed by IIM Chandigarh under the prevailing conditions may be provided to this Department at the earliest.

Enclosure as above.

  
10.4.13

(R.K. Gupta)  
Deputy Commissioner (DD)

Copy to:

- (i) Director, NDRI, Karnal-132001, Haryana
- (ii) Managing Director, National Dairy Development Board, Post Box No.40, Anand-388001.
- (iii) Managing Director, Gujarat Cooperative Milk Marketing Federation Limited, Amul Dairy Road, Anand-388001.

Copy for information to:

✓ Shri Jaswant Singh Bhandair, Mission Director, International Improvement Mission, Regd. Office 53A, Sector 18A, Chandigarh - 160018



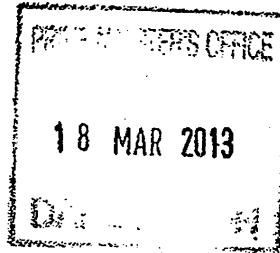
INTERNATIONAL IMPROVEMENT MISSION

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IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA



37216

15.03.13

IIM-2012  
Dr. Manmohan Singh Jee  
Hon. Prime Minister of India  
C/O P.M.O. New Delhi

Subject: Magical but logical solutions for socio-economic problems of needy dairy farmers and health concerns of innocent consumers.

Honorable Sir,

Kindly refer to our communication dated 21.05.12 on the subject cited above (Copy enclosed as Annexure-A for ready reference). Dr. R.K. Gupta Deputy Commissioner (Dairy Development) Govt. of India on behalf of Ministry of agriculture remained in correspondence with us vide Reference file No.14-1/2012-DP. As desired by him and Director National Dairy Research Institute Karnal, we held professional interaction meeting and made elaborate presentation on the subject before scientists of N.D.R.I on 22.11.12. (Video of this presentation is available on our website <http://apnidairy.com>). In order to provide live demonstration of our innovative processing technology Called "Thermo Electric Processing Technique" we submitted samples of pasteurized and sterilized milk produced by our Mission associate using this technique to N.D.R.I. Karnal for cross verification and authentication of our claims and contentions. Copy of the analytical test report testifying our claims as received by us from N.D.R.I. Karnal is being enclosed here with as Annexure -B with for your kind perusal.

In order to help ethical segment of dairy industry for upgrading their overall business performance by analyzing undetected hidden losses in milk purchase transactions, our Mission associate in Canada has generously accorded permission to us for providing free service facility to farmer friendly dairy institutions in India by using their innovative software called "Doodh Ka Doodh aur Paani Ka Pani". We will shortly start providing these services to interested dairy business entrepreneurs.

While expressing our gratitude to Govt. Of India (Ministry of agriculture ) and National Dairy Research Institute Karnal through copy of this communication we are requesting premier dairy institutions in India i.e. National Dairy Development Board, National Dairy Research Institute, AMUL and Indian Dairy Association to offer their critical professional comments on our presentation within next one month directly to your good-self especially if they still find any of our claims and contentions as arithmetically incorrect, scientifically illogical or practically difficult to implement under the conditions now prevailing in India.

P.T.O.

35

Adulteration/dilution /manipulation in milk purchase transactions, production of milk products not meeting with international quality requirements for purity/microbiological safety and large numbers of middlemen in the value chain are the only age old chronic unresolved problems of Indian dairy industry that need to be addressed on S.O.S basis.

Our Mission has evolved following easy to implement innovative solutions for all these core issues and with the help of our Mission associates we can provide live demonstration of these solutions.

1. Govt. Of India should by legislation ban sale and purchase of mixed milk in the country. It should be obligatory for the milk producers and processors to sell buffalo milk, cow milk or milk produced by any other animal separately without any dilution/intermixing. Buffalo milk supplied to consumers must have more than 6.50% Fat, 8.84% S.N.F., 15.34% T.S and 29 C.L.R. Cow milk must have more than 3.50% Fat, 8.50% S.N.F., 12% T.S. and 30 C.L.R.. Hidden losses due to dilution and manipulation in milk purchase can practically be eliminated using software (D.K.D. & P.K.P.) designed by one of our Mission associate in Canada.
2. Consumer can easily be educated and trained to test purity, total milk solids and adulterants generally found in milk with simple/cost effective platform tests.
3. We can create direct flyover link between milk producers and consumers to eliminate all middlemen in the value chain. Licensed milk producers may be allowed to market pure raw chilled or pasteurized milk without any intermixing (Buffalo or Cow Milk) directly to milk consumers at reasonable rates.
4. Consumers/producers can be educated and trained to pasteurize or sterilize raw milk using solar or bio-gas powered "Thermo Electric Processing Technology" to ensure microbiological safety of milk and milk products produced by them.
5. We must make it obligatory for commercial dairy plants in the country to upgrade their overall performance so as to produce only pasteurized milk /sterilized milk and other value added products strictly conforming to international quality requirements for purity/microbiological safety for domestic and export markets.

Salient features of our innovative processing technology are available on Annexure -C attached herewith. We earnestly seek co-operation and contribution of all concerned in our country to achieve our cherished goal of exporting "White gold at the exchange price of black gold" as highlighted in first paragraph of our presentation on this subject.

Our Mission has decided to launch nationwide media campaign "DOODH KI MILAWAT AUR MEHNGAIE SE AZADI" shortly to achieve our social objectives. We, therefore, seek your intervention, blessings and kind patronage for this noble cause.

Respectfully yours,

  
(Jaswant Singh Bhandair)  
Mission Director

INDIA EXPORTING ITS WHITE GOLD AT EXCHANGE PRICE  
OF  
BLACK GOLD  
{PERSPECTIVE- 2022 INDIAN DAIRYING}

\*Jaswant Singh Bhandair

“India would be exporting its white gold i.e. pure, microbiologically safe organic buffalo milk having shelf life of more than 100 days at room temperature at a price equivalent to that of black gold (Petrol). Cow milk meeting with the same quality parameters would be sold in the global market at the price of diesel. Simultaneously absolutely pure and microbiologically safe pasteurized buffalo/cow milk having shelf life of more than two weeks would be available to the consumers in India at a price much lower than rates prevailing in the global market.”

Statement quoted above is neither a pipe dream nor illogical professional goal that can not be realized. Professionals managing dairy business in India need to carry out micro level “SWOT” analysis. Indian dairy industry is required to make optimum utilization of its inherent strengths and avoid missing any of the emerging opportunities knocking at our door in the global market. Most of the visible threats are only imaginary and our weaknesses can easily be resolved and converted in to our strengths.

Our Mission has carried out deep analysis of age old core issues and chronic unresolved techno-commercial problems. With the help of our associates we also made genuine efforts to evolve scientifically logical and practically feasible solutions for these problems. Major issues before dairy business entrepreneurs and dairy professionals in India can be summarized as follows:

1. How to procure on commercial scale buffalo or cow milk without any intermixing, adulteration, dilution or manipulation?
2. How to eliminate all middlemen from the value chain or replace them with ethical service providers willing to discharge their obligations on reasonable cost plus basis?

3. How to procure process, pack and market absolutely pure pasteurized buffalo or cow milk meeting with international quality requirements having shelf life of two to three weeks when stored under refrigeration?
4. How to reduce abnormally high gap (Rs.10-15/Kg.) between farm gate prices reaching the milk producers and that being charged from the consumer?

Solutions to these problems /core issues have been eluding the dairy business entrepreneurs for the last many decades. During this period many short cut quick fix solutions and undesirable conventions have gradually emerged and become accepted practices for the organized sector of dairy industry. You will agree with us that all these issues are closely connected to quality, productivity, profitability and ultimately global competitiveness of Indian dairy business. Through this presentation we would like to avail the opportunity to share with you summary findings of our research on this subject and also explain to you as to why we could not solve these problems for so long.

1. How to procure on commercial scale buffalo or cow milk without any intermixing, adulteration, dilution or manipulation?

Unlike India most of the advanced dairy countries have only cows so they fix per unit purchase price for standard cow milk say 3.50% Fat & 8.50% S.N.F, 12% milk solids, 88% natural water that corresponds to 30 as corrected lactometer reading (C.L.R.). Based upon freezing point of milk of this composition they measure corresponding refractometer index reading and calibrate the same using cryoscopy to find out % of added water in diluted milk. No payment is made for added water in milk and if the dilution is more than prescribed limit then that milk can not be sold to milk plants processing and marketing pasteurized milk. Product manufacturing plants offer relatively lower price to such milk thus discouraging intentional or unintentional dilution with added water. Due to strict implementation of stringent quality regulations in those countries, chances of adulteration other than unavoidable normal dilution during milk collection/processing becomes a remote possibility. Dairy plants, therefore, get microbiologically safe and pure raw milk on their dairy docks so production of dairy products conforming to international quality requirements is easily possible.



Countries like India where we have buffaloes and cows and mixed milk is being sold and purchased using 60:40 two axis formulae based on C.L.R. for working out S.N.F. content in raw milk. Application of empirical thumb rule by allocating  $\frac{1}{2}$  of specified per kg. Fat rate to fat content in mixed milk and  $\frac{2}{3}$ <sup>rd</sup> for S. N.F component is helpful in controlling dilution and manipulation to a certain extent for determining actual worth of mixed milk. Due to collection of milk in small quantities from large number of milk suppliers at village level within short span of time, it becomes practically difficult to measure quantity. Fat and S.N.F of milk for each milk purchase transaction accurately and carry out its cross comparison with gravimetric results.

Taking undue advantage of this practical problem unscrupulous middlemen over a period of time have devised perfect ways and means to dilute and manipulate raw milk thus siphoning out up to 30 % of cost of raw milk as hidden gain for themselves.. Digital analysis of milk bills of reputed dairy plants in north India as carried out by our Mission associate in Canada clearly indicates that majority of the commercial dairy plants in private sector, multinational companies and milk co-operatives are purchasing raw milk having dilution with added water in the range of 10 to 30 %.

Digital analysis of actual milk bills of one such premier dairy institution indicated annual hidden loss of more than Rs.100 crores only due to dilution and manipulation (Assuming no adulteration other than added water). Concerned professional executives of this institution in the presence of their chief executive admitted that these hidden losses are beyond their control as no practically feasible solution is available with them to control or eradicate this menace .Raw milk with heavy dose of added water is more prone to adulteration with edible or even dangerously harmful chemicals /adulterants to substitute milk fat with vegetable fat and add starch, sugar ,salt, urea, melamine etc to increase S.N.F content.

Most of the professionally qualified dairy experts employed by commercial dairy plants in India are thus facing impossible task of converting such badly adulterated/diluted/manipulated raw milk in to dairy products conforming to international quality parameters.

Even the best cook in the world can not make a good omelet out of rotten egg so it is unfair to blame the dairy professionals who are only helpless spectators of this kind of melodrama.

Problem of improving raw milk quality over a period of time has become so complicated and complex that it is now almost impossible to solve it even by using sophisticated chemical analysis or allied tests. Freezing point of standard buffalo milk (6.50% Fat, 8.84% S.N.F, 15.34% Milk solids, 84.66% natural water corresponding to corrected lactometer reading 29(C.L.R.) will vary with change in S.N.F./Fat Ratio and simultaneous dilution with added water. Due to multiple complex equations resulting out of such manipulated formulations it becomes extremely difficult to work out exact % of added water so hidden losses remain undetected with conventional milk billing calculations.

Term Manipulation by dilution in milk is a unique problem unknown to most of the dairy experts or software engineers who design conventional software programs for milk billing calculations (Based on two axis 60:40 formula) used by one and all in India to work out payable dues for milk purchase transactions. It is not easy to comprehend as to how 60:40 is converted in to 40:60 and added water becomes milk and gets paid as milk causing corresponding hidden loss to purchaser. This kind of hidden loss can not be calculated with conventional milk billing calculations. Innovative solution for this problem is cost analysis using Digital Analytical Technique (I.P. of our Mission associate in Canada). Software Called D.K.D & P.K.P (Doodh Ka Doodh aur Paani Ka Paani) based on this technique as designed by our associate is capable of calculating such hidden losses with accuracy up to 10 decimal points

#### LOGIC BEHIND MANIPULATION BY DILUTION IN MILK:

Assume 100 Kg. buffalo milk (6.50% Fat, 8.84% S.N.F, 15.34% milk solids, 84.66% natural water corresponding to corrected lactometer reading 29)

1. Manipulator will take out 20 Kg. milk out of this and replace that quantity with 20 Kg. added water so the ratio of milk to added water becomes 80:20 i.e. 4:1

2. He will again take out 20Kg. milk out of this modified milk and add equivalent quantity of water (Please note that this replacement is done from 100% of already modified milk and not from 80% of original milk. Therefore the ratio of milk to added water becomes 60:40 i.e. 3:2
3. Repeating the same act once again will result in modifying the ratio to 40:60 i.e. 2:3

Reversal of ratio from 60: 40 to 40:60 will help the manipulator to convert 20 Kg. added water as milk and get hidden gain of equivalent amount. Practical solution of this problem is only possible with accurate digital analysis of milk bills relating to milk purchase transactions. Alternatively we should purchase cow milk and buffalo milk without any intermixing with each other and do not allow milk suppliers to temper natural S.N.F /Fat ratio and specific gravity of each kind of milk while it remains in transit between milk collection points and dairy plants. Gravimetric testing of raw buffalo milk and cow milk separately for each purchase transaction and its close monitoring till such time milk is finally received at dairy dock is essential prerequisite to eliminate such losses. Silver lining in this exercise is that buffaloes and cows are incorruptible because they can not manipulate or change their natural S.N.F.: Fat ratio. (Unique for different species of animals).

Dairy institution purchasing milk directly from actual milk producers by taking all possible precautions mentioned above will have no difficulty in procuring raw milk on commercial scale without any intermixing, adulteration, dilution or manipulation.

2. How to eliminate all middlemen from the value chain or replace them with ethical service providers willing to discharge their obligations on reasonable cost plus basis?

More than 80% cost of dairy business is the amount spent on raw milk purchase. Unfortunately majority of dairy plants in organized sector of Indian dairy industry have delegated this job to network of middlemen operating in the unorganized sector. Three tier system comprising of milk man (Dudhia), small contractor and big contractor are neither qualified to scientifically handle this perishable commodity nor willing to follow ethical trade practices so vital for maintaining its purity and microbiological safety.

During the last six decades these middlemen have further tightened their grip on the organized sector of Indian dairy industry and also increased their bargaining strength/ undesirable dominance.

Milk co-operative sector is also working on three tier system i.e. cooperative society at village level for milk collection, district union for milk processing and state federation for marketing operations. Only the co-operative institutions having well established deep rooted milk procurement infrastructure at village level and operating genuinely on Anand pattern principles are procuring undiluted pure milk suitable for producing dairy products meeting with international quality requirements. Due to better business realization these institutions are not only paying remunerative rates to milk producers regularly but also progressing well as profitable business ventures. Major reasons for the co-operative dairy plants that are suffering losses and offering low price to milk producers is weak milk procurement infrastructure and gross violation of fundamental principles of original Anand pattern. These units due to this reason become easy victims of manipulation by dilution and start procuring diluted /manipulated milk. They also suffer heavy hidden losses on this account and pay much lower price to milk producers as compared to their genuine and successful counterparts.

Professionally managed dairy plants interested in attaining global competitiveness by improving quality of raw milk will ultimately be left with no option but to create their own infrastructure for procuring pure raw milk directly from milk producers. Basic fundamental principles of original Anand pattern program followed by many Gujarat co-operatives are quite appropriate for achieving success in this objective.

Our Mission with the assistance from our associates has designed a unique system of procuring raw milk directly from a self sustaining network of genuine and ethical milk producers. This system called "APNI DAIRY" is based on unconventional concept of informal co-operatives (N.G.O.'s), farmer friendly policies, fool proof organized system for purchasing pure raw milk without any dilution or inter-mixing of buffalo milk with cow milk. It not only eliminates almost all middlemen from the value chain but works in a self governing cost effective manner thus helping the beneficiary institution to drastically reduce its milk procurement/processing costs.

Service providers deployed for milk collection, chilling and transportation of milk to dairy plant get reasonable remuneration for their service contribution while remaining fully accountable for milk contents in their custody while milk remains in transit, like cashiers handling cash for banking operations.

Unique advantage of "APNI DAIRY" system of milk procurement is that dairy plant will get assured regular supply of pure and safe raw milk ideally suitable for producing dairy products conforming to international quality requirements.

4. How to procure process, pack and market absolutely pure pasteurized buffalo or cow milk meeting with international quality requirements having shelf life of two to three weeks when stored under refrigeration?

All professionally managed dairy plants in advanced dairy countries worldwide procure, process, pack and market microbiologically safe and pure pasteurized milk having shelf life of more than two weeks. Consumer can safely consume that milk within specified period even without heating or boiling. Contrary to this concept there is no company at least in our knowledge in India that may be marketing pasteurized milk meeting with these international quality requirements. It has become almost customary for all processing plants in India to label shelf life of three days on pasteurized milk packs. As compared to designated shelf life of such pasteurized milk even raw milk produced under normal farm conditions in India just by taking basic sanitary precautions remains good for consumption for 5-7 days when stored under refrigeration at temperatures below 4 degree Celsius. It is quite unfair proposition from consumer's point of view as virtually no value addition has taken place in this kind of pasteurized milk. Urban consumer in this situation has no option but to purchase such milk that needs boiling before consumption even though he is paying Rs.10- 15 per Kg. more than farm gate price of raw milk paid to milk producers by dairy business entrepreneurs.

Frankly speaking pasteurized milk available in poly packs to urban consumer in India has no third party guarantee for its purity and bacteriological safety.

Pilot scale research project sponsored by our Mission and implemented by one of our Mission associate in India brought a sigh of relief and joy to us when we found that it is only a myth that we in India can not procure, process, pack and market pasteurized meeting with international quality requirements for purity, microbiological safety and shelf life.

As per our research findings if pure milk produced in India is scientifically pasteurized, packed in sanitary environment using food grade sanitized packing material, without any post pasteurization contamination and stored/transported under refrigeration at temperatures below 4 degree Celsius till it is finally delivered to the consumer at his door step then that milk also remains good for consumption for more than two weeks.

4. How to reduce abnormally high gap (Rs.10-15/Kg.) between farm gate prices reaching the milk producers and that being charged from the consumer?

Due to big leap in scientific developments worldwide during the last few decades, technology for food processing, packing and management of business operations has undergone sea change. Unfortunately majority of Dairy business entrepreneurs in India continue to follow same age old conventional techniques for milk production/collection/chilling/processing and managing overall business operations. Due to abnormal increase in cost of energy and other inputs total milk processing/handling cost has become very high. Gap between farm gate price of raw milk and consumer price for pasteurized milk has been constantly on the increase and has almost doubled during the last one decade. Due to simultaneous increase in cost of buffaloes /cows, feed concentrates, fodder and other milk production inputs dairy business has become unprofitable especially for landless/marginal farmers.

Need of the hour is to invent cost effective new techniques to process milk at farm level itself without using any conventional dairy equipment or capital intensive processing machinery. One of our Mission associate who has been carrying out research on this subject for the last one decade has achieved significant breakthrough in evolving innovative processing technique called Thermo Electric Processing Technology (T.E.P.T) for milk pasteurization and sterilization. This technology when introduced for commercial use of ethical dairy business entrepreneurs in India would usher in a new era of another white revolution.

Thermo Electric Processing technology is ideally suitable for commercial dairy farmers producing over 1000 Kg. milk per day. Technique is based on solar/bio energy and does not require capital intensive conventional dairy equipment. Recyclable environment friendly packaging material with temper proof seal will be used for pasteurized /sterilized milk. New Innovative conceptual model (Producer to consumer) called "APNA DOODH-APNI DAIRY-APNI MANDI" when implemented along with this technology will establish direct flyover link between milk producer and consumer thus eliminating all middlemen from the value chain. It will not only cut down total milk handling costs by more than 50% as prevalent now but also ensure perfect product traceability between the two prime beneficiaries of dairy business i.e. producer and consumer. Cost savings in this process will result in upgrading dairy business in India to such levels that it will become most profitable among F.M.C.G. business propositions. As per techno-commercial cost benefit projections of this innovative technology, it will play a major role in transforming rural agro based economy of our motherland. Dairy farmer maintaining a herd of about ten animals would be able to generate sufficient income from dairy business alone to comfortably meet all his family expenses relating to his basic needs i.e. "ROTI KAPDA AUR MAKAN".

Good news for ethical dairy professionals and eminent dairy institutions of India like N.D.R.I.(our Gurukul), "AMUL"( Our Role model), N.D.D.B. (our Mentor) and I.D.A (our Professional associate) is that there is no need to wait till 2022 to realize our collective cherished dream projected in first paragraph of this presentation. With active participation of ethical dairy professionals supporting our Mission and blessings of management of our prestigious dairy institutions mentioned above, we can achieve all this much earlier than scheduled target of 2022.

On behalf of our Mission and professional associates supporting our Mission I extend cordial invitation to authorized representatives of these premier institutions and ethical entrepreneurs owning dairy business in India for contacting us to seek any allied information or clarification. They can also scrutinize relevant documentary /video evidence available with our Mission. Besides it we can provide live demonstration of all our claims and contentions mentioned in this presentation.

We can also show to them live demonstration of software D.K.D & P.K.P and also provide samples of milk produced in India and pasteurized /sterilized by us using innovative cost effective “Thermo Electric Processing Technology” for authentic counter verification of purity, microbiological safety and shelf life of such milk.

\*Mission Director International Improvement Mission  
&  
Managing Director Innovative Business Improvements Pvt. Ltd.

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SUN  
DAY

अमर उजाला

बुधवार, 22 अप्रैल, 2012

## दूध की कालाबाजारी पर प्रदर्शन

उत्पादकों ने जंतर-मंतर पर एक किचेंटल दूध गिराकर जताया विरोध

अमर उजाला ब्यूरो

नई दिल्ली। देशव्यापी दूध की कालाबाजारी के खिलाफ शनिवार को जंतर-मंतर पर विभिन्न राज्यों से आए दूध उत्पादकों ने प्रदर्शन किया। इस दौरान उन्होंने मटकों में लाया गया एक किचेंटल से अधिक दूध जमीन पर गिराकर विरोध जताया। दूध उत्पादकों ने चेतावनी दी कि यदि उनकी मांगे नहीं मानी गई तो 25 अप्रैल को गाय-भैंस लेकर संसद का घेराव किया जाएगा।

खाला गद्दी समिति और अखिल भारतीय पशुपालक एवं गो पालक समाज के बैनर तले हरियाणा, दिल्ली, उत्तर प्रदेश, पंजाब, उत्तराखंड समेत अनेक राज्यों से सैकड़ों दूध उत्पादक विरोध जताने पहुंचे थे। समिति के अध्यक्ष मोहन सिंह अहलुवालिया ने एक दिन का उपवास रखा। उन्होंने बताया कि उत्पादकों से बिचौलिये दूध 12 से



नई दिल्ली। जंतर-मंतर पर दूध गिराकर प्रदर्शन करते दूध उत्पादक।

24 रुपये प्रति लीटर खरीदते हैं। जबकि आम जनता को चालीस रुपये प्रति लीटर के हिसाब से बेचा जाता है। वहीं, दूध उत्पादकों को समर्थन देने पहुंचे टीम अन्ना के सदस्य मनीष सिसोदिया ने कहा कि देशभर के उत्पादक मेहनत के साथ

दूध का उत्पादन कर रहे हैं। जबकि बिचौलिये मुनाफा कमा रहे हैं। दूध उत्पादकों को इज्जा के राष्ट्रीय अध्यक्ष उदितराज, अखिल भारत हिंदू महासभा के राष्ट्रीय अध्यक्ष स्वामी चक्रपाणि भी समर्थन देने पहुंचे थे।

## Milkmen threaten nationwide stir

Govt's failure to increase procurement price of milk

TRIBUNE NEWS SERVICE

CHANDIGARH, APRIL 4

Residents of Chandigarh as well as other parts of the region can go without milk supply in the coming days. The milkmen of Punjab have planned to start a nationwide stir in case the government fails to increase the procurement price of milk.

At a rally held at the Sector 25 rally ground, union leaders said in case they were forced

to sell their milk at lower prices, they along with unions of other states would start a stir and stop the milk supply. Today also no supply was made at Punjab.

"The milk with a fat content of 6.5 was being purchased for a price of Rs 32 in the past. Now this quantity is fetching for a mere Rs 21," said Baljinder Singh Bhagoo Majra, a union leader. While the prices of fodder and feed for the animals have soared, the pro-

urement price in Punjab has been lowered, he said.

The policies of the Central government remained against the milkmen due to which their plight was grim, said Comrade Prem Singh Bhangoo. While the export of raw product required for the manufacturing of feed for animals was open, the export of milk products has been banned. This led to the increase in the production cost of milk, he added.

# न किसानों को लाभ और न ग्राहकों को

● एजेंसी

नई दिल्ली। खाने-पीने की चीजों की बेतहाशा महंगाई के बीच संस्कार ने सोमवार को स्वीकार किया कि कृषि बाजार की कमजोरी के चलते न तो किसानों को अच्छी कीमत मिल पा रहा है और न ही ग्राहकों को सस्ती चीजें मिल पा रही हैं। वित्तमंत्री प्रणव मुखर्जी ने कहा कि हमारा कृषि बाजार दोषपूर्ण है। सीआईआई द्वारा राजधानी में आयोजित 'प्रतिस्पर्धा, जन नीति और आम आदमी' विषयक गोष्ठी में बोलते हुए वित्तमंत्री ने कहा कि उपभोक्ता मूल्य और प्राथमिक उत्पादकों की कीमत के बीच भारी अंतर है। किसानों को अच्छी कीमत नहीं मिलती और उपभोक्ताओं को उस कीमत से अधिक का भुगतान करना होता है जो उसे कृषि बाजार के प्रतिस्पर्धी और क्षमतावान होने की स्थिति में करना होता। मुखर्जी ने कहा कि मध्यस्थों की एक शृंखला है जो कृषि बाजारों में प्रतिस्पर्धा के आधार पर काम नहीं करते। उन्होंने कहा कि



स्वीकारोक्ति : वित्तमंत्री प्रणव मुखर्जी ने पहली बार स्वीकार किया कि ठीक नहीं है कृषि बाजार की व्यवस्था

नीतिगत बदलाव और नए उत्पादों से लेकर कृषि बाजार में प्रतिस्पर्धा की भारी संभावना है जो बदले में किसानों और उपभोक्ताओं दोनों को मदद करेगी। मुखर्जी ने कहा कि मुद्रास्फीति के न्यूनतम स्तर के बावजूद खाद्य कीमतों में बढ़ोतरी हो रही है।

## एक झतक में पेंशन वापस नहीं लगी सरकार

नई दिल्ली। मनीषा का पेंशन अर्थव्यवस्था को सुचारु देने के लिए पहिली बार वापस लाने की सरकार का फैसला नहीं किया। पेंशन की वापसी जब भी होगी, धरिधार और सुरणबद्धता के संकेतों से होगी। मानवदल साचिव के सम चंद्रशेखर ने प्रतिस्पर्धा नीति संस्था आईआईए द्वारा आयोजित समारोह में भाग लेकर कहा कि पेंशन वापस लाने का संसद में वापस लाने का संकेत नहीं है।

## चीनी पर है सरकार की पेंनी नजर

नई दिल्ली। सरकार का कहना है कि चीनी की कीमतों में तेजी वरिधक स्तर पर पेंकी किल्लत को खत्म करने पर सरकार धरुत बाजार पर मेरी नजर रहे हुए है। कैबिनेट साचिव अणुम चंद्रशेखर ने कहा कि चीनी की कीमतें विश्व भर में काफी ऊंची बनी हुई है जिसकी वजह वरिधक स्तर पर इसकी किल्लत का होना है।

## दूध उत्पादन में अक्वल, क्वालिटी में फिसड्डी

चंडीगढ़। दूध-दही के लिए विख्यात भारत ने भले ही दुग्ध उत्पादन में नंबर-वन का रतवा हासिल कर लिया है, लेकिन गुणवत्ता, प्रति पशु उत्पादन और प्रति व्यक्ति उपलब्धता के मामले में लगातार फिसड्डी साबित हो रहा है। उत्पादन के मामले में हमसे काफी पिछड़ चुका अमेरिका (जो दूसरे स्थान पर है) इन जरूरी मोरचों पर दुनिया में सबसे आगे बना हुआ है। केंद्रीय विज्ञान एवं प्रौद्योगिकी मंत्रालय के अधीन काम कर रहे टिफेक के एक टास्क फोर्स की अध्यक्ष लीला पुत्रबावा के मुताबिक, हमारे देश में उत्पादित दूध की गुणवत्ता विश्व व्यापार संगठन के मानदंड के हिसाब से कमतर है।



यानी यहां भी विकास की बड़ी गुंजाइश है। पुत्रबावा के मुताबिक, भारत गुणवत्ता और प्रति पशु उत्पादन में पिछड़ने के चलते ही विश्व दुग्ध बाजार में अपनी नजर को धुना नहीं पा रहा है। हमारे किसानों और दुग्ध उत्पादन में जुटे लोगों की गरीबी भी आई आती है, जिसके कारण वे पशुओं की देखभाल ठीक से नहीं कर पाते हैं।

पुत्रबावा बताती हैं, अंतरराष्ट्रीय स्तर के हिसाब से दूध में बैक्टीरियल काउंट 50,000 से कम होना चाहिए, लेकिन भारत में निकट के शीतल भंडारण केंद्र तक पहुंचने से पहले यह काउंट लाखों में पहुंच जाता है। इस

इसके अलावा हमारी गायें और भैंसें दूध भी कम देती हैं। विश्व में एक गाय प्रतिदिन औसतन 15 लीटर दूध देती है, जबकि भारतीय गाय का औसत मात्र 8-12 लीटर है। विश्व में भैंसें प्रतिदिन औसतन 10-12 लीटर दूध देती हैं, जबकि भारत में केवल 6-8 लीटर। यानी हमें प्रति पशु दुग्ध उत्पादन के मामले में अभी लंबा सफर तय करना है। भारत वर्ष 1998 में ही दुग्ध उत्पादन के मामले में दुनिया के अन्य देशों से आगे निकल गया था। उल्लेखनीय है कि दुनिया की 50 फीसदी भैंसें और 20 फीसदी गायें भारत में हैं, जो प्रतिवर्ष करीब 1000 लाख टन दूध देती हैं। इसके बावजूद विश्व दुग्ध बाजार में भारत का योगदान मात्र एक प्रतिशत है।

स्थिति में सुधार के लिए टास्क फोर्स देश के कई इलाकों में सक्रिय है। पशुओं को 'मिल्क पार्लर' लाने के लिए कहा जाता है। 'मिल्क पार्लर' में पशुओं को दुग्धने से पहले ठीक से धोया जाता है, यह पूरी प्रक्रिया स्वचालित होती है, जिसके नतीजे भी काफी अच्छे मिलते हैं। देश में दूध और उसके उत्पादों की मांग में प्रतिवर्ष 8.5 प्रतिशत की दर से वृद्धि हो रही है और दुग्ध उत्पादन में अक्वल होने के बावजूद देश में लोगों को पर्याप्त दूध नहीं मिलता है। दुनिया में स्वास्थ्य के मापदंड के लिहाज से जहां एक व्यक्ति को प्रतिदिन कम से कम 280 ग्राम दूध की जरूरत होती है, वहीं भारत में प्रति व्यक्ति दुग्ध उपलब्धता मात्र 220 ग्राम है। एजेंसियां

CHANDIGARH TRIBUNE, FRIDAY, JUNE 30, 2006

## 2 units manufacturing spurious milk unearthed

OUR CORRESPONDENT

FATEHGARH SAHIB, JUNE 29  
The police has unearthed two units involved in manufacture of spurious milk and desi ghee during raids in the district. Culprits were held red-handed while manufacturing spurious milk and desi ghee and raw material used for it was seized.

The police has registered separate cases under sections 420 of the IPC and 7 of the Food Adulteration Act 1954.

Mr Shiv Kumar Verma, SSP, said the police had got a tip-off that the owners of Balbir Dairy at Tarkheri and Ambey Majra villages had been manufacturing spuri-

ous milk and desi ghee which they supplied in various towns of the state. The police raided the dairy and arrested Balbir Singh.

He told the police that they used to prepare spurious milk and desi ghee by mixing refined oil, castic soda, meetha soda and some other chemicals in milk powder.

The SSP said the dairy of Swarn Singh at Gadhera village in Bassi Pathana subdivision was also raided. It was found that he too manufactured spurious milk by using chemicals and used to supply it to Verka Milk Plant in Mohali. The police has registered a case against him.

# दूध के नाम पर पानी

मोहाली। मोहाली के लोग दूध नहीं पानी पी रहे हैं। दूध के नाम पर जो भी बेचा जा रहा है, बस उसमें 60 प्रतिशत पानी मिला होता है। ऐसा आंकड़े बोलते हैं। सनिवार को मोहाली तथा आसपास के क्षेत्र में डेयरी विकास विभाग द्वारा लिए गए दूध के सैंपल की रिपोर्ट में कुल 86 में 78 सैंपल फेल साबित हुए, केवल आठ सैंपल ही पास मिले। फेल सैंपलों में केवल पानी का इस्तेमाल ही सामने आया है, इसके अलावा किसी तरह के हानिकारक केमिकल होने का प्रमाण नहीं मिला। दूध में मिलावट पाए जाने के बाद जिला प्रशासन ने कड़ा रुख अख्तियार किया है।

## ख़ुशख़बरी

- जाच में 86 में 78 सैंपल फेल पाए गए
- दूध में 60 प्रतिशत तक पानी की पुष्टि

दूध में मिलावट के बावत जिला उपायुक्त तेजवीर सिंह ने कहा है कि वह संबंधित विभाग से सैंपलों की सोपवार को पूरी रिपोर्ट मगवाएंगे। यदि किसी तरह की कमी पेशों नजर आई तो इस संबंध में कड़े कदम उठाए जाएंगे।

## Dairy farming unprofitable: report

SARBJIT DHALIWAL  
TRIBUNE NEWS SERVICE

CHANDIGARH, MAY 3

Though Punjab is the second largest milk producing state in the country, but commercial dairy farming in its rural areas is not a profitable economic activity in strict business terms.

Dairy farming can be more feasible, alternative for the diversification provided adequate attention is given to it by policy-makers and researchers.

This is what the extensive report prepared by the local Institute for Development and Communication headed by Mr Pramod Kumar has revealed. The report is prepared by Prof H.S. Shergill, an eminent economist

known for his grasp on issues related to the rural economy.

In fact, Punjab tops as far as milk yield per milch animal (2601 kilogram) per year is concerned. In the past few years, the replacement of Indian cow by cross-bred cow is the main reason for the fast growth of milk production.

There are 31 lakh milch animals in the state. Of these, 78.23 per cent are buffaloes and 21.77 per cent cows. Indian cow is now being replaced by cross-bred cow. About 40 per cent of the total milk produced in rural areas is consumed locally and remaining 60 per cent is marketed to the urban areas.

Dairy farming is widespread in rural areas of the

foothill region where 63 per cent households regularly sell milk but is less developed in the Malwa region as only 25 per cent people are engaged in the sale of milk on regular basis.

Unfortunately, commercial dairy farming and milk selling has not yet emerged as the main occupation of any sizeable number of rural households in any region of the state.

Among the commercial dairy farmers, about 24 per cent do not own any land and about 22 per cent belong to the Scheduled Castes. However, their contribution to the total milk output is only 6 per cent. Buffalo milk dominates dairy farming in the state.

The price of milk received by the dairy farmers does not cover the cost of produc-

tion, says Prof Shergill in his report. The cost of milk production per litre works out to be Rs 11.13 and the mean price per litre received by dairy farmers is Rs 9.98 per litre. Farmers suffer loss of Rs 1.15 for every litre of milk sold.

The big gap between milk production surplus and process capacity and the sheer inefficiency of the milk processing industry are main factors responsible for the dairy farmers not getting the remunerative price of their milk. And landless dairy farmers face other problems such as unavailability of green and dry fodder.

Prof Shergill says long-term strategy suggested by Dr S.S. Jhul for the development of dairy should be implemented.

## Verka price hike pinches commoner

OUR CORRESPONDENT

MOHALI, MARCH 2

"The hike in the prices of Verka milk is going to adversely affect my budget and I will have to shell out extra money each month to purchase the required quantity of milk".

This was the reaction of Mrs Gurinderjeet Kaur Virk, a resident of Sector 71, to the price hike of Verka milk. She said she purchased 3 kg of milk each day, but now she would have to shell out about Rs 100 more each

month. "I could have spent this amount on purchasing something else", she added.

Mrs Pukhraj Kaur Johal, a resident of Phase II, said Verka milk was getting out of the reach of the common man. One had to shell out about Rs 40 each day to purchase about 2 kg of milk. There should be some check on the prices of essential commodities so that these remained within the reach of the common man.

Verka has increased its prices for all varieties of milk by one rupee per litre

from March 1. Now, full cream milk will be available for Rs 20 per litre while standard and double toned milk can be purchased for Rs 18 and Rs 14 per litre, respectively.

Justifying the hike in milk price, the General Manager of the Verka milk plant here, Mr Balwinder Singh, said the prices had been hiked after about a period of two years and it was done because of an increase in the price of procurement of milk. Moreover, the prices of milk had been raised in Gujarat,

Delhi and even Haryana.

He said the producer was not being given sufficient rate for his product. The financial benefits would be passed on to milk producers so that they could provide quality milk to the plant. He said recently Rs 1 crore had been paid to the farmers as price difference and Rs 1.21 crore was ready for distribution among farmers in the form of dividend and bonus. Besides, another Rs 1.09 crore would be distributed among farmers as price difference shortly.



anniversary of

# 15,000 litres of synthetic milk seized

## Errant dhaba owners flee

TRIBUNE NEWS SERVICE

RAJPURA, NOVEMBER 22

The district health department today seized more than 15,000 litres of synthetic milk from a dhaba on the Rajpura bypass. This made health minister Laxmi Kanta Chawla to rush to the spot along with senior officials of the department.

The recovery was made by a team of district health officials, who after a tipoff, conducting a raid on the dhaba. The dhaba owners fled as soon as the team of health officials led by civil surgeon Dr Usha Dhingra reached there.

The synthetic milk was being filled into a tanker parked at the dhaba backyard. After a thorough search of the premises, the health team found several drums filled with chemicals along with a suspicious looking container that contained some kind of chemical concentrate. Besides, bags of detergent were found.

The health minister expressed shock over the incident and asked health officials to collect samples and get a report prepared by tomorrow morning.



Health Minister Luxmi Kanta Chawla along with health secretary T. R. Sarangal inspects drums of synthetic milk in Rajpura on Thursday. Tribune Photo: J. S. Virdi

The minister said a senior member of the SGPC had repeatedly called officials of the department after the raid, asking them to let off the culprits. She said following her calls to the district civil and police administration, a case had been registered

Interacting with mediapersons, the minister said strict action would be taken against the culprits. She called for more stringent laws to tackle the menace. She said adulterated food was tantamount to 'slow poisoning' and those responsible should be dealt with accord-

ingly by the law.

She said out of 346 samples collected by the department before Diwali, 104 had failed the test and the department had filed cases against the guilty.

It is learnt the dhaba owners have been selling synthetic milk for the last four years.

THE TRIBUNE, CHANDIGARH, TUESDAY, MAY 9, 2006

# Largest factory of synthetic milk unearthed

CHITLEEN K SETHI  
TRIBUNE NEWS SERVICE

CHANDIGARH, MAY 8

The Punjab Dairy Development Department has with the help of the police blown the lid off the largest synthetic milk producing "factory" in the State. A team of department officials along with Sangrur police literally unearthed the factory which was being run from an underground premises in Kothe Taran village in Sehna block.

The synthetic milk factory was producing over 12000 litres of poisonous milk each day supplying it in tanks to a milk plant. According to the Dairy Development Department Director Mr Anil Kaura, factory owner Baljit Singh has been arrested by the police on various charges and has also been booked under sections of the Milk and Milk Products Order of the Government of India under the Essential Commodities Act.

The joint raids were conducted on May 5 following a tip-off to the police. Three

tanks full of the synthetic milk were seized from the spot while a further search revealed that the production of synthetic milk was being carried out from an underground premises camouflaged with gunny bags and filth on top. The team recovered sacks of sodium peroxide, caustic soda oil and glucose sugar etc from the spot. "The ingredients of synthetic milk are basically chemical and extremely dangerous for human beings," said Mr Kaura.

The owner reportedly confessed before the police that he had been producing synthetic milk for a long time now and had been supplying it regularly to a milk plant. The police and the department are still verifying the role played by the milk plant in the racket.

"In case milk plant officials are able to prove that they did not know that the milk was synthetic it can be thought to be a mistake, but there are far greater chances that the milk plant officials are in cohorts with the factory owner. Each

milk plant has to check the milk that is supplied to it and a simple test can reveal that the milk is synthetic. Moreover why would anyone sell the milk at such low rates to the milk plant," pointed out Mr Kaura.

Mr Kaura added that a detailed report of the raid was made available to him today. "This is the largest factory of synthetic milk we have unearthed in the state till now. We had found one earlier which was producing about 300 litres of milk a day. Synthetic milk is unfit for human consumption. It is essential that the general public is aware of the quality of milk that they are consuming.

The Punjab Government is providing free milk testing facilities to the public. Anyone is free to call us at these numbers: 0172- 2700228, 0172-2700055 and ask for the free test facility in their area. Also we invite the public to inform us about any spurious milk producers and suppliers. Our email is: [directordairy@rediffmail.com](mailto:directordairy@rediffmail.com)." said Mr Kaura.

## Packaged milk is slow poison, says report

CHARU CHHIBBER  
TRIBUNE NEWS SERVICE

LUDHIANA, MAY 23  
Packaged milk is no less than slow poison. This is what the shocking report of tests on samples of packaged milk of seven leading dairy brands of the country say.

The reports, brought out by a city-based NGO, shows the presence of Total Plate Count (TPC) in the range of 10 lakh CFU per mg to 6.60 crore CFU per mg in the samples as against the laid down standards on milk purity which say that TPC should be 30,000 CFU per mg. If this is found to be 50,000 CFU per mg, the milk is said to be unfit for human consumption.

As for coliform count, according to the prescribed standard, it should be 10 CFU per mg, whereas they test reports shows the presence of coliform between 60 CFU per mg to 7 lakh per mg.

The milk samples, brought from various stores across Ludhiana by members of Consumer Protection Forum (CPF), a local NGO, were sent to Swiss-based SGS India Lab in Gurgaon under prescribed conditions.

Talking about the shocking revelation, president of the CPF Rajeev Tandon said, "Normally, dairy farmers draw out milk from cattle around 4 am. The milk is then collected from various dairy farms and sent to chilling centers in non-refrigerated vehicles, which takes around 5-6 hours. The long transition period leads to production of harmful bacteria in the milk".

The NGO has demanded from the government measures to ensure hygienic milk to consumers. The activists today held a protest rally in the city to press for their demand.

## Milk or menace? Watch out

From Page 1

roadside Dhaba in Sangrur district. Again, this milk was found to be without animal or organic fat. Investigations reveal that the manufacture of synthetic milk started in the northern states of Haryana, western Uttar Pradesh, Rajasthan and Punjab from where it spread to other parts of the country.

To prepare synthetic milk, chemicals like urea, caustic soda, refined oil (cheap cooking oil) and commonly used detergents are mixed together. Detergents are added to emulsify and dissolve the oil in water, giving the frothy solution the characteristic white colour of milk.

To give the milk its basic property of fat, refined oil is added. Caustic soda is added to the blended mixture of chemical and natural milk to neutralise the effect of increased acidity, thereby preventing it from turning sour during transport. Experts say that Urea and sometime sugar is added for levelling the contents of

solid-not-fat (SNF) as are present in natural milk.

Though chemical or synthetic milk looks like natural milk, it has a different taste and is devoid of all properties for which natural milk is taken as a part of healthy human diet. A serious health hazard, synthetic milk is carcinogenic — Having cancer-causing properties. Urea and caustic soda are harmful to the heart, liver and kidneys. Caustic soda, which contains sodium, acts as a slow poison for those suffering from hypertension and heart ailments. It also prevents the body from utilising Lysine, an essential amino acid in milk, which is required by growing babies.

To be concluded

*With inputs from Varinder Singh (Patiala), Sushil Goyal (Sangrur), Megha Mann (Ropar), Gurdeep Mann (Fatehgarh Sahib), Bipin Bhardwaj (Jalandhar), Rajay Deep (Bathinda), Dharmendra Joshi (Kapurthala) and PK Jaiswar (Amritsar).*



# Milk or menace? Watch out

## GUARD YOURSELF

PROPERTIES	NATURAL MILK	SYNTHETIC MILK
Taste	Neutral or slightly sweet	Faintly bitter
Feel	Watery	Soapy (rub it between your fingers)
After heating	Remains white	Turns light yellow
pH Value	Acidic	Alkaline

PRABHJOT SINGH  
TRIBUNE NEWS SERVICE

CHANDIGARH, JUNE 7  
Are you sure what you are taking every morning as a part of your breakfast is natural milk? Even the airtight pouch you get from your milk vendor does not guarantee its contents. It could be natural milk — that is an emulsion of animal fat in a solution of sugar, mineral salts and proteins in a colloidal suspension — or a chemical mix of urea, caustic soda, refined oil, detergents and poster colour that gives it a milk-like look.

Every summer, the yield of milch cattle comes down considerably. To plug the demand-supply gap and make a fast buck, a number of unscrupulous elements gang up to set up makeshift synthetic milk factories. Against a good quality of natural milk that costs anywhere between Rs 30 and 40 per litre, these units produce "synthetic milk" at Rs 4 to 6/litre, depending upon the quality of refined oil used.

A statewide survey carried out by The Tribune revealed easy availability of synthetic milk across

Punjab. Interestingly, the health authorities have not been able to uncover any clandestine milk-producing unit this summer.

In 2007, the health department had seized a tanker in Samana containing 6,000 litres of synthetic milk. Another raid led to recovery of 20,000 litres of synthetic milk in Rajpura in 2008 and this year again 20,000 litres of synthetic milk was taken into possession during a special search operation at Rohiti Bridge, near Nabha.

On a day when the entire Punjab was celebrating Baisakhi, the birthday of Khalsa, the health department officials recovered 800 litres of milk from a mini truck near Kharar. All samples of the milk could not meet the standard tests for natural milk. In Sangrur, a raid was conducted at a milk collection centre on March 19 this year where two samples of mixed milk and synthetic milk each were taken. Foreign fat or non-animal fat was found in the mixed milk samples, while there was no "fat" found in the synthetic milk samples.

On the same day, another sample of boiled milk was taken from a

Continued on page 14



## Most milk samples fail

ARUN SHARMA  
TRIBUNE NEWS SERVICE

CHANDIGARH, OCTOBER 27

As many as 32 samples of milk out of 43 collected from houses in Sector 27 here today were found adulterated. While all samples had 52 per cent water, the only consolation for consumers was that no substance hazardous to health was found.

On the request of the Resident Welfare Association of Sector 20, officials of the Punjab Dairy Development Board and Punjab Dairy Development Department collected samples in Sector 27. Yesterday, at least 23 samples were taken from Sector 20, where only 13 were found pure. Up to 42 per cent water was found in the remaining samples.

However, objecting to the drive, Jarnail Singh, a milkman, said: "The drive is nothing more than harassment. What about other adulterated products being sold in the market?"

"A buffalo costs Rs 40,000 and overhead expenses have soared. The consumer is not ready to increase the price of milk, compelling us to resort to unfair practices," Ranjit, another milkman, complained.

# White revelation

## Milk samples found containing 60 per cent water

**GURDEEP SINGH MANN/TNS**

FATEHGARH SAHIB,  
SEPTEMBER 7

Testing of milk samples collected from Fatehgarh Sahib has revealed that these had more than 60 per cent water content.

The Dairy department organised eight camps from April 1 to July 31 this year, asking people to get milk samples tested.

In all, 292 samples of milk were collected during these camps. Of these just 63 samples, around 23 per cent of the total samples, were found pure. The remaining 77 per cent samples failed to pass the test. These had up to 60 per cent water content. The viscosity was also very low.

"Adding water to milk compromises on its fat content and quality. Making a fool of the consumers, these milk vendors continue age-old practices of mixing water in milk," rued department officials.

According to the owner of a private dairy, such milk costs just Rs 9 to Rs 10 per litre, whereas milk

vendors sell it at Rs 22 to Rs 25 per litre.

As per Milkfed standards, the buffalo milk should have at least 5.1 per cent fat and 8.8 per cent of viscosity and should be not more than Rs 17 to Rs 18 per litre.

Dairy Department officials have also sent this report to the office of the Deputy Commissioner and to the District Health Department for further action in the case.

Pleading anonymity, a department official said, "Our department can just conduct purity tests. We do not have powers to take action against the erring milk vendors. The ball is in the court of the DC and the Health Department. It is for them to decide whether Fatehgarh Sahib residents should continue to consume such milk or have a healthier option."

The Dairy Department has rights to confiscate adulterated or synthetic milk, but has no right to tackle cases of low fat content, sources say.

IIM-2012

21.05.12

Dr. Manmohan Singh jee  
Hon. Prime Minister of India  
C/O P.M.O  
New Delhi

Subject: Magical but logical solutions for socio-economic problems of needy dairy farmers and health concerns of innocent consumers.

Honorable Sir,

Majority of farmers in our country in general and Punjab in particular now fall in the category of marginal farmers who can not generate sustainable income with cash crops following mechanized farming techniques with extensive use of costly farm inputs like chemical fertilizers/pesticides etc. Many of them have already sold their ancestral land holdings and immigrated to near by urban locations in search of alternative employment opportunities.

Dairy farming has immense potential for our farmers in the domestic and emerging global markets. There are few age old unresolved techno commercial problems in dairy business in India that on one hand harm the genuine interests of needy dairy farmers as they do not get remunerative price for the "WHITE GOLD" produced by our "KAAM DHENUS" and on the other hand innocent consumer has to pay very high price for adulterated/diluted and manipulated milk.

Everyone in India is either a milk producer, milk consumer or both. Milk processing plants purchase raw milk from milk producers, process it and pass that on to the consumers as pasteurized milk.

1. Milk while it remains in transit between milk producer and consumer passes through 5-7 hands without proper product traceability, responsibility or accountability for adulteration, dilution or manipulation. As a result thereof it becomes vulnerable to lose its purity and bacteriological safety even before reaching the processing plant.
2. Total milk handling cost or the difference between farm-gate price paid to milk producer and that being charged from consumer for so called pasteurized milk is abnormally high (Rs.10-15/Kg).

It, therefore, amounts to violation of human rights of milk producers as they are getting much less than actual market worth of milk being produced by them and that of milk consumers as they are being made to pay very high price for milk with literally no value addition and without any third party guarantee for its purity, microbiological safety or shelf life as per international quality parameters. Above mentioned cost difference is being pocketed by people other than two prime parties to dairy business i.e. milk producers and consumers.

1. Stating only the problems without suggesting or evolving practically feasible solutions would be nothing but an exercise in futility. Our Mission has carried out deep probe and research on these core issues and age old unresolved problems of Indian dairy industry. The measures envisaged in this regard have been spelled out in detail in the text annexed here along. Copy of comments received by us from Director National Dairy Research Institute Karnal on this presentation is also being enclosed for your kind perusal. Contents of our presentation and contentions expressed there in are amply justified by media reports being sent here with as attachment.

On behalf of our Mission I would request your good self to ask concerned departments managing dairy business in India to conduct deep probe in to this matter by taking into account all the relevant data including the information and scientific guidelines mooted in our presentation. Our Mission stands committed to provide required technical support and help to ethical dairy institutions for implementing corrective measures to benefit needy dairy farmers and innocent consumers.

Please acknowledge.

Respectfully yours,

*O. S.*  
(Jaswant Singh Bhandair)

Mission Director

International Improvement Mission

Regd Office : # 53-A, Sector 18-A, Chandigarh -160018

Tel: 0172-2724872 Cell;9815961853

Enclosures:

- 1) Detailed Text (10 Pages)
- 2) Letter from Director N.D.R.I. Karnal dated 23.3.12.
- 3) Media Reports

F. No. 14-1/2012-DP  
Government of India  
Ministry Agriculture  
Department of Animal Husbandry, Dairying & Fisheries  
(DP Section)

Krishi Bhavan, New Delhi,  
Dated the 10 April, 2013

To,

Shri Jaswant Singh Bhandair,  
Mission Director,  
International Improvement Mission,  
Regd. Office 53A, Sector 18A,  
Chandigarh - 160018

Sub: - Logical solutions for socio-economic problems of needy dairy farmers and health concerns of innocent consumers -

Sir,

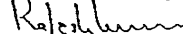
I am directed to refer to your letter dated 15.3.13, addressed to Hon'ble PM on the above mentioned subject and to say that the information provided by IIM, Chandigarh is found to be incomplete and does not provide proper clarifications on cost break up details of newly developed software called "Doodh Ka Doodh aur Pani ka Pani" (DKD & PKP), cost parameters of innovative processing technique for Pasteurization & sterilization of milk by the thermo electric processing technology, requirement of land and cost analysis for innovative conceptual model called "Apna Doodh Apni Dairy, Apni Mandi". However, it is observed that a progressive commercial dairy farmer producing more than 1000 litres per day can set up such a processing facility at farm level to process and market pasteurized & sterilized milk to urban consumers through informal consumer cooperatives. In the absence of above clarifications, it may not be possible to take any decision on feasibility and commercial viability of such models developed by IIM.

As suggested by the Mission Director, NDRI has deputed a group of scientists to visit the innovative facilities developed at Chandigarh for confirmation and counter verification of claims made in the presentation by IIM. It is observed from the letter that the IIM Chandigarh has held professional interaction meeting and made elaborate presentation on the subject before the scientist of N.D.R.I. on 22.11.12. The IIM has submitted samples of pasteurized and sterilized milk produced by the Mission associate using "Thermo Electric Processing Technique" to N.D.R.I. Kamal for cross verification and authentication of claims and contentions

In view of above, it is requested that the following information on the innovative solutions developed by the Mission may be provided to this Department in order to ascertain feasibility and commercial viability of such technology developed by IIM.

- i. Cost break up details for setting up of innovative conceptual model called "Apna Doodh Apni Dairy, Apni Mandi".
- ii. Cost break up details of innovative processing technique for Pasteurization & sterilization of milk by the thermo electric processing technology.
- iii. Cost break up details of the innovative software called Doodh ka Doodh aur Pani Ka Pani.
- iv. As indicated in a letter dated 8.3.2013 by NDRI Kamal, the details of time temperature combination used for processing of milk/or its impact on vital component of milk and equivalent status with HTST combination universally adopted by the dairy industry needs to be ascertained.

Yours faithfully,



10.4.13  
(R.K. Gupta)

Deputy Commissioner (DD)



DIVISION OF DAIRY TECHNOLOGY  
NATIONAL DAIRY RESEARCH INSTITUTE  
(Deemed University)  
(Indian Council of Agricultural Research)  
KARNAL-132001 (Haryana) India



Dr. A.K.Singh, Chairman  
Consultancy Processing Cell

Ref. No. Cons./Analysis/2013-14/2485  
Dated : 23<sup>rd</sup> July, 2014

Mr. Jaswant Singh Bhandair,  
Mission Director,  
International Improvement Mission,  
#53A, Sector 18A, Chandigarh

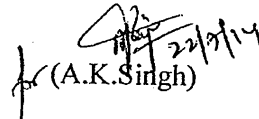
Dear Mr. Bhandair,

This refers to your letter No.r.5.2014 regarding analysis of pure buffalo milk in a glass bottle with crown cork lid Code No. S-414010 Feed Samples on DM basis. The testing report is enclosed as received from the concerned scientist.

Please feel free to approach us for any further assistance.

With regards,

Yours faithfully,

  
(A.K.Singh)

Encl: As Above

Tel. :0184-2259268, 2259270(O)  
0184-2283133 @  
EPABX Nos. : 1268, 1270, 1240

E.mail : [consltdri@yahoo.co.in](mailto:consltdri@yahoo.co.in)  
[grpndri@yahoo.co.in](mailto:grpndri@yahoo.co.in)  
Gram : DAIRYSEARCH Fax : 0184-2250042

**Dairy Microbiology Division**  
**National Dairy Research Institute**  
**Karnal-132001**

138  
19-7-2014

Milk Testing for Standards Plate Count and Yeast & Mold Count

Sample description

1. Source of sample : International improvement mission, Regd. Office #53-A Sector 18-A Chandigarh
2. Type of milk : Pure buffalo milk in a glass bottle with crown cork lid (code no 414031)
3. Date of receipt/ testing : 07.07.2014
4. Testing charges : 2248/- test
5. Sample submitted by : Mr. Prashant Minz, Scientist, DE Division

Test Report

Name of the product	Standard plate count (IS 5402: 2002)				Average CFU/ 0.1ml	Yeast & molds count (IS 5403: 2002)				
	10 <sup>-1</sup>		10 <sup>-2</sup>			10 <sup>-1</sup>		10 <sup>-2</sup>		
	Plate 1	Plate 2	Plate 1	Plate 2		Plate 1	Plate 2	Plate 1	Plate 2	
Pure buffalo milk in a glass bottle with crown cork Lid	Nil	Nil	Nil	Nil	Absent/ 0.1ml	Nil	Nil	Nil	Nil	Absent/ 0.1 ml

**Note:** This report is issued with an explicit understanding that it would neither be used for the purpose of advertisement nor it would be produced as evidence in any form without the prior permission of the undersigned. Further, this report is restricted to the sample submitted to Dairy Microbiology Division through In-charge, consultancy Cell, NDRI, Karnal and its application under field condition is subject to food safety/ bio-safety regulatory clearance/ approval by the concerned ministry etc.

Tested by 

In-charge DA 

Head, DMT Division 



**INTERNATIONAL IMPROVEMENT MISSION**

REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160018 TEL. 2724872

**ALL FOR ONE & ONE FOR ALL**MISSION ASSOCIATES : INNOVATIVE BUSINESS IMPROVEMENTS (P) LTD., CHANDIGARH INDIA  
IMPROVEMENT INNOVATIONS UNLIMITED INC.CANADA

IIM-2012

22.11.12

Dr.A.A. Patel  
Head Dairy Technology Division & Chairman Consultancy Processing Cell  
N.D.R.I.  
Karnal

Subject: Samples of milk /dairy products for authentic verification of microbiological safety, shelf life and purity of raw milk used for production of these products.

Dear Dr.. A.A. Patel

As mentioned in my previous communication addressed to you please find herewith (as per following details ) samples of Pasteurized /sterilized milk produced yesterday i.e.21.11.12 by our Mission associate using Thermo Electric Processing Technique for authentication and counter verification in your quality assurance laboratory.

- 1 Pasteurized milk in glass bottles (capacity 300ml) with pop up pilfer proof seal- 2 bottles
- 2.Sterilized milk in glass bottles (capacity 200 ml.) with crown cork seal – 4 bottles

As per our assessment and claim pasteurized milk will remain good and microbiologically safe for human consumption for more than two weeks when stored under refrigeration ( below 4 degree Celsius) and sterilized milk will remain good for human consumption for more than 100 days when stored at room temperature and kept in cool /dark place. Due to sterilization it may have slightly cooked /flat taste but purity of raw milk used for its production and microbiological quality will meet international quality requirements like that of UHT Milk.

You may kindly send one copy of the test report to Dr. R.K. Gupta Deputy Commissioner (Dairy Development ) Govt. of India and also endorse one copy on our Mission address to us for Information.

With kind regards

Yours truly

  
(Jaswant Singh Bhandair)  
Mission Director

CC: Dr. R.K.Gupta Deputy Commissioner (Dairy Development) Govt. of India for his kind information

IIM-2012

03.03.13

Dr.A.A. Patel  
Head Dairy Technology Division & Chairman Consultancy Processing Cell  
N.D.R.I.  
Karnal

Subject: Samples of milk /dairy products for authentic verification of microbiological safety, shelf life and purity of raw milk used for production of these products.

Dear Dr.. A.A. Patel

Please refer to our communication IIM-2012 dated 22.11.12 on the subject cited above. As desired by you we deposited prescribed fee of Rs.5843 vide receipt No.112592 dated 22.11 12 for conducting specified tests on the following samples.


- 1 Pasteurized milk in glass bottles (capacity 300ml) with pop up pilfer proof seal- 2 bottles
- 2.Sterilized milk in glass bottles (capacity 200 ml.) with crown cork seal – 4 bottles

As per our assessment and claim pasteurized milk will remain good and Microbiologically safe for human consumption for more than two weeks when stored under refrigeration (below 4 degree Celsius) and sterilized milk will remain good for human consumption for more than 100 days when stored at room temperature and kept in cool / dark place.

More than 100 days have passed since submission of milk samples so you must have conducted specified tests on these samples. You are may kindly send the test report on our Mission address at your earliest.

With kind regards

Yours truly

  
(Jaswant Singh Bhandair)  
Mission Director

Division of Dairy Technology  
NATIONAL DAIRY RESEARCH INSTITUTE  
KARNAL – 132 001



Dr. A. A. Patel  
Principal Scientist & Head



No. F-Cons/analysis/2013/  
Date: 6<sup>th</sup> March 2013  
8

Sh. J. S. Bhandair  
Mission Director  
International Improvement Mission  
#53-A, Sector 18-A  
Chandigarh

Sub.: Analysis report of Pasteurized Milk & Sterilized Milk samples

Dear Sh. Bhandair,

This has reference to your letter of 22nd November 2012 regarding analyses of your milk samples. The two samples submitted by you were analysed as under :

Pasteurized milk (glass bottles with pop-up lid)

1. Phosphatase test
2. SPC
3. Coliform count
4. Sensory attribute

Sterilized milk (Glass bottles with screw cap)

1. Sensory attributes.

The results of analyses conducted are given in the enclosed reports, please.

With best regards,

Sincerely,

(A. A. Patel)  
Chairman, Consultancy &  
Head, DT


**QUALITY CONTROL LAB  
DAIRY TECHNOLOGY DIVISION  
N.D.R.I., KARNAL-132001**

**Subject: Analytical Report of Phosphatase Test of Pasteurized Milk**

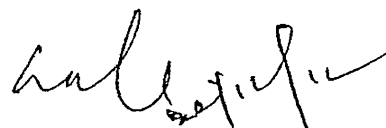
Sir,

Two pasteurized milk samples received on 24.11.2012 from International Improvement Mission, Chandigarh for the analysis of Phosphatase Test. The samples were analyzed and analytical results are given below:

Sl.No	Batch No	Parameters tested and their results	
		Phosphatase Test	Method reference
1	-	Negative	SP:.8 (Part-XI) 1981
2	-	Negative	- do-

  
87-11-12  
Incharge, QC Lab

Note: This report is not valid for legal purposes



Chairman  
Consultancy Cell  
DT Division, NDRI, Karnal

07c



Dairy Microbiology Division  
National Dairy Research Institute  
Karnal - 132 001



**Microbiological Report of Thermo Electric treated Pasteurized Milk**

**Sample Description**

1. Test parameters : Standard Plate Count (SPC) & Coliform
2. Source of sample : International Improvement Mission, Regd. office # 53-A sector 18 -A Chandigarh
3. Type of milk : Pasteurized milk (2 Nos.)
4. Date of Manufacturing : 21.11.2012
5. Date of receipt : 23.11.2012
6. Date of Testing : 23.11.2012
7. Testing charges : 1000/- Test

**Analytical Report**

Products Code	Date of Manufacturing	Standard Plate Count (IS 5402:2002)					Coliform count (IS 5401(Part 1): 2002)		
		10 <sup>-1</sup>		10 <sup>-2</sup>		Average CFU/ml	10 <sup>0</sup>		Average CFU/ml
		Plate-1	Plate-2	Plate-1	Plate-2		Plate-1	Plate-2	
Pasteurized milk <sup>#</sup> (Thermo Electric Processing Technique)									
N 31 01 08	21.11.2012	10	10	1	1	100	0	0	0
6-24		0	0	0	0	0	0	0	0

<sup>147</sup>  
<sup>4/12</sup> # These samples were also analyzed using AOAC approved 3M Petri-film and similar results were obtained

**Remarks:** Samples of pasteurized milk treated with thermoelectric processing technique were deposited by the firm to our consultancy cell on their own. However, time-temperature combination used for their processing / or its impact on vital component of milk and equivalent status with HTST combination universally adopted by the industry needs to be ascertained. Report may not be treated as validation with existing HTST pasteurization treatment / or for any legal purposes.

*Adon*  
Tested by 3/12/2012

*[Signature]*  
In-charge QA

*[Signature]*  
Head, DM division

*[Signature]*  
04/12/12

**Dairy Technology Division  
NDRI, Karnal**

November 26, 2012

Sensory Analysis of the Pasteurized & Sterilized Milk samples of International Improvement Mission, Redg. Office: # 53-A, Sector - 18A, Chandigarh-160018:

Characteristics	Score obtained by the Pasteurized Milk sample*	Score obtained by the Sterilized Milk sample*	Maximum Score
Colour & Appearance	9	5	10
Odour	18	13	20
Flavour	33	23	40
Body	26	25	30
<b>Total</b>	<b>86</b>	<b>66</b>	<b>100</b>
Overall sensory quality	'Good'	'Fair'	
Overall grade	'B'	'C'	

\*Average of six judges

Overall Sensory Quality & Grade is given on the basis of the following Gradation table:

Quality	Score	Grade
Excellent	90 or above	A
Good	80-89	B
Fair	60-79	C
Poor	Below 60	D

*Kaushik*  
26/11/12  
(Kaushik Khamrui)  
Sr. Scientist DT

**Procedure followed:**

Indian Standard Method for Sensory Evaluation of Milk (IS: 7768 - 1975) (Reaffirmed 1997). Manak Bhavan, 9 Bahadur Shar Jafar Marg, New Delhi - 110 002.

TESTIMONIALS/DOCUMENTRY EVIDENCE  
{QUALITY}



**INNOVATIVE BUSINESS IMPROVEMENTS (P) LTD.**

REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160 018 TEL 2724872



**APNA DUDH - APNI DAIRY - APNI MANDI**

ASSOCIATE OF IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA.

IBI-08

05.04.08

Head Dairy Technology Division

National Dairy Research Institute

Karnal

Subject : Milk Sample for sensory Evaluation

Dear Sir

Thank you very much for evaluating samples of pasteurized cow milk and buffalo milk submitted by us on 17.03.08. As a second phase of our research evaluation, we are now submitting another sample of pasteurized buffalo milk processed and packed by us using innovative techniques and unconventional energy /allied resources. We are interested in getting this sample of pasteurized buffalo milk (Code No: MI-8004050) also tested in your quality control laboratory. We would request you to please store this milk sample for 21 days at temperature below 4 degree Celsius and evaluate the same for sensory evaluation after that period. Please accept prescribed fee for sensory evaluation of this milk sample (NO NAME) contained in a glass bottle with pop up temper proof seal cap. Test results may please be handed over to our authorized person to be deputed by us on receiving your confirmation or the same may be sent to us on our above mentioned mailing address.

Thanking you in anticipation.

  
(Jaswant Singh Bhandair)

(Managing Director)



डेरी प्रौद्योगिकी विभाग  
DIVISION OF DAIRY TECHNOLOGY  
राष्ट्रीय डेरी अनुसंधान संस्थान  
NATIONAL DAIRY RESEARCH INSTITUTE  
(मान्य विश्वविद्यालय)  
(Deemed University)  
(भारतीय कृषि अनुसंधान परिषद्)  
(Indian Council of Agricultural Research)  
करनाल (हरियाणा) भारत KARNAL-132001 (Haryana) India



Dr. Dharam Pal  
Principal Scientist

Dated : 1<sup>st</sup> March, 2005

SENSORY EVALUATION REPORT OF MILK SAMPLE

The Pasteurized Standardized Milk sample supplied by M/s Today Milk (MCT Milk Plant), Moga (Punjab) has been evaluated for its sensory quality (Flavour) by a panel of Five Judges. The average score for the sample is given as below :

Maximum score (Flavour) : 10  
Score awarded to the sample : 9.2

The sample possesses pleasant taste of normal milk and does not have any perceivable abnormal odour.

Dharam Pal  
(DHARAM PAL) 1/3/2005

Tel. : 0184-2259268, 2259270(O)  
0184-2283133 ☎  
EPABX Nos. : 1268, 1270, 1240

E-mail : [constl@ndri.hry.nic.in](mailto:constl@ndri.hry.nic.in)  
[grp@ndri.hry.nic.in](mailto:grp@ndri.hry.nic.in)  
Gram : DAIRYSEARCH Fax : 0184-2256042





राष्ट्रीय डेरी अनुसंधान संस्थान  
(मान्य विश्वविद्यालय)  
(भारतीय कृषि अनुसंधान परिषद्)  
कननाल-132 001 (हरियाणा) भारत  
**NATIONAL DAIRY RESEARCH INSTITUTE**  
(Deemed University)  
(Indian Council of Agricultural Research)  
KARNAL-132 001 (Haryana) India



Registered

Dr. G.R. Patil, Chairman  
Consultancy Processing & Placement Cell

Ref. No. CONS/2002/349

Dated: 17/7/02

Mr. Sanjeev Kumar Sood,  
House No. 136,  
Sector - 4,  
PARVANOO (H.P.)

Dear Sir,

This has reference to your letter dt. 9<sup>th</sup> July, 2002 regarding analysis of four samples of liquid milk for sensory evaluation. The samples were judged by a panel of six members and the analysis report is given as under :

'No appreciable difference on the basis of colour & appearance, sediment, temperature etc. was noticed amongst the four samples. The flavour scores are based on maximum 10 score (ADSA) and specific comments on all the milk samples are as follows':

<u>Code No. of Milk samples</u>	<u>Score (10)</u>	<u>Comments, if any</u>
1.	7.0	Unclean (suggestive of unhygienic conditions of barn & containers).
2.	9.0	Completely clean flavour, best sample.
3.	8.0	No specific comments.
4.	7.5	Sl. Astringent.

Please feel free to approach us for any further assistance.

Thanking you,

KEY TO CODE NO. OF MILK SAMPLES

1. Milkman
2. Milktime
3. Verka
4. Vita

Yours faithfully,

(G.R. PATIL)

Tel: 0184-259268, 259270 (O)

0184-259240 (O)

EPARX Nos. : 1268, 1270(O)

E-Mail : [constl@ndri.hry.nic.in](mailto:constl@ndri.hry.nic.in)

[grp@ndri.hry.nic.in](mailto:grp@ndri.hry.nic.in)

Gram : DAIRYSEARCH; Fax : 0184-25007



डेरी प्रौद्योगिकी विभाग  
DIVISION OF DAIRY TECHNOLOGY  
राष्ट्रीय डेरी अनुसंधान संस्थान  
NATIONAL DAIRY RESEARCH INSTITUTE



(मान्य विश्वविद्यालय)  
(Deemed University)  
(भारतीय कृषि अनुसंधान परिषद्)  
(Indian Council of Agricultural Research)  
करनाल (हरियाणा) भारत KARNAL-132001 (Haryana) India

Dr. A.A. Patel, Chairman  
Consultancy Processing Cell

Ref. No. Cons./Analysis/2007-08 | 1355  
Dated : 15 Dec. 2008

Sh. Jaswant Singh Bhindair,  
Managing Director,  
Innovative Business Improvements (P)Ltd.,  
#53 A, Sector 18A,  
Chandigarh-160 018

Subject: Sensory evaluation of Milk Sample.

Dear Sh. Bhindair,

This has reference to sensory evaluation of a milk sample packed in glass bottle (Code: IBI-VK-Pb.801161) supplied by you on 25.11.08. The test report is enclosed as received from the concerned scientist.

Please feel free to approach us for any further assistance.

Thanking you,

Yours faithfully,

  
(A.A. PATEL)

Tel. : 0184-2259268, 2259270(O)  
0184-2283133 ©  
EPABX Nos. : 1268, 1270, 1240

E.mail : [constndri@yahoo.co.in](mailto:constndri@yahoo.co.in)  
[grpndri@yahoo.co.in](mailto:grpndri@yahoo.co.in)  
Gram : DAIRYSEARCH Fax : 0184-2250042

DAIRY TECHNOLOGY DIVISION  
NATIONAL DAIRY RESEARCH INSTITUTE  
KARNAL

Dated the 12<sup>th</sup> Dec. 2008

The Chairman,  
CPC.

Subject: Sensory evaluation of Milk Sample.

This has reference to sensory evaluation of a milk sample packed in glass bottle (Code: IBI-VK-Pb.801161) supplied by Sh. Jaswant Singh Bhindair, Managing Director, Innovative Business Improvements (P)Ltd., Chandigarh on 25.11.08. As desired by the client the sample was stored in a refrigerator (4-5 °C) and then evaluated by a panel of 5 Evaluators on 11.12.08 for flavour, colour and appearance and sediment. The following observations were made by the Sensory Evaluators:

1. Plug of soft fat was observed on the top of milk that could be mixed well in rest after the milk of proper agitation.
2. No defect was noticed in the flavour (aroma + taste + aftertaste). Out of 10 scores, the sample was given an average of 8.4 score.
3. Colour of the sample was normal and no sediment or extraneous matter was observed in the milk sample.

The milk sample on the whole was very much acceptable.

*Dharam Pal*  
(Dharam Pal) 12/12/08  
Principal Scientist



**INNOVATIVE BUSINESS IMPROVEMENTS (P) LTD.**

REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160 018 TEL. 724872



**APNA DUDH - APNI DAIRY - APNI MANDI**

ASSOCIATE OF IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA.

IBI-08

05.04.08


Head Dairy Technology Division  
National Dairy Research Institute  
Karnal

Subject : Milk Sample for sensory Evaluation

Dear Sir

Thank you very much for evaluating samples of pasteurized cow milk and buffalo milk submitted by us on 17.03.08. As a second phase of our research evaluation, we are now submitting another sample of pasteurized buffalo milk processed and packed by us using innovative techniques and unconventional energy /allied resources. We are interested in getting this sample of pasteurized buffalo milk (Code No: MI-8004050) also tested in your quality control laboratory. We would request you to please store this milk sample for 21 days at temperature below 4 degree Celsius and evaluate the same for sensory evaluation after that period. Please accept prescribed fee for sensory evaluation of this milk sample (NO NAME) contained in a glass bottle with pop up temper proof seal cap. Test results may please be handed over to our authorized person to be deputed by us on receiving your confirmation or the same may be sent to us on our above mentioned mailing address.

Thanking you in anticipation.

  
(Jaswant Singh Bhandair)

(Managing Director)



डेरी प्रौद्योगिकी विभाग  
DIVISION OF DAIRY TECHNOLOGY  
राष्ट्रीय डेरी अनुसंधान संस्थान  
NATIONAL DAIRY RESEARCH INSTITUTE



(मान्य विश्वविद्यालय)  
(Deemed University)  
(भारतीय कृषि अनुसंधान परिषद्)  
(Indian Council of Agricultural Research)  
करनाल (हरियाणा) भारत KARNAL-132001 (Haryana) India

Dr. A.A. Patei, Chairman  
Consultancy Processing Cell

Ref. No. Cons./Analysis/2007-08 /1050  
Dated : 28<sup>th</sup> April; 2008

Mr. Jaswant Singh Bhandair,  
Managing Director,  
Innovative Business Improvements (P) Ltd.,  
Regd. Office# 53-A, Sector 18-A,  
Chandigarh

Dear Mr. Bhandair,

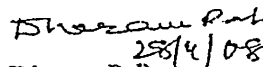
This has reference to your letter No. IBI-08 dated 5.4.2008 regarding milk sample for sensory evaluation. As desired sample was stored under refrigeration for 21 days and there after tested for sensory evaluation. The milk sample (Code No.MI-8004050) was critically examined for its sensory quality by an expert panel and found the sample quite acceptable. The sample score of 8.5 on 10 point scale (85%) basis for flavour was given to the sample. There was no defect in the sample in any of the sensory attributes i.e. colour, sediments, flavour and consistency.

Please feel free to approach us for any further assistance.

Thanking you,

Yours faithfully,

  
(A.A.PATEL)

  
28/4/08  
(Dharam Pal)  
P.S(DT)

Tel. : 0184-2259268, 2259270(O)  
0184-2283133 @  
EPABX Nos. : 1268, 1270, 1240

E.mail : [consltdri@yahoo.co.in](mailto:consltdri@yahoo.co.in)  
[grpndri@yahoo.co.in](mailto:grpndri@yahoo.co.in)  
Gram : DAIRYSEARCH Fax : 0184-2250042



डेरी प्रौद्योगिकी विभाग  
DIVISION OF DAIRY TECHNOLOGY  
राष्ट्रीय डेरी अनुसंधान संस्थान  
NATIONAL DAIRY RESEARCH INSTITUTE  
(मान्य विश्वविद्यालय)  
(Deemed University)  
(भारतीय कृषि अनुसंधान परिषद्)  
(Indian Council of Agricultural Research)  
कनवाल (हरियाणा) भामत KARNAL-132001 (Mariana) India



Dr. Dharam Pal  
Principal Scientist

Ref. No. Cons./2005-06-3082  
dated 26 Dec.2005

Mr. Jaswant Singh Bhandair,  
H.No.53, 18-A,  
Chandigarh-160 018

Test Report on Sensory Evaluation of Milk Sample

Dear Sir

This has reference to your letter dated 22. 12. 05 in respect of the sensory evaluation of a sample of "Pasteurized Standardized Milk" Packed by M/S Today Milk, PKD 21/12.05. The sample has been evaluated by our sensory panel and found to be NORMAL. It has been awarded 9 SCORE for flavour on a 10 points scoring scale.

(G. R. Patil)  
Chairman Consultancy

*Dharam Pal*  
(DHARAM PAL)

Tel. :0184-2259268, 2259270(O)  
0184-2283133 ☎  
EPABX Nos. : 1268, 1270, 1240

E.mail : [constndri@yahoo.co.in](mailto:constndri@yahoo.co.in)  
[grpndri@yahoo.co.in](mailto:grpndri@yahoo.co.in)  
Gram : DAIRYSEARCH Fax : 0184-2250942





173  
Sagarani

**PASTEURISED  
STANDARDISED MILK**

**A QUALITY PRODUCT WITH  
NATURAL TASTE & FRESHNESS**

Mfg. & Mkted. by :

**MCT**

2 Km Stone, Bagha Purana Road,  
Nihal Singh Wala-142055,  
Distt. Moga (Pb.)

◆ Associate member :-  
**INTERNATIONAL IMPROVEMENT MISSION**

**INGREDIENTS :**

MILK FAT: 4.5%

MILK SNF: 8.5%

VOLUME PACKED **500 ml**

**M.R.P :** (Incl of all taxes)

HRY., PB. & CHD. : Rs. 8.50

KULU & MANALI : Rs. 10.50

Rest of H.P. : Rs. 9.50

DELHI & UTRANCHAL : Rs. 9.50

**DATE OF PKG. : SEE STAMP**

Regd. No. : 48/DD/PB/MMPO

Safe for drinking even without boiling.

Our motto : International Quality at  
reasonable Price

**BEST BEFORE WITHIN SEVEN DAYS FROM  
THE DATE OF PACKAGING WHEN STORED  
UNDER REFRIGERATION BELOW 3°C.**

Associate member :-  
**INTERNATIONAL IMPROVEMENT MISSION**

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**TODAY  
MILK**

**PASTEURISED  
STANDARDISED MILK**

**A QUALITY PRODUCT WITH  
NATURAL TASTE & FRESHNESS**

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2 Km Stone, Bagha Purana Road,  
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Distt. Moga (Pb.)



# Idma Laboratories Limited

(A Government Approved Test House)

Endorsements : NABL, MOEF, BIS, Drug Testing Lic. No. 8-LAB/HR

Corporate Office :  
SCO 12, Madhya Marg, Sector-26  
Chandigarh



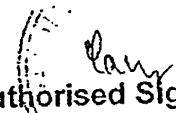
Registered Office and Laboratories :  
391, Industrial Area, Phase-1, Panchkula, Haryana  
Site Laboratory :  
Punjab Agri Food Parks Limited, G. T. Road,  
Sirhind, District Fategarh Sahib, Punjab

Tel. : 0172-2791144, 2790285 Fax : 91-172-2793041 email : idmalabs@satyam.net.in

## Test Report

Ref. No. IL/D- 400 /06-07	Date: 26/4/06	Lab No.	ILL/NB-190406/1	
Client	M.C. Traders 2KM Store, Bagha Purana Road Nihan Singh Wala Distt. Moga.			
Type of Sample	Pesturized Std. Milk			
Description	White coloured liquid.			
Quantity	500ml			
Packing, Seal And Signature	Packed in a plastic pocket having imprinted with "Today Milk".			
Client's Reference	Sample handed over by client.			
Date of Receipt of Sample	19.04.2006	Period of Analysis	05 days	
Date of Manufacturing	19.04.2006	Date of Expiry	26.04.2006	
S.No.	TEST	RESULT	REQUIREMENTS	TEST METHOD
1.	Coliforms/ 100ml	Nil	--	IS: 1622-1981
2.	Standard plate count/ 100ml	Nil	--	IS: 1622-1981

)\*\*\*\*(

  
Authorised Signatory

**INTERNATIONAL IMPROVEMENT MISSION**

REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160018 TEL. 2724872

**ALL FOR ONE & ONE FOR ALL**MISSION ASSOCIATES : INNOVATIVE BUSINESS IMPROVEMENTS (P) LTD., CHANDIGARH INDIA  
IMPROVEMENT INNOVATIONS UNLIMITED INC.CANADA

IIM-2012

22.11.12

Dr.A.A. Patel

Head Dairy Technology Division & Chairman Consultancy Processing Cell  
N.D.R.I. Karnal

Subject: Samples of milk /dairy products for testing

Dear Dr.. A.A. Patel

As per concept and strategy of our Mission, we are interested in eliminating all middlemen from the value chain linking the milk producers with consumers. We are implementing this scheme for the last two years on a pilot scale at Chandigarh and the results so far are quite encouraging .Informal consumer group members participating in this program have been educated and trained by our Mission to test raw milk for its total milk solids and adulterants generally found in milk.

Fresh and pure raw buffalo milk is being home delivered to us by a dairy farmer ( adopted and trained by our Mission) who is producing more than 100 liters milk per day and is located in a village about 15 K.M. from Chandigarh. We all pasteurize that milk at our place following batch process using solar energy or cooking gas for heating and domestic refrigerator for cooling and preservation of pasteurized milk. Instead of purchasing dairy products like curd, butter, ghee, lassi, flavored milk, paneer and , khoa etc. from the market, we produce all these items in our kitchen at home. Dairy farmer participating in this program is earning about Rs. 3000/ buffalo /per month and we as consumers all are happy and satisfied as we are getting fresh and pure buffalo milk at reasonable cost.


I have brought following dairy products produced by us (from raw buffalo milk) at home for counter verification and testing in your quality assurance laboratory for purity of contents, microbiological safety and shelf life standards prescribed in the Food safety act.

1. Curd in glass jar- 1pack (Produced on 21.11.12)
2. Lassi in glass bottle - 1 bottles (Produced on 21.11.12)
3. Paneer- 1 packet ( Produced on 20.11.12)
4. Khoa - 1 Packet (Produced on 20.11.12)
5. Chocolate flavored milk in glass bottle (Sterilized) -1bottle(produced on 20.09.11)
6. Coffee milk in glass bottles (Sterilized) -1 bottle ((Produced on 20.09.11)
- 6 Pure desi ghee in glass jar- 1 pack (Produced on 20.04.11)

Your feedback and test report regarding purity and microbiological quality of these products will be quite helpful to our Mission in building a direct flyover bridge between milk producers and consumers for tackling menace of ever growing adulteration in milk/dairy products.

Thanking you in anticipation

Yours Truly

  
(Jaswant Singh Bhandair)  
Mission Director

Dairy Technology Division  
NDRI, Karnal

November 16, 2012 <sup>11:55</sup>

CIRCULAR


Speed Post

With due approval of Director, NDRI a presentation by Er. J. S. Bhandair, Mission Director, International Improvement Mission, Chandigarh is scheduled to make an interactive presentation as under:

Date: 22<sup>nd</sup> November, 2012  
Time: 2:30 PM – 4:30 PM  
Venue: DT Seminar Room

- Topic: 1. Losses due to Dilution of Raw Milk  
2. Thermo-electric Processing of Milk for Extended Shelf Life

All are cordially invited to attend the presentation.

  
(A. A. Patel)  
Head, DT

Copy to:

1. PS to Director for kind information, please.
2. All Heads of Research Divisions
3. Dr. A. K. Chakravarty, Incharge, ABRC
4. Dr. Shiv Prasad, Incharge, Cattle Section
- ✓ 5. Sh. J. S. Bhandair, Director, International Improvement Mission, Regd. Office 53-A, Sector 18-A, Chandigarh-160018



# INTERNATIONAL IMPROVEMENT MISSION

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IIM-2012

08.11.12

Dr.A.A. Patel

Head Dairy Technology Division & Chairman Consultancy Processing Cell  
NDRI Karnal

Subject: Status of presentation/documents prepared by IIM Chandigarh on Indian  
Dairying Perspective-2020

Dear Dr.. A.A. Patel

Thank you very much for your communication dated 06.11.12 on the subject cited above.  
As already confirmed to you on telephone I am glad to accept your invitation to visit  
NDRI Karnal on 22<sup>nd</sup> of this month and make a presentation on the subject before team  
of NDRI scientists/faculty members.

Please find here with one set of documents that I will use as reference papers during my  
presentation .You are requested to get these documents photocopied and supplied to  
participating scientists /faculty members.

I will reach NDRI karnal with my team members about half an hour before the scheduled  
presentation time (2.00 P.M as suggested by you) so that I can hand over samples of  
pasteurized /sterilized milk produced by our Mission associate using Thermo Electric  
Processing Technique (T.E.P.T.) to your authorized representative for counter  
verification in your Quality assurance laboratory and also upload my presentations from  
my pen drive on to your computer /projector and test check the same before arrival of  
participants in the auditorium.

In order to help me to complete my assignment of making a presentation on this vast  
subject in just two/three hours (including question answer session) I will also request you  
to please arrange to hand over to me (before the presentation on 22<sup>nd</sup> instant) list of  
subject related pertinent questions that you and your colleagues may like me to highlight  
and clarify during the presentation. I will keep my special focus on those points while  
making presentation before the august audience.

With kind regards

Yours truly

  
% (Jaswant Singh Bhandair)  
Mission Director

By Speed-Post



DIVISION OF DAIRY TECHNOLOGY  
NATIONAL DAIRY RESEARCH INSTITUTE  
(Deemed University)  
(Indian Council of Agricultural Research)  
KARNAL-132001 (Haryana) India



Dr. A.A. Patel, Chairman  
Consultancy Processing Cell

Ref. No. Cons./2012/1966  
Dated 6 Nov. 2012

Mr. Jaswant Singh Bhinder,  
Mission Director,  
Internation Improvement Mission,  
Regd. Office 53 A, Sector 18A,  
Chandigarh-160018


Subject:- Reg. Status of presentation/documents prepared bu IIM, Chandigarh on Indian  
Daiying Perspective-2012.

Dear Mr. Bhinder,

With reference to your letter of 08.10.2012 addressed to Director, NDRI regarding presentations on IMI,DKD-PKP, Innovative Process of Pasteurization/Sterilization, AD-AD-AM, etc, I am to convey that if you arrange to have the presentations & discussion here at NDRI, it would be possible to have larger interactions with our scientists rather than 2 or 3 scientists visiting your place i.e. Chandigarh. If this is acceptable to you, please let us know a date suitable to you after 20<sup>th</sup> November when an interactive session can be arranged here itself.

With kind regards,

Yours sincerely,

  
(A.A.Patel) 06/11

Copy to:

1. PS to Director for kind information
2. Dr. A.K.Chakravarty, Incharge, ABRC

Tel. :0184-2259268, 2259270(O)  
0184-2259240  
EPABX Nos. : 1268, 1270, 1240, 1257

E.mail : ashok.as@sify.com

Gram : DAIRYSEARCH Fax : 0184-2250042

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IIM-2012

08.10.12

Dr.A.K. Srivastava  
Vice Chancellor & Director N.D.R.I. KarnalSubject: Status of presentation/documents prepared by IIM, Chandigarh on Indian  
Dairying Perspective-2022

Respected Sir

Kindly refer to communication F.No14-1/2012-DP dated 20<sup>th</sup> September from Deputy  
Commissioner (Dairy Development) Government of India on the subject cited above.  
(Copy enclosed for ready reference)

Our Mission is extremely grateful to scientists of NDRI Karnal especially Dr. A.A. Patel for his professional help and support in our research project relating to microbiological safety and shelf life of pasteurized milk produced in India. We would like to extend very cordial invitation to team of scientists from NDRI for an interactive professional meeting in our Mission office at Chandigarh on a mutually convenient date and also to have a look at the innovative facilities developed by our Mission associates for producing pasteurized liquid milk having shelf life of two/three weeks and sterilized milk having shelf life of more than 100 days. (Thermo-Electric Processing Technique) based on use of solar energy and without using any conventional dairy equipment.

Based on contents of our presentation We would like to propose following agenda for the meeting:

1. Presentation relating to goals and objectives of International Improvement Mission for helping ethical segment of Indian dairy industry.
2. Impact of adulteration, dilution and manipulation in raw milk purchase transactions on global competitiveness of Indian dairy industry. Actual case study of a premier dairy institution in India loosing over 100 crores per year only due to dilution with water and manipulation in milk billing based on authentic arithmetical calculations and scientific logic relating to 60:40 two axis formulae would be explained to visiting team for highlighting the impact of age old unresolved problem of Indian dairy industry. Live demonstration of software "Doodh Ka Doodh aur Paani ka Paani" and digital analytical technique would be given to project it as an effective solution of this chronic problem being faced by one and all in India.

P.T.O.

3. Research findings of our Mission associates in evolving innovative cost effective techniques for milk processing under prevailing Indian conditions would be discussed and shared with the visiting team. Samples of pasteurized milk and sterilized milk produced by our Mission associate using these techniques would be given to the visiting team for scientific evaluation and confirmation.
4. Based on actual case studies conducted by our Mission associates in India to eliminate all middlemen from the value chain and establish direct fly over link between Milk producer and consumer using our Innovative conceptual model "Apni Dairy, Apna Doodh and Apni Mandi" would be shared in micro details with the visiting team. We will also arrange interactive meeting with consumer members and actual milk producer located in a village in Punjab near Chandigarh having less than five acres land, producing more than 100 litres milk per day and earning net profit of Rs. 2500-Rs.3000 per animal per month under the "Producer to Consumer" scheme launched by our Mission two years ago.
5. How commercial dairy farmer producing more than 1000 liters milk per day can set up his own processing facility with affordable investment using innovative processing techniques evolved by our Mission associates through informal consumer co-operatives would be explained in minute details to the visiting team. In fact few commercial dairy farmers around Chandigarh have already started supplying pure raw chilled milk directly to selected group of health conscious consumers at rates that are quite remunerative for them. Our Mission is providing free guidance and professional help to such ethical dairy business entrepreneurs.
6. Any other issue directly/indirectly related to our presentation "India exporting its white gold at the exchange price of black gold" can be discussed in the concluding session of this proposed meeting.

As an outcome of this meeting and after confirmation of our contentions and claims mentioned in our presentation by scientists of NDRI Karnal. I would like to avail the opportunity of meeting with your good self in your office as per your convenience to evolve a strategy to transfer these techniques to grass root levels so as to benefit needy milk producers, innocent consumers and ethical dairy business entrepreneurs in India.

With kind regards

Yours Truly

  
(Jaswant Singh Bhandair)  
Mission Director

CC: Sh R.K.Gupta Deputy Commissioner (DD) for information. Our Mission would request your good self to participate in the proposed meeting as a guest of honor. It will help in accelerating the pace of progress in achieving our common cherished goal mentioned in the first paragraph of our presentation.



**INTERNATIONAL IMPROVEMENT MISSION**  
REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160018 TEL. 2724872



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IIM-2012

12.10.12

Dr.A.A. Patel

Head Dairy Technology Division & Chairman Consultancy Processing Cell  
NDRI Karnal

Subject: Status of presentation/documents prepared by IIM Chandigarh on Indian  
Dairying Perspective-2020

Dear Dr.. A.A. Patel

Thank you very much for your communication dated 8.10.12 on the subject cited above.  
In response to the communication received from Dr. R.K.Gupta Deputy Commissioner  
(DD) Govt. Of India, I have already extended cordial invitation to team of scientists from  
NDRI vide letter No. IIM-2012 dated 8.10.12 addressed to Director & Vice Chancellor  
NDRI Karnal (Copy enclosed for your kind information).

As regards tentative date for the proposed interaction meeting in our office at Chandigarh  
You may decide any date as per your convenience in the first week of November  
(including holidays on Saturday and Sunday) .You are requested to confirm final date to  
me at least one week before the meeting so that we can arrange for live demonstration  
and also fix up with concerned persons who will interact with the team on this subject. I  
would propose (10. A.M to 2.00 P.M) time schedule for this meeting (provided it suits  
the team members). Keeping in view your exceptional expertise in dealing with core  
issues and unresolved techno-commercial problems of Indian dairy industry, our Mission  
would request your good self to participate in this professional interaction meeting.

In order to help our Mission to derive maximum benefit through interaction with Dairy  
Experts from NDRI Karnal during this short meeting, I would like to suggest that team  
members may go through our presentations related with this subject on our website "apni  
dairy .com" .Please do not hesitate to ask for any clarification or additional information  
on the subject that team members may need from our Mission before the meeting.

With kind regards

Yours truly

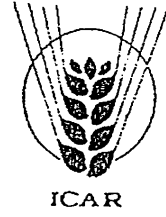
  
(Jaswant Singh Bhandair)  
Mission Director

CC: Dr. R.K.Gupta Deputy Commissioner (D.D.) Govt. of India for his kind information





राष्ट्रीय डेरी अनुसंधान संस्थान  
NATIONAL DAIRY RESEARCH INSTITUTE  
(मान्य विश्वविद्यालय)  
(Deemed University)  
(भारतीय कृषि अनुसंधान परिषद्)  
(Indian Council of Agricultural Research)  
करनाल (हरियाणा) भारत KARNAL-132001 (Haryana) India  
**SPEED POST**



Dr. A.A. Patel,  
Head, Dairy Technology Division &  
Chairman Consultancy Processing Cell

F.No. 7-8/DT/12-128  
Dated. 08.10.2012

Shri Jaswant Singh Bhandair  
Mission Director  
International Improvement Mission  
Regd. Office 53A, Sector 18A  
Chandigarh-160 018

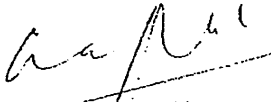
Subject: Status of Presentation/documents prepared by IIM, Chandigarh, on Indian  
Dairying Perspective-2022

Dear Shri Bhandair,

This has reference to the Ministry of Agriculture of Animal Husbandry, Dairying & Fisheries letter No 14-1/2012-DP dated 20<sup>th</sup> September, 2012 addressed to you and copy endorsed to Director, NDRI. As indicated in the letter NDRI can depute a team of three scientists to visit innovative facility in Chandigarh to have discussions with you so as to confirm the claims made by you about your novel technologies/techniques and business model. Kindly suggest 2 or 3 tentative dates suitable to you which the NDRI team can consider for a visit to Chandigarh.

With kind regards,

Yours sincerely,

  
(A.A. Patel)

- Cc: 1. Director for information ,please.  
2. Dr. R.K. Gupta, Deputy Commissioner (DD)  
Department of Animal Husbandry,  
Dairying & Fisheries (DD)  
Krishi Bhawan, NEW DELHI

F.No. 14-1/2012-DP  
Government of India  
Ministry Agriculture  
Department of Animal Husbandry, Dairying & Fisheries  
(DP Section)

Krishi Bhavan, New Delhi  
Dated the 20<sup>th</sup> September, 2012

✓ To,

Shri Jaswant Singh Bhandair,  
Mission Director,  
International Improvement Mission,  
Regd. Office 53A, Sector 18A,  
Chandigarh – 160018

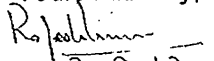
Subject:- Status of Presentation/ documents prepared by IIM, Chandigarh, on Indian Dairying  
Perspective -2022.

Sir,

I am to refer to your letter dated 1.8.12 on the above mentioned subject and to observe that a progressive commercial dairy farmer producing more than 1000 litres per day can set up such a processing facility at farm level to process and market Pasteurized/Sterilized milk to urban consumers through informal consumer cooperatives. The information provided by IIM, Chandigarh is found to be incomplete and does not provide any cost details of newly developed software called "Dudh Ka Dudh aur Pani ka Pani" (DKD & PKP), cost parameters of innovative processing technique for Pasteurization/sterilization of milk by the thermo electric processing technology, requirement of land and cost analysis for innovative conceptual model called "Apna Dudh Apni Dairy, Apni Mandi". In the absence of above clarifications, it may not be possible to ascertain feasibility/commercial viability of such models developed by IIM. It is requested that the cost details for the same may be provided to this Department.

As regards the issue on confirmation and counter verification of claims made in the presentation, this issue was taken up with NDRI, Karnal. It is informed by NDRI that the Mission Director may approach NDRI to have necessary discussions with NDRI Scientists and to provide any help to IIM. NDRI is ready to depute a group of scientists to visit the innovative facilities developed at Chandigarh for confirmation and counter verification of claims made in the presentation by IIM.

Yours faithfully,

  
20.9.12  
(R.K. Gupta)

Deputy Commissioner (DD)

Copy for information to:

Director, National Dairy Research Institute, Karnal-132001, Haryana

IIM-2012

Ist August 2012

Mr. R.K.Gupta

Deputy Commissioner (Dairy Development)

Government of India Ministry Agriculture

Department of Animal Husbandry, Dairying & Fisheries {D.P. Section}

Krishi Bhavan New Delhi

Subject Presentation/Document prepared by IIM, Chandigarh, on Perspective-2022

Indian Dairying (India exporting its white gold at the exchange price of black gold)

File No. 14-1/2012-DP

Dear Sir,

Thank you very much for your communication dated 23rd July 2012 on the subject cited above. Our clarifications on the valuable observations made by your good self are as under:

1. Although cost of analyzing raw milk for % of added water in milk based on freezing point using refractometer index, cryoscopy method (Used by USA and other advanced dairy countries) is moderately reasonable but under prevailing Indian conditions it will not serve the desired purpose. Those countries have only cows but In India dairy plants purchase mixed milk (B.M. + C.M.) using two axis 60:40 formulae based on corrected lactometer reading for calculating S. N.F. in raw milk. Any dilution with added water simultaneously tempering lactometer reading by adding salt/sugar/urea or melamine etc. will have corresponding effect on freezing point thus rendering the whole exercise as futile. We can easily solve this problem by putting a blanket ban on sale or purchase of mixed milk throughout India. When we regulate all purchase transactions strictly as per two axis formulae based on C.L.R. separately for cow milk and buffalo milk without allowing any intermixing, dilution, adulteration or manipulation in quantity (gravimetrically) purity and quality of milk can be controlled effectively.

2. M/S Improvement Innovations Unlimited Inc. Canada that has recently developed new software called "Dudh Ka dudh aur pani ka Pani" has not taken final decision on the price of this software as yet. This company being a close associate of our Mission so we intend to provide free service for digital analysis of milk bills using digital analysis technique and this software for ethical dairy institutions in India for a period of one year. We have already invited premier dairy institutions of India to visit our Mission office at Chandigarh to have practical live demonstration of this software.

3. Total cost of milk handling between milk producers and consumers using Thermo Electric Processing Technique (T.E.P.T) based on solar/bio energy when implemented along with our innovative "APNI DAIRY" conceptual model (Producer to consumer) is likely to be reduced to less than 50 % from the prevailing costs. Benefit of these cost savings can be appropriately shared by milk producers and consumers.

4. No conventional hi-tech dairy equipment or costly dairy machinery will be required for this innovative processing technology to pasteurize or sterilize milk. A progressive commercial dairy farmer producing more than 1000 liters milk per day can set up a processing facility at his farm itself to process and market pasteurized milk /sterilized milk directly to urban consumers through informal consumer co-operatives.

5. Innovative processing technique will provide adequate full time employment to family members of dairy farmers besides good number of semi-skilled labor easily available in the rural areas. Dairy business would thus become a cottage industry generating lot of employment opportunities in the rural sector.

6. In order to maintain international quality standards for purity and microbiological quality of processed milk basic infrastructure facilities like milking machines and BMC at farm level would of course be required. Progressive dairy farmers operating on commercial scale can easily afford to invest in these facilities when realization in dairy business is going to improve considerably.

7. We presume that this matter is still under active consideration of Director National Dairy Research Institute Karnal but we have not received any communication seeking additional information or clarification from us.

Keeping in view the importance of this issue for a noble national cause We would like to propose that Government of India may constitute a committee comprising of dairy experts from NDRI Karnal , N.D.D.B. and Indian Dairy association to visit our Mission office for a professional interactive meeting on this subject on a mutually convenient date.

We will show to them documentary/video evidence related to unresolved techno-commercial problems of Indian dairy industry and also share detailed information related to scientifically logical solutions evolved by our Mission associates.

It would be our pleasure to show live demonstration of software "Doodh Ka Doodh aur Paani ka Paani" (D.K.D.& P.K.P)) developed by our associate in Canada using digital analytical technique to analyze hidden losses in milk purchase transactions.

Besides it we can also supply to them samples of buffalo milk produced in a village near Chandigarh and processed by our Mission associate using Thermo Electric Processing Technique.( T.E.P.T) .Pure pasteurized milk will have shelf life of two/three weeks (when stored under refrigeration) and sterilized long life milk will remain good for consumption for more than 100 days at room temperature (without using conventional dairy equipment).

After confirmation and counter verification of our claims and contentions mentioned in our presentation by expert committee, I would, thereafter, like to avail the opportunity of meeting with Director NDRI Karnal to discuss ways and means to transfer these techniques to grass root levels following Mission guidelines for benefiting needy dairy farmers, innocent consumers and ethical entrepreneurs engaged in dairy business in our country.

With kind regards

Yours truly

  
(Jaswant Singh Bhandair)

Mission Director

F.No. 14-1/2012-DP  
Government of India  
Ministry Agriculture  
Department of Animal Husbandry, Dairying & Fisheries  
(DP Section)

Krishi Bhavan,  
New Delhi, dated the 23 July, 2012

To,

Shri Jaswant Singh Bhandair,  
Mission Director,  
International Improvement Mission,  
Regd. Office 53A, Sector 18A,  
Chandigarh - 160018

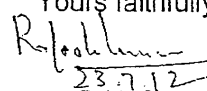
Subject:- Presentation/ Document prepared by IIM, Chandigarh, on Perspective -2022  
Indian Dairying (India exporting its white gold at the exchange price of black gold)

Sir,

I am directed to refer to your letter dated 12.7.12 conveying therewith a copy of the comments from Director, NDRI, Karnal, vide letter dated 23<sup>rd</sup> March, 2012 and one set of media reports regarding Logical Solutions for socio-economic problems of needy dairy farmers and health concerns of innocent consumers. In this connection it may be mentioned that after going through the presentation/ Document prepared by IIM on Perspective -2022 Indian Dairying, following observations are made:-

1. Cost analysis per sample of milk and cost of equipments to carry out analysis of freezing point, Refractometer Index, Cryoscopy method to find out percentage of added water in milk and practical feasibility of using the said testing facility at farm level;
2. Cost of newly developed software called "Dudh ka Dudh aur Pani ka Pani" (DKD & PKP) means innovative solution for cost analysis using accurate digital analytical technique;
3. Cost parameters of innovative processing technique based on solar/ bio energy; called Thermo Electric Processing Technology (TEPT) for pasteurization and sterilization of milk;
4. Requirement of land and cost analysis for innovative conceptual model (producer to consumer) called Apna Dudh, Apni Dairy – Apni Mandi;
5. Daily manpower requirement for the above said conceptual model;
6. Whether there is a need of maintaining other essential equipments like milking machine and BMCs at farm level.
7. The response from NDRI w.r.t. IIM, letter dated 23<sup>rd</sup> April, 2012 regarding confirmation and counter verification of claims and contentions mentioned in presentation by NDRI scientist.

In view of above, it is requested that the clarifications on the above said observations may be sent to this department for further necessary action.

Yours faithfully,  
  
23.7.12  
(R.K. Gupta)

Deputy Commissioner (DD)

F.No. 14-1/2012-DP  
Government of India  
Ministry Agriculture  
Department of Animal Husbandry, Dairying & Fisheries  
(DP Section)

Krishi Bhavan,  
New Delhi, the 3<sup>rd</sup> July, 2012

To,

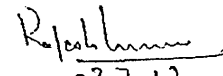
Shri Jaswant Singh Bhandair,  
Mission Director,  
International Improvement Mission,  
Regd. Office 53A, Sector 18A,  
Chandigarh - 160018

Subject:- India exporting its white gold at the exchange price of black gold -

Sir,

I am directed to refer to your e.mail dated 12.6.12 forwarded by the Prime Minister's Office regarding Logical Solutions for socio-economic problems of needy dairy farmers and health concerns of innocent consumers. It is observed that the e.mail is stated to be enclosed with three documents i.e.detailed text (10 pages), comments from Director, NDRI, Kamal, vide letter dated 23.3.12 and contentions expressed by media reports. Out of three, two documents i.e a copy of comments from Director, NDRI, Kamal, vide letter dated 23.3.12 and contentions expressed by media reports are not found to be enclosed with the e.mail. It is therefore, requested that a copy of comments from Director, NDRI, Kamal, vide letter dated 23.3.12 and contentions expressed by media reports may be provided to this department at the earliest for further necessary action.

Yours faithfully,

  
03.7.12  
(R.K. Gupta)

Deputy Commissioner (DD)



INTERNATIONAL IMPROVEMENT MISSION

REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160018 TEL. 2724872



**ALL FOR ONE & ONE FOR ALL**

MISSION ASSOCIATES : INNOVATIVE BUSINESS IMPROVEMENTS (P) LTD., CHANDIGARH INDIA  
IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA

IIM-2012

1.09.12

Managing Director  
Punjab State co-op Milk Producers Federation Ltd.  
S.C.O. 153-155 Sector 34-A  
Chandigarh-160022

Subject: Undetected hidden losses to MILKFED Punjab

Dear Sir

MILKFED Punjab was suffering hidden loss of over Rs. 100 crores per year six years ago In milk purchase transactions only due to dilution and manipulation in milk billing (Assuming no adulteration other than added water for dilution and manipulation). These calculations are based on monthly statement handed over to me by M.I.S incharge of your organization when Our Mission conducted training program cum seminar for senior Professionals managing dairy business for your organization. (Copy of digital analysis duly testified by reputed chartered accountant is being enclosed herewith for your information and kind perusal).

Sh. V.K. Singh I.A.S. who was Managing Director of MILKFED at that time vide his D.O. letter dated 12.07.06 (copy enclosed as annexure-1) acknowledged our contribution and informed us that MILKFED will take appropriate measures to implement our suggestions like controlling such losses.

We are extremely sorry to inform your good self these losses over a period of time have further increased and become alarmingly high as per analysis carried out by our Mission based on the facts stated in a recent press release of MILKFED (Copy enclosed for ready reference as annexure-2). Summary report based on simple arithmetical calculations related to this issue is enclosed for your kind information and perusal as annexure-3. As per our contention MILKFED can easily pay remunerative milk purchase price (Equal or higher than AMUL) to needy dairy farmers struggling hard for survival of their dairy business by eliminating such hidden losses caused by dilution and manipulation in milk purchase transactions.

Our Mission stands committed to help ethical dairy institutions like MILKFED Punjab procuring milk directly from milk producers to minimize and control such hidden losses so that these institutions can also pay remunerative milk purchase price like AMUL.




M/s Improvement innovations Unlimited Inc. Canada has recently developed a new software called "Doodh Ka Doodh aur Pani ka Pani" to solve age old unresolved problem of Indian dairy industry. This Company being close associate of our Mission so we have decided to provide free service for digital analysis of monthly milk bills summary using digital analytical technique and this software for ethical dairy institutions in India for a period of one year. We have already offered to show live demonstration of this software to your concerned professionals in our Mission office here at Chandigarh as per mutually convenient time schedule.

I would also like to avail this opportunity to convey to you our sincere good wishes for the success of your new export oriented ventures and milk handling capacity expansion program.

With kind regards

Yours Truly

  
(Jaswant Singh Bhandair)  
Mission Director  
International Improvement Mission  
Regd Office : # 53-A, Sector 18-A, Chandigarh -160018  
Tel: 0172-2724872 Cell;9815961853

✓ C.C: Dr.N.R. Bhasin President Indian Dairy Association New Delhi for his Kind information. Facts stated in this communication further support and authenticate our concerns and contentions expressed in the correspondence with your good self on this subject.

PROGRESS OF MILKFEED PUNJAB FOR MILK PROCUREMENT OF JULY-2006

PARTICULARS	JAL	HSP	SNG	BTH	FKT	FZR	RPR	LDH	PTL	GDP	ASR	TOTAL
<b>A. SOCIETIES/MEMBERSHIP</b>												
1. ORGANISED SOCIETIES	885	578	392	310	428	439	919	791	482	616	629	6469
2. MEMBERSHIP	47768	38158	24441	31410	25238	21013	45237	78415	25712	27384	30040	394816
3. FUNCTIONAL SOCIETIES	730	420	338	274	398	378	911	770	458	504	582	5763
4. MEMBERSHIP	37395	23159	21381	29675	23888	17995	45088	76920	24510	25789	27909	353709
5. TEMP CLOSED SOCIETIES	156	58	71	44	20	138	58	29	70	96	3	743
6. ACTUAL FUNCT. SOCS.	574	362	267	230	378	240	853	741	388	408	579	5020
7. DEFUNCT SOCIETIES	155	158	54	36	30	61	8	21	24	112	47	706
<b>B. MILK PROCUREMENT</b>												
1. MILK ROUTES	30	19	25	29	26	25	35	65	19	26	39	338
TOTAL MILK PROC. (IN LAC KGS)	10.26	5.70	8.85	6.93	5.19	7.45	33.98	37.04	9.05	6.38	10.19	141.02
2. BUFF MILK	3.43	2.24	5.24	3.11	1.76	1.87	17.31	25.38	4.14	2.46	2.75	69.69
3. COW MILK	6.83	3.46	3.61	3.82	3.43	5.58	16.67	11.66	4.91	3.92	7.44	71.33
%AGE OF COW MILK	67%	61%	41%	55%	66%	75%	49%	31%	54%	61%	73%	51%
<b>4. AVG. FAT &amp; SNF %AGE</b>												
B.M. FAT %	7.03	7.37	7.06	7.00	7.40	7.20	7.20	7.10	7.10	7.11	6.97	7.13
8.M. SNF %	8.62	8.57	8.54	8.53	8.70	8.50	8.70	8.60	8.60	8.53	8.42	8.61
C.M. FAT %	3.74	3.84	3.65	3.85	3.50	3.70	3.80	3.70	3.70	3.57	3.81	3.73
C.M. SNF %	7.64	7.80	7.82	7.93	8.00	8.00	8.00	7.80	7.90	7.60	7.80	7.86
5. COMPOSITE FAT %	4.84	5.23	5.67	5.26	4.82	4.58	5.53	6.03	5.26	4.93	4.66	5.41
6. COMPOSITE SNF %	7.97	8.10	8.25	8.20	8.24	8.13	8.36	8.35	8.22	7.96	7.97	8.23
<b>5. AV. DAILY MILK PROCUREMENT (IN KGS PER DAY)</b>												
33097	18387	28548	22355	16742	109613	24032	29194	119484	20581	32871	454903	
<b>6. AV. PROC. PER DAY PER SOC. (IN KGS PER DAY)</b>												
58	51	107	97	44	129	100	75	161	50	57	91	
<b>7. B.M.AVERAGE PRICE PAID TO PRODUCERS (IN RS. PER KG.)</b>												
13.86	13.89	13.86	13.56	14.37	14.88	14.03	14.08	13.94	14.08	13.79	12.83	13.92
<b>8. C.M.AVERAGE PRICE PAID TO PRODUCERS (IN RS. PER KG.)</b>												
8.62	8.83	9.08	9.58	9.12	9.39	9.22	8.94	9.25	8.94	8.40	8.51	8.99
<b>9. AVERAGE PRICE PAID TO PRODUCERS (IN RS. PER KG.)</b>												
10.21	10.81	11.92	11.64	12.82	12.19	10.43	11.29	12.47	10.47	10.47	9.68	11.63
<b>10. AVG. TRANSPORT COST (IN PAISE PER KG.)</b>												
94	94	67	95	116	31	93	83	42	83	95	87	63



**PANWAR SURINDER & ASSOCIATES**  
CHARTERED ACCOUNTANTS

To Whom It May Concern:  
This is to certify that we have carried out the following calculations and found the same arithmetically correct with context to dairy business.

TECHNOECONOMICS OF DAIRY BUSINESS  
SWAL SAU CRORE KA  
CASE STUDY-MFP2006  
{MANIPULATION BY DILUTION}

Category	Quantity	Quantity Lac Kgs	Fat %	TotalSolids %	S.N.F. %	Rate Rs/Kg.	Payment Lac Rs.
B.M/C.M	%						
B.M.	49.41852	69.69	7.13	15.74	8.61	13.92	970.0848
C.M.	50.58148	71.33	3.73	11.59	7.86	8.99	641.2567
M.M	100	141.02	5.41	13.64	8.23	11.63	1640.063

1. Milk composition indicates that it is diluted and manipulated milk causing hidden loss of Rs.2.57/Kg. in milk purchase transactions. Keeping in view the annual milk handling of concerned institution total hidden loss on this account works out as more than Rs. 100crores.

2. As per national statistical data pertaining to milk shed area of institution in this case study, cow milk populatiion is only 20 to 30 % as compared to buffalo milk population. More over the milk producers have ready market for such cow milk at village level itself at rates much higher than Rs.8.99/Kg. paid by the institution. Purchasing more than 50% cow milk is neither true nor possible.

3. Mixed milk composition on milk bills indicates 5.41%Fat. It corresponds to 36.3333333% cow milk (Standard composition) and 63.66666667% Buffalo milk (standard composition). Resultant S.N.F. of such mixed milk would be 8.716466666% , total solids 14.12646666667% as compared to 13.64% indicated on milk bills.. C.L.R. of mixed milk as per arithmetical calculations would be 29.363333333 and its real worth as Rs. 11.61933333/Kg.

4. Assuming manipulated % of cow milk in mixed milk as 50.581477804% ( Refer to milk bills).Resultant mixed milk composition as per digital analysis would be 4.9825566581% Fat, 8.66802297537% S.N.F., 29.508147777 C.L.R., total solids 13.65057963% and its net worth as Rs.11.0779038433/ Kg.

5. Manipulated mixed milk of composition indicated on milk bills can be prepared using only diluted buffalo milk as follows:

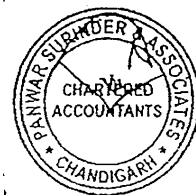
(A) Take 89.399757 Kg. buffalo milk containing 6.5% Fat & 8.84% S.N.F.

(B) Seller thus extracts 0.6890157% Fat worth Rs.0.828189528 from standard buffalo milk

( C ) Modified milk would contain 5.810984206 % Fat and 8.84% S.N.F., 14.65509842% T.S. worth Rs.11.6219684/Kg.

( D ) Add 7.4028114 Kg water in this milk to produce modified diluted milk containing 5.41% Fat and 8.23% S.N.F.

Contd to Page 2



( E ) Now prepare milk bills as per summary statement indicated in this case study.

( F ) Manipulated milk bills indicate 50.581477804% cow milk but as per digital analysis technique it should correspond to 36.333333% C.M plus 63.666667% Buffalo milk with 14.1264666% T.S. worth Rs.11.61933333/Kg.

HIDDEN LOSS :-

{Value of Fat extracted+50% water becoming milk+( Manipulating water as cow milk)-(XX)+(YY)

Rs{ (0.828189528+0.962365482/2)+(50.581477804-36.33333333)x9.20/100}-XX+YY

Rs. (1.309372269)+1.3108293)-(0.05909142842)XX+(11.63-11.61933333)YY=Rs.

Rs.(2.620201569)-0.05909142842+0.01066667=Rs.2.571776811/Kg.

HIDDEN LOSS PER YEAR:- Rs. {11,00,000x2.571776811x365}=Rs. 103,25,68,389

\*Digital analysis carried out by Improvement Innovations Unlimited Inc. Canada for IIM

TECHNOECONOMICS OF DAIRY BUSINESS

SWAL SAU CRORE KA

CASE STUDY-MFP2006

{BASIS PROFIT & LOSS}

Category	Quantity %	Quantity Lac Kgs	Fat %	TotalSolids %	S.N.F. %	Rate Rs/Kg.	Payment Lac Rs.
B.M/C.M							
B.M.	49.41852	69.69	7.13	15.74	8.61	13.92	970.0848
C.M.	50.58148	71.33	3.73	11.59	7.86	8.99	641.2567
M.M	100	141.02	5.41	13.64	8.23	11.63	1640.0626

Digital Analysis using Digital Analytical Technique {D.A.T.}

The only Figure in the milk bills that can be treated as authentic and correct is Rs. 1640.0626 Lacs

paid by the organisation to purchase 141.02 Lac Kg. Milk containing 5.41% Fat & 8.23% S.N.F.

OPTION-1 Organization can purchase buffalo milk and sell it as pasteurized whole milk

COST ANALYSIS:

Raw Milk cost: Rs 1640.0626 Lacs(Quantity=126.1586615 Lac Kgs.)

(Fat=8.200312997 Lac Kgs,SNF=11.15242567 Lac Kgs)

Milk handling cost{ procurement to marketing including overheads and misc. Expenses}

=Rs.4.00/Kg. {Assumed}

Milk Handling Cost= Rs 126.1586615x4=Rs.504.63 Lacs

Total Cost=Rs.{1640.0626+504.63}=Rs.2144.6926 Lacs

REVENUE=Rs(126.1586615x21)=Rs. 2649.331891Lacs

(Prevalent market price for pasteurized whole milk:-Rs.21/Kg.)

PROFIT={REVENUE-TOTAL COST}=Rs.{2649.331891-2144.6926}Lacs =Rs 504.63291Lacs

PROFIT as % of turnover= Rs {504.63291/2649.331891}x100=19.0475535%

PROFIT per kg. Milk= Rs { 504.63291/126.1586615}=Rs 3.999986239/Kg.

\* (Whole milk contains 6.00% Fat & 9.00% S.N.F.)

\*\* (Standard for buffalo milk is 6.50% Fat & 8.80% S.N.F & costs 13.00/Kg.)

\*\*\* (Savings in milk solids may be treated as permissible milk handling loss)

PROFIT/ YEAR @1LLPD=Rs.1x3.999986239x365=Rs. 14,59,99,497 ( X )

PROFIT AS PER ACTUAL BALANCE SHEET (Conventional calculations)= ( Y )

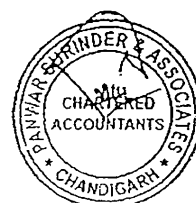
LOSS OF PROFIT OPPORTUNITY OR HIDDEN LOSS={ X-Y }

OPTION-2 Organization can purchase cow milk and sell it as pasteurized toned milk

COST ANALYSIS:

Raw Milk cost: Rs 1640.0626 Lacs(Quantity=178.2676739 Lac Kgs.)

Cold to Page 3



(Fat=6.239368586 Lac Kgs, SNF=15.15275228 Lac Kgs)  
Milk handling cost{ procurement to marketing including overheads and miscl. Expenses}  
=Rs.4.00/Kg. {Assumed}  
Milk Handling Cost= Rs (178.2676739x4) Lacs =Rs.713.0706956 Lacs  
Total Cost=Rs.{1640.0626+713.030706956} Lacs =Rs.2353.133295 Lacs  
REVENUE=Rs(178.2676739x17) Lacs=Rs. 3030.550450456 Lacs  
(Prevalent market price for pasteurized toned milk:-Rs.17/Kg.)  
PROFIT={REVENUE-TOTAL COST}=Rs.{3030.550456-2353.133295}Lacs =Rs677.417161Lacs  
PROFIT as % of turnover= Rs {677.417161/3030.550456}x100=22.3529338%  
PROFIT per kg. Milk= Rs 677.417161/178.2676739)=Rs 3.80/Kg.  
\* (Toned milk contains 3.00% Fat & 8.50% S.N.F).  
\*\* (Standard for cow milk is 3.50% Fat & 8.50% S.N.F & costs Rs. 9.20/Kg.)  
\*\*\* (Savings in milk solids may be treated as permissible milk handling loss)  
PROFIT/ YEAR @1LLPD=Rs.1x3.80x365=Rs. 13,87,000,00 ( X )  
PROFIT AS PER ACTUAL BALANCE SHEET.(Conventional calculations)= ( Y )  
LOSS OF PROFIT OPPORTUNITY OR HIDDEN LOSS={ X-Y }

OPTION-3 Organization can purchase Mixed milk(50:50)and sell it as pasteurized standardized milk  
COST ANALYSIS:

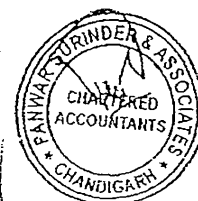
Raw Milk cost: Rs 1640.0626 Lacs(Quantity=147.7533873 Lac Kgs.)  
(Fat=7.387669365 Lac Kgs,SNF=12.81021867 Lac Kgs)  
Milk handling cost{ procurement to marketing including overheads and miscl. Expenses}  
=Rs.4.00/Kg. {Assumed}  
Milk Handling Cost= Rs (147.7533873x4) Lacs =Rs.591.0135492 Lacs  
Total Cost=Rs.{1640.0626+591.0135492} Lacs =Rs.2231.076149 Lacs  
REVENUE=Rs(147.7533873x19) Lacs=Rs. 2807.314358 Lacs  
(Prevalent market price for pasteurized toned milk:-Rs.19/Kg.)  
PROFIT={REVENUE-TOTAL COST}=Rs.{2807.314358-2231.076149}Lacs =Rs576.2382091Lacs  
PROFIT as % of turnover= Rs {576.238209/2807.314358}x100=20.5263157%  
PROFIT per kg. Milk= Rs 576.238209/147.7533873)=Rs 3.89999999/Kg.  
\* (Standardized milk contains 4.50% Fat & 8.50% S.N.F).  
\*\* (Mixed Milk (50:50) contains 5.00% Fat & 8.67% S.N.F & costs 11.10/Kg.)  
\*\*\* (Savings in milk solids may be treated as permissible milk handling loss)  
PROFIT/ YEAR @1LLPD=Rs.1x3.89999999x365=Rs. 14,23,49,999 ( X )  
PROFIT AS PER ACTUAL BALANCE SHEET (Conventional calculations)= ( Y )  
LOSS OF PROFIT OPPORTUNITY OR HIDDEN LOSS={ X-Y }  
DESIRABLE PROFIT PER Kg. (Average)=Rs.3.90/Kg.{(4.00+3.80+3.90)/3}

HIDDEN LOSS IN MILK PURCHASE TRANSACTIONS=Rs.2.57/Kg.  
\* { AS PER ANALYSIS CARRIED OUT BY IIIU USING DIGITAL ANALYTICAL TECHNIQUE (D.A.T.)  
INCREASE IN MILK HANDLING COST DUE TO DILUTION=Rs.0.60/Kg. (Estimated)  
NET NEGATIVE IMPACT ON PROFITABILITY=Rs.3.17/Kg.

ACTUAL PROFIT=Rs.{3.90-3.17}=Rs.0.73/Kg.

PROFIT PER YEAR @ 1LLPD=1x0.73x365=Rs.2,66,45,000

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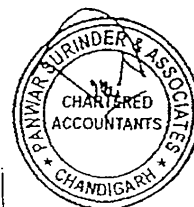
NET PROFIT OPPORTUNITY LOSS PER YEAR @ 1 LLPD=Rs 1x3.17x365=Rs.11,57,05,000

\*\*Since the analysis given above is based on simple arithmetical but logical equations so it can be used as effective tool by the management to convince the professionals managing dairy business regarding such hidden losses so that they take effective steps to control the same.

\*Digital analysis carried out by Improvement Innovations Unlimited Inc. Canada for IIM  
 TECHNOECONOMICS OF DAIRY BUSINESS  
 SWAL SAU CRORE KA  
 CASE STUDY-MFP2006  
 {BASIS C.L.R.}

Category	Quantity	Quantity	Fat	TotalSolids	S.N.F.	Rate	Payment	
	%	Lac Kgs	%	%	%	Rs/Kg.	Lac	
B.M/C.M								
B.M.	49.41852	69.69	7.13	15.74	8.61	13.92	970.0848	
C.M.	50.58148	71.33	3.73	11.59	7.86	8.99	641.2567	
M.M	100	141.02	5.41	13.64	8.23	11.63	1640.063	
Digital Analysis using Digital Analytical Technique (D.A.T.)								
Quantity	C.L.R.	Fat Value	Fat	TotalSolids	S.N.F.	SNFvalue	Rate	Total Payment
Kgs.		Rs.	%	%	%	Rs.	Rs./Kg	Rs.
100	29	7.8	6.5	15.34	8.84	5.2	13	1300
	2.29416	x0.448275882=Rs.1.028418139/Kg.					1.02842	102.84183
92.08909	26.70584	7.182949	5.985791	14.12647	8.140676	4.788633	11.97158	1197.15817
	2.8364	x0.448275882=Rs.1.271489711/Kg.					0.34158	34.15817
117.7799	24.6222	6.978	5.815	13.7234	7.9084	4.652	11.63	1163
	4.74113	x0.448275882=Rs.2.12534232/Kg.					0.010667	
100	29.36333	6.9716	5.41	14.12647	8.716467	4.647733	11.61933	1161.933333
	3.57715	x0.448275882=Rs.1.603550071/Kg.					0.060013	
88.91786	25.78618	6.935593	5.779661	13.64	7.860339	4.623729	11.55932	1155.932202
		1.603550071-1.440989741=Rs.0.16256033/Kg					0.07068	
100	25.78618	6.978	5.41	13.64	8.23	4.652	11.63	1163
	4.69888	x0.3066666664=Rs.1.440989741/Kg.					0.15935	
103.3392	30.48506	6.88239	5.166959	14.12647	8.959507	4.58826	11.47065	1147.064958
	1.0498	x0.3066666664=Rs.0.321938665/Kg.					0.39501	
99.78054	29.43526	6.645384	4.989027	13.64	8.650973	4.430256	11.07564	1107.35968
	0.07055	x0.3066666664=Rs.0.021635333/Kg.					0.0026	
100	29.50581	6.646742	4.982557	13.65058	8.668023	4.431162	11.0779	1107.790384
	8.4181	x0.3066666664=Rs.2.581550644/Kg.					0.5521	
126.413	37.92391	6.978	4.424457	15.16957	10.74511	4.652	11.63	1163
	3.82391	x0.3066666664=Rs.1.17266573/Kg.					1.17267	
113.6667	34.1	6.2744	3.978333	13.64	9.666667	4.182933	10.45733	1045.733332
	4.1	x0.3066666664=Rs.1.257333322/Kg.					1.25733	
100	30	5.52	3.5	12	8.5	3.68	9.2	920

Contd to page 5



HIDDEN LOSS:-1

Rs. {1.028418139+1.271489711}+(0.199999998+0.0755385427)=Rs. 2.575446372/Kg

HIDDEN LOSS:-2

Rs. {2.122534232+(2x0.1603550071)+(0.05909142842+0.755385427)=

Rs. {2.122534232+0.320710014+0.13462997}=Rs. 2.577874216/Kg.

HIDDEN LOSS:-3

2.581550644-(11.63-11.61643333)+(11.0779038433-11.7564008)

2.581550664-(0.01066667)+(0.00226376)=Rs. 2.573147754/Kg.

\* {1.257333322-1.17266573}-0.01066667=Rs. 0.074001592

0.0755385427-0.074001592=Rs. 0.0153695/Kg (Hidden loss with conventional calculations)

HIDDEN LOSS PER YEAR:- Rs. {11,00,000x2.575489447x365}=Rs. 103,40,59,012

\*Digital analysis carried out by Improvement Innovations Unlimited Inc. Canada for IIM

The above calculations are based on the records and facts produced before us.

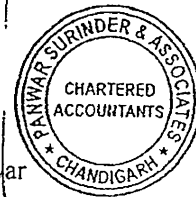
Date: March 15, 2010

Place: Chandigarh

For Panwar Surinder & Associates  
Chartered Accountants



CA. Surinder Panwar  
Partner  
M. No. 087917



V K Singh, IAS  
Managing Director



D.O.NO.PSF/CTIP/ 23557  
Dated: 12/9/06

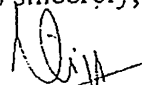
Dear Sr. Jaswant Singhji

It was very educating to view your presentation made to the General Managers and other officials of Milkfed, Punjab on 8<sup>th</sup> September, 2006. I extend my sincere thanks to you for taking pains in assisting Milk Cooperatives of Punjab to perform better in the long term interest of milk producers and consumers.

I assure you that we will make efforts to implement your suggestions which are definitely in the interest of milk producers and the consumers.

With Warm Regards.

Yours sincerely,

  
(V K SINGH)

Shri Jaswant Singh Bhandair,  
Mission Director,  
International Improvement Mission,  
#53-A, Sector 18-A,  
CHANDIGARH-160018



# Govt to focus on raising milk production

Various measures initiated to make Verka more competitive

JANGVEER SINGH  
TRIBUNE NEWS SERVICE

CHANDIGARH, AUGUST 12  
After years, Punjab is set to once again shift focus on increasing milk productivity. It has decided to install a new high-tech plant at Verka in Amritsar and upgrade the milk plant at Mohali, besides taking other steps to reduce the cost of milk handling. All these measures are aimed at making the Verka brand more competitive.

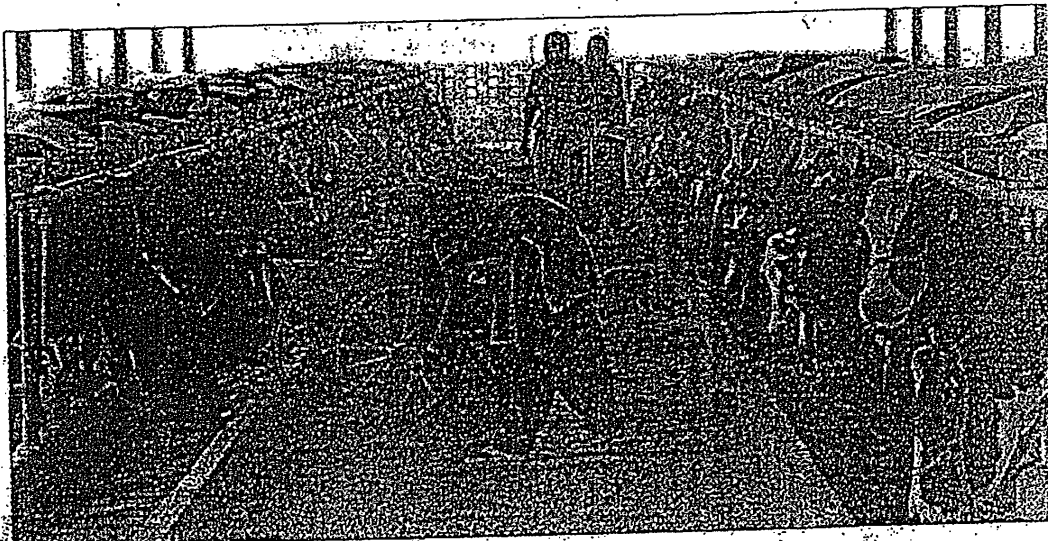
Besides implementing the National Dairy Plan, the state is also focussing on milk plants and the entire cooperative movement so that it may be geared up to handle the increased milk production on account of stress on improved breeding and the coming up of model dairy farms.

Milkfed, the cooperative that runs the milk plants and collects milk from members at fixed rates, is keen to reduce the handling costs. These have increased to Rs 6.50 per litre and costs can be brought down only if the milk plants have mechanised milk handling facilities.

Milkfed has decided to take up a state-wide project under which emphasis will be on improved breeding, cattle-feed and strengthening of the frozen semen station at Khanna.

The cooperative will spend Rs 125 crore on this project in the 12th Five-Year-Plan with the programme being implemented at the Milk Shed Union, Ludhiana, this year.

The cooperative's managing director, Dr BS Sidhu, said that NABARD would



fund a new high-tech milk plant at Verka in Amritsar, upgrade the milk plant at Jalandhar and upgrade the capacity of the ice cream plant at Chandigarh.

He said these initiatives would cost Rs 165 crore and NABARD would provide Rs 50 crore for the purpose during this financial year.

The milk handling capacity of the plant at Mohali will be increased from 3,00,000 to five 5,00,000 litres per day. The task is being entrusted to the National Dairy Development Board (NDDB) on a turn-key basis.

Estimated to cost Rs 39.52 crore, the project is likely to be completed by March, 2014.

To make quality cattlefeed available to milch animals under its overall strategy to boost milk production, the installed capacity of Milkfed's cattlefeed plants at

## Milky Way

- Government to set up a milk plant at Verka
- Mohali milk plant to be upgraded
- New technology to bring down handling costs
- Frozen semen stations to be strengthened

## About Milkfed

- Milkfed runs nine plants in Punjab and one in Chandigarh
- These plants have an installed milk handling capacity of 17.25 lakh litres per day
- During 2011-12, Milkfed, on an average, produced 11.46 lakh kg of milk per day

## Help from NABARD

- NABARD will fund a new high-tech milk plant at Verka in Amritsar
- It will upgrade the milk plant at Jalandhar
- It will upgrade the capacity of the ice cream plant at Chandigarh



Khanna and Ghania-ke-Banger is being increased from 300 tonnes to 500 tonnes per day at a cost of Rs

12 crore. The work has been allotted to the NDDB and is expected to be completed by June next year.

The Milkfed MD said the frozen semen station at Khanna was being strengthened and its capacity increased to 10 lakh doses of frozen semen annually from the existing five lakh doses. The NDDB would undertake this work at a cost of Rs. 5 crore.

Milkfed operates nine milk plants in Punjab and one in Chandigarh. These milk plants have an installed milk handling capacity of 17.25 lakh litres per day. During 2011-12, Milkfed produced on an average 11.46 lakh kg of milk per day.

Dr Sidhu said as of now Milkfed was paying milk producers 80-82 per cent realisation from the sale of milk and milk products. He said the payback in the case of Amul was 85 per cent. Milkfed would strive hard to achieve this level in the near future, he added.

### ANNEXURE-3

#### ANALYSIS OF PROFIT AND LOSS OF MILKFED PUNJAB FOR 2011-12

This analysis is based on following facts and figures quoted in the recent press release:

1. Average milk procurement per day during 2011-12=11.46 lakh Kg.
2. Total milk handling cost of milk=Rs.6.50/Kg
3. Payment to milk producers as percent of sales realization= 80 to 82 say 81%

Assuming basic milk purchase rate for buffalo milk paid by MILKFED=Rs.420/Kg. fat  
(Average rate during the period under consideration remained lower than this rate)

Price paid to milk producers for raw milk containing 6% Fat=Rs. 25.20/Kg.

Price charged from consumer for pasteurized milk of this composition=Rs.36/Litre

Price charged from consumers for pasteurized milk of this composition=Rs.34.95/Kg.

Net profit margin = Rs. {34.95-(25.20+6.50)}=Rs.3.25/Kg

{Profit margin in value added products like long life U.H.T milk. Sterilized flavoured milk, Lassi, Paneer Icecream etc. is obviously more than profit margin in pasteurized liquid milk.}

Even if we assume the profit margin as rs.3.25/Kg

Net profit of MILKFED during 2011-12 should have been=Rs 135.94 crores

Undetected Hidden loss=Rs. (135.94crores- actual profit as per balance sheet)

Similarly 81% of sales realization i.e . Rs. 36/Kg milk =29.16/Kg or Rs. 486/kg. Fat

Hidden loss in milk purchase transactions = Rs.(486-420)=Rs 66/Kg fat or 3.96/Kg. Milk

Conclusion: If MILKFED Punjab controls these hidden losses it can easily pay Rs.3.96/Kg., more to milk producers and no other organization in Punjab including un-organized sector now dominating the market scenario can compete with this Farmer friendly and Consumer friendly institution.

IIM-2012

02.0612

HONORABLE CHAIRMAN  
PUNJAB STATE HUMAN RIGHTS COMMISSION,  
SCO NO. 20-21-22, SECTOR 34A,  
CHANDIGARH 160 034, India

**Subject: Gross Violation of rights of milk producers and consumers**

Respected Sir,

I would like to submit a Public interest representation related to the subject cited above on the format prescribed by Human Rights commission Punjab as follows:

COMPLAINANT'S DETAILS:

1. Name: Jaswant Singh Bhandair Mission Director International Improvement Mission

2. Male

3. State: Punjab

4. Full Address:  
#53-A, Sector 18-A  
Chandigarh-160018

B. INCIDENT DETAILS

Through out the state of Punjab

4. Date of Incident : continual basis

C. Victim's Details

1. Majority of Milk producers and milk consumers in Punjab

2. No. of Victims: In Lacs

3. State : Punjab

7. Religion      8. Caste      9. Sex      10. Age      11. Whether Disabled person

General Public

D. Brief summary of facts/allegations of human rights involved

Gross violation of rights of milk producers and consumers

1. Everyone in Punjab is either a milk producer, milk consumer or both. Milk processing plants purchase raw milk from milk producers, process it and pass that on to the consumers as pasteurized milk.
2. Milk while it remains in transit between milk producer and consumer passes through 5-7 hands without proper product traceability, responsibility or accountability for adulteration, dilution or manipulation. As a result thereof it becomes vulnerable to lose its purity and bacteriological safety even before reaching the processing plant.
3. Total milk handling cost or the difference between farm-gate price paid to milk producer and that being charged from consumer for so called pasteurized milk is abnormally high (Rs.10-15/Kg).

It, therefore, amounts to violation of human rights of milk producers as they are getting much less than actual market worth of milk being produced by them and that of milk consumers as they are being made to pay very high price for milk with literally no value addition and without any third party guarantee for its purity, microbiological safety or shelf life as per international quality parameters. Above mentioned cost difference is being pocketed by people other than two prime parties to dairy business i.e. milk producers and consumers.

E. Whether complaint is against Members of Armed Forces/  
Para-Military : NO

F. Whether similar complaint has been filed before any Court/State Human Rights  
Commission any other Commission in the State National  
NO

G. Name, designation & address of the public servant against whom  
Complaint is being made

1. Managing Director Punjab State co-operative Milk producers Federation
2. Director Dairy development Punjab
- 3 Director Health services Punjab

H. Name, designation & address of the authority/officials to whom the public servant  
is answerable  
Chief Secretary Govt. Of Punjab

I. Prayer/Relief if any, sought :

Stating only the problems without suggesting or evolving practically feasible solutions would be nothing but an exercise in futility. Our Mission has carried out deep probe and research on these core issues and age old unresolved problems of Indian dairy industry. The measures envisaged in this regard have been spelled out in detail in the text annexed herewith. Copy of the comments received from Director National Dairy research Institute Karnal is also enclosed for your kind perusal.

Our Mission would request your good self to ask concerned Government departments managing dairy business in Punjab and health authorities responsible for ensuring supply of pure and microbiologically safe milk to general public (consumers) to conduct deep probe in to this matter by taking into account all the relevant data including the information and scientific guidelines mooted in our presentation.

Our Mission stands committed to provide required technical support and help to ethical dairy institutions for implementing corrective measures to benefit needy dairy farmers and innocent consumers thus protecting their genuine human rights.

I would request for a personal hearing to elaborate the issues closely related to human rights of milk producers and consumers mentioned above.

Respectfully Yours

  
(Jaswant Singh Bhandair)

Mission Director

Enclosures:

- 1) Detailed Text (10 Pages)
- 2) Letter from Director N.D.R.I. Karnal dated 23.3.12.

to me

To,

Jaswant Singh,

I have been directed to inform you that the following orders have been passed by the Punjab State Human Rights Commission on 14.6.2012 with your complaint.

Regards

Rohit Chatrath  
System Manager/PSHRC

Complaint No.7847 /0/2012

Complainant alleges gross violation of rights of milk producers in general and consumers in particular in the State of Punjab. The prayer of the complainant is that the concerned government departments managing dairy business in the Punjab and health authorities be directed to ensure supply of pure and microbiologically safe milk to general public.

Commission considers it appropriate to send a copy of the complaint to Principal Secretary Cooperative and Principal Secretary Health and Family Welfare, Punjab, Chandigarh for disposal at his end in accordance with law.

Complaint is disposed of.

-sd-

-sd-

June 14, 2012

(JUSTICE BALDEV SINGH)

(JUSTICE JAGDISH BHALLA)

MEMBER

CHAIRPERSON

From

The Chief Engineer,  
U.T., Chandigarh.

To

The Director,  
Food and Supply Department,  
U.T., Chandigarh.


Memo No. G-II/12/  
Dated, Chandigarh the

Subject: Campaign against "Adulteration, Dilution and manipulation in Milk."  
\*\*\*\*\*

Enclosed please find a copy of letter No. IIM-2012 dated 25.04.2012 as received from Mr. Jaswant Singh Bhandair, Mission Director, International Improvement Mission, # 53-A, Sector-18-A, Chandigarh for information and taking necessary action.


DA/As above  
Endst. No. G-2/12/

4055

  
Executive Engineer(W&E),  
for Chief Engineer, U.T., Chandigarh.  
Dated: 23/5/12

A copy of above is forwarded to Mission Director, International Improvement Mission, # 53-A, Sector-18-A, Chandigarh w.r.t. his letter No. IIM-2012 dated 25.04.2012 for information.

DA/-

  
Executive Engineer(W&E),  
for Chief Engineer, U.T., Chandigarh  
4/22/5

IIM-2012

21.05.12

Dr. Manmohan Singh jee  
Hon. Prime Minister of India  
C/O P.M.O  
New Delhi

Subject: Magical but logical solutions for socio-economic problems of needy dairy farmers and health concerns of innocent consumers.

Honorable Sir,

Majority of farmers in our country in general and Punjab in particular now fall in the category of marginal farmers who can not generate sustainable income with cash crops following mechanized farming techniques with extensive use of costly farm inputs like chemical fertilizers/pesticides etc. Many of them have already sold their ancestral land holdings and immigrated to near by urban locations in search of alternative employment opportunities.

Dairy farming has immense potential for our farmers in the domestic and emerging global markets. There are few age old unresolved techno commercial problems in dairy business in India that on one hand harm the genuine interests of needy dairy farmers as they do not get remunerative price for the "WHITE GOLD" produced by our "KAAM DHENUS" and on the other hand innocent consumer has to pay very high price for adulterated/diluted and manipulated milk.

Everyone in India is either a milk producer, milk consumer or both. Milk processing plants purchase raw milk from milk producers, process it and pass that on to the consumers as pasteurized milk.

1. Milk while it remains in transit between milk producer and consumer passes through 5-7 hands without proper product traceability, responsibility or accountability for adulteration, dilution or manipulation. As a result thereof it becomes vulnerable to lose its purity and bacteriological safety even before reaching the processing plant.

2. Total milk handling cost or the difference between farm-gate price paid to milk producer and that being charged from consumer for so called pasteurized milk is abnormally high (Rs.10-15/Kg).

It, therefore, amounts to violation of human rights of milk producers as they are getting much less than actual market worth of milk being produced by them and that of milk consumers as they are being made to pay very high price for milk with literally no value addition and without any third party guarantee for its purity, microbiological safety or shelf life as per international quality parameters. Above mentioned cost difference is being pocketed by people other than two prime parties to dairy business i.e. milk producers and consumers.



1. Stating only the problems without suggesting or evolving practically feasible solutions would be nothing but an exercise in futility. Our Mission has carried out deep probe and research on these core issues and age old unresolved problems of Indian dairy industry. The measures envisaged in this regard have been spelled out in detail in the text annexed here along. Copy of comments received by us from Director National Dairy Research Institute Karnal on this presentation is also being enclosed for your kind perusal. Contents of our presentation and contentions expressed there in are amply justified by media reports being sent here with as attachment.

On behalf of our Mission I would request your good self to ask concerned departments managing dairy business in India to conduct deep probe in to this matter by taking into account all the relevant data including the information and scientific guidelines mooted in our presentation. Our Mission stands committed to provide required technical support and help to ethical dairy institutions for implementing corrective measures to benefit needy dairy farmers and innocent consumers.

Please acknowledge.

Respectfully yours,

  
(Jaswant Singh Bhandair)  
Mission Director

International Improvement Mission  
Regd Office : # 53-A, Sector 18-A, Chandigarh -160018  
Tel: 0172-2724872 Cell;9815961853

Enclosures:

- 1) Detailed Text (10 Pages)
- 2) Letter from Director N.D.R.I. Karnal dated 23.3.12.
- 3) Media Reports



## INTERNATIONAL IMPROVEMENT MISSION

REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160 018 Tel. : 0172-2724872



**ALL FOR ONE & ONE FOR ALL**

MISSION ASSOCIATES : INNOVATIVE BUSINESS IMPROVEMENTS (P) LTD., CHANDIGARH INDIA  
IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA

IIM-2012

25.04.12

Sh. V.K Singh  
I.A.S.  
Finance Secretary  
Chandigarh Administration  
U.T.

Subject: Campaign against "Adulteration, Dilution and Manipulation in Milk"

Respected Sir

We, as Privileged residents of city beautiful already breathe fresh air, drink pure water and enjoy the comforts of emerging world class infrastructure that has developed well during the last few decades. Chandigarh is fast developing as a peaceful and prosperous multicultural society like world class city Brampton in Canada. Chandigarh in terms of quality of life has immense potential to compete with such cities worldwide.

During my stay in Canada after immigration in 1998 my professional friends motivated and inspired me to launch a voluntary organization called International Improvement Mission. Main aim of our organization is to upgrade quality, productivity and profitability of dairy business to ensure supply of absolutely pure and fresh milk without any adulteration, dilution or manipulation to fellow citizens. Founder members of our Mission living in Canada and USA have prepared a cost effective and environment friendly scheme to achieve this noble objective.

Unique feature of this scheme is that it will not need any financial help or support from the Govt. or any donor agency. Campaign would be initiated and implemented on a pilot scale by few actual milk consumers living in or around sector 18. Our Mission would provide required technical and logistic support for this social cause. Milk produced in villages around Chandigarh would reach the consumer directly without any middleman. Our mission with the help of Chandigarh administration would identify ethical milk producers in the villages around Chandigarh. These dairy farmers would be trained by our Mission representatives to produce bacteriological safe milk at lowest possible cost and supply the same safely without any adulteration /dilution or manipulation. Based on actual cost of production and selling price of whole milk (organized sector) in Chandigarh concerned milk producers and consumers would decide the selling price of pure milk with mutual consultation.

Ethical milk producers who agree with our concept system and policies would earn handsome return for their produce (Five to ten buffaloes /cows would generate income sufficient to meet all expenses to provide enough money for the daily financial needs of a family with 5/6 members. Urban consumers participating in this scheme would get regular supply of absolutely pure milk on their door step without any dilution, adulteration or manipulation. Our Mission representatives would provide free training to ethical consumers participating in this scheme for testing purity, milk contents and actual worth of milk purchased by them. They would need only a simple test kit comprising of few items readily available in the market at nominal cost.

Campaign called "MILAWAT SE AZADI" has already been launched on a pilot scale by our Mission on the auspicious republic day i.e. 26th January last year. We seek your blessings and kind patronage besides active participation by concerned departments of Chandigarh administration for success of this campaign.

I have already left my contact address and telephone number with your personal staff yesterday and I now look forward to meet with your good self as per your convenience to explain more about such objectives of our Mission Programs.

With kind regards

Yours Truly

1/c (Jaswant Singh Bhandair)  
Mission Director



# INTERNATIONAL IMPROVEMENT MISSION

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IIM-2012

23.04.12

Hon. Chief Minister Punjab,  
C/o CMO,  
Punjab Civil Secretariat  
Chandigarh 160001

Subject: Gross violation of rights of milk producers and consumers

Honorable Sir,

You may kindly recall my meeting with your good self in your office a few years ago when I highlighted the issue of low returns to dairy farmers of Punjab due to dilution with water in raw milk and technical limitations of two axis 60:40 milk purchase system being followed by Milk federation and other dairy plants in Punjab.

Everyone in India in general and Punjab in particular is either a milk producer, milk consumer or both. Milk processing plants purchase raw milk from milk producers, process it and pass that on to the consumers as pasteurized milk.

1. Stating only the problems without suggesting or evolving practically feasible solutions would be nothing but an exercise in futility. Our Mission has carried out deep probe and research on these core issues and age old unresolved problems of Indian dairy industry. The measures envisaged in this regard have been spelled out in detail in the text annexed here along. Copy of comments received by us from Director National Dairy Research Institute Karnal on this presentation is also being enclosed for your kind perusal.
2. Milk while it remains in transit between milk producer and consumer passes through 5-7 hands without proper product traceability, responsibility or accountability for adulteration, dilution or manipulation. As a result thereof it becomes vulnerable to lose its purity and bacteriological safety even before reaching the processing plant.
3. Total milk handling cost or the difference between farm-gate price paid to milk producer and that being charged from consumer for so called pasteurized milk is abnormally high (Rs.10-15/Kg).

P.T.O

It, therefore, amounts to violation of human rights of milk producers as they are getting much less than actual market worth of milk being produced by them and that of milk consumers as they are being made to pay very high price for milk with literally no value addition and without any third party guarantee for its purity, microbiological safety or shelf life as per international quality parameters. Above mentioned cost difference is being pocketed by people other than two prime parties to dairy business i.e. milk producers and consumers.

Keeping in view the commitments made by you in your Election Manifesto, our Mission would request your good self to ask concerned departments managing dairy business in Punjab to conduct deep probe in to this matter by taking into account all the relevant data including the information and scientific guidelines mooted in our presentation. Our Mission stands committed to provide required technical support and help to ethical dairy institutions for implementing corrective measures to benefit needy dairy farmers and innocent consumers.

Please acknowledge.

Respectfully yours,

  
%c (Jaswant Singh Bhandair)  
Mission Director

Enclosures:

- 1) Detailed Text (10 Pages)
- 2) Letter from Director N.D.R.I. Karnal dated 23.3.12.

CC: Chief Secretary Punjab Government Punjab Civil Secretariat, Chandigarh 160001



## INTERNATIONAL IMPROVEMENT MISSION

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IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA

IIM-2012

23.04.12

Dr.A.K. Srivastava  
Vice Chancellor & Director N.D.R.I. Karnal

Subject: Perspective 2022 Indian Dairying  
{India Exporting its white gold at exchange price of black gold}

Respected Sir,

Thank you very much for your encouraging comments on the subject conveyed to us vide your communication dated 23.03.12.

Most of the NRI dairy professionals supporting our Mission are professional graduates from NDRI Karnal .They feel extremely proud and grateful to NDRI for success in their dairy profession. As our associates they are also very keen to repay the debt that they owe to their "GURUKUL" and India as motherland. They have, therefore , asked me to confidentially share everything with your good self and research scientists assisting you in developing innovative cutting edge technologies in the overall interest of Indian dairy industry especially the needy dairy farmers and innocent consumers.

We would like to propose a professional interactive meeting on this subject with a core team of research scientists from NDRI in our Mission Office here at Chandigarh on a mutually convenient date. We will show to them documentary/video evidence related to unresolved techno-commercial problems of Indian dairy industry and also share detailed information related to scientifically logical solutions evolved by our Mission associates.

It would be our pleasure to show live demonstration of software Doodh Ka Doodh aur Paani ka Paani (D.K.D.& P.K.P)) developed by our associate in Canada using Digital analytical technique to analyze hidden losses in milk purchase transactions. Besides it we can also supply to them samples of buffalo milk produced in a village near Chandigarh and processed by our Mission associate using Thermo Electric Processing Technique. ( T.E.P.T) .Pure pasteurized milk will have shelf life of two/three weeks (when stored under refrigeration) and sterilized long life milk will remain good for consumption for more than 100 days at room temperature (without using conventional dairy equipment).



# INTERNATIONAL IMPROVEMENT MISSION

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IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA

After confirmation and counter verification of our claims and contentions mentioned in our presentation by NDRI scientists, I would, thereafter, like to avail the opportunity of meeting with your good self in your office to discuss ways and means to transfer these techniques to grass root levels following Mission guidelines for benefiting needy dairy farmers, innocent consumers and ethical entrepreneurs engaged in dairy business in our country.

Our Mission is also making efforts to involve political leaders, administrators, professionals and social activists at state level to realize our cherished goal specified in the first paragraph of presentation on the subject . Keeping in line with this goal a copy of our communication addressed to chief minister Punjab is also being enclosed herewith for your kind information .

Soliciting your kind blessings and guidance

Respectfully yours

*Jaswant Singh*  
sd/ (Jaswant Singh Bhandair)  
Mission Director

Enclosure: Copy of communication addressed to Chief Minister Punjab

**DOODH KA DOODH AUR PAANI KA  
PAANI** Inbox

Jaswant Singh

Oct 24

Jaswant Singh

Oct 27

Dear Mr Jaswant Singhji

It is so nice to see your enthusiasm and concern for daiying in general and Cooperatives in particular. I totally agree with your views. You will appreciate the fact that an over staffed organisation with low skilled people and multiple stake holder muddling through in the system it is difficult to effect change.

I have received your mail and hard copy both. We must start working again. We have a new GM P&I and we can sensitize him to launch a programme. I will get back to you soon on this matter.

Regards,

V K Singh, IAS

MD, MILKFED Punjab





## INTERNATIONAL IMPROVEMENT MISSION

REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160 018 Tel. : 0172-2724872



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IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA

IIM-2012

23-02.12

Managing Director

Punjab state Co-operative Milk producer's Federation Ltd.

Chandigarh

Subject: Perspective 2022 Indian Dairying

{India exporting its white gold at the exchange price of black gold}

Respected Sir,

Please refer to my email dated 11.02.12 on the subject cited above and followed by my personal meeting with your good self in your office few days ago. I am personally grateful to you for sparing so much time out of your extremely busy schedule.

Milkfed Punjab can easily pay remunerative price (Equivalent or more than that being paid by AMUL in Gujarat) to milk producers in Punjab associated with your organization if you modify your milk purchase policy and purchase only pure milk without any adulteration. Dilution or manipulation {A.D.M.}

As suggested by me during our meeting, you may please circulate copy of my presentation to all General Managers of co-operative dairy plants and professional sr. executives assisting you in head office especially those heading finance and milk procurement function. You may ask them to give their critical professional comments on all issues related to this presentation and feedback regarding implementability of recommendations mentioned therein.

On behalf of our Mission I would like to assure our full support for good cause in the form of offering clarifications, additional information, and professional guidance including live demonstration to them for achieving our cherished goal projected in my presentation. Our Mission would also provide data based free techno commercial audit services to ethical dairy plants for identifying hidden losses in milk purchase transactions due to dilution and manipulation in milk bills (assuming no adulteration other than dilution with water for manipulation)

With kind regards

Yours truly

*O. J.*  
o/c (Jaswant Singh Bhandair)

Mission Director International Improvement Mission &&  
Managing Director Innovative Business Improvements Pvt. Ltd.

CC: Chairman National Dairy Development Board Anand  
Director & Vice chancellor National Dairy Research Institute Karnal  
Managing Director AMUL Anand  
President Indian Dairy Association New Delhi  
Ethical dairy business entrepreneurs in India for kind information and perusal.



# INTERNATIONAL IMPROVEMENT MISSION

REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160 018 Tel. : 0172-2724872



**ALL FOR ONE & ONE FOR ALL**

MISSION ASSOCIATES : INNOVATIVE BUSINESS IMPROVEMENTS (P) LTD., CHANDIGARH INDIA  
IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA

IIM-2012

10.02.12

Dr. Miss Amrita Patel

Chairman National Dairy Development Board, Anand

Dr. A.K. Srivastava

Vice Chancellor & Director N.D.R.I. Karnal

Sh R.S. Sodhi

Managing Director AMUL Anand

Dr. N.R. Bhasin

President Indian Dairy Association New Delhi

Subject: Perspective -2022 Indian Dairying

(India exporting its White Gold at exchange price of Black Gold)

Respected Madam/Sir

Indian Dairy Association recently organized an all India dairy industry conference at Delhi on a visionary theme cited above. Due to some unavoidable personal reasons I could not participate in this conference.

I have prepared an article on behalf of our Mission on the subject matter related to this theme. I am forwarding copy of my presentation for your kind information and perusal.

We earnestly seek your blessings for achieving the goal projected in this presentation.

With kind regards

Yours Truly

  
(Jaswant Singh Bhandair)

Mission Director

CC: Ethical Dairy Business entrepreneurs in India



राष्ट्रीय डेरी अनुसंधान संस्थान  
NATIONAL DAIRY RESEARCH INSTITUTE  
(मान्य विश्वविद्यालय)  
(Deemed University)  
(भारतीय कृषि अनुसंधान परिषद)  
(Indian Council of Agricultural Research)  
करनाल-132001, (हरियाणा) भारत  
KARNAL- 132001, (Haryana) India



प्रोफेसर (डा.) ए. के. श्रीवास्तव  
निदेशक  
Prof. (Dr.) A. K. Srivastava  
Director

संदर्भ सं./Ref. No. 9-8/Dir/12/789  
दिनांक /Dated 23/3/12

Dear Mr. Bhandair


It is my pleasure to receive the information and your article on the subject cited above. I am happy to note that all the major relevant issues have been incorporated. It will help in policy decision of the respective states for further strengthening the dairy development.

NDRI, being the National Institute, is primarily involved in developing various technologies and outreach of the technologies to the stakeholders including farmers of various states.

NDRI should be happy to suggest further on any policy matters on the issues, raised by IIM.

with regards

Sincerely yours,

  
(A.K. Srivastava) 23/3/12

Mr. Jaswant Singh Bhandair  
Mission Director, IIM,  
53-A, Sector-18A,  
Chandigarh-160 018



राष्ट्रीय डेरी अनुसंधान संस्थान  
NATIONAL DAIRY RESEARCH INSTITUTE  
(मान्य विश्वविद्यालय)  
(Deemed University)  
(भारतीय कृषि अनुसंधान परिषद्)  
(Indian Council of Agricultural Research)  
करनाल (हरियाणा) भारत KARNAL-132001 (Haryana) India  
**SPEED POST**



Dr. A.A. Patel,  
Head, Dairy Technology Division &  
Chairman Consultancy Processing Cell

F.No. 7-8/DT/12-128  
Dated. 08 10.2012

Shri Jaswant Singh Bhandair  
Mission Director  
International Improvement Mission  
Regd. Office 53A, Sector 18A  
Chandigarh-160 018


Subject: Status of Presentation/documents prepared by IIM, Chandigarh, on Indian  
Dairying Perspective-2022

Dear Shri Bhandair,

This has reference to the Ministry of Agriculture of Animal Husbandry, Dairying & Fisheries letter No 14-1/2012-DP dated 20<sup>th</sup> September, 2012 addressed to you and copy endorsed to Director, NDRI. As indicated in the letter NDRI can depute a team of three scientists to visit innovative facility in Chandigarh to have discussions with you so as to confirm the claims made by you about your novel technologies/techniques and business model. Kindly suggest 2 or 3 tentative dates suitable to you which the NDRI team can consider for a visit to Chandigarh.

With kind regards,

Yours sincerely,

  
(A.A. Patel)

- Cc: 1. Director for information ,please.  
2. Dr. R.K. Gupta, Deputy Commissioner (DD)  
Department of Animal Husbandry,  
Dairying & Fisheries (DD)  
Krishi Bhawan, NEW DELHI

**F.No. 14-1/2012-DP**  
**Government of India**  
**Ministry Agriculture**  
**Department of Animal Husbandry, Dairying & Fisheries**  
**(DP Section)**

Krishi Bhavan, New Delhi  
Dated the 20<sup>th</sup> September, 2012

✓ To,

Shri Jaswant Singh Bhandair,  
Mission Director,  
International Improvement Mission,  
Regd. Office 53A, Sector 18A,  
Chandigarh – 160018

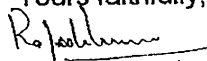
Subject:- Status of Presentation/ documents prepared by IIM, Chandigarh, on Indian Dairying Perspective -2022.

Sir,

I am to refer to your letter dated 1.8.12 on the above mentioned subject and to observe that a progressive commercial dairy farmer producing more than 1000 litres per day can set up such a processing facility at farm level to process and market Pasteurized/Sterilized milk to urban consumers through informal consumer cooperatives. The information provided by IIM, Chandigarh is found to be incomplete and does not provide any cost details of newly developed software called "Dudh Ka Dudh aur Pani ka Pani" (DKD & PKP), cost parameters of innovative processing technique for Pasteurization/sterilization of milk by the thermo electric processing technology, requirement of land and cost analysis for innovative conceptual model called "Apna Dudh Apni Dairy, Apni Mandi". In the absence of above clarifications, it may not be possible to ascertain feasibility/commercial viability of such models developed by IIM. It is requested that the cost details for the same may be provided to this Department.

As regards the issue on confirmation and counter verification of claims made in the presentation, this issue was taken up with NDRI, Karnal. It is informed by NDRI that the Mission Director may approach NDRI to have necessary discussions with NDRI Scientists and to provide any help to IIM. NDRI is ready to depute a group of scientists to visit the innovative facilities developed at Chandigarh for confirmation and counter verification of claims made in the presentation by IIM.

Yours faithfully,

  
20.9.12  
(R.K. Gupta)

Deputy Commissioner (DD)

Copy for information to:

Director, National Dairy Research Institute, Karnal-132001, Haryana



## INTERNATIONAL IMPROVEMENT MISSION

REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160 018 Tel. : 0172-2724872



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IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA

IIM-2012

26.04.12

Sh. Pawan Kumar Bansal  
Hon. Union Cabinet Minister for parliamentary affairs Govt. of India  
H.No.64, Sector-28A Chandigarh

Subject: MILAWAT SE AZADI  
{ Campaign against adulteration, dilution and manipulation in Milk trade}

Respected Sir

You may kindly recall my meeting on the subject with your good self at your Chandigarh residence last year. Our Mission proposed an innovative scheme to upgrade milk supply system of Chandigarh so that it becomes the first city in the country where its residents will get absolutely pure milk on their door step at very reasonable price.

Unique feature of this scheme proposed by us is that it will not need any financial help or support from the Govt. or any donor agency. Campaign would be initiated and implemented on a pilot scale by few actual milk consumers living in or around sector 18. and then extended to cover entire city in a phased manner. Our Mission would provide required technical and logistic support for this social cause. Milk produced in villages around Chandigarh would reach the consumer directly without any middleman. Our mission with the help of Chandigarh administration would identify ethical milk producers in the villages around Chandigarh. These dairy farmers would be trained by our Mission representatives to produce bacteriological safe milk at lowest possible cost and supply the same safely without any adulteration /dilution or manipulation. Based on actual cost of production and selling price of whole milk (organized sector) in Chandigarh concerned milk producers and consumers would decide the selling price of pure milk with mutual consultation.

Ethical milk producers who agree with our concept system and policies would earn handsome return for their produce (Five to ten buffaloes /cows would generate income sufficient to meet all expenses to provide enough money for the daily financial needs of a family with 4/5 members. Urban consumers participating in this scheme would get regular supply of absolutely pure milk on their door step without any dilution, adulteration or manipulation at reasonable cost.

P.T.O

Our Mission representatives would provide free training to ethical consumers participating in this scheme for testing purity, milk contents and actual worth of milk purchased by them. They would need only a simple test kit comprising of few items readily available in the market at nominal cost.

Campaign called "MILAWAT SE AZADI" has already been launched on a pilot scale by our Mission on the auspicious republic day i.e. 26th January last year and working satisfactorily. We seek your blessings and kind patronage besides active participation by concerned departments of Chandigarh administration for success of this campaign.

Due to unresolved techno-commercial problems, concerned authorities managing dairy Business in India appear quite helpless in addressing genuine grievances of needy milk producers and innocent consumers. Stating only the problems without suggesting or evolving practically feasible solutions would be nothing but an exercise in futility.

Our Mission has carried out deep probe and research on these core issues and age old unresolved problems of Indian dairy industry. The measures envisaged in this regard have been spelled out in detail in our presentation text (Attachment-1). Comments on this presentation received by us from Director National Dairy Research Institute Karnal (Attachment-2) and Media reports relating to dairy business in India (Attachment-3) provide sufficient evidence and support to contentions stated in the said presentation.

Milk while it remains in transit between milk producer and consumer passes through 5-7 hands without proper product traceability, responsibility or accountability for adulteration, dilution or manipulation. As a result thereof it becomes vulnerable to lose its purity and bacteriological safety even before reaching the processing plant.

Total milk handling cost or the difference between farm-gate prices paid to milk producer and that being charged from consumer for so called pasteurized milk is abnormally high (Rs.10-15/Kg).

It, therefore, amounts to violation of human rights of milk producers as they are getting much less than actual market worth of milk being produced by them and that of milk consumers as they are being made to pay very high price for milk with literally no value addition and without any third party guarantee for its purity, microbiological safety or shelf life as per international quality parameters. Above mentioned cost difference is being pocketed by people other than two prime parties to dairy business i.e. milk producers and consumers.

Our Mission would request Govt. Of India through your good self to ask concerned departments managing dairy business in India in general and Chandigarh in particular to conduct deep probe in to this matter by taking into account all the relevant data including the information and scientific guidelines mooted in our presentation. Our Mission stands committed to provide required technical support and help to ethical dairy institutions for implementing corrective measures to benefit needy dairy farmers and innocent consumers.

Thanking you in anticipation

*Q. H.*  
of (Jaswant Singh Bhandair)

Mission Director

International Improvement Mission

Regd. Office # 53-A, Sector 18-A, Chandigarh -160018

Tel: 0172-2724872 Cell: 9815961853

Attacments:

1 Mission Presentation

."India exporting its white gold at the exchange price of black gold"

2. Copy of comments received from Director NDRI Karnal on our presentation

3 Media reports about dairy business in India







MILK PROCUREMENT PERFORMANCE {ZONAL}  
 ACTUAL CASE STUDY-III-II {PRODUCTIVITY}  
 Milk Procurement/Day/V.L.C. {Phase-2} = 367 Litres.

MILK QTY	FAT KG	S&F KG	FAT ANT	S&F ANT	SUB TOT	H CHARGES	ARRANGS	QTY INCT	QTY INCT	BREE DEU	MILK DRI	STOR FAT	CIERK	NET ART
1245.66	71.278	92.717	11912.79	356.38	582.61	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	17772.69
1157.66	75.692	162.996	14478.34	378.46	6.69	6.69	356.66	6.69	6.69	6.69	6.69	6.69	6.69	14815.66
798.66	48.306	61.875	8831.93	249.15	6.69	6.69	195.66	6.69	6.69	6.69	6.69	6.69	6.69	9186.66
2349.66	135.133	265.621	28787.48	735.67	6.69	6.69	136.36	6.69	6.69	6.69	6.69	6.69	6.69	36318.66
1593.66	164.166	149.211	19347.82	329.73	6.69	6.69	433.11	6.69	6.69	6.69	6.69	6.69	6.69	26322.66
1575.66	164.301	158.553	19518.48	324.68	6.69	6.69	13.33	6.69	6.69	6.69	6.69	6.69	6.69	26555.66
9935.66	661.551	874.637	122928.94	3387.81	6.69	6.69	3155.26	6.69	6.69	6.69	6.69	6.69	6.69	132526.66
2282.66	146.785	146.785	27659.43	743.53	846.36	142.31	743.53	6.69	6.69	6.69	6.69	6.69	6.69	26526.66
2338.66	151.321	197.668	27373.47	754.61	6.69	6.69	115.45	6.69	6.69	6.69	6.69	6.69	6.69	28526.66
616.66	21.986	47.162	2656.77	349.93	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	4485.66
1422.66	68.425	91.124	12489.87	343.13	6.69	6.69	167.61	6.69	6.69	6.69	6.69	6.69	6.69	13266.66
6742.66	284.924	372.566	52956.25	1424.83	6.69	6.69	456.66	6.69	6.69	6.69	6.69	6.69	6.69	57671.66
3751.66	249.493	336.458	46495.78	1247.17	6.69	6.69	438.66	6.69	6.69	6.69	6.69	6.69	6.69	49339.66
3736.66	249.658	329.655	46437.67	1248.33	6.69	6.69	346.99	6.69	6.69	6.69	6.69	6.69	6.69	49281.66
4766.66	314.618	418.494	58236.48	1578.69	6.69	6.69	445.38	6.69	6.69	6.69	6.69	6.69	6.69	61838.66
2558.66	167.434	221.476	39736.64	835.17	6.69	6.69	157.79	6.69	6.69	6.69	6.69	6.69	6.69	32114.66
4225.66	256.888	357.252	47766.29	1284.65	6.69	6.69	468.56	6.69	6.69	6.69	6.69	6.69	6.69	49556.66
643.66	29.888	49.788	556.69	149.49	6.69	6.69	122.52	6.69	6.69	6.69	6.69	6.69	6.69	5826.66
937.66	69.637	92.547	11273.22	363.19	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	11841.66
1461.66	96.776	128.676	17997.82	483.88	6.69	6.69	461.78	6.69	6.69	6.69	6.69	6.69	6.69	18943.66
976.66	56.818	69.287	16419.34	286.69	6.69	6.69	36.55	6.69	6.69	6.69	6.69	6.69	6.69	18736.66
569.66	37.578	49.114	6857.16	188.48	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	7111.66
2529.66	171.972	222.352	31986.78	659.86	6.69	6.69	162.72	6.69	6.69	6.69	6.69	6.69	6.69	33869.66
2245.66	151.265	197.685	28135.31	746.33	6.69	6.69	138.79	6.69	6.69	6.69	6.69	6.69	6.69	27871.66
16881.66	1687.916	1415.687	242352.41	5439.58	6.69	6.69	5439.58	6.69	6.69	6.69	6.69	6.69	6.69	218671.66
232.66	8.128	19.766	1977.86	41.64	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	2618.66
1277.66	83.951	169.676	15622.32	419.96	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	16842.66
2918.66	194.843	287.614	35886.13	976.22	6.69	6.69	183.73	6.69	6.69	6.69	6.69	6.69	6.69	37543.66
942.66	61.599	89.781	11266.72	337.55	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	11685.66
1666.66	111.967	146.691	20822.52	359.61	6.69	6.69	15.93	6.69	6.69	6.69	6.69	6.69	6.69	21931.66
16517.66	768.753	936.166	133226.91	3543.77	6.69	6.69	3422.74	6.69	6.69	6.69	6.69	6.69	6.69	142217.66
1511.66	164.653	221.621	19294.64	323.42	6.69	6.69	164.68	6.69	6.69	6.69	6.69	6.69	6.69	20668.66
4886.66	327.697	438.218	64832.64	1635.49	6.69	6.69	637.24	6.69	6.69	6.69	6.69	6.69	6.69	64634.66
916.66	61.423	86.182	11499.33	347.42	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	11997.66
2174.66	141.986	191.687	25499.77	749.94	6.69	6.69	127.93	6.69	6.69	6.69	6.69	6.69	6.69	27966.66
1797.66	162.844	142.635	18138.74	514.22	6.69	6.69	65.72	6.69	6.69	6.69	6.69	6.69	6.69	19776.66
3598.66	239.663	316.982	44465.74	1195.32	6.69	6.69	285.93	6.69	6.69	6.69	6.69	6.69	6.69	47142.66
1389.66	83.715	114.747	15381.23	419.58	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	16368.66
4521.66	291.432	397.587	54687.33	137.16	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	57677.66
1751.66	168.227	182.649	19881.67	341.14	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	21681.66
4598.66	389.941	397.847	57399.25	149.71	6.69	6.69	541.89	6.69	6.69	6.69	6.69	6.69	6.69	60959.66
2667.66	181.659	246.619	33643.68	999.56	6.69	6.69	171.82	6.69	6.69	6.69	6.69	6.69	6.69	34559.66
2695.66	128.742	172.483	23486.43	643.71	6.69	6.69	169.31	6.69	6.69	6.69	6.69	6.69	6.69	24428.66
965.66	32.238	72.119	2998.47	688.33	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	7838.66
1532.66	162.782	134.752	19165.93	513.91	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	20112.66
7936.66	533.226	698.292	99186.43	2666.13	6.69	6.69	1978.32	6.69	6.69	6.69	6.69	6.69	6.69	166491.66
167.66	19.178	44.476	1693.11	58.89	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	3448.66
1656.66	78.192	93.617	13638.98	354.63	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	13715.66
1936.66	127.987	169.418	23676.24	829.74	346.63	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	25446.66
57.66	5.875	4.988	748.68	19.38	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	735.66
1371.66	92.336	128.618	17188.84	461.38	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	18876.66
14355.66	797.626	1619.397	147439.23	3988.16	6.69	6.69	3888.56	6.69	6.69	6.69	6.69	6.69	6.69	156335.66
341.66	22.516	29.954	4187.87	112.58	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	4164.66
14955.66	968.973	13671.298	182178.14	743.25	182178.14	4319.37	23964.67	30935.35	6.69	6.69	6.69	6.69	6.69	194531.66

FAT%=6.70 S.N.F.=8.81% Total Solids=15.51% C.L.R.=29.32



ACTUAL CASE STUDY-IIU-V

MARKETING EXPENCES							
=====							
FREIGHT OUTWARD	211985						
SE SELLING EXPENSES	314344						
SALARY & WAGES	355276						
VEHICLE SECTION	113975	995574					
GENERAL EXPENCES							
=====							
COMMUNICATION EXPENSES	121651						
GENERAL & ADMN. EXPENCES	375311						
REPAIR & MAINT. (F.ASSETS)	12160						
TRAVELLING & CONVEYANCE	94505						
VEHICLE RUNNING EXP.	29691						
FREIGHT INWARD	140						
REPAIR & MAINT.							
PRINTING & STATIONERY	34152	667810					
EMPLOYMENT COST (SALARY)	344629						
LAOUR CHARGES	123117	467746					
FINANCIAL EXPENCES							
=====							
INTST. ON WORKING CAPITAL		766594					
PROVISION FOR BRIDGE LOAN INTST.		50000					
INTST. ON TERM LOAN		120000					
PROFIT BEFORE PROVISION FOR DEPRICATION		5381259					
=====							
		98610470				198610470	11
=====							
DEPRICIATION(FIXED ASSETS)		800000				PROFIT BEFORE PROVISION FOR DEPRICATION	
						5381259	
PROFIT AFTER PROVISION FOR DEPRICATION		4581259					
=====							
		5381259				5381259	
=====							

TESTIMONIALS/DOCUMENTARY EVIDENCE  
ACTUAL CASE STUDY-IIU-VI  
{PROFITABILITY}

DAILY PROFITABILITY REPORT

\* FOR ACTUAL FIGURE

PROFIT & LOSS FOR 01/01/2004

PARTICULARS			← DEBIT →			PARTICULARS			← CREDIT →		
	QTY	RATE	ACTUAL	PARTHA	VARIANCE				ACTUAL	PARTHA	VARIANCE
			AMOUNT	AMOUNT				RS.	AMOUNT	AMOUNT	
VDC MILK	88278										
CONT. MILK	100815					REALISATION	PRODUCTION				
OPENING STOCK						QTY.	RATE				
WORK-IN-PROGRESS						SFM BTTL.200 ML	0	8.69	0		
						SFM BTTL.200 ML	0	7.63	0		
FAT	31446	112.49	3537355			PANEER (200 GM)	388	16.03	6228		
SNF	15043	56.63	851842			PANEER 1 KG.	52	77.62	4036		
						LASSI (250 ML)	0	9.00	0		
			4389198	4389198		M. CAKE 200 GM	0	24.94	0		
PURCHASE						PINNI (1/2 KG.)	10	59.88	599		
						CURD 200 GMS		4.72	0		
FAT VDC	5796	111.54	646440	646440		CURD 500 GMS	904	6.87	6209		
SNF VDC	7691	56.25	432681	432681		FLX 1 LTR	0	16.51	0		
FAT CONT.	5578	134.89	747951	747951		SYN 1 LTR	12564	14.69	184623		
SNF CONT	7698	65.78	505247	505247		DTM 1 LTR	27432	10.66	292553		
PURCHASE FROM MARKET			2332238	2332238		SKM 1 LTR	3872	9.18	35483		
						TUNNED 1 LTR	2484	12.85	31931		
SMP DMN		65.88	0			T.BUTTER 100 GM	0	12.33	0		
SNF (other)	0	88.99	0	0		T.BUTTER 500 GM	0	61.22	0		
BUTTER	0	1.56	0			SMP 25 * 1KG.		86.31	0		
SUGAR		0	0			SMP 1 KG PREM.	0	94.00	0		
OTHER INERTS.			182	182		SMP BAG 25 KG	574	2112.50	1212575		
PROCUREMENT OVERHEADS			181.96	182		10.WHITNER 200 JAR	0	13.75	0		
						10.WHITNER 500 JAR		41.84	0		
SALARY & WAGES			9267			SMP 25 KG. BAG		2138.38	0		
COMMISSION ON MILK			28978			15 KG TIN		1961.80	0		
FREIGHT ON MILK			34172			15 LTR TIN		0.80	0		
MILK CHILLING EXPENCES			8827			12 LTR TIN		256.41	0		
VEH. RUNNING & MAINT.			3976			11 LTR TIN	2441	131.44	320845		
STORE MATERIAL CONSUMED			2498	RS. 1/KG		11/2 LTR TIN		68.49	0		
MILK COLLECTION EXP.			642	(MILK PROC)		11 LTR MB	3592	126.26	453526		
						11 LTR. PP	0	124.47	0		
						11/2 LTR. PP		62.92	0		
			88361	88278	-91	11/2 LTR. P JAR	0	63.93	0		
PRODUCTION OVERHEADS									2541328	2572468	31140
SALARY & WAGES			14184	14184	0						
PROD. CHEMICAL			2589	2419	-170						
LABORATORY			568	538	-31						
DAIRY EQUIPMENT			542	883	341	CLOSING STOCK					
MARK EXP.			1287	1287	0	WORK-IN-PROGRESS					
						FAT	36194	111.54	4037894		
			19082	19142		SNF	12581	56.25	703186	4740281	0.00
PACKING MATERIAL			69728	69728	0						
ENGINEERING											
SALARY & WAGES			4784	4784	0						
POWER	7508	4.85	38485	37817	4988						
DIESEL	128	28.93	2512								
FUEL (HUSK)	19258	1.42	27335	37817	10482						
REPAIR & MAINT.			1247	5446	4199						

TESTIMONIALS/DOCUMENTARY EVIDENCE  
ACTUAL CASE STUDY-IIU-VI

MARKETING				
=====				
SALARY & WAGES	11468			
SELLING EXPENCES	18140			
FREIGHT OUTWARD	6838			
VEHICLE SECTION	3677			
	-----			
GENERAL EXPENCES	32115	13225	-18890	
=====				
COMMUNICATION EXP.	3931			
GENERAL & ADMN. EXP.	12187			
REPAIR & MAINTENANCE	392			
TRAVELLING & CONVENANCE	3849			
VEHICLE RUNNING EXPENCES	926			
FREIGHT INWARD	5			
REPAIR & MAINTENANCE	8			
PRINTING & STATIONERY	1182			
	-----			
	21518	21575	65	
=====				
EMPLOYMENT COST (SALARY)	11117	18316	-681	
LABOUR COST	3972	3558	-421	
FINANCIAL EXPENCES				
=====				
INTREST ON WORKING EXP.	24742	24742	8	
PROVISION FOR BRIDGE LOAN INTST.	1613	1613	8	
PROVISION FOR TERM LOAN INTST.	3871	3588	-371	
PROVISION FOR DEPRICATION	25886	25886	8	
NET PROFIT / LOSS	191871	223888	31929	
	7281681	7312741	31148	
	7281681	7312741	31148	

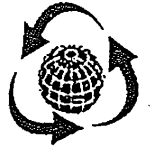
PROFIT AS PER PARTHA STATEMENT	= 223888	PROFIT /LOSS UPTO	
		PROFIT & LOSS 01/01/2004	191871
ACTUAL PROFIT	= 191871		
		PROFIT/LOSS UPTO 01/01/2004	191871
DIFFERENCE	31929		

PRODUCT REALISATION AS PER PARTHA SYSTEM

	QTY.	FAT %	SNF %	FAT (KG)	SNF (KG)	REALISATION
PANEER 200 GMS	388.88	8.84	8.84	17.87	16.88	6228
PANEER 1 KG.	52.88	8.22	8.22	11.44	11.18	4836
S . F . M 200 ML	8.88	8.88	8.82	8.88	8.88	8
STM 1 LTR	62188	8.85	8.89	2914.87	5548	913713
DTM 1 LTR	114483	8.82	8.89	1827.71	18738	1228917
SKM 1 LTR	7745	8.88	8.84	3.99	782	71188
TUNNED 1 LTR	18356	8.83	8.89	325.34	923	133129
GHHEE 1 LTR. TM	1699	8.98		1526		223338
				6626	17923	2572468

**INTERNATIONAL IMPROVEMENT MISSION**

REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160 018 TEL:724872

**ALL FOR ONE & ONE FOR ALL**MISSION ASSOCIATES : INNOVATIVE BUSINESS IMPROVEMENTS (P) LTD., CHANDIGARH INDIA  
IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA

IBI-2004

Dated 10.3.2004

Chairman/Managing Director/Chief Executive Officer  
Entrepreneurs in dairy business  
Organized Sector of Indian Dairy Industry

**SUBJECT: COMPETITION IN TECHNO-COMMERCIAL AUDIT OF DAIRY  
BUSINESS (Milk purchase transactions) PRIZE:-ONE LAC RUPEES**

Dear Sir

Dairy industry in India is highly profitable proposition as it has very clear profit margin of more than 20% (Annexure A). If a dairy plant processing/ marketing Pasteurized liquid milk only can earn so much profit then value added product mix combinations would further improve the bottom line.

Purchasing pure, undiluted and unadulterated raw milk holds the key for the success of a dairy business. Unique problem being faced by every company in commercial dairy business in India is the accuracy of determining exact price payable to milk producers/ suppliers when they supply milk that deviates from specified standards for buffalo milk (6.5% FAT & 8.8% SNF) or cow milk (3.5% FAT & 8.5% SNF). Manipulations only with the help of dilution in milk purchase transactions would cause heavy hidden loss to purchaser that normally goes undetected.

Unless we have accurate analysis for all co-related parameters it is almost impossible to work out hidden losses due to rampant dilution and manipulation in milk purchase transactions. Scientifically designed formulae based on 60% allocation of price value to Fat and 40% to SNF while purchasing buffalo milk holds good only if the milk contents are neither diluted nor manipulated.

Private companies who do not purchase milk directly from milk producers or suppliers at village level normally feel they do not suffer any loss because milk is purchased on the dairy dock by paying the suppliers on 60:40 basis. Study conducted by us has a bad news for them because our experts who cross- checked the authenticity of formulae being used by one and all in this sector found serious limitations and loopholes in this system. It has been observed that these formulae do not seem to be based on arithmetical calculations to justify their accuracy for evaluating exact price that should be paid to the seller.



As per actual case studies undertaken by us concerning multinational companies, milk co-operatives, public limited and private companies in India indicate this hidden loss to be alarmingly high i.e. in the range of Rs. 1.00/Kg. to Rs. 2.50/ Kg.

Keeping in view the serious implications of this problem on the growth, development and global competitiveness of dairy industry, International Improvement Mission with the help of its associates i.e. Improvement innovations Unlimited Canada and Innovative Business Improvements (P) Ltd. had undertaken in-depth study of all aspects relating to this problem. Objective of this exercise that has been successfully completed was to evolve a system for accurately analyzing % of Cow milk (3.5% Fat and 8.5% SNF), Buffalo milk (6.5% Fat & 8.5% SNF) and added water content in mixed milk only by scrutiny/audit of milk purchase record.

As per our estimates organized sector of Indian dairy industry suffers loss of more than 3000 crores of rupees annually due to *Adulteration, Dilution and Manipulations* in milk purchase transactions. In order to highlight this issue once again and focus the attention of professionals managing dairy business in India our mission has decided to organize a competition on the subject.

Terms and conditions for the competition are being enclosed herewith as Annexure-B. Questions asked from the participating professionals are based on actual case study relating to milk purchase transactions carried out by a leading dairy institution among organized sector of Indian dairy industry.

Last date for receiving participation entries has been fixed as 10.4.2004. Competition is open only for professionals working in organized sector of Indian dairy industry. Participation entries received duly authenticated and forwarded by respective heads of the dairy institutions/ Chief executives of dairy organizations shall only be considered valid for participation and evaluation.

Results will be declared on or before 20<sup>th</sup> of April and intimated to participants and their institutions. Lucky winner will receive a citation and a cheque for the said amount (Rs. One lac) as prize money within seven days from declaration of results. In case if more than one entry is received with all correct answers then prize money will be distributed equally among the winners.

You are kindly requested to ask the professionals working in your organization to test their knowledge and expertise by participating in this quiz competition.

Thanking you and wishing good luck to participating professionals

Yours truly,

*JS*  
(Jaswant Singh Bhandajr)  
Mission Director

## ANNEXURE-A

Dairy plant selling pasteurized liquid milk must earn >Rs.3.00/Kg.

Assuming annual average basic price of raw milk as Rs.13.00/Kg. (6.5%/8.8%)  
or Rs. 200/Kg. Fat (Rs. 120 /Kg Fat & Rs. 59.09/ Kg. SNF) total solids=15.3%

- Milk collection/processing/packing /marketing cost for efficiently managed dairy plant will not normally exceed Rs.3.00/Kg. (including processing losses)
  - Pasteurized standardized milk containing 4.5% Fat and 8.5% SNF (Total solids=13%) would cost Rs. (13.00+3.00-2.40)=Rs.13.60/ Kg.  
{(6.5-4.5)x 120=Rs.2.40}  
(8.8-8.5)x 59.09=Rs.0.17727/ Kg {Ignore considering it as part of handling loss}
  - Retail consumer price for pasteurized standardized milk in most of our towns is Rs. 17.00/Liter or even more.
  - As such there is clear profit margin of more than Rs.3.00/Kg.  
{17.00-13.60=3.40/ Kg.}
- Increase in volume of milk due to dilution:  $15.3/13 = 1.17$   
{Hidden gain due to increase in volume (0.17X3.40) = Rs.0.578/Kg}  
{It will compensate the weight volume difference as milk is packed and sold in liters but purchased in Kgs.}
- Dairy company handling one lac Kg. milk per day would thus make annual net profit of more than Rs. 12 crores. (>20% of turn over) provided there are no hidden losses. { 100000x3.40x365=Rs.12,41,000,00}

*ANALYZE HIDDEN REASONS TO KNOW WHY YOUR PROFITS ARE LOW?*

## ANNEXURE-B

### TIPS AND TERMS & CONDITIONS FOR COMPETITION

Only dilution of natural buffalo milk does not provide any additional financial gain to supplier but it only adds to handling cost of buyer to the extent of added water. Similarly for cow milk if fat rate per Kg for buffalo milk is divided by two and used for determining the value of fat contents in cow milk and SNF per Kg. rate for cow milk is paid @ 1/3 value of Kg fat rate of buffalo milk, then no cheating can take place so long cow milk conforms to specified standards (3.5% Fat & 8.5% SNF).

Since it is not possible for the buffaloes or cows to produce milk strictly as per these specifications so the milk producers have the opportunity to mix buffalo milk with cow milk and add some water in the mixed milk to confuse the purchaser regarding exact percentage of cow milk, buffalo milk and water. This limitation of milk purchase system is being exploited by unscrupulous persons between milk producer and dairy plant to their advantage and is known as manipulation by dilution.

Loss due to manipulations of this kind when checked with conventional methods appears to us as only an insignificant amount but actual loss when worked out taking in to consideration all variables works out as many times more than that indicated by methods used for conventional calculations. These variables are SNF:FAT ratio, Total solids at different stages of dilution and manipulation, % of added water in FAT contents, % of added water in SNF contents, impact of added water used for dilution on specific gravity of milk contents affecting analysis results, difference in FAT/SNF value (Per Kg. rates) for cow milk and buffalo milk and increase in volume of milk due to dilution and its effect on value of milk contents etc. We may presume that milk purchased by reputed institutions in organized sector is free from all kinds of adulterants that would increase the natural fat or SNF in milk so these figures called manipulation relate to loss only due to dilution and manipulations.

Private companies who do not purchase milk directly from milk producers or suppliers at village level normally feel they do not suffer any loss because milk is purchased on the dairy dock by paying the suppliers on 60:40 basis. It has been observed that these formulae do not seem to be based on arithmetical calculations to justify their accuracy for evaluating exact price that should be paid to the seller.

Formulae in use in private sector are primarily intended to work as an alternative method for purchasing undefined mixed milk (Buffalo milk + Cow milk). These are based on typical permutations and combinations that incorporate conventional fat rate based price value for buffalo milk and two-axis price for purchasing cow milk. This formulae very well suits the seller because he gets best of the two values available in scientific formulae for purchasing B.M and C.M (fat value is higher in buffalo milk and SNF value is higher in case of cow milk).

Yet another significant advantage for the seller in this case is that he can dilute the milk appreciably and convert lot of water that can be sold as milk (Low total solids in mixed milk can be termed as more cow milk in mixed milk). Most of the commercial dairy plants are actually processing milk that on the average contains 20 to 30 % water bulk of which gets paid as milk by manipulating the loopholes in this system. Limitations and implications of flaw in milk purchase system causes appreciable hidden losses to the dairy plants purchasing milk in this manner.

Profit Potential of private sector plants following this system thus gets reduced significantly (70% to 80%) on account of such hidden losses. It is in fact the prime reason for sickness and low profitability of dairy plants in the private sector.

We have been for quite some times highlighting the impact of adulteration, dilution and manipulations in milk purchase transactions on the overall profitability of dairy plants. Despite best efforts made by professionals, leading industries and research institutions, permanent solution of this chronic problem seems to still eluding our dairy industry. Unless we accurately analyze the data pertaining to these parameters, it is almost impossible to work out hidden losses being suffered by the purchaser due to adulteration, dilution and manipulation in milk purchase transactions.

Competition in techno-commercial audit of dairy business relates only to dilution and manipulations in milk purchase transactions. Information given below relates to milk purchase transactions carried out by a reputed dairy institution in organized sector of Indian dairy industry. Participants are advised to carefully study and analyze this input data for providing accurate answers for the questions.

#### INFORMATION AS INPUT:

Category	Quantity	Fat	SNF	Fat	SNF	Purchase rate	Amount Paid (Rs.)
B.M	69 Kgs.	6.76%	8.62%	6.76 Kgs.	8.62 Kgs.	Rs.160/Kg Fat.	
C.M	31 Kgs.	3.90%	7.88%	3.90 Kgs	7.88 Kgs.	Rs. 80/Kg Fat Rs. 53.33/Kg. SNF	
Total	100Kgs.	5.89%	8.40%	5.89 Kgs	8.40 Kgs	As above	Rs. 9.45/Kg

- Note: Please assume that purchaser has confirmed the milk as per details given above contains no adulterants (other than water used for dilution).

Participants are requested to cross check the actual composition of mixed milk as per specified standards for buffalo milk and cow milk. Keeping in mind all the variables that can be used for manipulations they should analyze the data in respect to quantity, Fat & SNF of buffalo milk/ cow milk as indicated by seller in the manipulated figures (indicated above) and answer the following questions.

- 1 Quantity of buffalo milk actually present in mixed milk (6.5% Fat & 8.8% SNF)?
- 2 Quantity of cow milk actually present in mixed milk (3.5% Fat & 8.5% SNF)?
- 3 Quantity of water used as diluting agent actually present in mixed milk?
- 4 Loss suffered by the purchaser in Rupees/ Kg. due to dilution/manipulations?

5 Techno-commercial audit conducted by our experts indicate hidden loss of more than Rs. Two per kg in this milk purchase transaction. Do you agree with their contention?

A If you agree with them then please provide evidence and justification for your answer using scientific logic and arithmetical calculations.

B. If you disagree with their findings, then you may prove with arithmetical calculations and scientific logic that milk of above mentioned composition for mixed milk (5.89% Fat & 8.40% SNF) would produce same amount of profit as we can expect from pure undiluted mixed milk having 69 % standard buffalo milk and 31% standard cow milk? (Assuming all costs other than basic purchase value of milk to remain constant for all such evaluations)

6 Can we prepare milk of this composition (5.89% FAT & 8.40% SNF) by diluting buffalo milk with only water (No cow milk). If your answer is yes then please indicate what would be the composition of buffalo milk (FAT & SNF) and how much water shall be used for dilution?

7 Consider the mixed milk (5.89% Fat & 8.40% SNF) to have been purchased @ Rs.9.76/Kg. milk from milk suppliers on 60:40 basis {Standard for milk 6.5% Fat & 8.5% SNF @Rs. 160/Kg. Fat Or 10.40/Kg milk or Rs 96/Kg Fat and Rs. 48.94/Kg. SNF}  $Rs.9.76/Kg. \{(5.89 \times 96 + 8.4 \times 48.94) = Rs.9.76/Kg\}$

Work out how much gain or loss in relative terms proportionately, purchaser would suffer by processing milk of this composition by purchasing it @ 9.76/Kg when compared with standard buffalo milk (6.5% Fat & 8,8% SNF) purchased @ Rs. 10.40/Kg?

\* For additional tips and help to find answers to quiz questions participants may refer to information given in article "Real threat to global competitiveness of Indian dairy industry" ADM or WTO {Published May 2003 in "INDIAN DAIRY MAN"}

**INTERNATIONAL IMPROVEMENT MISSION**

REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160 018 TEL:2724872

**ALL FOR ONE & ONE FOR ALL**MISSION ASSOCIATES : INNOVATIVE BUSINESS IMPROVEMENTS (P) LTD., CHANDIGARH INDIA  
IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA

IIM-2004

Dated 10.06.04

Chairman/Managing Director  
Dairy business Entrepreneurs  
Organized Sector of Indian Dairy Industry

Subject: All India Competition for professionally managed  
"IDEAL DAIRY PLANT" {PRIZE RS.ONE LAC}

Dear Sir

Initiated by NRI dairy professionals living in Canada and USA we have established an institution called International Improvement Mission. One of the prime objectives of our mission is to prepare the Indian dairy industry for emerging global competition. There is urgent need for Indian dairy industry to carry out in-depth microscopic "SWOT" analysis of overall business operations. Unless we list out our real shortcomings and take effective remedial measures, it will not be possible for our dairy industry to upgrade quality of our milk/dairy products, productivity and profitability of business operations. Facing emerging cut-throat global competition would thus become a real uphill task for our dairy professionals.

Similarly in view of emerging global requirements and consumer preferences we need to reevaluate our strategic strengths viz. a viz. our global competitors and convert those positive features in to a win-win situation for our dairy industry. In line with aforesaid objective, International improvement mission is organizing all India competition for professionally managed ideal dairy plant. Through this communication we extend cordial invitation to your organization to participate in this competition.

Competition is being conducted in two phases. In the preliminary round participating organizations are being asked to fill up a questionnaire (copy enclosed as Annexure-A). Questions being asked in this questionnaire basically relate to quality of milk/ milk products, productivity of processing operations and overall profitability of dairy business. On the basis of overall score ratings in the first phase of competition we intend to shortlist top ten participating organizations.

P.T.O.

Based on self assessment score levels indicated by top ten participating organizations in the first phase of competition all the relevant facts and figures mentioned in the answer sheet {Questionnaire} shall be verified and scrutinized by a team of technical experts. Score sheets finalized by the expert panel shall be circulated to top ten organizations for their comments to remove any anomaly or techno-commercial errors before declaring final results. Professionally managed ideal dairy plant that scores the maximum marks (subject to minimum of 90%) shall be declared as the winner and awarded a prize of Rs. One Lac besides a citation from International Improvement Mission.

Besides offering the golden opportunity for earning prize of Rs. One Lac, participation in this competition would enable your institution to carry out self-analysis of your own "Strengths", "Weaknesses", "Opportunities" and "Threats". Please fill up the enclosed "QUESTIONNAIRE" and mail it to us before 31<sup>st</sup> July 2004 (Closing date for receipt of participation entries)

Wishing good luck to you for the competition and success in your business venture.

Yours truly,

  
(Jaswant Singh Bhandair)

- Mission Director International Improvement Mission.
- Managing Director innovative Business Improvements (Pvt.) Ltd.

INTERNATIONAL IMPROVEMENT MISSION ANNEXURE-A  
 COMPETITION FOR PROFESSIONALLY MANAGED IDEAL DAIRY PLANT  
 NAME OF PARTICIPATING DAIRY PLANT/COMPANY.....

Q.NO	QUESTIONS RELATING TO PRIME PERFORMANCE PARAMETERS	LEVEL
Q.NO.I	What % of raw milk procured by your organization is absolutely pure? {Free from all kinds of dilution/adulteration/preservatives} LEVEL-1 >95% LEVEL-2 >90% LEVEL-3 >85% LEVEL-4 <85%	
Q.NO.II	Accuracy for releasing due payments to raw milk producers/suppliers? {No difference between worth of milk received at plant & paid as per milk bills} {Permitted transit loss may not be considered as difference} LEVEL-1 >99% LEVEL-2 >98% LEVEL-3 >97% LEVEL-4 <97%	
Q.NO.III	Qty. of raw milk received on dairy dock having CLR >28.5 (weighted Average) LEVEL-1 >95% LEVEL-2 >90% LEVEL-3 >85% LEVEL-4 <85%	
Q.NO.IV	Qty. of raw milk having sodium ions <450? LEVEL-1 > 95% LEVEL-2 >90% LEVEL-3 > 85% LEVEL-4 <85%	
Q.NO. V	Qty. of raw milk received on dairy dock having M.B.R.T.>1hour? LEVEL-1 >95% LEVEL-2 >90% LEVEL-3 >85% LEVEL-4 <85%	
Q.NO.VI	Qty. of raw milk received having > 9/10 score points{Organoleptic tests} LEVEL-1 >95% LEVEL-2 >90% LEVEL-3 >85% LEVEL-4 <85%	
Q.NO.VII	Capacity utilization Annual average (% of installed capacity)? LEVEL-1 >95% LEVEL-2 >90% LEVEL-3 >85% LEVEL-4 <85%	
Q.NO VIII	Manpower Utilization Efficiency(Up to Supervisory Level)? LEVEL-1 >95% Level-2 >90% LEVEL-3 >85% LEVEL-4 <85%	
Q.NO. IX	Recovery of milk solids (Fat Component)? {On dry matter basis} LEVEL-1 >99.50% LEVEL-2 >99.00% LEVEL-3 >98.5% LEVEL-4 <98.5%	
Q.NO.X	Recovery of milk solids (SNF Component)? { On dry matter basis} LEVEL-1 >99.00 LEVEL-2 >98.50% LEVEL-3 >98.00% LEVEL-4 <98%	
Q.NO. XI	Steam generation and utilization efficiency? LEVEL-1 > 85% Level-2 >80% LEVEL-3 >75% LEVEL-4 <75%	
Q.NO. XII	Power utilization efficiency? LEVEL-1 >90% LEVEL-2 >85% LEVEL-3 >80% LEVEL-4 <80%	
Q.NO.XIII	Wastage of Packing materials? LEVEL-1 <0.05% LEVEL-2 <0.075% LEVEL-3 <0.10% LEVEL-4 >0.10%	
Q.NO. XVI	Purity of milk and milk products (Free from of all adulterants /preservatives)? LEVEL-1 100% LEVEL-2 >95% LEVEL-3 >90% LEVEL-4 <90%	
Q.NO.XV	Shelf life of dairy products (As per specified international quality standards)? LEVEL-1 (100%) LEVEL-2 >95% LEVEL-3 >90% LEVEL-4 <90%	
Q.NO.XVI	Total milk handling expenses(Milk procurement to Marketing as%of turnover)? LEVEL-1 <15% LEVEL-2 <20% LEVEL-3 <25% LEVEL-4 >25%	
Q.NO XVII	Net profit from dairy business (As% of turnover)? LEVEL-1 >20% LEVEL-2 >15% LEVEL-3 >10% LEVEL-4 <10%	
Q.NO.XVIII	Compliance of statutory regulations relating to dairy business? LEVEL-1 100% LEVEL-2 >95% LEVEL-3 >90% LEVEL-4 <90%	

SCORE POINTS: LEVEL-1=100, LEVEL-2=90, LEVEL-3=80, LEVEL-4=50  
 PL.INDICATE WEIGHTED AVG.QF PERFORMANCE FIGURES FOR THE YEAR 2003-04  
 TOTAL SCORE={TOTAL OF SCORE POINTS FROM I-XVIII}=.....

(Signature of authorised signatory )..... Name:.....  
 Date:..... Designation:.....





# INTERNATIONAL IMPROVEMENT MISSION

REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160 018 TEL. 724872



**ALL FOR ONE & ONE FOR ALL**

MISSION ASSOCIATES : INNOVATIVE BUSINESS IMPROVEMENTS (P) LTD., CHANDIGARH INDIA  
IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA

IMM-2004

Dated 29.06.04

Chairman/Managing Directors  
Entrepreneurs in dairy business  
Organized sector of Indian Dairy Industry

**Subject: Dairy Industry paying very high price for unsolved techno-commercial problems**

Dear Sir

Zee TV. Channel in their telecast " Inside Story " on milk in August last year made significant impact and contribution by sharing such important information concerning health of our people. Other Tv channels followed suit and recently exposed the racket manufacturing adulterated ghee and Khoa (mawa). It is consumer awareness that can bring much needed socio-economic reforms in our society.

Such Stories on adulteration in milk and dairy products highlighted by electronic media are in fact a tip of the iceberg. You will be surprised to know that root cause of adulteration, dilution and manipulation in milk lies in a techno-commercial lucunae in the milk purchase system followed by organized sector in our country and exploited by unorganized sector supplying raw milk to industry. Unfortunate story of divine food called milk is that milk producer is hardly getting the price to cover his input cost. Consumer under duress is left with no choice but to pay very high price printed on the milk pouch for sub-standard poor quality milk. Entrepreneurs in dairy business may find it very difficult to compete with global players because of absolutely poor quality of raw milk, low productivity and profitability of business operations. Most of them are now fighting a loosing battle and are tempted to follow unethical short cuts to remain in business.

Non resident Indian dairy professionals have initiated a mission called International Improvement Mission to help ethical segment of Indian dairy industry. I am enclosing here with a self- explanatory detailed report titled "Dairy Industry paying very high price for unsolved techno-commercial problems.

In case you are interested to offer your comments on this subject or feel interested in seeking practical solutions to sort out these problems, you may please write to us for a free consultation session.

Yours truly

*Dr.*  
(Jaswant Singh Bhandair)  
Mission Director  
International Improvement Mission  
#53-A, Sector18-A, Chandigarh  
Tel: 0172-724872 Cell; 98159-61853

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**DAIRY INDUSTRY PAYING VERY HIGH PRICE  
FOR  
UNSOLVED TECNO-COMMERCIAL PROBLEMS OF DAIRY INDUSTRY**

Milk producers, Consumers, Entrepreneurs and Dairy professionals are the prime Beneficiaries linked with dairy industry in our country. Unfortunately due to unprecedented dominance of organized sector of dairy industry by middlemen (unorganized sector) benefits of dairy business get siphoned out while the milk remains in transit between milk producer and consumer. As a result there-of, Innocent consumer ends up paying unreasonably high price printed on the milk pouch while poor milk producer hardly gets the price to cover his input expenses. Entrepreneurs in dairy business fail to earn intended profits and employees in dairy profession struggle hard to make both ends meet.

International Improvement Mission an organization initiated by Non Resident Indian dairy professionals living in Canada/USA conducted in-depth study of all aspects related to dairy business in India. Summary findings of mission report indicate that organized sector of Indian dairy industry on recurring basis suffers hidden loss of more than 3000 to 5000 crores of rupees every year. Techno-Commercial limitations of the conventional milk purchase systems being followed by one and all are primarily responsible for the prevailing situation. Dairy industry can very easily pay one rupee as additional price for every liter of milk purchased from milk producers and reduce consumer price of milk by the same amount and still earn at least Re. One per liter as business profit provided existing loopholes are plugged and all business operations are professionally managed.

Underlying factors that are root cause for these losses and the preventive/corrective measures that needs to be taken by the concerned professionals working for the dairy industry are being discussed here as under:

Conventional milk purchase system followed by milk-cooperatives, multinational companies, and dairy plants in private sector who purchase buffalo milk and cow milk through village level milk collection centers suffer hidden loss of Re. 1.00 to Rs.2.50/Liter. With the help of manipulation by dilution unscrupulous people manipulate and convert part of buffalo milk as cow milk and vice versa taking undue excess payment due to relatively higher price per Kg. fat for buffalo milk and higher per kg. SNF price for cow milk. Only mixed milk (Buffalo milk + Cow milk) ultimately reaches the dairy plant so these manipulations do not get reflected in milk billing, payment calculations or audit of milk purchase account. Solution for effectively tackling this basic problem, under the field conditions prevailing today in India has been eluding the industry. "Hansa" test evolved by National dairy Research Institute few years ago to differentiate cow milk from buffalo milk also could not find commercial use due to techno-economic limitations.

Many dairy companies who created required infrastructure to procure pure milk directly from milk producers (Eliminating middlemen) following conventional milk billing system of milk co-operatives suffered heavy losses (due to above mentioned reasons) and opted out to purchase raw milk only from milk contractors.

Second alternative followed by the Indian dairy industry to source their raw milk only from milk contractors is proving even more dangerous and uneconomical for the dairy entrepreneurs. Chain of middlemen in milk contractor system spoil the basic purity of raw milk, dilute it by 30%-40% with water, adulterate it and use deadly preservatives/neutralizers that make it unsafe for human consumption.

Formulae {Sharing the value in 60:40 ratio for Fat/SNF contents assuming standard milk to contain 6.5% fat and 8.5% SNF) being used for preparing milk bills for contractor supplied milk is the real culprit responsible for dilution and manipulations that cause heavy hidden losses to the buyers. Surprisingly the formulae used by every one in the industry is neither prescribed nor testified by any accredited National /International institute. As per mission findings this formulae is devoid of scientific logic and not accurate as per arithmetical calculations. Dilution of milk under this system provides appreciable hidden gain to seller and corresponding loss to buyer. Illusion to buyer is such that badly diluted milk (30to 40% added water) appears cheaper as per cost calculations. Many dairy plants in private sector fell victim to this dilution /manipulation trap and ultimately closed their business operations due to heavy losses on this account. Dilution of milk with water helps the seller to use deadly preservatives/neutralizers/ and undesirable adulterants. Dairy products manufactured with such milk are difficult to sell because of their poor quality and fetch much lower price in comparative terms causing heavy losses to entrepreneurs thus striking like a last nail in their coffin.

Due to serious limitations of the milk procurement/ billing systems in vogue Indian dairy industry is unnecessarily handling 30% to 40 % water as milk (being the difference in quantity of milk purchased/ handled by the industry and standard milk solids (cow milk and buffalo milk) actually contained in that milk. unabated recycling of milk derivatives like lactose, whey proteins and skimmed milk powder is in fact adding fuel to the fire thus magnifying unsolved problems linked to techno-economics of dairy business in India. Besides increasing milk handling/processing cost by Rs. 0.50/Kg. toRs.0.75/Kg due to dilution and manipulation in milk. As per our estimates more than 50% raw milk being processed in our dairy plants is not safe for human consumption and does not conform to basic minimum quality parameters required for producing milk products meeting International quality standards.

As per conventional norms, usually followed by dairy industry worldwide for sale of pasteurized milk to consumers, it must be free from all kinds of pathogens (bacteria harmful for health of human beings) and it should have more than 10 days shelf life when stored at temperature below 4 degree Celsius. Consumer can safely drink such pasteurized milk without boiling. Only a very nominal % of pasteurized milk sold in Indian markets meets these basic requirements. Raw chilled milk produced in clean environment taking required scientific precautions would be much cheaper and tastier as compared to so called pasteurized milk now available to consumers. In any case consumer would be required to boil this milk as soon possible so as to prolong its shelf life.

As per in-depth study of dairy industry in India difference in the actual price of milk reaching the milk producers and that being charged from consumers is Rs. 6/Kg. to Rs. 8/Kg. (Considering the worth of milk as per milk contents (FAT+SNF) purchased from milk producers and being supplied to consumers). Total expenses for milk procurement, processing, packing, marketing and miscellaneous overheads for a dairy plant operating with average efficiency would normally not exceed Rs. 3.00/Kg. Applying "PARTHA" concept on dairy business management, dairy plant handling one lac liters milk per day must generate profit of more than 10-15 crore rupees annually (More than 20% of turnover).

International Improvement Mission has not only identified the core issues and unsolved serious problems like those mentioned above but we have successfully evolved innovative practical solutions for all such problems. As per prime goal of our mission we want dairy industry to upgrade quality of milk/dairy products, productivity and profitability of business operations so that it can easily pay Re. 1.00/Kg. more to milk producers and charge Re. 1.00/Kg. less from the consumers (As compared to prevailing milk purchase and sale rates) and still earn net profit of close to 10% of their business turnover of business. However to achieve this objective dairy industry will have to eliminate hidden losses, optimize resource utilization, introduce concept of cost consciousness in all functional activities and closely monitor performance results using "PARTHA" as effective tool for value management. We have solid documentary proof and evidence to prove the facts and figures quoted above.

We shall be too pleased to provide all kinds of help and assistance to your organization to sort out such problems and improve Quality of milk/dairy products, productivity and profitability of dairy business operations.

(Jaswant Singh Bhandair)  
Mission Director  
International Improvement Mission  
#53-A, Sector 18-A Chandigarh 160018  
Tel;0172-2724872 Cell:98159-61853



राष्ट्रीय डेरी विकास बोर्ड  
National Dairy Development Board

QPM:IIM:GEN: 8865

19<sup>th</sup> July 2004

Shri Jaswant Singh Bhandair  
Mission Director  
International Improvement Mission  
# 53-A, Sector 18-A  
Chandigarh 160 018

**Sub: All India Competition for professionally managed Dairy Plants**

Dear Sir,

This has reference to your letter No. IIM-2004 dated 10<sup>th</sup> April 2004 addressed to Chairman, NDDB received by us on 14<sup>th</sup> June 2004.

As you are aware, the Dairy Cooperatives in India are working independently and take their own decisions based on need and assessment. Hence it is not proper for NDDB to advise any of the Cooperatives to participate in the competition. NDDB's role is of a facilitator to the Cooperatives and that is being taken care of as a matter of routine.

We are sure, you will appreciate that NDDB does not interfere in the day-to-day working of the Cooperatives and helps them technically and financially on specific requests after proper agreements and documentation.

Thanking you,

Yours faithfully,

( R S Chauhan )

Senior General Manager (QPM) 19/7/04

PRESIDENT'S SECRETARIAT  
PUBLIC - 1 SECTION

No. : P1/C- 84598  
Dated: 07-Oct-2004

Rashtrapati Bhavan  
NEW DELHI - 110004

Dear Sir / Madam,

I am to acknowledge receipt of your communication dated  
17-Sep-2004 which has been forwarded to SECRETARY TO THE GOVT OF INDIA...  
MINISTRY OF AGRICULTURE.....  
( DEPTT OF AGRICULTURE AND COOPERATION..... )  
New Delhi. for appropriate action.

Yours faithfully,



( A. Samuel )  
Under Secretary(P)

P1/C- 84598

ON INDIA GOVERNMENT SERVICE

TO

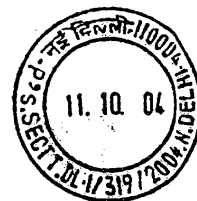
SHRI JASWANT SINGH BHANDAIR  
53-A, SECTOR 18-A,  
CHANDIGARH

CHANDIGARH

FROM:

President's Secretariat,  
Rashtrapati Bhavan  
New Delhi - 110004

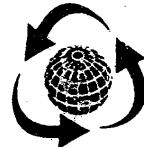
"काल करे सो आज कर  
आज करे सो अब"





# INTERNATIONAL IMPROVEMENT MISSION

REGD. OFFICE : # 53-A, SECTOR 18-A, CHANDIGARH INDIA-160 018 TEL. 724872



**ALL FOR ONE & ONE FOR ALL**

MISSION ASSOCIATES : INNOVATIVE BUSINESS IMPROVEMENTS (P) LTD., CHANDIGARH INDIA  
IMPROVEMENT INNOVATIONS UNLIMITED INC. CANADA

His Excellency Dr. Abdul Kalam  
Hon. President of India  
New Delhi

**SUBJECT:** Innovative scheme for paying Re. 1/Kg. more as price to milk producers and reducing the price charged from consumers for pasteurized milk by Re. 1/Kg. without any financial implication on state/central Government.

Highly respected Sir,

Dairy industry in India is loosing more than 5000 crores of rupees every year as a result of hidden losses due to peculiar techno-commercial limitation of conventional system in vogue for purchase of raw milk. Unfortunately every one in organized sector of our dairy industry is victim of unresolved lacunae badly affecting techno-economics of dairy business and quality of dairy products. These 5000 crore rupees that actually belong to poor milk producers and innocent consumers are infact fraudulently being pocketed by unscrupulous people connected directly/indirectly with dairy business.

Inside Story telecast by Zee TV on 3rd August last year was an eye opener not only for a common consumer but also especially for the professionals managing dairy business in India. Sharing such important information concerning health of a common man would surely help in creating much needed consumer awareness that can bring socio-economic reforms in our society. The only hope to improve country's political, administrative and professional governance is MEDIA and few honest and well meaning professionally qualified leaders (like your good-self), administrators and social organizations that still exist in our national stream.

Undercurrent of factual information now flowing through MEDIA to masses will definitely change the mind-set of common man and public at large would ultimately opt for genuine leadership who can safe guard their health, wealth and national security. Story on milk adulteration projected by electronic media is in fact a tip of the iceberg. Consumers of milk would be surprised to know that root cause of adulteration, dilution and manipulation in milk lies in a techno-commercial lucunae in the milk purchase system followed by organized sector in our country and exploited by unorganized sector supplying raw milk to industry.

Unfortunate story of divine food called milk is that milk producer is hardly getting the price to cover his input cost. Consumer under duress is left with no choice but to pay very high price printed on the milk pouch for sub-standard poor quality milk.

Entrepreneurs in dairy business are finding it difficult to compete with global players because of absolutely poor quality of raw milk, low productivity and profitability of business operations. Most of them are now fighting a losing battle and are tempted to follow unethical short cuts to remain in business.

Non resident Indian dairy professionals have initiated a Mission called International Improvement Mission to help ethical segment of Indian dairy industry. As per in depth study and applied research carried out by our mission in India we feel that with the help of innovative systems and techniques evolved by us, dairy industry can easily upgrade its quality, productivity and consequently its profitability by Rs.2.00/Kg. to Rs.3.00 Kg.

These additional profits as per objectives of our mission must be shared among the prime beneficiaries in such a manner that poor milk producer gets one rupee/Kg more as additional basic price and consumer pays one rupee/kg. less than what he is paying now. Entrepreneurs in dairy business must also earn 8 to 10% profits on their business turnover.

Although above projections as objectives of our Mission sound unbelievable pipe dream to most of the professionals managing dairy business in India but we have now developed working models in North India to provide live demonstration for proving effectiveness of our concept, systems and techniques.

Dairy industry is holding its annual conference at Delhi on 26-28 Sept. 2004. Theme of the conference is INDIAN DAIRYING VISION-2020. Elite professionals attending this conference would discuss every aspect of dairy business in this conference. Unfortunately the focus of eminent professionals attending this conference will elude following five unresolved problems/ pertinent issues concerning basic techno-economics of dairy business in India. In fact nothing would improve unless we eliminate/ control hidden losses in milk purchase transactions, reduce processing expenses and improve revenue by up-gradating quality of milk /dairy products. It is only through result oriented efforts on these fronts that our industry can afford to pay more to dairy farmers and charge less from milk consumers.



SUBJECT: QUESTIONS FOR DAIRY PROFESSIONALS ATTENDING  
XXXIII DAIRY INDUSTRY CONFERENCE SCHEDULED TO BE HELD AT  
HOTEL ASHOK New Delhi ON 26-28 SEPTEMBER 2004

1. WHY DAIRY INDUSTRY IS HANDLING RAW MILK WITH 30 to 40%  
ADDED WATER?

India claims to be No.1 milk producing country in the world. It is doubtful claim because production figures most likely include water as diluting agent. Not to talk of a common man purchasing milk, even professionally managed dairy plants in organized sector are buying milk with 30 to 40% water as adulterant. This is happening, despite availability of required infrastructure for milk measurement /analytical testing with these plants. Besides spoiling overall quality of milk/dairy products on this account, industry per force is bearing unnecessary additional handling cost (about Rs.0.50/Kg for milk diluted with 30% water).

QUESTION: Is it faulty application of conventional milk purchase system using 60:40 formula (6.50% Fat & 8.8% SNF) primarily responsible for this anomaly or there are other reasons as well? Handling such diluted milk is in fact draining our scarce national resources like manpower, fuel and electricity besides causing heavy operational losses to dairy plants.

2 WHY MILK PROCESSING/HANDLING COSTS ARE ABNORMALLY HIGH?

Pasteurized milk of Standard composition (4.50% Fat and 8.50% SNF) worth Rs. 9.38/Kg. OR Rs.9.66/liter (When purchased from milk producers @ Rs. 11.70/Kg.or Rs.180/Kg. Fat) is being sold to consumer @ Rs.17/liter.

QUESTION: Why the difference between price charged from consumer and price paid to producer {Rs. (17.00-9.66=7.33 per liter) is so high?}

3 WHY LARGE NUMBERS OF DAIRY PLANTS IN INDIA ARE SUFFERING  
LOSSES DESPITE HIGHER VISIBLE PROFITS?

Although there is clearly visible profit margin of more than Rs.3.00/Kg. (above 20% of turnover even in pasteurized milk) when value added products are supposed to generate more profit than the figure quoted above. Despite such profitability levels large number of dairy plants in the recent past have either closed their business operations while many other units are found struggling hard for their survival.

QUESTION: What are underlying reasons for widespread sickness in dairy industry?

#### 4. WHY CONSUMER IN INDIA IS REQUIRED TO BOIL PASTEURIZED MILK BEFORE CONSUMPTION?

No where in developed dairy countries consumer needs to boil milk before consumption? Normal shelf life of pasteurized milk printed on milk pouches (when stored at temperatures below 4degree Celsius) and testified by dairy companies is generally not less than 10-15days. There is only nominal %of pasteurized milk sold in India that may conform to these basic norms for pasteurized milk.

QUESTION: Does it not defeat the very purpose of purchasing pasteurized milk (from customer's point of view) if milk of this quality needs boiling before consumption? When dairy plants claim extra cost from the consumer (Pasteurization process cost) then why that quality of milk (supposed to be safe milk free from pathogens) is missing from finished product reaching him?

#### 5 WHY OUR MARKETS ARE FLOODED WITH ADULTERATED AND UNSAFE DAIRY PRODUCTS?

Although dairy plants in the organized sector of our dairy industry have required testing apparatus and appliances to distinguish between adulterated and unadulterated raw milk, then why these units purchase adulterated milk by applying penalties or quality cuts? As a result thereof our markets are flooded with substandard quality dairy products while big chunk out of these is virtually unfit for human consumption.

QUESTION: Why after more than five decades we still process/ handle raw milk of substandard quality?

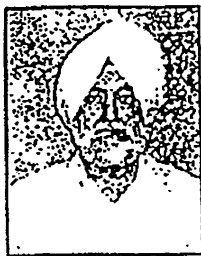
Our mission has evolved practically feasible solutions to effectively deal with all the problems listed above. We have documentary evidence and expertise to prove that dairy industry in India is suffering on the average more than Rs. 2.00/kg.as hidden loss in milk purchase transactions (Dairy entrepreneurs in organized sector including milk cooperative dairy plants and multinational companies). Based on our experience in implementing rehabilitation plans for sick dairy plants we can say with confidence that profits can be further improved by another one rupee/ Kg. by controlling expenses and increasing revenue (Premium price that customer is willing to pay for quality products) by improved quality of pasteurized milk and dairy products.

In order to provide professional explanation and elaborate the contents stated in the para above we are enclosing here with an article on the following subject Indian Dairying Vision 2020. (Annexure-A).

I seek personal interview with your good self to make a brief presentation on this important subject that can become a turning point for our dairy industry to boost rural economy of our country and generate additional gainful employment for millions of rural families.

Yours truly

(Jaswant Singh Bhandair)  
Mission Director  
International Improvement Mission  
Regd.office #53-A, Sector 18-A Chandigarh  
Tel:0172- 2724872 Cell:98159- 61853



Jaswant Singh \*

## INDIA WINNING A GOLD IN DAIRY OLYMPICS

### PART-I

#### STORY OF THREE FRIENDS :

1. Poor Milk Producer
2. Innocent Consumer
3. Helpless Entrepreneur

#### "TEEN DOSTON NE SUNAI JAB APNI DASTAAN DAIRY PROFESSIONALS KO KAR DIA PRESHAN"

Three friends met with each other and decided to present their problems before the dairy professionals seek answers for the following three questions :

#### 1. Milk Producer :

During the last one decade cost of producing milk has increased manifold but annual average purchase price of organized sector (Expected to be higher than that of unorganized sector) remains around Rs.9 to Rs.10 per Kg. (Rs.140 to Rs.155/Kg. Fat) for 6.5% Fat and 8.8% SNF. Even the most successful cooperatives/reputed multinational/public limited companies are not paying more than Rs. 160/Kg. fat (6.5% Fat and 8.8% SNF) Factual position if ascertained by a third party will reveal that payment reaching the actual milk producer is almost Re. One per Kg. less than the declared price. Not only the price paid by unorganized sector to poor milk producers remains abnormally low but also carries high interest rate (advance payment tax) ranging from Rs. 0.50 to Re. 1/Kg. or even more.)

**Question No. 1 :** Why can't dairy industry save poor dairy farmers who are badly in debt and pay at least Re. 1/ Kg. more besides ensuring that due and declared price reaches genuine milk producers without any deductions or cuts?

#### 2. Consumer :

Urban consumer now a days is paying not less than Rs. 15/Kg. for pasteurized standardized milk containing 4.5% Fat and 8.6% S.N.F. when real value of raw milk contents for milk of this composition is not more than Rs.8.50/Kg.)

**Question No. 2 :** Why dairy industry is spending around Rs. 6.50/Kg. for procurement, processing and marketing of pasteurized milk and why it can not control these expenses and reduce sales price of milk even by Rs. 1/Kg to help the needy consumer to purchase more milk for his family?

\* Mission Director, International Improvement Mission  
Managing Director, Innovative Business Improvements  
Pvt. Ltd.  
53-A, Sector 18-A, Chandigarh-160018

#### 3. Entrepreneur :

Establishing commercial dairy plant needs investment of crores of rupees besides enormous effort to manage the business activity. Cost of milk procurement, processing, packing and marketing for efficiently managed dairy plant should not normally exceed Rs. 3.50/Kg. There is clear and visible margin of more than three rupees per Kg.. It should produce at least normal profit of 7% to 10 % of business turnover even after purchasing raw milk at Re. 1/Kg. more and selling standardized milk at Re. 1/Kg. less than what is prevailing at present.

**Question No. 3 :** Why so many dairy plants set up in the last one decade are either closed or suffering huge losses when there is no dearth of qualified dairy professionals to manage such plants and attain desired level of business profitability?

Most common question asked from dairy professionals (managing dairy business in India) by poor milk producers, innocent consumers and helpless entrepreneurs in dairy business. Why stipulated margin of profit is not reflecting in their balance sheets and is not being shared between the dairy farmers, consumers and entrepreneurs?—

### PART-II

#### TEEN PROFESSIONALS NE KAR DIA KAMAL SAHI SAWALON KA DIA SAHI JAWAB

Three professional friends decided to establish a dairy plant of 1Lac Kgs. per day capacity as a joint venture. One of them became a milk producer and promised to produce and also procure adequate quantity of milk to run their dairy plant to its optimum capacity. Second friend (Entrepreneur) assumed the responsibility of making required investment to establish required infrastructure to pasteurize and pack liquid milk and convert excess fat into ghee or allied products. Third friend (Professional marketing expert) accepted responsibility to organize suitable infrastructure to market dairy products produced in their plant.

In order to ensure fair play they decided that each one of them as owner and beneficiary of dairy business would be entitled to share the profits (Over and above actual expenses incurred on producing/procuring, processing/marketing milk) amongst themselves in proportion to their professional and financial contribution. Each one of them prepared a project report relating to his functional obligation i.e milk procurement /processing /marketing and they



discussed the same minutely examining all aspects relating to likely expenses on all the activities related with their business. They decided to follow "PARTHA" i.e. Indian concept for managing their dairy business. Project report finalized by them on this pattern indicated that milk procurement, processing and marketing as three prime functions if managed professionally and skillfully will not cost them more than Rs. 3/Kg. of milk. (Re. 1/per Kg. for each of these activities [i.e. procurement, processing and marketing]). In order to maintain complete transparency they all decided to follow documented business management system based on ISO concept. Besides it they agreed to prepare daily financial and profitability report for these three prime activities.

Based on actual cost of milk production jointly worked out by them they decided to fix basic price for buffalo milk as Rs. 10.40/Kg. (Cost of production + profit margin of Re 1/Kg.) for Milk containing 6.5% fat and 8.8% SNF. Similarly it was decided that cow milk will be purchased on two axis basis i.e. Rs. 80/Kg. fat and Rs. 53.33 /Kg. SNF. All other expenses directly/indirectly related with milk collection and its transportation, chilling etc.(village level to dairy plant) were fixed as Re.one per Kg.

Landed cost of raw chilled milk at dairy plant thus became Rs. 11.40/Kg. for standard milk containing 6.5% Fat and 8.8% SNF. Third partner responsible for marketing activity indicated that entire milk as per installed capacity of their processing plant can be sold as Standardized milk (4.5% Fat and 8.6%SNF).

They decided to convert excess Fat (6.5%-4.5%=2%) in to ghee to be sold @ Rs. 100/Kg. Ex factory cost of standardized milk after adding processing expenses of Re. 1/Kg. and subtracting Rs. 2/Kg. (realization from Fat removed from milk and sold as ghee) thus became Rs. 10.40/Kg.

Finally after adding actual expenses @ Rs. 1.50/Kg. on transportation/distribution of milk through direct/indirect marketing channels total cost of milk covering all expenses from producer to consumer as worked out by them was Rs. 11.90/ Kg.

Keeping in view Rs. 15/Kg. as price being charged from the consumer in urban markets they were left with clear margin of Rs.3.10/Kg. Business entrepreneur calculated annual PARTHA or net business margin over and above their actual expenses as Rs.11.31 crores

(More than 20% of business turnover)

Total investment on creating a most modern processing facility for handling one Lac liters milk per day as per their project report was less than Rs. 10 crores. Three of them ultimately decided to follow a long-term strategy that ensures steady growth of their business. As per this strategy they decided to keep basic milk price as Rs. 11.40/Kg., sales price for consumer as Rs.14/Kg. and operate their business still retaining Rs.1.10/Kg. as their margin of profit (Rs. 7 i.e. 8% of business turnover).

### PART-III

**DIL MEIN HO AGAR JOSH AUR KUCHH KAR DIKHANE  
KA SAPNA**

**KION NAHIN BANEGA FIR-SE SONE KI CHIRIA,  
BHARAT DESH APNA?**

To win a cricket match we need batsmen who score centuries, bowlers who take quick wickets, smart fielders who neither miss catches nor miss-field, alert wicket keeper who restricts extra runs and will not miss a catch or chance for LBW. Besides all this we must have a good captain to guide and coordinate team efforts for winning a match against all odds.

Our batsmen (Buffaloes & Cows) have already assured us of our victory by producing more milk (Runs) than any other global competitor. Living in uncomfortable shelters, eating grass and crop residues they produce nearly organic milk at very low cost. These KAMDHENUS are our real assets and backbone of our dairy industry.

Professionals managing dairy plants in our country are like the bowlers who need to acquire the skills and expertise that keeps global players away from our batting pitch (Home Market). They will have to safely move the milk from production centers to processing plants as fast as they can. Fast Bowling in this area can play prominent role in preserving natural freshness, taste and nutritional value of milk.

Spin bowlers (Processing Professionals) will be required to churn out value added products meeting international quality parameters that exceed customer expectations in terms of purity, nutritional value and price acceptability. In order to delight the spectators (Customers) and provide value for their money, our team must use environment friendly attractive packaging that ensures sales appeal and prolongs shelf life of dairy products.

Our fielders (Marketing Professionals) are required to play meaningful role by not missing any catch (Opportunity) to project good image of dairy products produced in India. They must run at fast pace in the global markets to fetch the balls (Export Orders) for keeping our plant capacities fully utilized. Dollars earned with their efforts will go in a long way to enable our dairy industry to upgrade technology and infrastructure facilities to further improve our global competitiveness. They must exercise complete control on marketing infrastructure and logistics in the home market to make Indian dairy products easily available at all retail outlets in our country. With their marketing strategy they can make scoring runs (Selling Dairy Products) an uphill task and un-viable proposition for our global competitors.

Our Government (Wicket Keeper) must accept full responsibility for missed catches (Opportunities) and extra runs (Leverage over us) scored by our competitors due to un-supportive policies/ administrative decisions. Our bowlers (Dairy professionals) with active support of wicket keeper (Government) can easily turn out to be the best team among global players. In the game of cricket unanimous good choice for a captain among players is always a person who has proven track record of outstanding performance and the ability to lead the team to victory. NDRI as competent manager and coach for our team is turning out competent



players (Dairy professionals) for the last many decades. NDDB as a champion has successfully demonstrated its winning concept and strategy by eliminating undesirable links (Middlemen) from dairy business. MNC having dairy plants in India have aptly proved a point that export quality dairy products can be manufactured with Indian milk and successfully marketed. Cost consciousness of private sector is being well acknowledged by one and all in terms of resource optimization. Let us keep it as closely guarded secret as to who is the real captain among our players till we win a gold in dairy Olympics. Let us all make sincere efforts and try to play captain's knock in our assigned fields and achieve the cherished goal of becoming "THE BEST" among contesting teams. With this general introduction, let me now share with you all that we need to accomplish for our mission of winning a Gold in Dairy Olympics.

**Mission :**

Upgrade quality, productivity and profitability of dairy business to standards higher than prevailing international norms for becoming No. 1 country in dairy Olympics.

**Policy :**

All dairymen and professionals associated directly/indirectly with dairy business would provide genuine professional inputs to ensure that every drop of milk/every grain of dairy product produced in our country remains pure/safe for human consumption and exceeds global customer expectations.

**Goals :**

- I. Improve productivity and quality of raw milk to meet specified international standards.
- II. Improve productivity of processing operations in order to attain desired standard of global competitiveness.
- III. Improve quality of dairy products so that these not only conform to international standards but also exceed specified norms.
- IV. Upgrade business management techniques and systems for attaining desired level of global competitiveness.
- V. Upgrade advertising/marketing techniques and systems for capturing major share of export markets.
- VI. Evolve innovative strategies for value addition by projecting organic/curative/preventive health care properties of Indian milk products

**GOAL-I :**

**Improve Productivity & Quality of Raw Milk :**

**OBJECTIVES :**

- a. Produce more milk at less cost
- b. Produce pure, clean and bacteriologically safe milk
- c. Eliminate undesirable links (Middlemen) from milk procurement business.
- d. Control adulteration, dilution and manipulation in milk procurement.

**GOAL-II :**

**Improve Productivity of Processing Operation:**

**OBJECTIVES :**

- a. Optimize capacity utilization of processing facilities
- b. Optimize manpower utilization
- c. Optimize recovery of milk solids (fat & SNF)
- d. Minimize wastage of packing materials and allied material inputs

- e. Minimize consumption of power, fuel and water
- f. Minimize production down time and maintenance expenditure

**GOAL-III :**

**Improve Quality of Dairy Products :**

**OBJECTIVES :**

- a. Introduce strict norms (international standards) for acceptance of raw milk.
- b. Follow documented quality system for monitoring all processing operations
- c. Enforce ethical code of conduct on dairy professionals managing dairy business

**GOAL-IV :**

**Upgrade Business Management Techniques & Systems:**

**OBJECTIVES :**

- a. Introduce Management for Results for improving prime performance parameters
- b. Introduce Quality Check Audit for monitoring quality aspects
- c. Introduce PARTHA concept of financial management for upgrading profitability.

**GOAL-V :**

**Upgrade Advertising/Marketing Techniques and Systems:**

**OBJECTIVES :**

- a. Minimize undesirable links (Middlemen) between dairy plant and consumer
- b. Project holistic image of our milk products through effective media presentations.
- c. Create common EXPORT QUALITY seal for dairy exports to be issued by accredited international test house specified and approved by importing countries.
- d. Promote ethnic Indian dairy products and formulations for better realization.

**GOAL-VI :**

**Evolve Innovative Strategies for Value Addition by Projecting Organic/Curative/Preventive Health Care Properties of Indian Milk Products**

**OBJECTIVES :**

- a. Project dairy products manufactured from organic milk produced by immunologically strong healthy buffaloes and typical breeds of our desi cows as preventive and curative medicine against most of human ailments
- b. Most of our ayurvedic medicinal formulations are made from "Desi Ghee" and milk ingredients. Efforts be made to promote export of such products.

(Concepts, facts and figures stated in this article are based on our practical experiences and have been taken from actual case studies and real success stories that can easily be replicated by all those who are in dairy business) □

## BECOME A BILLIONAIRE THROUGH DAIRY BUSINESS IN INDIA

Jaswant Singh Bhandair\*

*"Dairy business is most profitable business among F.M.C.G. sector in India  
(Over 20 to 30% net profits)."*

You may find it difficult to believe this statement but to the delight of ethical segment of dairy sector in India, we consider it as our proud privilege to authentically confirm it to you that it is 100% true. Since prime purpose of every business is profit generation through value addition and cost reduction so we must carryout microscopic S.W.O.T. analysis of our dairy business operations to attain profitability levels quoted above. Please consider the following facts, arithmetical calculations and documentary evidence that we have to justify our contention and statement quoted above.

Majority of the dairy professionals in India very strongly feel that it is almost impossible to:-

1. **PROCURE** on commercial scale raw milk without any adulteration, dilution and manipulation.
2. **Analyze** raw mixed milk for exact % Buffalo milk / Cow milk and added water and to find out its actual net worth.
3. **Process** and market pure & microbiologically safe pasteurized milk meeting international quality requirements and having shelf-life of more than 15 days.
4. **Control** total milk handling costs for milk processing plants below Rs.3.50/Liter.
5. **Attain** break even point for dairy plants handling even less than 10,000 Liters milk per day.
6. **Increase** purchase price of raw milk by Rs.1.00/liter, decrease consumer price by Rs.1.00/liter from prevalent levels and still attain net profit margin of more than 10% of turn over.
7. **Develop** technology to process milk without using any conventional dairy equipment or costly inputs and still attain shelf life of more than ten days for treated milk kept under refrigeration.
8. **Evolve** a system that ensures 100% product traceability between milk producers and consumers.
9. **Provide** loss insurance cover for ethical dairy plants against hidden losses in dairy business.
10. **Upgrade** with commitment the existing low profits making/sick dairy plants suffering losses in to profitable business ventures.

**In fact all these points directly relate to few basic unresolved problems and core issues predominantly affecting quality/productivity and profitability of dairy business operations in our country.**

## RAW MILK QUALITY RELATED CORE ISSUES AND UNRESOLVED PROBLEMS:

1. Implications of hidden losses in milk purchase transactions resulting from manipulation by dilution (Misusing 60:40 formulae prescribed for purchase of raw buffalo milk/cow milk and mixed milk)
2. By and large over-dependence of organized sector of our dairy industry for milk procurement on a chain of middlemen so called unorganized segment.
3. Non implementation of good manufacturing practices (G.M.P), Unscientific handling of raw milk at farm level, lack of cold chain facilities and use of unsanitary containers for milk while it remains in transit between milk producers and dairy plants.
4. Low incentive for absolutely pure and microbiologically safe raw milk and negligible penalties for adulterated /diluted and manipulated raw milk
5. Unviable milk production business due to inadequate sharing of consumer rupee with actual milk producers.

## AUTHENTICALLY TRIED AND TESTED SOLUTIONS:

1. Specified 60:40 formulae based on 6.50% Fat and 8.84% S.N.F. for standard buffalo milk having 29 C.L.R., 3.50% Fat and 8.50% S.N.F. for standard cow milk conforming to 30 C.L.R. when used separately for each kind of milk without intermixing with each other or dilution with water gives accurate results up to nine decimal points. Dilution if any must be adequately penalized separately for each purchase transaction strictly as per variation in S.N.F. derived by using the following formulae specified for this purpose:  
{ $S.N.F = C.L.R./4 + 0.2 \times Fat + C.L.R./10$ }  
Standard Buffalo Milk:  $29/4 + 0.2 \times 6.50 + 29/10 = 8.84\%$  S.N.F  
Standard Cow Milk:  $30/4 + 0.2 \times 3.50 + 30/10 = 8.50\%$  S.N.F.  
Mixed Milk (50% B.M+50% C.M.):  $29.50/4 + 0.2 \times 5.00 = 29.5/10 = 8.67$  S.N.F  
 $\{(29+30)/2 = 29.50 \text{ C.L.R.}\}$

It is only a myth that purchasing cow milk or mixed milk is less profitable as compared to Buffalo milk of standard composition or vice versa. Profitability of all three kinds of milk quoted above remains the same unless it is adulterated/diluted and manipulated. (Refer Annexure -A for detailed calculations).

2. Organized sector with the help of competent dairy professionals can easily create their own infrastructure to purchase raw milk directly from actual milk producers. Milk procurement system must incorporate transparent accounting/milk billing system for each transit stage milk purchase transaction to eliminate adulteration/dilution and manipulation {A.D.M.} besides controlling hidden losses in milk purchase transactions due to misuse of 60:40 formulae. Professionally designed fool proof milk procurement system of this kind would go in a long way to ensure microbiologically safe pure raw milk without any dilution and manipulation at a reasonable cost.



3. Use of accurate milk testing apparatus duly calibrated with N.P.L. and authenticated weighing equipment properly calibrated with standard dead weights is absolutely essential for maintaining perfect transparency in milk purchase transactions. By doing so transit losses in milk procurement and transportation can easily be controlled and recovered from defaulters responsible for such losses.
4. Introducing appropriate incentive schemes for undiluted pure raw milk (C.L.R. based) and microbiologically safe raw milk (G.M.P. based) would enable the dairy plants to achieve the desired objective of procuring required quantity of raw milk without adulteration, dilution and manipulation.
5. Organizations working truly on "Anand Pattern" like AMUL by procuring raw milk directly from milk producers can easily afford to pay remunerative price to milk producers. Relatively higher incentive price paid directly to milk producers gets easily recovered through corresponding increase in revenue due to elimination of undesirable added water (intentionally being added for manipulation by dilution) and the premium available in the market for good quality dairy products.

#### **PRODUCT QUALITY/PRODUCTIVITY RELATED CORE ISSUES AND UNRESOLVED PROBLEMS:**

1. Lack of norms and accepting substandard raw milk/other material inputs received by dairy plants by imposing nominal penalties.
2. Casual approach in dealing with serious issues relating to plant sanitation, personnel hygiene and sterility of equipments coming in contact with milk and milk products.
3. Shortcut/quick fix solutions for vital issues concerning quality and productivity operations.
4. Low priority for HACCP, Product traceability and Techno-commercial audit.
5. Lack of proper norms for finished products and self certification procedures
6. Lack of proper norms for utilization of energy and other key resources.
7. Lack of Waste control measures and system for regular disposal of waste materials.
8. Non implementation of lubrication and preventive maintenance schedules.
9. Neglecting or ignoring applicable statutory regulations.
10. Lack of proper inventory control and stock out problems for essential material inputs.
11. Unprofessional approach to security arrangements and upkeep of dairy plant campus.

#### **IMPACT OF LOW QUALITY AND PRODUCTIVITY:**

1. Consumer in India is required to boil pasteurized milk before consumption because it does not normally conform to international food safety and shelf life standards.
2. Our markets are flooded with adulterated/substandard dairy products.

## **AUTHENTICALLY TRIED AND TESTED SOLUTIONS:**

- 1. Lack of proper norms and accepting substandard raw milk/other material inputs received by dairy plants by imposing nominal penalties:**

So long dairy plants continue to accept diluted, adulterated and manipulated milk and other material inputs by applying nominal deductions/penalties, we can not achieve real breakthrough in improving raw milk quality or quality of finished products to meet with international standards. Real breakthrough in qualitative terms can only be achieved, when all dairy plants purchase only undiluted, adulteration free milk without any manipulation and it is not impossible to do so.

- 2. Casual approach in dealing with serious issues relating to plant sanitation, personnel hygiene and sterility of equipments coming in contact with milk and milk products:**

Professionally sound policies and quality systems designed by expert agency when implemented on the shop floor through procedural schedules and work instructions concerning sanitation, personnel hygiene and sterility of equipment framed by functional managers would make all the difference between results that can be achieved with conventional/casual management style.

- 3. Shortcut/quick fix solutions for vital issues concerning quality and productivity operations:**

Dairy professionals often tend to follow unethical trade practices while dealing with complex unsolved techno-commercial problems related to quality and productivity. These, over a period of time then become a normal convention and acceptable trade practices for most of the commercial dairy plants. No one normally dares to bell the cat by attempting to improve the deep-rooted conventions. We must evolve innovative systems and set of rules that would not only bell the cat, but also help us to put her in the isolation cage. Significant improvement in quality/productivity of business operations can be achieved by implementing such systems and techniques.

- 4. Low priority for HACCP, Product traceability and Techno-commercial audit:**

Keeping focus on hazardous /critical control points and meticulous implementation of set procedures coupled with close monitoring through regular technical audit would enable us to produce dairy products meeting international quality requirements. System of product traceability is also necessary to establish responsibility centers to control deviations.

- 5. Lack of proper norms for finished products and self certification procedures:**

All dairy products before these are handed over to marketing division must carry a self certification document duly signed by technical officer responsible for quality assurance function. Dairy plants must also decide their own norms for specifications of finished dairy products {higher than norms specified by statutory regulations}.

**6. Lack of proper norms for utilization of energy and other key resources:**

Need for monitoring and controlling utilization efficiency of key resources like milk, manpower, fuel, electricity, water, packing and allied materials should not be undermined. All such resources must be treated as money being spent on milk handling operations so their consumption as compared to specified norms must receive due attention of plant management. "Resource saved is money saved" need to be treated as a watch- word for all business operations and concentrated efforts must be made on this front so as to achieve targeted profitability levels mentioned above.

**7. Lack of Waste control measures and system for regular disposal of waste materials:**

Maintaining desired standards for sanitation and hygiene in the plant campus with a well planned and closely monitored system for waste disposal is also one of the basic necessities.

**8. Non implementation of lubrication and preventive maintenance schedules:**

Professionally designed and well documented procedures based on separate schedules for each of the above activities controlled by engineering department is absolutely essential for achieving high standards of productivity/ product quality.

**9. Neglecting or ignoring applicable statutory regulations:**

Management of dairy plants that does not wish to comply with statutory regulations due to financial constraints or other reasons always remain in panic and waste lot of time and resources for avoiding legal action and penalties due to violations/ infringements connected with such regulations. Violations under PFA/Weights and measures Act/Pollution Control Act etc. often prove counter productive because these adversely affect the product quality, productivity and profitability of organization.

**10. Lack of inventory control and stock out problems for essential material inputs:**

Comprehensive Purchase and inventory control procedure comprising directory of reputed suppliers, professionally prescribed detailed specifications for all kinds of material inputs, transparent procedure for inviting bids, evaluating offers and finalizing rate contracts or purchase deals purely on merits is yet another management function importance of which can not be undermined.

**11. Unprofessional approach to security arrangements and upkeep of plant campus:**

Perfectly regulated system for counting and accounting of men, materials and machines coming in and going out of the dairy plant is yet another very important management function. As per case studies of sick units/ low profits making dairy plants probed by us, these units suffered loss of millions of rupees due to malfunctioning of this department. Well-guarded campus is quite easy to maintain and made to give better-organized look to all those who visit our dairy plant.

## **PRODUCTIVITY & PROFITABILITY RELATED CORE ISSUES AND UNRESOLVED PROBLEMS:**

1. Lack of transparent financial accounting system to eliminate /control hidden losses.
2. Authority without responsibility and responsibility without authority.
3. Activity oriented conventional management style without any innovation or continuous improvement or consideration for performance results.
4. Conventional and expensive three tier marketing of milk and dairy products.
5. Low level of revenue generation and in process value addition.

## **IMPACT OF LOW PRODUCTIVITY AND PROFITABILITY:**

1. Despite higher visible profit opportunity and difference of more than Rs.7.00/Liter in the consumer price of pasteurized milk and farm gate price offered to milk producers, large numbers of commercial dairy plants dealing with supply of pasteurized liquid milk are either closed down, operating on nominal profits or struggling for their survival using even unethical means.

## **AUTHENTICALLY TRIED AND TESTED SOLUTIONS:**

1. **Lack of transparent financial accounting system to eliminate /control hidden losses.**  
Since financial resource is a prime mover for every business activity so it deserves special attention of business management team. Daily profitability statement and daily financial report are special features of famous "Partha" based "MARWARI" concept of financial accounting/ monitoring system. "Partha" system when applied to manage dairy business, works like a never failing tool in the hands of plant managers for attaining optimum levels of profitability and controlling hidden losses.
2. **Authority without responsibility or responsibility without authority:**  
Most of the Profit heads of dairy business units even if vested with full authority to take all decisions purely on merits and in a business like manner fail to explain the reasons for hidden losses/low profits and below norms profitability levels. They must accept full responsibility for financial results like a captain of a navel ship. Remuneration system based on salary cum profit linked incentives at least for managerial cadre would produce much better results.
3. **Low importance to continuous improvement schemes:**  
Closely monitored continuous improvement program coupled with "Management for results" for each departmental function when launched and implemented effectively would go in a long way to improve quality of raw milk/dairy products/ productivity and profitability of dairy business. Improvements however insignificant these may appear to us in the first instance, when incorporated in the system and carried out on recurring and continuous manner would produce the results that may soon become envy of your competitors.

4. **Conventional and expensive three tier marketing of milk and dairy products:**  
Company to consumer direct marketing viz. a viz. three tier (Distributor/dealer/retailer network) is the right prescription for professionally managed profitable dairy business ventures. When uneducated or less educated dairy farmers can be organized to form village co-operative societies then why educated consumers fully conscious of their rights to demand value for their money can not form consumer welfare forums in urban areas and help dairy plants to implement company to consumer direct marketing. We have successfully tried this concept on a pilot scale in a city in north India.
  
6. **Lower level of revenue generation and in process value addition :**  
In order to optimize revenue generation from dairy business we must produce and export International quality dairy foods. Even indigenous dairy products like Indian sweet meats, lassi, paneer, sweetened flavored milk and curd etc. would result in good value addition provided these are made out of pure and microbiologically safe raw milk to delight the consumer and marketed through marketing network based on company to consumer concept.

#### TESTIMONIALS/DOCUMENTARY EVIDENCE:

We have been sharing our research findings and practical experiences with dairy professionals through papers periodically published in dairy journals. Feed back given to us by professional friends working for reputed dairy entrepreneurs, indicated to us that majority of them feel that these are only theoretical concepts impossible to implement under the prevailing field conditions and cut throat competition in milk procurement among commercial dairy plants. Milk bills of such dairy plants especially those located in north India indicate that commercial dairy plants would not hesitate to accept raw milk having C.L.R as low as 15 to 20. Perhaps they do not know that such milk contains 40% to 60 % added water used by sellers for manipulation by dilution.

Experimental verification: Take 100 Kg. standard buffalo milk having 6.50% Fat, 8.84 % S.N.F. corresponding to specified 29 C.L.R. Now add 50% water in this milk. You will get diluted /manipulated milk containing 4.33% Fat and 5.89% S.N.F. (10.22% total solids). Theoretically C.L.R. of such milk would be 19.33 (unless increased by adding skimmed milk/milk powder, sugar, salt, starch or other commonly used undesirable adulterants to modify the same). Modification in S.N.F./Fat ratio is necessary for the manipulator because change in this ratio from specified norms i.e. 1.36 (8.84/6.50) for Buffalo milk, 2.4285714 (8.5/3.5) for Cow milk and 1.734 (8.67/5.00) for mixed milk i.e. (50% B.M + 50% C.M) is essential feature of manipulation by dilution that would ultimately result in hidden loss to purchaser which remains undetected with conventional milk billing calculations in vogue.

No organization using its professional wisdom would ever like to purchase such grossly diluted raw milk using 6.50% Fat /8.50% S.N.F. 60:40: formulae basis, justifying it as conventionally acceptable practice for purchasing mixed milk from unorganized sector. (Such formulae is neither justified by arithmetical calculations nor certified or validated by any reputed dairy institution of international repute). Entire private sector using these formulae for milk purchase, therefore, is victim of hidden losses that remain undetected with conventional milk billing calculations. Micro analysis of raw milk purchase transactions of such dairy plants (based on their actual milk bills) when carried out using Digital Analytical Technique (D.A.T.) evolved by one of our Mission associates, indicated hidden loss in the range of Rs.2.00 to Rs.3.00/Kg.

Added water used by sellers for the purpose of manipulation by dilution being microbiologically unsafe not only plays havoc with microbiological quality of raw milk but unnecessarily increases milk handling cost by 20 to 25 % especially for composite dairy plants manufacturing products like ghee and milk powder.

Under these circumstances our Mission is left with no option but to share with ethical dairy entrepreneurs' true documentary evidence based on actual case studies undertaken by us in India with the help of our Mission associates. Summary results of such case studies concerning purchase of raw milk, quality/productivity and profitability of business operations are being furnished here as under:

- I. Commercial dairy plant in India successfully purchased/received on dairy dock nearly 1 Lac liters raw milk/day (monthly average) containing 6.65% Fat, 8.82% S.N.F with 15.47% total solids and incurring only negligible hidden transit loss in milk purchase transactions. \*
- II. Commercial dairy plant in India successfully purchased/received on dairy dock during first year of its inception 282 Liter milk per village dairy center having 6.60% Fat, 8.75% S.N.F with 15.35 total solids and incurring only negligible hidden loss in transit. \*\*
- III. Commercial dairy plant in India successfully purchased/received on dairy dock during second year of its inception 367 Liters milk per village dairy center having 6.70 % Fat, 8.81% S.N.F. with 15.51% total solids incurring only nominal hidden loss in transit. \*\*\*
- IV. A commercial dairy institution purchasing diluted/manipulated raw milk is suffering hidden loss of over Rs.100 crores/year. Controlling such hidden losses holds the master key to attain profitability levels indicated above. \*\*\*\*
- V. A Commercial dairy plant implementing productivity oriented innovative management systems and techniques earned net profit of Rs1.60 crores in one year (Profit amount is almost equal to total investment on that dairy plant). \*\*\*\*\*
- VI. A Commercial dairy plant earned profit of over Rs.50 Lacs per month. \*\*\*\*\*
- VII. A commercial dairy plant using "Partha" based financial accounting system attained daily profitability level of Rs.2 Lacs per day. \*\*\*\*\*

Documentary evidence /testimonials quoted above clearly indicate that under the field conditions now prevailing here in India, it is quite possible to purchase on commercial scale undiluted good quality raw milk strictly as per C.L.R., Total milk solids, specified S.N.F./Fat ratio based on standards prescribed for Buffalo milk/Cow milk separately.

Good quality raw milk thus procured by ethical dairy entrepreneurs directly from milk producers or their own representatives incorporating above mentioned tried and tested solutions would be quite suitable for production/marketing of pure pasteurized milk attaining shelf life of two/three weeks and dairy products meeting international quality requirements.

It is quite possible to realize profitability levels indicated above through value addition and cost reduction by religiously implementing the tested and tried solutions described here in this presentation.

Our Mission is in a position to justify the truth by providing live demonstration /documentary evidence for all the ten points listed in first paragraph of this presentation. **We would be glad to help ethical segment of Indian dairy industry by providing to them data based free diagnostic techno-commercial audit services to identify and control hidden losses in their business operations.**

\*\*\*,\*\*\*,\*\*\*\* { True copies of documentary evidence/testimonials pertaining to these claims are available with the Mission office and also with publishers of this article and can be shown/ supplied to milk producer/consumer friendly ethical dairy professionals/institutions for inspiration and verification.

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## ANNEXURE-A

### TECHNO-ECONOMICS OF DAIRY BUSINESS IN INDIA

%	Category	QTY. Kgs.	Fat %	S.N.F.%	Rate/Kg. Rs..	Price Rs.
100	B.M.	100	6.5	8.84	13.65	1365
100	C.M	100	3.5	8.5	9.659999999	966
50/50	M.M	100	5	8.67	11.655	1165

Specified Rate for Buffalo Milk=Rs.210/Kg. Fat (Assumed Annual Average)

Or Rs. 13.65/Kg. For 6.50% Fat & 8.84% S.N.F. (29 C.L.R.)

Corresponding rate for Cow Milk 3.50% Fat & 8.50% S.N.F (30 C.L.R)

Rs. 9.659999999/Kg. say 9.66/Kg. For 3.50% Fat & 8.50 % S.N.F. {60:40Basis}

Rs.9.625/Kg @ B.M. Rates (Conventional Calculations 1/2x210 for Fat & 1/3x210 for S.N.F.){Diff.=0.034999999}

Mixed Milk Composition: 5.00% Fat & 8.67% S.N.F. (29.50 C.L.R) (50% B.M. & 50 % C.M.)

COST OF STANDARDIZED MILK 4.50% Fat & 8.50% S.N.F. Prepared from 100% Buffalo Milk (60:40 Basis)

Qty.Kg	Fat Value Rs.	Fat%	S.N.F.%	S.N.F. Value Rs.	Quantity Kgs.	Rate Rs./Kg.
100	8.19	6.50%	8.84%	5.46	100	13.65
144.4	5.67	4.50%	8.50%	5.25	104	10.92

NET VALUE:Rs.10.92/Kg. or 11.26944/Liter say Rs.11.27/Liter

COST OF STANDARDIZED MILK 4.50% Fat & 8.50% S.N.F. Prepared from 100% COW MILK (60:40 Basis)

Qty.Kg.	Fat Value Rs.	Fat%	S.N.F.%	S.N.F. Value Rs.	Quantity Kgs.	Rate Rs./Kg.
100	5.795999999	3.50%	8.50%	3.864	100	9.66
128.6	7.452	4.50%	8.50%	3.864	100	11.31

NET VALUE: Rs.11.31x29/30=Rs.10.933/Kg or Rs.11.26944/Liter say Rs.11.27/Liter

COST OF STANDARDIZED MILK 4.50% Fat & 8.50% S.N.F. Prepared from 50% Buffalo Milk & 50% Cow Milk (60:40 Basis)

Qty.Kg.	Fat Value Rs.	Fat%	S.N.F.%	S.N.F. Value Rs.	Quantity Kgs.	Rate Rs./Kg.
100	6.993	5.00%	8.67%	4.648139999	100	11.655
111.1	6.2937	4.50%	8.50%	4.556999999	102	10.85

NET VALUE: RS.10.850699999+(0.034999999+0.034999999)=Rs.10.920699997/Kg.

Or Rs.11.2701623969/Liter say Rs.11.27/Liter

Total Handling Cost of Pasteurized Milk as assessed by a reputed business house in India:=Rs.3.16/Liter.

Let us assume Total Milk Handling Cost as Rs.4.00/Liter (Including unforeseen expenses/handling losses)

TOTAL COST OF PASTEURIZED MILK (6.50% Fat / 8.84% S.N.F.)=Rs.(13.65+4.00)=Rs.17.65/Kg. or Rs.18.21/Liter

TOTAL REVENUE FROM PASTEURIZED MILK (6.50% Fat & 8.84% S.N.F.)=Rs.23/Liter

NET PROFIT FROM PASTEURIZED MILK (6.50% Fat & 8.84% S.N.F.)=Rs.(23-18.2148)=Rs.4.7852/Liter {20.80% of turnover}

ANNUAL PROFITS FOR DAIRY PLANT HANDLING 1 L.L.P.D.=Rs.17,46,59,800

COST OF STANDARDIZED MILK Prepared from Buffalo Milk, Cow milk or Mixed Milk=Rs.11.27/Liter

TOTAL COST OF STANDARDIZED MILK(Sourced from B.M., C.M. or M.M)= Rs.(11.27+4.00)=Rs.15.27/Liter

REVENUE FROM PASTEURIZED STANDARDIZED MILK=Rs.21.00/Liter

NET PROFIT FROM PASTEURIZED STANDARDIZED MILK=Rs.5.73/Liter {27.28% of turnover}

ANNUAL PROFITS FOR DAIRY PLANT HANDLING 1 L.L.P.D.=Rs.20,91,45,000

CONCLUSION:

- 1 Dairy business In India is most profitable business among F.M.C.G (Over 20 to 30% net profits)
- 2 Loss of Rs.2.00/Kg. to Rs.3.00./Kg. due to dilution and manipulation in raw milk is controllable.



TESTIMONIALS/DOCUMENTARY EVIDENCE  
ACTUAL CASE STUDY-IIU-VII  
MILKI QUIZ

To Win a prize of RS. One Lac  
Hidden loss due to dilution & Manipulation in this milk bill = Rs.2.12/Kg.  
OR (Rs.2.12x1x365)=Rs.7,73,80,000/year @ 1 Lac liters milk handling /day  
Explain how? and why? with arithmetical calculations and scientific logic

RATE: BASIC RM RATE 187.00 PER KG FAT 6.5% & SNF 8.0%  
AND CN FAT 3.5% & SNF 8.5% WITH STANDARD  
DEDUCTIONS AS PER COMPANY RULES

RUFFALO							COW							
DATE	SH	WTY	FAT%	SNF%	FAT KG	SNF KG	FAT.AMT	WTY	FAT%	SNF%	FAT KG	SNF KG	FAT.AMT	SNF.AMT
01/08/2004	K	110.00	6.50	8.82	7.15	9.70	1337.05	30.00	3.50	8.50	1.05	2.55	98.18	158.95
01/08/2004	E	111.00	6.50	8.82	7.22	9.79	1349.21	41.00	3.50	8.50	1.44	3.49	134.17	217.23
02/08/2004	K	110.00	6.50	8.82	7.15	9.70	1337.05	40.00	3.80	8.50	1.52	3.40	142.17	211.93
02/08/2004	E	110.00	6.80	8.80	7.48	9.68	1398.76	41.00	3.50	8.50	1.44	3.49	134.17	217.23
03/08/2004	K	109.00	6.50	8.82	7.09	9.61	1324.90	40.00	3.50	8.50	1.40	3.40	130.90	211.93
03/08/2004	E	103.00	6.50	8.82	6.70	9.09	1251.77	43.00	3.50	8.50	1.51	3.66	140.72	227.83
04/08/2004	K	115.00	6.50	8.82	7.48	10.14	1397.63	40.00	3.80	8.50	1.52	3.40	142.17	211.93
04/08/2004	E	112.00	6.50	8.82	7.28	9.88	1361.36	41.00	3.50	8.50	1.44	3.49	134.17	217.23
05/08/2004	K	110.00	6.50	8.82	7.15	9.70	1337.05	42.00	3.80	8.50	1.51	3.57	141.57	222.53
5/08/2004	E	105.00	6.50	8.82	6.83	9.26	1276.28	41.00	3.50	8.50	1.44	3.49	134.17	217.23
06/08/2004	K	109.00	6.50	8.82	7.09	9.61	1324.90	40.00	3.80	8.50	1.52	3.40	142.17	211.93
06/08/2004	E	106.00	6.50	8.82	6.89	9.35	1288.43	41.00	3.50	8.50	1.44	3.49	134.17	217.23
07/08/2004	K	110.00	6.50	8.82	7.15	9.70	1337.05	23.00	3.80	8.50	0.87	1.96	81.72	121.88
07/08/2004	E	80.00	6.50	8.82	5.20	7.06	972.40	15.00	3.50	8.50	0.53	1.28	49.09	79.48
08/08/2004	K	12.00	6.60	8.81	5.41	7.22	1012.04	18.00	3.50	8.50	0.63	1.53	58.91	95.37
08/08/2004	E	105.00	6.50	8.82	6.83	9.26	1276.28	39.00	3.50	8.50	1.37	3.32	127.63	206.44
09/08/2004	K	90.00	6.50	8.82	5.85	7.94	1093.95	40.00	3.50	8.50	1.40	3.40	130.90	211.93
09/08/2004	E	101.00	6.50	8.82	6.57	8.91	1227.66	41.00	3.50	8.50	1.44	3.49	134.17	217.23
10/08/2004	K	110.00	6.50	8.82	7.15	9.70	1337.05	39.00	3.50	8.50	1.37	3.32	127.63	206.44
10/08/2004	E	110.00	6.50	8.82	7.15	9.70	1337.05	40.00	3.50	8.50	1.40	3.40	130.90	211.93
		2098.00			136.82	185.00	25578.27	735.00			26.24	62.53	2449.33	5894.26

Ruffalo Milk Amount.....	25578.27		
Cow Milk FAT Amount.....	2449.33		
Cow Milk SNF Amount.....	3994.26		
<b>TOTAL AMOUNT..(A).....</b>	<b>31921.86</b>		
VO: Handling Charges.....	815.30		
ADD: Arrears.....	0.00		
ADD: Quantity Incentive.....	165.05		
ADD: Quality Incentive.....	295.14		
<b>TOTAL AMOUNT..(B).....</b>	<b>1275.50</b>		
<b>TOTAL AMOUNT PAYABLE (A+B)</b>	<b>33195.36</b>	Per Kg....	11.72
LESS: Ghee Amount.....	0.00		
LESS: Milk Can Amount.....	0.00		
LESS: Store Material.....	0.00		
LESS: Other Deductions.....	0.00		
<b>TOTAL AMOUNT..(C).....</b>	<b>0.00</b>		
<b>NET PAYABLE..(A+B-C).....</b>	<b>33195.36</b>		

Hidden Losses in milk Purchase Transactions  
Actual Case Study of a Commercial Dairy Institution  
(Sawal Sau Crore Ka)

	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8	ZONE 9	ZONE 10	ZONE 11	TOTAL
1. MILK PROCUREMENT												
2. MILK ROUTES	30	19	25	29	26	25	35	65	19	26	39	338
3. TOTAL MILK PURCH. (IN LAK KGS.)	10.26	5.70	8.05	6.91	5.19	7.45	33.98	37.01	9.05	6.38	10.19	141.02
4. BULLE MILK	3.43	2.74	5.24	1.11	1.76	1.87	17.31	25.38	4.14	2.46	2.75	69.69
5. COW MILK	6.83	3.46	3.61	1.02	1.41	5.58	16.67	11.66	4.91	3.92	7.44	71.33
6. % BULLE ON COW MILK	67%	61%	41%	55%	66%	75%	49%	31%	54%	61%	73%	51%
7. AV. FAT & SNF %AGE												
8. BULLE FAT %	7.03	7.37	7.06	7.00	7.30	7.70	7.20	7.10	7.10	7.11	6.97	7.13
9. BULLE SNF %	8.62	8.57	8.54	8.54	8.70	8.50	8.70	8.60	8.60	8.53	8.42	8.61
10. COW FAT %	3.74	3.84	3.65	3.05	3.50	3.70	3.00	3.70	3.70	3.57	3.81	3.73
11. COW SNF %	7.64	7.80	7.82	7.91	8.00	8.00	8.00	7.82	7.90	7.60	7.80	7.86
12. COMPOSITE FAT %	4.84	5.23	5.67	5.76	6.02	6.50	5.51	6.03	5.26	4.93	4.66	5.41
13. COMPOSITE SNF %	7.97	8.10	8.25	8.20	8.24	8.14	8.14	8.35	8.22	7.96	7.97	8.23
14. AV. DAILY MILK PROCUREMENT (IN KGS PER DAY)	33097	18387	28548	22354	16742	24017	108111	119486	29194	20581	32871	454903
15. AV. PROC. PER DAY PER COW (IN KGS PER DAY)	58	51	107	97	64	100	129	161	75	50	57	91
16. AV. AVERAGE PRICE PAID TO PRODUCERS (IN RS. PER KG.)	13.86	13.89	13.86	13.56	14.37	14.03	14.00	13.91	14.08	13.79	12.83	13.92
17. COW AVERAGE PRICE PAID TO PRODUCERS (IN RS. PER KG.)	8.62	8.83	9.08	9.58	9.12	9.22	9.39	9.25	8.94	8.40	8.51	8.99
18. AV. AVERAGE PRICE PAID TO PRODUCERS (IN RS. PER KG.)	10.21	10.81	11.92	11.64	12.82	10.43	12.19	12.47	11.29	10.47	9.68	11.63



वडोदरा जिल्ला सदकारी दूध उत्पादन संघ वडोदरा.

01-11-2000 to 10-11-2000

15-11-2000

053171

5452

सं. नाम: Kukas 5452

शेड नं: 17

41

क्र.सं.	शेड	प्रकार	प्रति लीटर	प्रति दिन	दैनिक	दैनिक	प्रकार	प्रति लीटर	प्रति दिन	दैनिक	विवरण	मूल्य																																										
01	H	B	G-1	7.1	9.3	261	18.53	X	187.00	3465.11	Amount of Milk-ew per Bill no 052219	113457.72																																										
01	E	B	G-1	6.6	8.9	212	13.99	X	187.00	2616.13																																												
02	H	B	G-1	7.0	9.4	289	20.23	X	187.00	3783.01																																												
02	E	B	G-1	6.8	9.1	226	15.37	X	187.00	2874.19																																												
03	H	B	G-1	7.4	9.4	230	17.02	X	187.00	3182.74																																												
03	E	B	G-1	6.6	9.1	216	14.26	X	187.00	2666.62																																												
04	H	B	G-1	7.3	9.3	264	19.27	X	187.00	3603.49																																												
04	R	R	G-1	6.8	9.0	214	14.55	X	187.00	2720.85																																												
05	M	B	G-1	6.7	9.0	271	18.16	X	187.00	3395.92																																												
05	S	B	G-1	6.1	8.9	222	13.54	X	187.00	2531.98																																												
06	H	B	G-1	7.6	9.4	259	19.68	X	187.00	3680.16																																												
06	E	B	G-1	6.8	9.1	215	14.62	X	187.00	2733.94																																												
07	H	B	G-1	7.3	9.3	262	19.13	X	187.00	3577.31																																												
07	E	B	G-1	6.6	9.2	213	14.06	X	187.00	2629.22																																												
08	H	B	G-1	7.5	9.5	268	20.10	X	187.00	3758.70																																												
08	E	B	G-1	6.6	9.1	187	12.34	X	187.00	2307.58																																												
09	H	B	G-1	7.6	9.4	268	20.37	X	187.00	3809.19																																												
09	E	B	G-1	6.6	9.0	127	8.38	X	187.00	1567.06																																												
10	H	B	G-1	7.4	9.1	260	19.24	X	187.00	3597.88																																												
10	E	B	G-1	6.5	9.2	225	14.62	X	187.00	2735.81																																												
01	M	C	G-1	4.3	8.3	360	35.20	X	90.47	3184.54	Fatsy Rate/Kg B.M 4587 187 Value Rate/Kg 61236 13.34																																											
01	E	C	G-1	4.6	8.9	187	19.59	X	90.47	1772.31																																												
02	H	C	G-1	4.0	8.4	345	32.93	X	90.47	2979.18																																												
02	E	C	G-1	4.6	8.7	185	19.13	X	90.47	1730.69																																												
03	M	C	G-2	4.1	8.1	350	33.06	X	88.18	2915.23																																												
03	E	C	G-1	4.6	8.7	176	18.20	X	90.47	1646.55																																												
04	M	C	G-1	3.9	8.3	343	32.17	X	90.47	2910.42																																												
04	E	C	G-1	4.4	8.9	187	19.21	X	90.47	1737.93																																												
05	M	C	G-2	4.1	8.0	358	33.58	X	88.18	2961.08																																												
05	E	C	G-1	4.5	8.9	176	18.26	X	90.47	1651.98																																												
06	M	C	G-1	4.2	8.5	351	34.43	X	90.47	3114.88																																												
06	E	C	G-1	4.5	8.3	185	18.46	X	90.47	1670.08																																												
07	H	C	G-1	4.0	8.3	349	33.08	X	90.47	2992.75																																												
07	E	C	G-1	4.7	8.8	187	19.65	X	90.47	1777.74																																												
08	M	C	G-1	4.3	8.8	332	33.56	X	90.47	3036.17																																												
08	E	C	G-1	4.6	8.8	183	19.05	X	90.47	1723.45																																												
09	M	C	G-1	4.3	8.3	339	33.15	X	90.47	2999.08																																												
09	E	C	G-1	4.3	8.9	183	18.62	X	90.47	1684.55																																												
10	M	C	G-2	4.1	8.0	316	29.64	X	88.18	2613.66																																												
10	E	C	G-1	4.6	8.7	181	18.72	X	90.47	1693.60																																												
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61236.89	46795.87		113457.72		191108.53					30382.00																																												

Month	Buff			Buff sour	Buff curd	Buff Milk total	Buff Payment	Cow			Cow sour	Cow curd	Cow total	Cow Payment
	A Grade	B Grade	L Grade					A Grade	B Grade	L Grade				
April	830568	29884	1661	1259	1395	864757	13512699.2	7722150	552214	56672	14828	7650	21668213	89911703.5
May	617185	37691	1873	1391	1677	659817	10671663.13	7360603	867470	103144	27013	15022	19044915	89911703.5
June	651329	35757	1642	2267	1481	692476	11884866.6	7339445	699539	72107	30441	14435	20040834	95508127.8
July	709431	21410	1288	931	681	733741	12728658	7782042	331713	45983	21187	6962	20915943	98706117.2
Aug	757222	10837	1075	423	319	769876	14782875.25	7931033	139061	26247	13427	5523	22864166	107647204
Sep	1011107	11954	1801	927	1243	1637032	19262905.35	8084158	190035	22105	18466	8141	27565319	110922738
Oct	1252617	20101	1728	708	642	1375796	23792273.05	8474877	340615	28218	7968	3169	32647129	117864250
Nov	1349307	28812	2343	1108	335	1307965	23877340.44	7885759	286067	30588	6278	1910	32087542	103049761
Dec	1548106	38039	2019	75	90	1483839	25850306.47	8102657	280668	25802	2302	727	34262462	98853859.4
Jan	1455055	39100	2205	0	224	1400567	24123410.13	8146231	187950	21802	765	171	3444439	98622727.2
Feb	1132543	40224	2276	30	0	1132543	19049265.81	7232781	234613	32256	1392	363	2666771	88281997.2
Mar	967986	45079	3095	571	255	1015086	17468255.57	7470508	454676	45924	6241	2120	2544726	96108929.5
Total	12282456	358888	23006	9690	8342	12682382	217004519	93532244	4564621	512248	150308	66193	315830133	1195387118

A Grade: >= 5.5% Fat & >= 9.0% SNF  
 B Grade: >= 5.0 & <= 5.4% SNF & 8.5% >= & <= 8.9% SNF  
 C Grade: < 5.0 % Fat and < 8.5% SNF

Sour Milk 75% of Declared Price  
 Curd 50% of Declared Price

A Grade : >= 3.5% Fat & >= 8.5% SNF  
 B Grade : >= 3.0 & <= 3.4 Fat & 8.3 To 8.4% SNF  
 C Grade : < 3.0 Fat & < 8.3% SNF

### ***Anti-stress Milk Launched in Japan***

A Japanese dairy company, M/s Nakazawa Foods has recently launched super-premium milk for stressed-out adults. The milk is priced at 5,000 Yén or 43 dollars for a bottle of 900 millilitres, or one quart. The price is nearly 30 times as expensive as ordinary milk even in Tokyo, which is famous for its high prices.

According to the company, the milk is taken from cows once a week at the break of dawn, as they discharge a lot of a stress-relieving hormone called melatonin during the night. The milk is bottled within six hours of milking at a farm north of Tokyo. It is said to contain three to four times as much melatonin as usual milk.

Indian Dairyman, 59,11,2007 **17**

## “Organic” milk makes its debut in Ontario

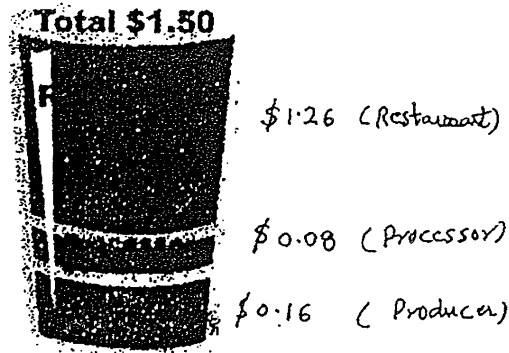
Erin, ON — “Organic Meadow” milk has been launched in the Ontario market as a result of an agreement between the Dairy Farmers of Ontario and the Ontar-Bio Organic Farmers’ Cooperative comprising a group of dairy farmers from the Owen Sound area. The milk comes from cows which are fed from crops raised to organic standards in which no fertilizers, insect or weed controls are used.

The milk from these cows is sent separately in its own tanker truck to the dairy for processing. “Organic Meadow” milk is processed and pack-

aged at Steen’s Dairy in Erin, Ont. At present, the dairy is packaging 2% milk in one-litre gabletop cartons and 10% cream in 500 g packages. The one-litre size of 2% milk retails for \$1.90 to \$2.20 and is available primarily in health food stores.

The dairy reports that “Organic Meadow” milk volume is growing steadily and that the product is now available in major metropolitan markets such as Toronto, Kitchener-Waterloo, and now Ottawa.

Cream separated from this milk is sent on to Alliston Creamery & Dairy Ltd., in Alliston, Ont. where it is manufactured into butter. This project has been underway for about a month and President Lloyd Kennedy says that due to the specialized requirements of organic farming (it takes farmers about three years to qualify), it will take time to build a volume market for this particular type of butter.



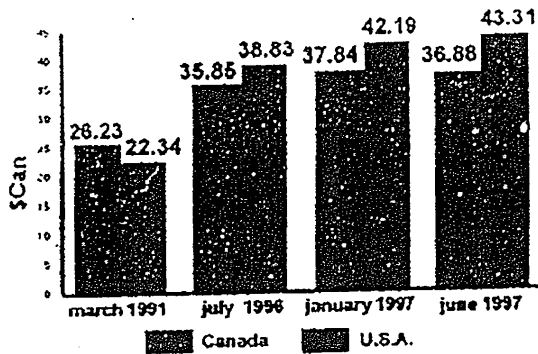
**Dairy Farmers of Canada's policy on rbST**  
Dairy Farmers of Canada (DFC) is asking the Government of Canada to establish that recombinant somatotropin (rbST) is completely safe before approving its use for dairy cows.

At their Annual General Meeting in July, dairy producers passed a resolution asking the federal government to fulfill three specific conditions before finalizing its authorization for the licensing of rbST in Canada. Specifically, dairy farmers request the following conditions be met:

1. that the Auditor General of Canada completes a comprehensive audit of the approval process for rbST to ensure that any claims questioning its integrity are fully dispelled
  2. that the safety of the product be confirmed by recognized international health organizations such as the FAO/WHO Codex Alimentarius Commission
- and
3. that Health Canada agrees to fully inform the public about the assessment process and the rationale it used in its evaluation of rbST.

The resolution came in the wake of a meeting of the Codex Alimentarius Commission which sought a comprehensive review of the scientific evidence on the safety of the product. Recent attacks on the transparency of the Health Canada approval process for new products, was also a factor in this request.



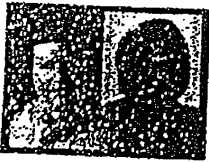


Source: Dairy Farmers of Canada Update of an Agriculture and Agri-Food Canada study entitled "Comparison of the cost of a nutritious food basket in border cities in Canada, and the United States", July 1996, January 1997

### WHO'S MILKING WHOM? SURVEY SHOWS THAT RESTAURANTS ARE TAKING MORE THAN THEIR FAIR SHARE OF THE CONSUMER DOLLAR

There have been recent attacks in the media on Canada's supply management system. Groups like the Canadian Restaurant and Foodservices Association have tried to create a link between supply management and restaurant losses - a link which is most definitely an invalid one. If anyone has contributed to the losses experienced by restaurants across the country, it's not dairy producers but restaurants themselves. Take the cost of a glass of milk for example. A glass of milk in a restaurant will cost, on average, \$1.50. Of that \$1.50, 16 cents go to the milk producer (who feeds the cows, milks the cows, transports the milk, etc.), 8 cents go to the processor (who pasteurizes the milk, processes and packages it), and \$1.26 goes to the restaurant, where the milk is simply poured into a glass and carried to a table.

Share of the consumer dollar  
per glass of milk served in a restaurant



Wilson VS Fox  
& Akre Television



Reporters Blow Whistle On News Station

FLORIDA MILK SUPPLY RIDDLED WITH  
ARTIFICIAL HORMONE LINKED TO  
CANCER; REPORTERS SAY THEY WERE  
ORDERED TO LIE ABOUT IT ON FOX-TV

TAMPA—Two award-winning investigative reporters at the Fox-owned television station in Tampa are blowing the whistle on a story they say WTVT (Ch 13) and its corporate bosses preferred to coverup rather than broadcast honestly and accurately.

The story, documented in a lawsuit the reporters filed Thursday, reveals the widespread use of a controversial bovine growth hormone Florida dairymen have been secretly injecting into their cows.

The suit and information about use of the hormone in dairy cattle are presented in full detail at a special Internet web site. The site can be viewed at: <http://www.foxBGHsuit.com>

Though legal since approved by the U.S. Food and Drug Administration in 1993, the artificial hormone commonly known as BGH has been linked to cancer and is banned throughout Europe and unapproved in several other countries because of human health concerns.

The never-broadcast report also reveals how Florida supermarkets quietly reneged on promises not to sell milk from treated cows until the hormone gained widespread acceptance by consumers. All major supermarkets now admit BGH has found its way into virtually all the state's milk supply.

The husband-and-wife investigative team joined with Florida's top consumer groups—the Florida Public Interest Research Group and the Consumer Action Network—to reveal the BGH story at news conferences Thursday in Tallahassee and Tampa.

The reporters also provided details of their suit which charges Fox television, strongly pressured by BGH-maker Monsanto, with violating the state's whistleblower act by firing the journalists for refusing to broadcast false reports and threatening to report the station's conduct to the FCC. Their complaint also claims the station violated the reporters' contracts in dismissing them for those reasons and it seeks a ruling from the court to determine to what extent the reporters' contractual obligations limit their ability to speak freely about the rBGH issue.

The journalists filed the suit after struggling with Fox executives most of last year to get the story on the air. According to court papers, they were ultimately dismissed December 2, 1997.

"Every editor has the right to kill a story and any honest reporter will tell you that happens from time to time when a news organization's self interest wins out over the public interest," said Steve Wilson, the station's former senior investigative reporter who helped Akre produce the story and is now one of the plaintiffs.

"But when media managers who are not journalists have so little regard for the public trust that they actually order reporters to broadcast false information and slant the truth to curry the favor or avoid the wrath of special interests as happened here, that is the day any responsible reporter has to stand up and say, 'No way!' That is what Jane and I are saying with this lawsuit," Wilson

foxBGHsuit/SUIT PARTIES

Many scientists have expressed strong concerns about a possible link between cancer and the consumption of milk from cows injected with the synthetic hormone. Those and other human health concerns have blocked its approval in many other countries including Canada, New Zealand and every member nation of the Europe Union.

Nonetheless, Monsanto which developed and sells the product has always insisted use of the hormone poses no human health risk of any kind. The FDA, whose veterinary medicine branch approved the animal drug in 1993, agrees.

Scientists who oppose the use of BGH argue that while the drug is said to shorten the life of the cow by speeding up its metabolism and causing certain infections, it also leads to changes in the cows' milk. Dr. Samuel Epstein at the University of Illinois says, "There are highly suggestive if not, persuasive lines of evidence showing that human consumption of milk from treated cows poses unnecessary risks of breast and colon cancer."

Epstein, an acknowledged expert on the environmental causes of cancer, has three medical degrees, is the author of nine books, and is frequently called to testify as an expert before Congress. Other respected experts share his position. Some like Dr. William von Meyer have stated further concerns about whether BGH milk may cause other long-term health problems in humans. All the critics and even some BGH supporters agree the possibility has never been thoroughly investigated.

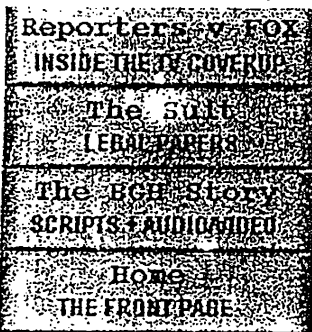
Consumers have also expressed concern about how use of the drug can lead to high levels of antibiotic drugs in milk. Many farmers are forced to inject their animals with powerful drugs to fight infections and other side effects experienced by cows injected with the BGH.

No labeling law in Florida requires milk producers to tell consumers when their milk or other dairy products come from cows treated with the controversial hormone. In fact, Monsanto has fought efforts by dairies that do not use the product from saying so on their labels. Ben and Jerry's ice cream, which buys only from farmers who do not inject

their cows with BGH, just won a legal victory in Illinois to allow them to label their products artificial-BGH-free.

In Wisconsin, Vermont, and elsewhere, consumers have demanded grocers stop carrying BGH milk or at least give shoppers a choice at the dairy case.

"This is precisely what this is all about," said reporter Akre. "Yes, I'm an investigative reporter but I'm also a mother. I and every other mother and consumer deserve to hear all that is known about what I pour on my daughter's cereal every morning. Only then can any of us decide for ourselves if there is any risk and whether it rises to a level we are willing to take."




[Details About the Dispute.](#)

[Read the legal complaint against FOX-TV.](#)

[Reporter's Scripts](#)

[Return Home](#)

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To PRINT this page use the NOFRAMES version

## THE MYSTERY IN YOUR MILK

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### Reporters' Version

#### Part I, Version 29

NATSND, milk pouring into glass up/under for upcoming NARRATION

NARRATION 1: "Nature's most nearly perfect food"—that's how most of us have always thought of milk... wholesome, nutritious and *pure* just like it says on some of the trucks that deliver it.

But down on the farm where most of us never *see*? Some Florida farmers have been quietly squeezing more cash from their cows by injecting them with an artificial growth hormone so they'll produce more milk than nature intended.

Thurman Hatten, Florida Dairy Farmer: "Yes I would say, people in Florida are using it. (Reporter Jane Akre) And you yourself? (Hatten) Ahh..."

NARRATION 2: Thurman Hatten is one of *many* Florida dairymen reluctant to admit that they're injecting their cows every two weeks...

Farmer Hatten continues: "...it's possible I *could* be using it."

NARRATION 3: The drug some Florida farmers don't want you to *know* they're *using* is a Monsanto laboratory version of bovine growth hormone known as BGH.

Here's how it works: when the cow gets injected with extra BGH, it stimulates the production of *another* hormone called IGF-1. *That's* really the stuff that speeds up the cow's metabolism, causing her to produce up to 30% more milk. But some scientists like Dr. Samuel Epstein are warning what might be good for the farmers' bottom line might be big trouble *down* the line for people drinking the milk from treated cows.

Dr. Samuel Epstein, Scientist, University of Illinois: "... there are highly suggestive if not persuasive lines of evidence showing that consumption of this milk poses risks of breast and colon cancer."

NARRATION 4: Dr. Epstein is a scientist at the University of Illinois School of Public Health. He's earned three medical degrees, written eight books, and is frequently called

upon to advise Congress about things in our environment which may cause cancer. He and others like Dr. William von Meyer point to what they say is a growing body of scientific evidence of a link between IGF-1 and human cancers which might not show up for years to come.

Dr. William Von Meyer, research scientist: "We're going to save some lives if we review this now. If we allow BGH to go on, I'm sure we're taking excessive risks with society."

NARRATION 5:

Dr. von Meyer has spent 30 years studying chemical products and testing their effects on humans. He's supervised many such tests on thousands of *animals* at schools such as the University of London and UCLA. He's headed agricultural, chemical and genetic research at some of America's most prestigious companies.

His concerns about BGH have have sparked an inquiry by Congressman Scott Klug who wants to know just how *was* BGH ever approved for use in *this* country three years ago while a dozen European countries, Canada, and New Zealand have all blocked the use of it *there*.

Monsanto is the giant chemical company which sells the synthetic hormone under the brand name Posilac... and Monsanto has consistently rejected the concerns of scientists around the world.

Dr. Robert Collier, chief Monsanto BGH scientist: "In fact, the FDA has commented several times on this issue after there were concerns raised. They have publicly restated human safety confidence... this is not something knowledgeable people have concerns about."

Calf in pen: "Moo!"

NARRATION 6:

While other companies have dropped by the wayside, Monsanto has invested a mountain of money into Bovine Growth Hormone. Company sales tapes encourage farmer's to use it as a tool to milk more profits out of every cow.

Video clip of Monsanto sales tape: "Of course you'll want to inject Posilac into every eligible cow, as each cow not treated is a lost income opportunity."

NARRATION 7:

A number of critics including at least one state agriculture commissioner have called it "crack for cows" for the way it speeds up the cow's milk production... but despite it's promise of profit, some dairymen say the product doesn't always lead to happy trails for the cows or for those who tend them.

Charles Knight, Florida Dairy Farmer: "It's a tool that can be used but you better be careful 'cause it can burn you..."

## Pasteurization could be replaced with new energy efficient process

Guelph, ON — A new economical and environmentally friendly process that uses pulsed electrical fields to preserve liquid foods could replace pasteurization, according to research studies now underway at the University of Guelph. The research is sponsored by the Ontario Ministry of Agricultural, Food and Rural Affairs and the Natural Sciences and Engineering Research Council.

This research project shows that liquid foods such as milk products and juices can be safely treated with high-voltage short-time electric pulses without heating and without loss of natural vitamins and flavours. Pasteurization, which requires food to be heated to high temperatures (>70°C) to kill micro-organisms and inactivate enzymes, has high energy costs and causes foods to lose natural vitamins and flavour. Research into the electric pulse process is also being conducted in Japan, Germany and the U.S.

According to University of Guelph engineering professor Gauri Mittal, "The big advantage of this process is energy savings . . . one litre of milk requires more than 300,000

joules (or about 71,000 calories), whereas the new process requires only 500 to 1,000 joules."

Prof. Mittal is now refining the process with Guelph food scientists Mansel Griffiths and Bill Keith, James Cross of the University of Waterloo and Guelph graduates Shirley Ho, Vinia Marquez and Munawar Chaodry. Using different electric pulsers, the team has been working on developing methodology, technology and reducing equipment costs. So far, costs have been reduced from about \$100,000 for a suitable commercial pulser to \$20,000 per unit for the complete food treatment-unit.

The process works by applying voltage for one microsecond in a series of electrical pulses to foods between two electrodes. Researchers Mittal and Ho discovered, by chance, that the negative voltage at the end of each electrical pulse, called a sudden charge reversal, was the most effective pulse for breaking microbial resistance in foods. The amplitude of the reversed charge pulse is not enough to provide cell membrane breakdown, but it produces high alternating stress

on the cell membrane, causing structural fatigue. Experiments have shown that about 10 pulses of 25 kilovolts per centimetre or higher are sufficient to provide desired microbial degradation in various liquids. Due to their chemical and protein structures, vitamins are not affected.

The electrical pulse process also extends the shelf life of food products beyond that of pasteurized products. Unlike pasteurization, the process is successful in destroying spores (created when cells undergo harsh conditions).

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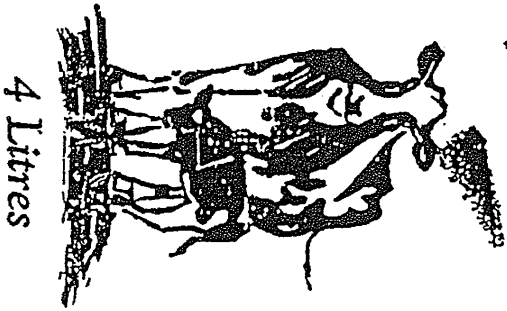


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NUTRITION INFORMATION NUTRITIONNELLE	
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Energy/Energie	129 Cal
Protein/Protéines	5.40 g
Fat/Matières grasses	5.0 g
Carbohydrate/Glucides	12.0 g
% OF RECOMMENDED DAILY INTAKE	
Vitamin/Vitamine A	11%
Vitamin/Vitamine D	44%
Calcium	29%

Ontario Organic Farmers' Co-operative  
R.R. #5, Guelph, ON N1H 6J2  
Phone: (519) 767-9694  
Fax: (519) 767-0978  
[www.organicmeadow.com](http://www.organicmeadow.com)



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Discussion  
Main Topic



Category: 03. New programming approaches  
 Topic: WHITE REVOLUTION THROUGH QUIET EVOLUTION  
 Author: Bhandair Jaswant Singh (2001-07-11 at 11:23)  
 Message:

WHITE REVOLUTION THROUGH QUIET EVOLUTION  
 (INNOVATIVE BUSINESS MODEL FOR DAIRY DEVELOPMENT)

The Prevailing Business Environment

Almost in every business activity, we find producer of raw materials being under paid for his contribution, processor struggling hard to improve his productivity or undercutting his margins to stay in business, employees exercising their bargaining strength to make both ends meet and helpless consumer paying the price that is printed on the price tag.

Who is the real winner in the business game! Any guess?.. It is surely the middleman. Middleman is a shrewd culprit who in modern business terms, believes in working smart while making others to work hard. He is the one who operates with minimum risk and makes more money than participating business associates like producers, consumers, entrepreneurs and employees all together. Wealth generated and accumulated by being a middleman works for him like a never failing tool in his hands to become undisputed captain of the business ship. As a matter of fact, in most of the underdeveloped or developing countries, unethical middlemen are supplying substandard milk and dairy products at high costs while dominating the market scenario.

Solution of every problem lies hidden in the problem itself, as we normally say but sometimes it may have deep roots in our ignorance. We, in such like situations find ourselves helpless and fail to muster desired courage to bell the cat. Everywhere efforts are being made to resolve this anomaly to the satisfaction of aggrieved customer being the most affected party. Co-operative institutions represent one school of thought trying to provide relief to participating beneficiaries among the above mentioned business constituents. Governments also use their own mechanism to balance demand and supply besides keeping a check on exploitation of society by traders and stockists. Lasting solution of this puzzle seems to be still eluding the business world.

Every business as we all know, is a chain process that links consumer with producers of raw materials through the entrepreneur or processor. As long as this chain works independently with direct links between them, exploitation of business constituents at the hands of each other will remain very much under control. Price of the end product will remain reasonable under this situation and producer of raw material will also get a fair price for his produce.

Complexities of large enterprises, multi-location process units, procurement of material inputs from far off locations and marketing end products in distant markets makes participation of additional links called traders a necessary evil. Unfortunately most of the times these links become more stronger than the basic business chain thus resulting in a phenomenal increase in the final price actually being charged from the consumer.

Micro analysis of business in general and perishable food products in particular would reveal that

major part of the consumer money safely lands into the pockets of the middlemen who comfortably stand between the consumer and the producer to perform the taking-over and handing-over ceremony.

Unfortunately in this kind of situation the producer does not get remunerative returns for his genuine effort or contribution and the consumer ends up paying unreasonably high price for the produce. Middlemen using their expertise and financial resources would purchase the raw materials at lowest possible rates and deliver the same to processor retaining optimum margins.

While raw materials remain in transit, some unscrupulous middlemen don't even mind to jack up their margins further by making use of yet another tool like adulteration. Similar story is repeated when processed goods are delivered to the consumer through yet another channel managed by another set of middlemen. These people strategically position themselves between processor and consumer. They regulate and control the demand and supply mechanism to their optimum advantage.

Business game being played on the pitch set by these people, therefore, becomes a win-win situation only for the middlemen. Consumer, producer of raw materials and processor as entrepreneur remain at their mercy and become helpless spectators in this melodrama.

#### A Possible Solution

Management experiences gained by me while working for Government, corporate and public limited companies in the field of my specialization indicate, that success or failure of a concept or system largely depends on how, when, where and by whom it is implemented and monitored. I would like to present a new business model that I believe may provide lasting solution to this baffling issue, affecting almost every person living on this earth.

A perfect business model must address appropriately all the genuine expectations of producers, processors and consumers. Such a model must enable the participating beneficiaries to share the rewards among themselves in proportion to their contribution while discharging corresponding business obligations.

System should have an in-built capability to eliminate all middlemen in a phased manner. Institutions of this kind can deliver an ethical turn-around particularly to the dairy industry as it exists in most of the underdeveloped and developing countries. It will certainly check and control exploitation of the consumer who is now paying very high prices for low quality dairy products. It will also motivate milk producers to produce more good quality milk for getting better returns.

Similarly, a productivity linked remuneration system if incorporated in the business implementation plan would go a long way to actively involve employees to produce dairy products conforming to international standards at a lesser cost. Entrepreneur in this kind of organizational system, besides getting regular returns for his capital investment, can also generate sufficient trading surplus for further growth and development of the institution.

A professionally managed business model discussed above can be implemented successfully with the active involvement and awareness of its real beneficiaries. Target group of milk producers, consumers and ethical entrepreneurs must organize themselves into self-governed institution promoted, owned and managed by them for their socio-economic gains (eliminating all middlemen in a phased manner).

The Concept of Sanjhi Dairy  
Producers

Milk producers living in villages are encouraged to create voluntary self- help groups called informal cooperatives or "Sanjhi" Dairies. Primary objectives of these units would be to create remunerative market for their produce at their doorstep, save them from exploitation by middlemen, ensure accurate and timely milk payments besides providing technical inputs to reduce cost of milk production.

Such voluntary groups would manage all business operations relating to clean milk production, its collection, testing and safe storage till it is dispatched to processing unit. Management committees would comprise of members who contribute major share of the milk collected in the village. Milk producer pouring maximum milk in the Sanjhi Dairy is designated as chairman of the management committee. Another five or seven members in order of their contribution in terms of milk supplied would become members of the committee to assist him in managing the day to day business.

Progressive dairy farmers are given intensive training in all aspects relating to economical and clean milk production. They would after receiving such training, assume the responsibility to train rest of the fellow farmer members. Besides payment of assured remunerative basic price for milk supplied by individual members, trading surplus out of the savings generated by "Sanjhi Dairy" are distributed as bonus amongst them on monthly or quarterly basis.

Development of appropriate infrastructure for dairy industry with sound rural base will check migration of population to metros in search of gainful employment. It will also boost production of vital nutritional food using crop residues, reduce requirement of chemical fertilizers, conserve fast depleting forest wealth by providing alternative fuels to farm households besides upgrading socio-economic status of rural womenfolk. All such benefits will go a long way to improve the global environment as well.

The Concept of Apni Dairy  
Consumers

With active participation of consumer forums now existing in most of the urban market centers consumers are motivated to form voluntary self-help groups called Apni Dairies. These voluntary groups would ensure timely delivery of pure and safe dairy products at a reasonable price to its members besides sorting out their complaints, themselves.

Such units would manage distribution of pasteurized milk and dairy products through retail outlets. These retail outlets would be allotted to consumer members who agree to abide by the terms and conditions prescribed by apex level management committees.

Members of management committees would be chosen in the same manner as management team of Sanjhi Dairy organized by milk producers at the village level. Privileges and responsibilities of member consumers would be directly proportional to their participation in the overall business.

Sector level voluntary groups of this kind would pool up their regular demand of milk and milk products and place indent on the distribution unit. Apex level management committee of Apni Dairy would create suitable infrastructure to manage distribution function with active involvement of consumers.

Apni Dairy wing of the institution would assume responsibility to take delivery of consolidated demand generated by sector level units against payment and arrange to distribute among member consumers. Specified percentage of sales turnover would form distribution budget of Apni Dairy to meet all kinds of distribution expenses.

Based on operational efficiency of Apni Dairy, individual members would be entitled to rebate (in the form of bonus) out of the trading surplus. Innovative business model of this kind would insulate the consumers from exploitation by unethical middlemen who are supplying substandard milk and dairy products at high cost while dominating the market scenario.

Active participation of consumers in this kind of business venture would give impetus to production of good quality milk and dairy products meeting international quality standards. It would go in a long way in giving much needed ethical turn to dairy industry.

### The Concept of Missionary Institution as Entrepreneur

Close look at dairy industry in the developing countries (except a few multinational companies and successful units in the co-operative sector) indicates a lack of professional competence, resources and an ethical approach to deal with nature's perfect food for mankind.

Large numbers of dairy plants in this sector have either become sick or are struggling for their existence. Lack of resources and obsolete technology are becoming major constraints for such units in their efforts to withstand emerging global competition. Dairy business in these regions is tempted to follow unethical shortcuts for its own survival. Such entrepreneurs who can not watch their own interests are not expected to provide fair deal to milk producers and consumers.

Institutions like CIDA, UNDP, FAO, WORLD BANK now hold the key to reverse the trend by their active intervention and involvement in such projects as missionary entrepreneurs. Institutions providing financial support should retain ownership rights and treat financial aid as an interest free loan for the period during which such plans are implemented. Once the project is established and becomes viable, its ownership rights may be transferred to milk producers (Sanjhi Dairies) and Consumers (Apni Dairies), in a phased manner.

Investment made on such projects may be recovered in installments and treated as a revolving fund to be used for establishing similar missionary business ventures. International Improvement Mission initiated by non-resident Indians would be willing to take up responsibility for implementing one such missionary project in Punjab (a state of India) to serve as a demonstration unit. Replication of similar projects relating to food, housing and clothing (Basic human necessities) in underdeveloped / developing countries would surely help institutions mentioned above to achieve goals and objectives specified in their development assistance programs.

Presented by:  
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 Mississauga, Ontario  
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 Tel. (905) 816- 2223  
 Email: ibiu@hotmail.com

Registered office  
 International Improvement Mission  
 #53, Sector 18-A, Chandigarh

Chandigarh (U.T.) PIN 160018  
INDIA  
Tel. 0172-774872

[PREVIOUS TOPIC](#)

[NEXT TOPIC](#)

→ WHITE REVOLUTION THROUGH QUIET EVOLUTION (Bhandair Jaswant Singh 2001-07-11) ←

To  
The President,  
International Improvement Mission,  
# 53, Sector-18-A  
Chandigarh.

Ref: Your Letter Dated \_\_\_\_\_

Dear Sir,

Reference your Letter dated Nov. 18 98 seeking my consent for becoming the member of "International Improvement Mission", I do hereby convey my consent to become the member of the Mission and willing to assume all such responsibilities, if any entrusted to me by the Management Committee.

I further certify that I had gone through the objectives, policies, and business plans as stated in the Memorandum of Association of the Society. I undertake to abide by the Rules and Regulations of the Society. The membership Form as enclosed has been duly filled by me in all respect and I certify that the particulars stated therein are true to the best of my knowledge and belief.

With Regards,

Yours Sincerely,

*Upendra P. Sethi*  
(U.P. Sethi)  
508, Glenwick Drive  
Desoto, Texas 75115. USA

Date Dec. 7 1998  
Place: WACO Tx. 75115  
USA.

Witness

Signed in my presence

- 1) *Melinda Sutton*
- 2) *Jayne Black*

ATTESTED

NOTARY PUBLIC

*Nellie E. Kemp*

INTERNATIONAL IMPROVEMENT MISSION

Keeping in view the objectives of International Improvement Mission (Dairy), I hereby convey my consent to become ...Managing Committee... member of this mission.

Name DEVINDER K (DAVE) GUPTA Phone (Office).....

Father's Name <sup>Lt.</sup> HANS RAJ GUPTA Phone (Resi) (504) 340-8249

House No. 22 Mobile.....

Street/Sector FAIRFAX CT. Pager.....

CITIZENSHIP U.S.  
~~Residence/Area/Town~~ Fax.....

City MARRERO E-Mail.....

Distt JEFFERSON PARISH Web site.....

State LOUISIANA U.S.A. Code No.....

Pin Code 70072 - 5025 Category.....

Signature Dave Gupta

Date Dec. 10, 1998

\*\*\*\*\*



To  
The President,  
International Improvement Mission,  
# 53, Sector-18-A  
Chandigarh.

Ref. Your Letter Dated Nov. 18, 98,

Dear Sir,

Reference your Letter dated Nov. 18, 98 seeking my consent for becoming the member of "International Improvement Mission", I do hereby convey my consent to become the member of the Mission and willing to assume all such responsibilities, if any entrusted to me by the Management Committee.

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With Regards,

Yours Sincerely,

*Dave Gupta*

Sh. D. K. Gupta  
22, Fairfax Court.  
Marrero L.a. 70072.USA

Witness

Signed in my presence

- 1)
- 2)

Date December 15, 1998  
Place Marrero, La. 70072

ATTESTED

*Elaine C. Hebert*  
NOTARY PUBLIC

ELAINE C. HEBERT  
NOTARY PUBLIC  
Parish of Jefferson, State of Louisiana  
My Commission is issued for life.

NOTARIZED AS TO SIGNATURE ONLY  
BUT NOT AS TO FORM OR CONTENT

Dear Mr. Sidhu,

Thanks for your message. I had circulated your message on our NDRI list. The general comments are that your objectives are too numerous to achieve.

It looks that you have taken out these objectives from a "Five Years Plan" of Indian Government or organization such as National Dairy Development Board.

Another main comment is: how much budget do we have to achieve these goals and objectives.

Following is the text of a NDRI alumni, in response to your letter.

.....

Dear Sharma ji,

Thanks for that e-mail. My two cents:

I was immediately interested in the Worldwide Improvement Mission (Dairy).

It sounded like a great idea! As I read through the mail, I began to feel that the mission is too broadly structured and the objectives are vague. In

any case, the said project will need a huge budget and I am not sure what kind of financial backing the proponents have.

However, the idea of creating a "Techno-commercial information bank" to facilitate technology transfer to developing countries is something that "we" can do or atleast facilitate. So, I am going to concentrate on this one objective:

The next step is, what kind of a database are we talking about? Technological advances in Computer Science has made data warehousing so cheap and affordable that everybody that has any kind of business now seems

to have some kind of Internet presence. I have worked on several databases

in the past year and have a pretty good idea on how to setup an RDBMS (relational DB) and connect it to a web-server (which is the most affordable and easy-to-use computer interface) for remote access. I volunteer to work on the set-up of the said database and preparing for its

web-interface. Now, the next few questions are:

1) Where can we set up a database like that somewhere? We need an Internet node.

2) How do we get technological requirements for the developing countries like ours? I mean we have some idea of what we needed when we were there, but times have changed. What do "they" need now?

3) What kind of a budget do we have?

.....

When I said that there may not be any budget for this work.

This are his comments:

\*\*\*\*\*  
\*\*\*\*\*

Dear Sharma ji,

So, there is no budget at all for this grand scheme? I mean, how is it supposed to work? I have volunteered my time to the creation of the techno-database part of the mission but we will still need money to acquire a server and DB software. I can write the applications and create the interface at no cost but for the hardware & software combined we are looking at a minimum of \$10K. Unless you want to go with a WindowsNT server which would be around \$4-5K but then WindowsNT is not a industry standard server (not yet anyway). A dedicated Internet node will have a monthly/yearly charge too unless it is housed in a University setting. I would like to ask the proponents of this mission how did they expect this mission to work without ANY financial backing at all?

\*\*\*\*\*  
\*\*\*\*\*

Some people have also liked to know "To whom Dr. Mahajan had contacted NDRI-NRI alumni about this mission, earlier".

The following text of Dr. Mahajan's "Letter of Appeal" does seem to indicate that some NDRI alumni have already agreed to help this mission. Who are they?

\*\*\*\*\*

I am extremely happy to know that few dairy professionals hailing from India but now living in Canada /U.S.A. have expressed their keen interest to help their motherland in upgrading the status of dairy industry through voluntary organisation to be called "IMPROVEMENT MISSION (DAIRY)". Objectives of the mission as framed by them are given on the Annexure(enclosed). Keeping in view the noble objectives of the improvement mission, I consider it as my proud privelege to make an appeal to all Non Resident Indians for their wholehearted participation/support to this mission I am sure, every N. R. I. living abroad will contribute in building strong ,ethical and selfsustaining dairy industry for his motherland.

\*\*\*\*\*

Based on this, some have even raised eyebrows about this mission as a political one. I do not know what else to say more.

Just on a personal note, in what year did you gradute from dairy engineering in NDRI. I might have seen you, in NDRI, if you were there

between 74-81.

Thanks again for your time and interest for such a good cause for  
improving  
dairy industry in India.

Regards,

Shri Sharma

## Bobby Pandher

---

From: Bobby Pandher <bpandher@sprint.ca>  
To: Shri K. Sharma <sks19@cornell.edu>  
Subject: Improvement Mission  
Date: Saturday, June 20, 1998 6:30 PM

Dear Mr. Sharma,

Many thanks for the frank opinions and encouraging response. I would like to go over a few subtle points in the hope that they will answer all your questions. The idea of Improvement mission (dairy) has neither stemmed from anybody's political agenda nor does anyone has any vested interest associated with it, it's my own brain child born out of genuine love for my profession and the country of my origin. Internationally sponsored aid programs launched earlier (to help developing countries) in general and in the dairying field in particular were mostly routed through government \ semi government institutions. Many of these could not achieve their goals because of political interference, corruption, ill-management etc. Even few of the useful plans could not take off and fell victim to unethical business environments prevailing in these countries including our own.

International Improvement Mission (Dairy) now under our consideration should therefore be a unique organizational effort spearheaded by non-resident immigrants (dairy professionals /scientists /technologists). We must take appropriate precautionary measures right in the beginning to maintain at all costs, independent missionary status for the proposed voluntary organization. Membership of the mission must be restricted only to well meaning professionals, genuinely interested and honestly willing to help their respective motherlands.

I suggest that a mission start-up project report be prepared by the members based on their collective work experiences and appropriately address the essential basic needs of the dairy industry of specific beneficiary countries. We should not be in a hurry to achieve a lot in little time atleast not until the institution attains maturity and reaches a take off stage. We can easily make a short term action plan to move step by step. I realize that there will be a lot of "how to's" and which way's hanging around in the beginning but we have to generate answers to all these queries in a conducive teamworking environment. I agree with our friend who suggested ten year plan which can be split into an annual action plan for each year. Besides the conceptualization, formulation and finalization of the action plan I would like to suggest the following tasks for advance planning provided all our friends are with us on it.

(1) create minimum infrastructural facilities that are required for implementation of our mission in order to reduce our fixed costs and keep our institution lean and efficient.

(2) Identify institutions/companies/dairy plants willing to co-operate with us, ready to accept technology transfer and management consultancy services against payment of fees (prescribed by the mission).

(3) We may consider formation of a self-sustaining techno-commercial wing known as World-Wide Management Consultancy Services. This unit can be an

autonomous institution that will implement the technical action programs as per guidelines and policies of the mission. Breakthrough in developing and converting this unit as an effective and successful venture can help the mission in becoming a self-sustaining institution ultimately. This will reduce our dependence on voluntary resources.

(4) Strategically our mission, should mainly aim at collecting funds in the form of service fees from our clients. Subsequently when we are able to generate surplus funds, we can choose to provide subsidized or free services to certain select milk producers, small dairy plants and sick units.

(5) Identify dedicated, knowledgeable, result oriented professionals with missionary zeal and ethical background for each country, state, region and institution so as to create a human resource network for implementing our policies and programs.

(6) Finalize mission objectives and prepare detailed report indicating strategic policies, procedures, work ethics, macro and micro level implementation action plans.

(7) Initiate action for formal registration.

(8) Explore avenues to generate funds for implementation of our plans. The mission must ultimately aim towards generating funds through its own expertise and rely less and less on donations or voluntary effort.

(9) I am giving below a list of the professionals with whom I have discussed this matter before leaving India last month and before interacting with you via the internet.

- (i) Sh. B.P.S. Puri :1st Batch NDRI
- (ii) Sh.S.K.Malhotra :1st Batch NDRI
- (iii) Sh. Amrik Singh :1965 Batch NDRI
- (iv) Sh.R.K.Chhabra :1965 Batch NDRI
- (v) Dr.B.M.Mahajan :1965 Batch NDRI
- (vi) Sh.U.P.Sethi :1965 Batch NDRI now in Dallas/Tx, USA.
- (vii) Sh.D.K.Gupta :1965 Batch.NDRI now in Marrero/La, USA

Besides the above individuals I have also informed Dr. Amrita Patel, Managing Director, National Dairy Development Board about our mission prospects seeking her input and support for the objectives of the same.

Below is a brief introduction of myself which I feel like sharing with you all:

Name: JASWANT SINGH BHANDAIR  
Age: 53  
Mail: 165 MOFFATT AVENUE, BRÁMPTON, ONTARIO, CANADA L6Y 4R3  
Tel#: (905)453-1570  
Email: bpandher@sprint.ca  
Present Status: NRI  
Native Place: Village-Jhammat, Distt.: Ludhiana, Punjab.  
Family: Wife: Smt. Surinderjit Kaur BA,BEd.  
Son: Bobby, (27yrs) BE Mech. Engg living in Canada for

the

last five years

Son: Robby, (22yrs) Student BE Electronics recently immigrated

to

Canada

Professional Summary:

President

Milk Specialities Limited Chandigarh

Vice President

Milk Specialities Limited, Chandigarh

Additional Managing Director

Rajasthan Co-operative Dairy Federation, Jaipur

Managing Director

Milkfed Milk Plant, Mohali, Punjab

General Manager Research & Development

Milkfed Punjab, Chandigarh

Managing Director

Milkfed Milk Plant, Ludhiana, Punjab

Head Engineering & Technology

Punjab Dairy Development Corporation, Chandigarh

Dairy Engineer

Milk Plant, Chandigarh

**Bobby Pandher**

---

From: Bobby Pandher <bPandher@sprint.ca>  
To: bPandher@sprint.ca  
Subject: Re: Thanks !  
Date: Tuesday, June 16, 1998 10:14 PM

Hello Mr. Sharma,  
As promised I am sending you the appeal of Dr. Brij Mahajan, appended as a wordpad file with this mail. Please feel free to distribute this letter among other well wishers of this mission. I hope to hear from you real soon in the near future.

Regards

Jaswant Singh

-----  
: From: Dharam Sidhu <bPandher@sprint.ca>  
: To: Shri K. Sharma <sks19@cornell.edu>  
: Subject: Re: Thanks !  
: Date: Monday, June 15, 1998 11:27 PM

: Dear Mr. Sharma,  
: Thank you very much for your prompt response. Basically  
: I am a mechanical engineer and I belong to the third batch of dairy  
: engineering graduates from NDRI.  
: At Milk Specialities, we have a composite dairy plant of 350,000 LPD  
: capacity located at about 25Kms from Chandigarh on the Delhi road. We  
: manufacture SMP / WMP / Dairy Whitener, Butter, Ghee, Sterlized Flavoured  
: Milk, Lassi, Paneer, Milk cake and Yoghurt besides supplying "MILK TIME"  
: brand pastuerized liquid milk in and around Chandigarh. We intend to add  
: ice-cream and cheese in the near future.  
: I am giving below the objectives of the proposed Worldwide Improvement  
: Mission (Dairy):  
: - To promote the feeling of universal brotherhood among milk producers,  
: dairy professionals and consumers of dairy products.  
: - To upgrade the status of dairy industry at state, national and  
: international levels with mutual help, understanding and  
: co-operation of all.  
: - To extend full support and help in creating infrastructure which gives  
: maximum protection to the interests of milk producers, consumers of dairy  
: products and dairy professionals.  
: - To provide techno-commercial support to the dairy industry for  
: improving  
: milk production, quality of raw milk, productivity of all business  
: operations and economic viability of dairy plants.  
: - To create a "Techno-commercial information bank" to facilitate  
: technology  
: transfer from advanced countries to developing countries with the  
: objective  
: of upgrading quality of their dairy products to meet international  
: quality



: standards.  
: - To prepare rehabilitation plans for sick dairy projects or those with  
low  
: profitability and help them in implementing such plans within the  
shortest  
: possible time span.  
: - To create a Global Training institution with well coordinated branch  
: links at national and state levels for upgrading the managerial skills of  
: key professionals.  
: Furthermore, tomorrow I would like to e-mail you a letter of appeal by  
Dr.  
: Brij Mahajan, Director of Dairy development department of Punjab  
addressed  
: to non resident Indians.  
: I was fortunate enough to obtain your e-mail address from  
: one of our associates at a meeting of NDRI alumni held in Hotel  
: Shiwalikview, Chandigarh recently in which Mr. B.P.S Puri came as a  
special  
: invitee and delivered a lecture on effect of globalisation on Indian  
dairy  
: industry.  
: On a personal note I am confident that with the help of our collective  
: wisdom and professional efforts, we can do a lot for the dairy industry  
of  
: our country. I would like to thank you for your positive response and  
keen  
: interest in this mission. I would love to meet with you personally either  
: when you are visiting Brampton or at a mutually convenient place at the  
: earliest. Either way I can be also reached at Phone# (905) 453-1570. I am  
: likely to be here in Canada till the end of August. Please convey my  
: regards to all the NDRI alumni here in North America.

: Kind Regards

: Jaswant Singh

: > From: Shri K. Sharma <sks19@cornell.edu>

: > To: bpandher@sprint.ca

: > Subject: Thanks !

: > Date: Monday, June 15, 1998 9:07 AM

: >

: > Dear Mr. Sidhu,

: >

: > I am pleased to receive your e-mail. I would like to know something  
more

: > about your company. Do you manufacture dairy products in Chandigarh  
like

: > ice-cream, cheese etc. Do you any interaction with people in NDRI,  
Kamal?

: > I would be interested to know about yourself, your company, the  
objective

: > of your good mission. We have a group of more than 100 NDRI alumni in  
North

: > America and we are interacting with each other through a list server.

It  
: > will be a good idea to do something for dairy industry in India, if  
they  
: > are interested to get some help from here.  
: >  
: > By the way, how did you get my e-mail. I also have a couple of friends  
in  
: > Brampton and visit there very often. It will be nice to see you, before  
: > your return to India. My brother also lives in Chandigarh.  
: >  
: > Looking forward to hear from you.  
: >  
: >  
: > At 11:14 PM 6/14/98 -0400, you wrote:  
: > > Hello Mr. Sharma,  
: > > My name is Jaswant Singh. I am presently working as President of Milk  
: > > Specialities Ltd. in Chandigarh. I am also currently residing in  
: > > Brampton,  
: > > Canada, visiting my son here.  
: > > I propose to initiate action for creating a worldwide improvement  
: > > mission  
: > > for helping the dairy industry in India with the help of NRI's and  
dairy  
: > > professionals living abroad. I would like to contact NDRI alumni  
living  
: > > in  
: > > North America for interaction regarding this matter. I would also like  
: > > to  
: > > know your opinion on this as well whereafter I can give you a few more  
: > > details on this subject.  
: > > Regards  
: > >  
: > > Jaswant Singh  
: > >

**Bobby Pandher**

---

From: Dharam Sidhu <bpandher@sprint.ca>  
To: sks19@cornell.edu  
Subject: Re: Letter of Appeal  
Date: Tuesday, June 16, 1998 11:14 PM

: From: Bobby Pandher <bpandher@sprint.ca>  
: To: S K Sharma

: Subject: Re: Thanks !  
: Date: Tuesday, June 16, 1998 10:14 PM

:  
: Hello Mr. Sharma,  
: As promised I am sending you the appeal of Dr. Brij Mahajan, appended as  
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: wordpad file with this mail. Please feel free to distribute this letter  
: among other well wishers of this mission. I hope to hear from you real  
: soon  
: in the near future.

:  
: Regards  
: Jaswant Singh  
:  
:

August 2, 1999

Jaswant S. Bhandair  
837 Talbot St.  
London, Ontario, Canada N3T J2R

Mr. Gurbax Singh Malhi  
Member of Parliament  
Federal Govt. Of Canada

Subject: International Improvement Mission (Dairy)

Dear Mr. Malhi,

I wish to convey my sincere thanks for giving me the opportunity to meet with you on July 30<sup>th</sup> 1999 and explain the objectives of our proposed International Improvement Mission.

Canadian International Development Agency has stated that poverty eradication, employment generation, meeting nutritional human needs and sustainable development of poor/ developing countries is part of their priority agenda for sponsoring aid programs. All such noble programs being implemented by CIDA to support economic efforts of developing countries and to help them in attaining self-sustained growth are applaudable. Such efforts will not only help billions of poor people but also bring global peace and prosperity.

Unfortunately, dairy industry in most of the underdeveloped and developing countries is not organized on ethical lines. Milk and dairy products available to the innocent consumer in such countries contain harmful adulterants and deadly preservatives rendering them unsafe for human consumption. Myself, being a dairy professional with more than thirty years of hands-on practical experience in managing the milk processing industry in India, I intend to dedicate my time in initiating a project namely "International Improvement Mission (DAIRY)". A detailed project report has been compiled in consultation with my professional colleagues in India, Canada and U.S.A. Proposed project has been conceived and will be implemented by dairy professionals.


Main emphasis of our mission is to improve people's lives through application of specific knowledge, innovative technology and varied professional experiences. We have projected an innovative, informal and co-operative business model, which is to be collectively promoted, owned and managed by milk producers, entrepreneurs, consumers and dairy professionals. It will certainly lead to elimination of all middlemen from dairy business thus enabling the participating beneficiaries to share the rewards as profits among themselves in due proportion of their contributions. Proposed system will stimulate efficiency, improve quality of dairy products and optimize productivity of dairy business.

We seek support and guidance from individuals, organizations and international development agencies keenly interested in ensuring steady growth, balanced development, lasting peace and overall prosperity of mankind. Similar initiatives of this kind for all other conceivable fields like food, clothing, housing etc. can be simultaneously planned and implemented. Ultimate aim of all such programs should be to initiate a radical change in our socio-economic systems for the benefit of humanity.

Our mission will highly appreciate, if you kindly take up this matter with the concerned wing of Canadian International Development Agency. As desired by you, two copies of the mission report along with my professional profile are being enclosed herewith for your kind perusal and consideration. Mission project proposed by us can be implemented in the west Asian countries in first phase and then extended worldwide.

Thanking you in anticipation

Sincerely,

  
Jaswant Singh Bhandair

August 2, 1999

Jaswant S. Bhandair  
837 Talbot St.  
London, On.  
N3T J2R

Director  
Canadian International Development Agency ( Asia Pacific Region)  
Canada.

Subject: International Improvement Mission (Dairy)

Dear Sir,

Canadian International Development Agency has stated that poverty eradication, employment generation, meeting nutritional human needs and sustainable development of poor/ developing countries is part of their priority agenda for sponsoring aid programs. All such noble programs being implemented by CIDA to support economic efforts of developing countries and to help them in attaining self-sustained growth are applaudable. Such efforts will not only help billions of poor people but also bring global peace and prosperity.

Unfortunately, dairy industry in most of the underdeveloped and developing countries is not organized on ethical lines. Milk and dairy products available to the innocent consumer in such countries contain harmful adulterants and deadly preservatives rendering them unsafe for human consumption. Myself, being a dairy professional with more than thirty years of hands-on practical experience in managing the milk processing industry in India, I intend to dedicate my time in initiating a project namely "International Improvement Mission (DAIRY)". A detailed project report has been compiled in consultation with my professional colleagues in India, Canada and U.S.A. Proposed project has been conceived and will be implemented by dairy professionals.

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We seek support and guidance from individuals, organizations and international development agencies keenly interested in ensuring steady growth, balanced development, lasting peace and overall prosperity of mankind. Similar initiatives of this kind for all other conceivable fields like food, clothing, housing etc. can be simultaneously planned and implemented. Ultimate aim of all such programs should be to initiate a radical change in our socio-economic systems for the benefit of humanity.

Our mission will highly appreciate, if Canadian International Development Agency could provide further guidance and extend necessary support for implementation of proposed mission project. Copy of mission report along with my professional profile is being enclosed herewith for your kind perusal and consideration. Mission project proposed by us can be implemented in the west Asian countries in first phase and then extended worldwide.

Thanking you in anticipation

Sincerely,

  
(Jaswant Singh Bhandair)

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# CERTIFICATE OF REGISTRATION OF SOCIETIES

( ACT XXI OF 1860 )

No. 2819 of 1998

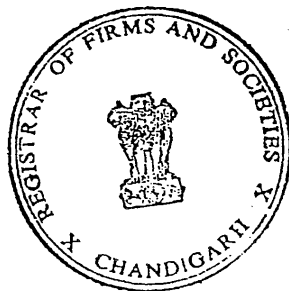
I hereby certify that INTERNATIONAL IMPROVEMENT MISSION.

---

has this day been registered under the Societies Registration Act ( XXI of 1860 ) and as amended by Punjab Amendment Act, 1957.

Given under my hand at Chandigarh this 2nd  
day of Dec. 1998 One thousand Nine Hundred &  
Ninety eight.

Fee Rs. 50



  
REGISTRAR OF FIRMS & SOCIETIES  
U.T. CHANDIGARH.

## OUR INSPIRATION

“ A hundred times everyday I remind myself that my inner and outer life depended on the labors of other men, living or dead and that I must exert myself in order to give in the same measure as I have received and I am still receiving.”

Albert Einstein

## GAYATRI MANTRA

ॐ भूर्भुवः स्वः



तत्सवितुर्वरेण्यं ।

भर्गो देवस्य धीमहि

धियो यो नः प्रचोदयात् ॥

Om Bhuur-Bhuvah Svah  
Tat-Savitur-Varenniyam |  
Bhargo Devasya Dhiimahi  
Dhiyo Yo Nah Pracodayaat ||

Meaning:

1. Om, that (Divine Illumination) which Pervades the Bhu Loka (Physical Plane), Bhuvah Loka (Antariksha Loka or the Astral Plane) and Svah Loka (Swarga Loka or the Celestial Plane),
2. That Savitr (Divine Illumination) which is the Most Adorable,
3. On that Divine Radiance we Meditate,
4. May that Enlighten Our Intellect and Awaken our Spiritual Wisdom.