MANAGING DAIRY BUSINESS FOR PROFITS (MILKI QUIZ COMPETITION-2024)

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to Karnal, gcmmf, idahq, pmo, gn.singh13

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Respected Excellences

In response to our invitation for participation in quiz competition, we did not get any answer sheet successfully providing scientifically logical correct answers. It amply justifies our claims and contentions that no dairy plant in India has any instrument or technique to find out true net worth of raw mixed milk reaching their dairy plant based on exact % of cow milk, buffalo milk and added water.

Our Mission is delighted to share with you Sir, scientifically logical and arithmetically correct answers worked out by our associates for all questions mentioned in the questionnaire: Our Mission associates have agreed to give complementary prize of Rs 1,00,000 to any dairy expert in India who would prove that answers of these questions (reproduced in the pdf attachment) are inaccurate and not scientifically logical as per specified two axis formulae being used by one and all for releasing milk payments to suppliers.

If all dairy plants in India purchase only 100% pure raw milk without any dilution with added water and manipulation of natural S.N.F.: Fat ratio in milk purchase transactions they can easily produce pasteurized milk and value added milk products strictly conforming to international quality requirements. Besides it capacity utilisation of our dairy plants would go up by 20% by handling only pure milk without added water.

Our Mission would be glad to provide free online advisory services to ethical dairy business entrepreneurs in India and if need be they can also avail result oriented consulting services from our Mission associates at reasonable cost.

With kind regards

Yours truly

(Jaswant Singh Bhandair)

Mission Director

SCIENTIFICALLY LOGICAL ANSWERS OF COMPLEX QUESTIONS (MILKI QUIZ COMPETITION-2024)

"DOODH KA DOODH AUR PANI KA PANI" – "DAIRY BUSINESS MEIN KABHI HOGI NAHEEN HANI"

Test your expertise as dairy professional expert and win complementary prize of Rs.1.00.000

In response to our invitation for participation in quiz competition, we did not get any answer sheet successfully providing scientifically logical correct answers. It amply justifies our claims and contentions that no dairy plant in India has any instrument or technique to find out true net worth of raw mixed milk reaching their dairy plants based on exact % of cow milk, buffalo milk and added water.

Our Mission associates in Canada /U.S.A. have successfully developed digital software solution to accurately analyse net worth of raw mixed milk containing cow milk, buffalo milk and added water (Assuming no adulteration other than added water used for modifying/manipulating natural S.N.F: Fat ratio of mixed raw milk thus resulting in hidden loss of billions of rupees to dairy business entrepreneurs in India).

Our associates have also designed and developed '"APNI DAIRY" digital transparent milk procurement system for procuring raw milk on commercial scale, strictly conforming to international quality requirements (without any manipulation, adulteration or dilution with added water)

Besides it they have developed environment friendly innovative milk processing technology using solar/biogas energy, recyclable packaging to produce and market pasteurized milk strictly conforming to international quality parameters relating to purity of contents, microbiological safety and shelf life of 2 weeks under refrigeration ensuring traceability from cow/buffalo to consumer.

Our Mission associate Rainbow International Community services (India) have successfully implemented pilot project (informal consumer cooperatives) at Chandigarh for direct marketing of milk from producer to consumer without any middleman in the value chain.

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Questionnaire:

Dairy plant in India received 1, 00,000 Kgs. raw mixed milk from milk suppliers in the milk tankers (Containing 10,000 Kgs. milk in each tanker) Specified basic rate for buffalo milk containing 6.50% Fat, 8, 84% S.N.F. 15.34% total milk solids corresponding to 29.C.L.R. is Rs.830/Kg Fat As per 60:40 two axis formulae Fat rate= Rs 498/Kg Fat & S.N.F. rate= Rs.244.11764/Kg. Details of milk purchase transaction records are as follows:

Milk Tanker	Weight Kgs	Fat%	T.S. %	S.N.F. %
1	10,000	4.94565	16.95651	12.01086
2	10,000	5.85585	16.00989	10.15404
3	10,000	4.60	10.856	6.256
4	10,000	5.36141	14.909127	9.5477175
5	10,000	5.75	16.642142	10.892142
6	10,000	4.2228263	14.478262	10.255435
7	10,000	4.25	12.300714	8.050714
8	10,000	4.5842391	15.717392	11.133152
9	10,000	5.72286	16.14826	10.425434
10	10,000	4.14414	11.330077	7.1859372

Based on data mentioned above please work out net payment for each milk tanker Indicating exact % of Buffalo milk, cow milk, added water (if any) contained in mixed raw milk and also indicate C.L.R. of mixed milk in each tanker.

Note: Please do not use conventional empirical formulae for calculations and apply only actual 60: 40 two axis formulae for working out S.N.F. and net worth of raw milk for each and every milk purchase transaction starting from milk producer to dairy plant using the specified formulae given below:

$S.N.F = C.L.R/4 + 0.2 \times Fat + C.L.R./100$

Digital hydro analysis technique may be used for working out exact % of Cow milk, Buffalo milk and added water in mixed milk. All tests be carried out using N.P.L. certified instruments and weighing equipment testified by weights and measures department.

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ANSWERS BASED ON ACTUAL 60:40 TWO AXIS FORMULAE & DIGITAL HYDRO ANALYSIS:

Answer-1 Composition of milk 4.94565% Fat, 12.010864 % S.N.F, 16.95429% total milk solids containing 83.04571% natural water in pure raw milk corresponding to 42.391275 C.L.R. It is concentrated standard cow milk produced by evaporating natural water and reducing water content from 88% to 83.04349% or by adding (4.94565-3.50) =1.44565 Kg Fat and (12.010864- 8.50)=3.510864Kg. S.N.F. thus increasing its net worth from Rs. 38.18/kg to Rs. 53.95/Kg. as follows:

Standard cow milk: Rs. (3.50x498+8.50x244 121764)/100 = Rs.38.18/Kg

(4.94565x498+12.010864x244.11764)/100=Rs.53.95/Kg

Rs. 5, 39,500 per tanker containing 10,000 Kgs. milk

Cross check examination as per 60:40 two axis formulae:

S.N.F=C.L.R./4+0.2xFat+ C.L.R./100

S.N.F. = (42.391275/4+0.2x4.94565+42.391275/100)=12.010864%

Answer-2 Composition of milk 5.8558555% Fat, 10.154053 % S.N.F, 16.009908% total milk solids containing 83.9901% natural water in pure raw mixed milk corresponding to 34.548544 C.L.R.

It is concentrated standard mixed milk (50% C.M+50% B.M.) produced by evaporating natural water and reducing water content from 86.33% to 83.9901% or by adding (5.8558555-5.00) =0.8558555 Kg. Fat and (10.154053 -8.67) =1.48053Kg. S.N.F. thus increasing its net worth from Rs. 46.065/kg to Rs. 53.95/Kg. as follows:

Standard Mixed milk: Rs. (5.00x498+8.67x244 121764)/100 = Rs.46.065/Kg

(5.8558555x498+10.154053 x244.11764)/100=Rs.53.95/Kg

Rs. 5, 39,500 per tanker containing 10,000 Kgs. milk

Cross check examination as per 60:40 two axis formulae:

S.N.F=C.L.R./4+0.2xFat+ C.L.R./100

S.N.F. = (34.548544 /4+0.2x5.8558555+34.548544 /100) =10.154053 %

Answer-3 Composition of milk 4.60% Fat, 6.256 % S.N.F, 10.856% total milk solids containing 89.144% water in diluted standard buffalo milk corresponding to 20.52307 C.L.R.

It is diluted standard buffalo milk produced by adding water and increasing water content from 84.66% to 89.144% or by extracting (6.50-4.60) =1.90 Kg. Fat and (8.84 -6.256) =2.584 Kg. S.N.F. thus decreasing its net worth from Rs. 53.95/kg to Rs. 38.18/Kg. as follows:

Standard buffalo milk: Rs. (6.50x498+8.84x244 121764)/100 = Rs.53.95/Kg

(4.60x498+16.256 x244.11764)/100=Rs.38.18/Kg

Rs. 3, 81,800 per tanker containing 10,000 Kgs. milk

Cross check examination as per 60:40 two axis formulae:

S.N.F=C.L.R./4+0.2xFat+ C.L.R./100

S.N.F. = (20.52307 /4+0.2x4.60+20.52307 /100) = 6.256 %

Answer-4 Composition of milk 5.36141% Fat, 9.5477175 % S.N.F, 14.909127% total milk solids

containing 85.09088% natural water in pure raw mixed milk containing buffalo milk and cow milk corresponding to 32.597827 C.L.R.

It is mixed milk (standard buffalo milk mixed with 120.65218 Kg. concentrated standard cow milk produced by evaporating natural water and reducing water content from 88% to 85.521739% or by adding (4.2228263-3.50) =0.72.28263 Kg. Fat and (10.255435 -8.50) =1.755435Kg. S.N.F. in the cow milk thus increasing its net worth from Rs. 38.18/Kg. to 46.065/kg and then mixing that milk with buffalo milk to attain composition mentioned below corresponding to 32.597827 C.L.R.

Mixed milk: Rs. (5.36141x498+9.5477175x244.121764)/100 = Rs.50.00787/Kg

Rs. (26.699821+23.308056)=Rs.50.00787/Kg

Rs.5, 00, 078 per tanker containing 10,000 Kgs. milk

Cross check examination as per 60:40 two axis formulae:

S.N.F=C.L.R./4+0.2xFat+ C.L.R./100

S.N.F. = (32.597827 /4+0.2x5.36141+32.597827 /100) = 9.547717 %

Answer -5 Composition of milk 5.75% Fat, 10.892142 % S.N.F, 16.642142% total milk solids containing 83.35786% natural water in pure raw mixed milk corresponding to 37.469775 C.L.R.

It is mixed milk containing 88.146153 B.M and 164.2857 Kg. concentrated cow milk produced by evaporating natural water and reducing water content from 88% to 80.28572% or by adding (5.7499995-3.50) =2.2499995 Kg. Fat and (13.964284 -8.50) =5.464284Kg. S.N.F. thus increasing its net worth from Rs. 38.18/kg to Rs.62.72428/Kg.

Net worth of mixed milk:

Rs. {(5.75x498+13.964284 x244 121764) + (5.75x498+7.82x244.121764)}/100

=Rs.{62.72428+47.725}/2=Rs.55.22464/Kg.

Rs.5, 52,246 per tanker containing 10,000 Kgs. milk

Cross check examination as per 60:40 two axis formulae:

S.N.F=C.L.R./4+0.2xFat+ C.L.R./100

S.N.F. = (37.469775 /4+0.2x5.75+37.469775 /100) = 10.892142 %

Answer - 6 Composition of milk 4.2228263% Fat, S.N.F, 10.255435% and 14.478261% total milk

solids containing 85.52174% natural water in pure raw mixed milk corresponding to 36.181524 C.L.R.

It is concentrated standard cow milk produced by evaporating natural water and reducing water content from 88% to 85.52739% or by adding (4.2228263-3.50) =o.722863 Kg. Fat and (10.255435 - 8.50) =1.755435 Kg. S.N.F. thus increasing its net worth from Rs. 38.18 /kg to Rs.46.064998/Kg. (120.65217X38.18)/100=Rs. 46.064998/Kg.

Rs4, 60,650/tanker containing 10000 Kg milk

Cross check examination as per 60:40 two axis formulae:

S.N.F=C.L.R./4+0.2xFat+ C.L.R./100

S.N.F. = (36.181524 /4+0.2x4.2228263+ 36.181524 /100 = 10.255435 %

Answer -7 Composition of milk 4.25% Fat, 8.050714 % S.N.F, 12.300714% total milk solids containing 87.69929% natural water in pure raw mixed milk corresponding to 27.695049 C.L.R.

It is mixed milk containing 65.38461 Kg. B.M and 121.42857 Kg. concentrated cow milk produced by evaporating natural water and reducing water content from 88% to 85.42858% or by adding (4.25-3.50) =0.75 Kg. Fat and (10.321428 -8.50) =1.8242Kg. S.N.F. thus increasing its net worth from Rs.38.18/kg to Rs.46.361424/Kg.

Net worth of mixed milk=Rs. (65.38461x53.95+121.42857X38.18)/2 = Rs.(35.274997+46.361428)/2 =Rs.40.818212/Kg Rs. 4.08,182 per tanker containing10, 000 Kgs. milk

Cross check examination as per 60:40 two axis formulae:

S.N.F=C.L.R./4+0.2xFat+ C.L.R./100

S.N.F. = (27.695049 /4+0.2x4.25+ 27.695049)/100 = 8.050714 %

Answer-8 Composition of milk 4.5842391% Fat, 11.133152 % S.N.F, 15.717392% total milk solids containing 84.28261% natural water in pure raw mixed milk corresponding to 39.293475 C.L.R.

It is concentrated standard cow milk produced by evaporating natural water and reducing water content from 88% to 84.28261% or by adding (4.5842391-3.50) =1.0842391 Kg Fat and (11.133152 -8.50)=2.633152 Kg. S.N.F. thus increasing its net worth from Rs. 38.18/kg to Rs. 50.007499/Kg.

Standard cow milk: Rs. (3.50x498+8.50x244 121764)/100 = Rs.38.18/Kg

(4.5842391x498+11.133152 x244.11764)/100=Rs. 50.007499/Kg.

Rs. 5, 00,075 per tanker containing 10,000 Kgs. milk

Cross check examination as per 60:40 two axis formulae:

S.N.F=C.L.R./4+0.2xFat+ C.L.R./100

S.N.F. = (39.293475 /4+0.2x4.5842391+39.293475 /100) = 11.133152 %

Answer -9 Composition of milk 5.722826% Fat, 10.42543 % S.N.F, 16.148256% total milk solids

containing 83.85175% natural water in pure raw mixed milk corresponding to 35.695652 C.L.R.

It is mixed milk containing 92.6923 Kg. B.M and 141.30434 Kg. concentrated cow milk produced by

evaporating natural water and reducing water content from 88% to 83.04348% or by adding

(4.9456522-3.50) =1.445622 Kg. Fat and (12.01086 -8.50) =3.51086Kg. S.N.F. thus increasing its net

worth from Rs. 38.18/kg to Rs.53.95/Kg.

Net worth of mixed milk=Rs. (92.6923 x53.95+141.30434 x38.18)/2=Rs.51.978745/Kg

=Rs. 51.978745/Kg Rs.5, 19,787 per tanker containing10, 000 Kgs. milk

Cross check examination as per 60:40 two axis formulae:

S.N.F=C.L.R./4+0.2xFat+ C.L.R./100

S.N.F. = (35.695652 /4+0.2x5.722826+ 35.695652)/100 = 10.42543 %

Answer-10 Composition of milk 4.14414% Fat, 7.1859372 % S.N.F, 11.330077% total milk solids

containing 88.66993% natural water in pure raw mixed milk corresponding to 20.637817 C.L.R.

It is diluted standard mixed milk (50% C.M+50% B.M.) produced by adding water and increasing

water content from 86.33% to 88.66997% or by extracting (5.00-4.14414) =0.85586 Kg. Fat and

(8.67-7.1859372) =1.4840628 Kg. S.N.F. thus decreasing its net worth from Rs. 46.065/kg to Rs.

38.18/Kg.

82.88278x46.065=Rs.38.18

Standard Mixed milk: Rs. (5.00x498+8.67x244 121764)/100 = Rs.46.065/Kg

(4.14414x498+7.1859372 x244.11764)/100=Rs.38.18/Kg

Rs. 3, 81,800 per tanker containing 10,000 Kgs. milk

Cross check examination as per 60:40 two axis formulae:

S.N.F=C.L.R./4+0.2xFat+ C.L.R./100

S.N.F. = (20.637817/4+0.2x4.14414+20.637817 /100) =7.1859372 %

Professional feedback, scientifically logical critical comments or suggestions received by us on our

email address iiuhumber@gmail.com would be highly appreciated and gratefully acknowledged.

Wishing good health to milk consumers, wealth to needy dairy farmers and prosperity for ethical dairy business entrepreneurs of India.

Mission Director

International Improvement Mission

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