



## Services provided and availed by the dairy farmers from selected milk processing agencies

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### ABSTRACT

The study was undertaken to identify the services provided by the milk processing agencies and services availed by the dairy farmers. The data were collected from 150 dairy farmers of Jagron block, fifty each from Cooperative, Multinational and Private Milk processing agencies. The data were collected with the help of interview schedule method and analyzed by using statistical tools viz., frequencies and percentage. The findings revealed that dairy services such as AI facilities, veterinary medicines, veterinary doctors, milking machine, provision of fodder, seeds and dairy literature were provided by Cooperative and multinational milk processing agencies whereas private milk processing agencies provided a calendar containing 32 points of clean milk production. It is suggested that extension personnel of cooperative as well as multinational milk processing agencies should educate the farmers regarding the facilities provided by these agencies so that dairy farmers are able to select right agency to sell their milk. Milk production is a intensive enterprise as it needs huge initial investment. At present, dairy farmers are not getting the facility of advance payment from some of the milk processing agencies. Therefore, dairy loans should be introduced at subsidized rates for making initial investment and milk producers need to be advised on the production if more and cheaper milk by following better breeding, feeding and management practices.

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### INTRODUCTION

The dairy farming has emerged as one of the key components of agricultural growth in developing countries in recent years. Animal husbandry and dairy development play a prominent role in rural economy in supplementing the income of rural households, particularly the landless and small and marginal framers. Over 70 per cent of the rural households in India depend on livestock farming for supplementary income. According to central Statistical Organization (CSO), the value of output from livestock and fisheries sector is about 37.7 per cent of the total agriculture and allied sectors. India is the largest producer of milk in the world but productivity per animal is very low, which is only 987 kg/lactation. Out of total production of 97.1 million tones per annum (www.nddb.org.2005-2006) the major share (70%) is contributed by buffaloes and the remaining (30%) by the cows. Although the annual milk production of Punjab state has increased from 8554 (000 tones) in 2004-05 to 9282 (000 tones) in 2007-08 (www.nddb.org.

2005-2006) but there is a scope to increase this production further.

Even after several years of planning, the picture in the area of milk production is not very much encouraging. It is a fact that milk production is carried out in a traditional way. There is a considerable gap between present practices of dairy farming and available dairy husbandry technology due to the lack of proper knowledge regarding new dairy practices among the farmers. Unless the gap is narrowed down and level of knowledge of dairy farmers raised, the adoption of improved techniques may not be possible. To overcome this gap, a number of activities have been taken up by the government institutions, cooperatives, multinationals and private institutions.

Milk processing agencies such as Cooperative, Multinational and Private are operating in Punjab. All these agencies are playing a significant role in processing and marketing of milk. These agencies are dealing directly or indirectly with the milk producers. The price offered becomes an important factor

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in selecting the agency for selling the milk. The preferences of the producers for supplying milk to a particular agency may depend upon financial security, provision of loans, dairy inputs like fodder, seeds, animals feed, mineral mixture, veterinary aids, etc. and other animal gains both material and non-material. Keeping all this in view, the present study, has been undertaken with the specific objectives: to identify the services provided to the dairy farmers by the selected agencies and to study the services availed by the dairy farmers being provided by the selected agencies.

## **METHODOLOGY**

The study was conducted in Ludhiana district, Jagraon block of Ludhiana district was selected purposively. Jagraon block comprised of 164 villages. A total of 10 villages namely, Mansoor, Chowki Mann, Jhande, Mohi, Rakba, Guresh, Pandori, Rurka, Jodha and Mullanpur were randomly selected for the present study. Three agencies namely, cooperatives (Verka), multinational (Nestle) and private (Milk time) were purposively selected to compare the services being provided by these agencies. A village wise list of dairy farmers selling milk to the selected agencies was obtained from the respective agencies. From the selected villages, a sample of 50 dairy farmers was selected by following the probability proportion to size of each village. Thus the total sample comprised of 150 dairy farmers (50 each from cooperatives, multinational and private milk processing agencies). Officials of the selected agencies were also contacted to identify the services provided to the dairy farmers. The data were collected from the farmers with the help of interview schedule and analyzed by using statistical tools *viz.*, frequencies and percentages.

## **RESULTS AND DISCUSSION**

The findings of the present study have been presented under following heads:

### **Identification of dairy services provided by cooperatives, multinational and private milk processing agencies:**

Different types of services are being provided to the dairy farmers by the selected agencies. The data given in Table 1 show that cooperatives milk processing agency provided all veterinary services *viz.*, artificial insemination, provision of veterinary doctors, veterinary medicines, vaccines for foot and mouth diseases and facility to reduce inter calving period, except provision of good breed bulls whereas multinational milk processing agency provided

all the above said veterinary services. No veterinary services were provided by private milk processing agency.

Both cooperatives and multinational agencies supply milking machine and milk tanks free of cost at collection centre located at the house of a progressive dairy farmer (farmer who supplies at least one quintal of milk per day is termed as progressive dairy farmer). Multinational milk processing agency provided four different types of fodder seeds namely, bajra, berseem, sorghum, maize whereas cooperative agency provided two types of fodder seeds which were maize and barseem and no such facility was provided by private milk processing agency. Collection centre at the village level was provided by all the three milk processing agencies. Both cooperative and multinational processing agencies provided calendar containing 32 points for clean milk production.

Cooperative and private agencies gave discount of Rs. 5 per kg on Ghee and butter each, where as Rs. 2.50 per pack discount on Rasila was given by cooperative milk processing agency. Multinational agency did not give any kind of discount on products. Different extension programmes were carried out by the cooperative and multinational agencies except the visit of model dairy farm which was only provided by multinational milk processing agency. Both cooperative and multinational milk processing agencies gave price differences to the dairy farmers whereas bonus was only provided by cooperative agency. Provision of advance payment was only practiced by private milk processing agency. Private milk processing agency sometimes practiced the provision of little increase in fat rate than the prevailing market rate.

### **Extension services provided by the selected milk processing agencies:**

The distribution of the respondents according to the participation in different extension programmes organized by cooperative, multinational and private milk agencies have been placed in Table 2. The data given in Table 2 revealed that 86 per cent of the respondents of multinational milk processing agency participated in annual function of the agency followed by 82 per cent of the respondents of cooperative agency participated in the training courses on A-I and preservation of fodder and farm demonstration on milking machines and clean milk production.

Sixty six per cent of the respondents of the multinational processing agencies availed the facility of training courses. Milk days were not attended by 76 per cent and 74 per cent of the respondents of cooperative and multinational agencies, respectively. Sixty eight per

**Table 1: Services provided by cooperative, multinational and private milk agencies**

Sr. No.	Services	Cooperative (Verka)	Multinational (Nestle)	Private (Milk Time)
1.	<b>Veterinary services</b>			
	Provision of good breed bulls	NP	P	NP
	Artificial insemination			
	(a) Supply of semen	P	P	NP
	(b) Provision of liquid nitrogen cylinder for storing semen	P	P	NP
	Provision of the veterinary doctor	P	P	NP
	Veterinary medicines			
	(a) Provision of good quality veterinary medicines	P	P	NP
	(b) Provision of veterinary medicines at a rate cheaper	P	P	NP
	Availability of vaccines for FMD	P	P	NP
	Facilities to reduce inter calving period	P	P	NP
2.	<b>Milking machine</b>			
	Supply of milking machine at the collection centre	P	P	NP
3.	<b>Milk tanks</b>			
	Supply of milk tanks free of cost at collection centre	P	P	NP
4.	<b>Provision of fodder seeds</b>			
	Bajra	NP	P	NP
	Sorghum	NP	P	NP
	Maize	P	P	NP
	Barseem	P	P	NP
5.	<b>Availability of cattle feed</b>	P	P	NP
6.	<b>Implantation of collection centre at village level</b>	P	P	P
7.	<b>Dairy literature</b>			
	Magazine			
	(a) Sunehe (monthly)	NP	P	NP
	(b) Changi Kheti (monthly)	NP	P	NP
	Pamphlets (Fortnightly)	P	P	NP
	Calendar containing 32 points for clean milk production	P	P	P
8.	<b>Provision of discount on various milk products</b>			
	Ghee Rs. 5/- off/kg	P	NP	P
	Butter Rs. 5/- off/kg	P	NP	P
	Rasila Rs. 2.5/- off/pack 200 ml.	P	NP	NP
9.	<b>Organization of extension programmes</b>			
	Training courses (twice a year) (A-I and preservation of fodder)	P	P	NP
	Milk days (monthly)	P	P	NP
	Village training camps (Annually) (Animal health care, clean milk production)	P	P	NP
	Demonstration (Milking machine and clean milk production)	P	P	NP
	Annual function at main unit	P	P	NP
	Visit to model dairy farm	NP	P	NP
10.	<b>Incentives</b>			
	Bonus	P	NP	NP
	Price difference	P	P	NP
11.	<b>Provision of advance payments</b>	NP	NP	P
12.	<b>Provision of little increase in fat rate than the prevailing market rate</b>	NP	NP	P

P- Provided

NP- Not provided

**Table 2: Distribution of the respondents according to the different extension services provided by cooperatives, multinational and private milk processing agencies**

Extension services	n=50		n=50		n=50	
	Cooperative		Multinational		Private	
	Yes f%	No f%	Yes f%	No f%	Yes f%	No f%
Training courses	22 (44)	28 (56)	33 (66)	17 (34)	0 (0)	0 (0)
Milk days	12 (24)	38 (76)	13 (26)	37 (74)	0 (0)	0 (0)
Village training camps	26 (56)	22 (44)	30 (60)	20 (40)	0 (0)	0 (0)
Demonstration	22 (44)	28 (56)	31 (62)	19 (38)	0 (0)	0 (0)
Annual function	41 (82)	9 (18)	43 (86)	7 (14)	0 (0)	0 (0)
Visit of model dairy farms	0 (0)	50 (100)	34 (68)	16 (32)	0 (0)	0 (0)
Payment after 5 days	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Payment after 10 days	50 (100)	0 (0)	50 (100)	0 (0)	0 (0)	50 (100)

cent of the respondents of multinational agency availed the facility of visit to model dairy farm whereas respondents of cooperative milk processing agency had not visited model dairy farm as this facility was not provided by the agency. Extension activities were not organized by private milk processing agency. Private milk processing agency gave payment of milk after an interval of 5 days cooperatives and multinational milk processing agencies gave payment of milk to the dairy farms after every ten days.

**Discounts/ bonus received from the selected milk processing agencies:**

The data given in Table 3 indicate that an equal percentage of the respondents (46%) of cooperative agency availed facility of discount on ghee and butter and 50 per cent of the respondents availed discount on milk product Rasila. Only small percentage (16 and 14 per cent) of the respondents of private milk processing agency availed the discount facility on ghee and butter. No

discount facility on milk product was provided by multinational processing agency.

The data of Table 3 further reveal that bonus was only provided by cooperative milk processing agency and all the respondents availed it. No bonus was provided by multinational as well as private milk processing agencies. All the respondents of cooperative and multinational milk processing agencies availed the facility of price difference whereas no such facility was provided by private milk processing agency. Provision of advance payment was only practiced by private milk processing agency and half of the respondents availed it. It was found that 100 per cent of the respondents of private milk processing agency availed the facility of slight increase in fat rate than the prevailing market price.

**Dairy literature received from the selected milk processing agencies:**

The information collected about different types of

**Table 3: Distribution of the respondents According to the discount and incentives received from the selected agencies**

Incentives	Cooperative		Multinational		Private	
	n=50		n=50		n=50	
	Yes f%	No f%	Yes f%	No f%	Yes f%	No f%
<b>Discount</b>						
Ghee	23(46)	27(54)	0(0)	50(100)	8(16)	42(84)
Rasila	25(50)	25(50)	0(0)	50(100)	0(0)	50(100)
Butter	23(46)	27(54)	0(0)	50(100)	7(14)	43(86)
<b>Incentives</b>						
Bonus	50(100)	0(0)	0(0)	50(100)	0(0)	50(100)
Price difference	50(100)	0(0)	50(100)	0(0)	0(0)	50(100)
Advance payment	0(0)	0(0)	0(0)	0(0)	26(52)	24(48)
A little increase in fat rate	0(0)	0(0)	0(0)	0(0)	50(100)	0(0)

**Table 4: Distribution of respondents according to the dairy literature received from the selected agencies**

Daily literature	Cooperative n=50			Multinational n=50			Private n=50		
	Monthly	Half yearly	Yearly	Monthly	Half yearly	Yearly	Monthly	Half yearly	Yearly
	f%	f%	f%	f%	f%	f%	f%	f%	f%
Magazine	0(0)	18(36)	20(40)	0(0)	20(40)	0(0)	0(0)	0(0)	0(0)
Pamphlets	6(12)	0(0)	0(0)	12(24)	0(0)	0(0)	0(0)	0(0)	0(0)
News letter	0(0)	10(20)	0(0)	0(0)	13(26)	0(0)	0(0)	0(0)	0(0)
Circular letter	0(0)	0(0)	5(10)	0(0)	15(30)	0(0)	0(0)	0(0)	0(0)
Calendars	0(0)	0(0)	30(60)	0(0)	0(0)	45(90)	0(0)	0(0)	0(0)

literature such as circular letter, calendar, newsletter, pamphlets, magazines, related to dairy farming provided by the selected milk processing agencies has been placed in Table 4. It is evident from the data that calendars were received on the yearly basis by 90 and 60 per cent of the respondents of multinational and cooperative milk processing agencies, respectively. Forty and 36 per cent of the respondents of multinational and cooperative milk processing agencies availed the facility of magazines respectively on half yearly basis whereas 26 and 20 per cent of the respondents of multinational and cooperative milk processing agencies received newsletters, respectively on half yearly basis. Thirty per cent of the respondents of multinational agency received circular letter from the agency on half yearly basis whereas only 10 per cent of the respondents of multinational and cooperative milk processing agencies, respectively. The dairy literature mentioned above was not provided by private milk processing agency.

#### **Veterinary services availed by the respondents of the selected agencies:**

The veterinary services provided by the selected milk processing agencies have been placed in Table 5. The data given in this Table indicate that all the respondents of multinational and cooperative milk processing agencies were 'always' provided with the artificial insemination service. A good majority of the respondents (74 and 80%) of both cooperative and multinational milk processing agencies 'always' received free services of veterinary doctor. 74 and 66 per cent respondents of multinational and cooperative milk processing agencies 'always' received vaccine of foot and mouth diseases, respectively. 64 and 46 per cent of respondents of multinational and cooperative milk processing agencies 'always' had the facility to reduce inter calving period. Half of the respondents of multinational milk processing agency 'always' availed the facility of good breed bulls whereas such services were provided by cooperative as well as

private milk processing agencies. Private milk processing agency did not provide any kind of veterinary services to its members. 80 and 50 per cent of the respondents belonging to cooperative and multinational milk processing agencies 'never' availed the milking machine facility respectively whereas 94 and 60 per cent of the respondents of cooperative and multinational did not avail the facility of milk tanks, respectively. Equal percentage (78% and 78%) of the multinational and cooperative milk processing agencies 'always' availed the facility of cattle feed and fodder seed, respectively. No such services were provided by private milk processing agency.

The data given in Table 5 further reveal that 92 and 84 per cent of the respondents of multinational and cooperative agencies availed subsidies on medicines, respectively. Two third of the respondents of multinational and 74 per cent of the respondents of cooperatives milk processing agency 'always' availed the subsidies on liquid nitrogen cylinder. Subsidies on feed were 'always' received by 78 and 72 per cent of the respondents of multinational and cooperative milk processing agencies. Also 66 and 92 per cent of the respondents of the multinational and cooperative agency 'never' received subsidies on milk tanks, respectively whereas 54 and 16 per cent of the respondents of the multinational and cooperative 'always' received subsidies on milking machine, respectively and no veterinary services and no subsidies on dairy inputs were provided by private dairy milk processing agency. One third of the respondents of private milk processing agency 'always' availed service of advance payment. The service of collection centre at village level was 'always' availed by all the respondents of all the three selected milk processing agencies.

#### **Conclusion:**

It can be concluded that there was wide difference between the services provided by the agencies and services provided by the agencies and services availed by the dairy farmers such as provision of milking machine,

**Table 5: Distribution of respondents according to the services availed by them from selected milk processing agencies**

Services availed	Cooperative n=50			Multinational n=50			Private n=50		
	Always	Sometimes	Never	Always	Sometimes	Never	Always	Sometimes	Never
	f(%)	f(%)	f(%)	f(%)	f(%)	f(%)	f(%)	f(%)	f(%)
<b>Veterinary services</b>									
Bulls of good breed	Not provided			25(50)	10(20)	15(30)	0(0)	0(0)	0(0)
Artificial insemination	50(100)	0(0)	0(0)	50(100)	0(0)	0(0)	0(0)	0(0)	50(100)
Services of the veterinary doctor	37(74)	3(6)	10(20)	40(80)	4(8)	6(12)	0(0)	0(0)	50(100)
Vaccines for the FMD	33(66)	7(14)	10(20)	37(74)	3(6)	10(20)	0(0)	0(0)	50(100)
Facility to reduce inter calving period	23(46)	2(4)	25(50)	32(64)	3(6)	15(30)	0(0)	0(0)	50(100)
<b>Milking machines</b>	10(20)	0(0)	40(80)	20(40)	5(10)	25(50)	0(0)	0(0)	50(100)
<b>Milk tanks</b>	3(6)	0(0)	47(94)	15(30)	5(10)	30(60)	0(0)	0(0)	50(100)
<b>Fodder seeds</b>	38(76)	0(0)	12(24)	38(76)	2(4)	10(20)	0(0)	0(0)	50(100)
<b>Cattle feed</b>	39(78)	2(4)	9(18)	39(78)	1(2)	10(20)	0(0)	0(0)	50(100)
<b>Subsidies on dairy inputs</b>									
Milking machines	8(16)	2(4)	40(80)	27(54)	3(6)	20(40)	0(0)	0(0)	50(100)
Milk tanks	1(2)	3(6)	46(92)	14(28)	3(6)	33(66)	0(0)	0(0)	50(100)
Cattle feed	36(72)	3(6)	11(22)	39(78)	1(2)	10(20)	0(0)	0(0)	50(100)
Fodder seeds	33(66)	5(10)	12(24)	41(82)	3(6)	6(12)	0(0)	0(0)	50(100)
Liquid nitrogen cylinders	37(74)	0(0)	13(26)	33(66)	10(20)	7(14)	0(0)	0(0)	50(100)
Veterinary services	42(84)	0(0)	8(16)	46(92)	0(0)	4(8)	0(0)	0(0)	50(100)
<b>Collection centre at village level</b>	50(100)	0(0)	0(0)	50(100)	0(0)	0(0)	50(100)	-	-
<b>Advance payments</b>	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	16(32)	8(16)	26(52)

visits of model dairy farms, milk days, circular letters and news letters. So, it is suggested that extension personnel of cooperative as well as multinational milk processing agencies should educate the farmers regarding the facilities provided by these agencies so that dairy farmers are able to select the right agency to sell their milk. Milk production is an intensive enterprise as it needs huge initial investment. At present, dairy farmers are not getting the facility of advance payment from some of the milk processing agencies. Therefore, dairy loans should be introduced at subsidized rates for making initial investment and milk producers need to be advised on the production of more and cheaper milk, *i.e.* by following better breeding,

feeding and management practices.

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