

## SKILLS AND QUALITIES EXPECTED BY DAIRY PLANTS FROM DAIRY PROFESSIONALS

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### ABSTRACT

*In the present study, the employers of dairy professionals in the country, mainly the cooperative and private dairy plants, have given their feedback regarding the quality levels of the existing dairy professionals as well as they have expressed their expectations of a newly appointed dairy professional. However, in this study, the responses from the private sector has been low while the responses from the cooperative dairy sector have been high, hence the following discussion pertains mainly to the cooperative dairy sector of the country. The most important skill/quality aspect desired in a dairy technologist "in general" were - Dairy Technology Knowledge, Work orientated and Honesty/loyalty. In no particular skill /attribute the respondent dairy plants found the existing dairy professionals in the High ratings (60% and above) under "very satisfied", indicating that there is a lot of scopes for improvement to move the ratings to "very satisfied" from "satisfied". Similarly Skills/ attributes such as Willingness to travel, Problem-solving skills, Willingness to work at Chilling centers and Shifts, Practical knowledge which has received ratings under "dissatisfaction" and 'average satisfaction' also need to be addressed. In terms of Behavioral attributes the attribute of 'Problem-solving skills' was most important for all the regions. Remarkably the attribute "Son of a dairy farmer / Son of the soil" did not have much importance in Northern region. To a great extent (55% to 73%), the respondent dairy plants across all regions used to permit Dairy Professional to pursue Further Studies. Out of 207 cooperative dairies around 106 said 'Yes' there was a need to start a Post-graduation course in Dairy Business Management field. Regarding the modality of the proposed course, around 64% of the respondents suggested the title of the course, should be "MBA in Dairy Business".*

**KEYWORDS:** Dairy Professionals, Skills for Dairy Professionals, Dairy Sector Manpower, Skills Required by Dairy Sector, Important Job Attributes in Dairy Plants, Dairy Plant Job Profile

### INTRODUCTION

In the present study, the employers of dairy professionals in the country, mainly the cooperative and private dairy plants, have given their feedback regarding the quality levels of the existing dairy professionals as well as they have expressed their expectations of a newly appointed dairy professional. However, in this study, the responses from the private sector has been low while the responses from the cooperative dairy sector have been high, hence the following discussion pertains mainly to the cooperative dairy sector of the country.

In the present study, the responses have been summarized on an overall basis as well as on zone wise basis. The results and findings obtained from analysis of the questionnaire are presented below.

### Education Quality/Skills Expected by Dairy Cooperatives from Dairy Professionals

Main abilities/qualities/virtues which are desired in dairy technologist in cooperative plants of India are given in the table below. The results are based upon the responses given by the 207 respondent cooperative dairy plants.

In this section of the questionnaire, the respondents were asked to list five most important skills/quality aspects (along with rank) which they think a dairy technologist should possess. The ranks were converted into scores and based on the scores the following skills/ quality aspects were identified.

**Table 1**

Sr. No.	Skill Desired by Employers	Obtained Score	Percentage Score	Rank According to Score Obtained
1	Dairy Technology Knowledge	695	44%	1
2	Work oriented	383	24%	2
3	Honesty/loyalty	105	7%	3
4	Leadership and Management skills	98	6%	4
5	Experience	77	5%	5
6	Creativity	62	4%	6
7	Communication skills	61	4%	6
8	IT Orientation	61	4%	6
9	Market orientation	31	2%	7
10	Problem solving skill	14	1%	8
<b>11</b>	<b>Total</b>	<b>1587</b>	<b>100%</b>	

From the above table it can be seen that the most important skill/quality aspect desired in a dairy technologist were - Dairy Technology Knowledge, Work orientated and Honesty/loyalty.

The **Region wise** responses were as follows

**Table 2**

Sr. No	East Region	South Region	North Region	West Region
1	Dairy Technology Knowledge (50%)	Dairy Technology Knowledge (34%)	Dairy Technology Knowledge (33%)	Dairy Technology Knowledge (41%)
2	Work oriented (31%)	Work oriented (14%)	Work oriented (25%)	Work oriented (23%)
3	Honesty/loyalty (7%)	Honesty/loyalty (13%)	Honesty/loyalty (8%)	Problem solving skill (10%)

(Figures in the brackets indicate the percentage obtained score)

(Please refer to Annexure 8 for zone wise details)

It can be seen from the above table that Dairy technology knowledge, work orientation, and Honesty/loyalty are the three main skill/quality aspect the cooperative dairy plants desire from a dairy technologist. In the western region where the plants have largely installed capacities, 'Problem Solving' has emerged as an important desirable skill for dairy technologists.

### Satisfaction Level with the Quality of Existing Dairy Professionals

The respondent dairy plants were given a list of skill/quality aspect of a dairy professional and were asked to give their feedback regarding their satisfaction level with respect to each skill/quality aspect. The responses from the respondent

cooperative dairy plants have been summarized in the following table.

The Satisfaction level with the quality of existing Dairy Professionals in cooperative plants of India.

**Table 3**

Sr.No.	Skill/ Education /Quality of a Newly Appointed Dairy Professional in Your Organization (Recent Past Only)	Very Satisfied	Satisfied	Average Satisfaction	Dissatisfied	Highly Dissatisfied	Total Respondents (N=138)
1	His Theoretical knowledge	24%	71%	5%	0%	0%	100%
2	His Practical knowledge	25%	64%	11%	0%	0%	100%
3	His Willingness to work in different shifts	30%	58%	11%	1%	0%	100%
4	His Willingness to work at Chilling centres	25%	62%	12%	1%	0%	100%
5	His Willingness to work in different departments	20%	70%	10%	0%	0%	100%
6	His Willingness to travel	21%	57%	22%	0%	0%	100%
7	His attitude towards work	31%	60%	8%	1%	0%	100%
8	His Motivation level	18%	71%	11%	0%	0%	100%
9	His Problem solving skills	25%	62%	13%	0%	0%	100%
10	His Loyalty with organization in terms of length of service	30%	59%	9%	1%	0%	100%
11	His Ethical values	26%	67%	7%	1%	0%	100%

It can be seen from the above table that at the overall level (India), no skill/attribute got a rating of 'Highly Dissatisfied'. Skills/attributes such as 'Willingness to travel', 'Problem-solving skills', 'Willingness to work at Chilling centers', 'Practical knowledge', etc. received considerable (22% to 11%) ratings under "Average Satisfaction". For all the listed skill attributes the rating 'Very satisfied' ranged between 18% (motivation level) to 31% (attitude towards work) while the rating "Satisfied" ranged between 57% (willingness to travel) to 71% (Theoretical knowledge and Motivation level).

Hence it can be said that for no particular skill /attribute, the respondent dairy plants gave the High ratings (i.e 60% and above in 'Very Satisfied'), indicating that there is a lot of scope for improvement to move the ratings from "satisfied" to "very satisfied". Similarly, Skills/ attributes such as Willingness to travel, Problem solving skills, Willingness to work at Chilling centers and Shifts, Practical knowledge which have received ratings under "dissatisfaction" and 'average satisfaction' also need to be addressed.

The summary of important findings for **Region wise** responses is presented in the following paragraphs. (Please see *Annexure 8* for details)

### **East Region:**

In the Eastern region, the main findings were – only the attribute ‘Loyalty with organization in terms of length of service’ got a rating under ‘Dissatisfaction’, the attribute “Practical Knowledge” got zero rating under “Very satisfied” (whereas all other attributes got it in the range of 10% to 30%). However, the attribute ‘Practical Knowledge’ got a 90% rating under the head “Satisfied”. This may indicate that the “Practical Knowledge’ of the candidates needs to be fine-tuned. The ‘Theoretical Knowledge’ got 10% rating for “Very satisfied’ and 80% rating for ‘Satisfied’. This may indicate that in order to improve the performance of the dairy sector in terms of efficiency and effectiveness, the important attributes “Theoretical knowledge and Practical knowledge’ should be focussed and improved so that the dairy plants could become “highly satisfied” with these attributes.

### **North Region**

It could be seen that in the northern region no skill/attribute got a rating under the heads – ‘Highly dissatisfied’ and “dissatisfied”. However, to a very low extent ‘willingness to travel’ got ‘Average satisfaction’ rating (12% of respondents). The important attributes Theoretical and practical knowledge got a 42% rating under “Highly Satisfied’.

### **South Region**

It could be seen that in the southern region, the important attributes Theoretical knowledge and Practical knowledge got around 15% rating in ‘Highly Satisfied’. The majority of the attributes got considerable ratings under ‘Satisfied’ head.

### **West Region**

It was found that in the western region a small amount of dissatisfaction (3% to 6% response) was seen in attributes such as – Willingness to work at Chilling centers, Willingness to work in different shifts, attitude towards work and Loyalty with the organization in terms of length of service. The important attributes Theoretical and practical knowledge got 16% and 19% rating under “Highly Satisfied’.

From the above discussion, it can be interpreted that in existing dairy professionals the important skill/ attributes titled “Theoretical and Practical Knowledge’ got considerably lower ratings under the head “ Very satisfied” (10% and 0% in the East, 42% & 42% in North, 13% and 15% in the South and; 16% and 19% in the west). Attributes such as Willingness to work at Chilling centers, Willingness to work in different shifts, attitude towards work and Loyalty with organization in terms of length of service received relatively lower level of satisfaction.

### **Knowledge Attributes Expected from a Newly Appointed Dairy Professionals**

Knowledge attributes (which in your opinion a newly appointed dairy professional should possess):

Table 4

Sr. No.	Attribute	Rank According to Obtained Score				
		ALL INDIA	EAST	NORTH	SOUTH	WEST
1	Practical Knowledge imparted at college	1	1	2	1	1
2	Theoretical knowledge of candidate	2	5	1	2	2
3	Knowledge gained through 1 year Experiential Learning imparted at College (i.e. 1 year hands-on training in dairy plant)	3	2	3	3	3
4	Knowledge gained through the "Compulsory Educational tour (>15 days)" at college	5	3	5	5	4
5	Knowledge gained through Industrial visits (1 or 2 days) at college	4	4	4	4	5

(See Annexure 8 for region wise scores)

From the above, it can be seen that at all India level the skill/ attribute expected from a newly appointed dairy professional was "Practical Knowledge imparted at college". Region wise also the findings were similar except for East region where "Theoretical knowledge of candidate" was given the last rank. On an average "Knowledge gained through Industrial visits (1 or 2 days) at college" had a higher ranking than "Knowledge gained through the "Compulsory Educational tour (>15 days)" at college".

#### Attitude Expected from a Newly Appointed Dairy Professional

Attitude towards work (which in your opinion a newly appointed dairy professional should possess):

Table 5

Sr. No.	Attribute	Rank According to obtained score				
		ALL INDIA	EAST	NORTH	SOUTH	WEST
1	Loyalty with organization in terms of length of service	1	3	1	1	3
2	Willingness to work in different shifts	2	2	2	2	1
3	Willingness to accept transfers	3	5	4	3	4
4	Willingness to work at Chilling centers	4	1	5	4	2
5	Willingness to travel	5	4	3	5	5

(See Annexure 8 for region-wise scores)

It can be seen from the above table that "Loyalty with the organization in terms of length of service" was important for North and South regions, whereas "Willingness to work at Chilling centers" was important for East and West Regions. However, "Willingness to work in different shifts" was important in all the regions.

#### Behavioral Attributes Expected from a Newly Appointed Dairy Professional

Behavioral attributes (which in your opinion a newly appointed dairy professional should possess):

Table 6

Sr. No.	Attribute	Rank According to Obtained Score				
		ALL INDIA	EAST	NORTH	SOUTH	WEST
1	His Problem solving skills	1	1	1	1	1
2	Good attitude towards superior and others	2	3	2	3	2
3	His Motivation level	3	5	3	2	5
4	His Ethical values	4	2	5	4	4
5	His communication skills	5	4	4	5	3

(See Annexure 8 for region wise scores)

From the above, it can be seen that in terms of Behavioral attributes the attribute of 'Problem-solving skills' was most important for all the regions. The next important attribute in the east was 'Ethical values', for North and West it was 'Good attitude towards superior and others' and in the south it was 'Motivation level'.

### Extra curricular Attributes Expected from a Newly Appointed Dairy PROFESSIONALS

Extracurricular attributes (which in your opinion a newly appointed dairy professional should possess:

Table 7

Sr. No.	Attribute	Rank According to Obtained Score				
		ALL INDIA	EAST	NORTH	SOUTH	WEST
1	Basic mobile and other ICT skills	1	1	1	1	2
2	Son of dairy farmer / Son of soil	2	2	4	2	1
3	Extra-curricular & Cultural activities	3	3	2	3	5
4	Sports certificates/ awards	4	3	3	4	4
5	NCC/NSS training/Sports participation	5	5	5	5	3

(See Annexure 8 for region wise scores)

IT can be seen from the above table that the most important factors in *East, West, and South* were – “Basic mobile and other ICT skills and attribute of Son of a dairy farmer / Son of the soil” whereas, in the case of *North region* the most important factors were “Basic mobile and other ICT skills and Extracurricular & Cultural activities”. Remarkably the attribute “Son of a dairy farmer / Son of soil” did not have much importance in Northern region.

### Practice of Taking Bond from the Newly Appointed Dairy Professionals

In order to study the general employment conditions used by the selected respondent dairy cooperatives, the respondents were asked to give their response regarding the practice of taking bond from newly appointed professionals.

Table 8

REGION	Yes		No		Total	
	N	Percentage	N	Percentage	N	Percentage
East	1	5%	21	95%	22	100%
North	6	6%	93	94%	99	100%
South	21	39%	33	61%	54	100%
West	14	42%	19	58%	32	100%
All India	42	20%	166	80%	207	100%

It can be seen from the above-mentioned table that approximately 40% of respondents in West and South used to take Bond from the new employees. The practice of taking bond was less prevalent (approximately 5%) in East and North region.

### Practice of Allowing Dairy Professional to Pursue 'Further Studies'-PG, PhD, MBA

**Table 9**

Region	Yes		No		Total	
	N	Percentage	N	Percentage	N	Percentage
East	12	55%	10	45%	22	100%
North	65	66%	34	34%	99	100%
South	30	56%	24	44%	54	100%
West	24	73%	9	27%	32	100%
All India	131	63%	77	37%	207	100%

It can be seen that to a great extent (55% to 73%), the respondent dairy plants across all regions used to permit Dairy Professional to pursue Further Studies.

### Dairy Cooperative Specific Feedback on Management Courses

With special reference to a Post Graduate course in the field of Dairy Business Management, the respondent dairy plants were asked to give their feedback regarding the need and mode of starting a Post-graduation course in Dairy Business.

Out of 207 cooperative dairies around 106 said 'Yes' there was a need to start a Post-graduation course in Dairy Business Management field. Regarding the modality of the proposed course, around 64% of the respondents suggested the title of the course, should be "MBA in Dairy Business".

**Table 10**

Sr. No.	Title of Course Suggested	Frequency	Percentage
1	MBA in Dairy Business	68	64%
2	PG in Dairy Business subject	9	8%
3	Integrated 5 year MBA in Dairy Business	29	27%
	<b>Total</b>	<b>106</b>	<b>100%</b>

### Suggestions from Employers

The respondents were asked in an open-ended question to provide suggestions for any Specific topic/course/practical/educational activity/ etc. which should be included in the existing Dairy Science Education. The complete list of suggestions are given in *Annexure 8*.

### SUMMARY AND CONCLUSIONS

- The most important skill/quality aspect desired in a dairy technologist "in general" were - Dairy Technology Knowledge, Work orientated and Honesty/loyalty.
- At the overall level (India), no skill/attribute got a rating of 'Highly Dissatisfied'. Skills/ attributes such as 'Willingness to travel', 'Problem-solving skills', 'Willingness to work at Chilling centers', 'Practical knowledge', etc. received considerable (22% to 11%) ratings under "Average Satisfaction". For all the listed skill attributes the rating 'Very satisfied' ranged between 18% (motivation level) to 31% (attitude towards work) while the rating "Satisfied" ranged between 57% (willingness to travel) to 71% (Theoretical knowledge and Motivation level).
- In no particular skill /attribute the respondent dairy plants found the existing dairy professionals in the High ratings (60% and above) under "very satisfied", indicating that there is a lot of scope for improvement to move the

ratings to “very satisfied” from “satisfied”. Similarly Skills/ attributes such as Willingness to travel, Problem solving skills, Willingness to work at Chilling centers and Shifts, Practical knowledge which has received ratings under “dissatisfaction’ and ‘average satisfaction’ also need to be addressed.

- At all India level, the skill/ attribute expected from a newly appointed dairy professional was “Practical Knowledge imparted at college”. Region wise also the findings were similar except for East region where “Theoretical knowledge of candidate’ was given the last rank. On an average “Knowledge gained through Industrial visits (1 or 2 days) at college” had a higher ranking than “Knowledge gained through the “Compulsory Educational tour (>15 days)” at college”.
- Further, the “Loyalty with organization in terms of length of service” was important for North and South regions, whereas “Willingness to work at Chilling centers” was important for East and West Regions. However, “Willingness to work in different shifts” was important in all the regions
- In terms of Behavioral attributes the attribute of ‘Problem solving skills’ was most important for all the regions. The next important attribute in the East was ‘Ethical values’, but for North and West it was ‘Good attitude towards superior and others’ and in south it was ‘Motivation level’.
- In extracurricular attributes, the most important factors in East, West and South were – “Basic mobile and other ICT skills and attribute of Son of a dairy farmer / Son of the soil”, whereas in case of North region the most important factors were “Basic mobile and other ICT skills and Extracurricular & Cultural activities”. Remarkably the attribute “Son of a dairy farmer / Son of soil” did not have much importance in Northern region.
- The practice of taking bond was more prevalent (approximately 40%) in the West and South and was less prevalent (approximately 5%) in East and North region.
- To a great extent (55% to 73%), the respondent dairy plants across all regions used to permit Dairy Professional to pursue Further Studies.
- Out of 207 cooperative dairies around 106 said ‘Yes’ there was a need to start a Post-graduation course in Dairy Business Management field. Regarding the modality of the proposed course, around 64% of the respondents suggested the title of the course should be “MBA in Dairy Business”.

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