

CHAPTER - III

DEVELOPMENT OF THE JANATA CO-OPERATIVE MILK DAIRY DURING
1984-85.

- 3.1) Registers of the Janata co-operative milk Dairy.
- 3.2) Milk Collection and distribution of JMD during 1984-88.
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CHAPTER - III.

DEVELOPMENT OF THE JANATA CO-OPERATIVE MILK DAIRY DURING
1984-883.1) Registers of the Janata co-operative Milk Dairy.

Introduction :- The Dairy business is known as one of the agricultural subsidiary businesses. The success of any business depends on proper account of its every activity through registers. The number of registers of any business is dependent on its various functions. For example if one farmer cultivate his farm under single crop. Ground-nut, he has to keep only two main registers i.e. the Register of production cost and Second one will be the register of Sales, From these two registers, a farmer can determine the profit or loss in his farming activity. If suppose he has to engage, him self in cultivation of various types of crops in his farm and also decides to manage a poultry, piagry, milch animals on his farm, he would have to kppe many types of registers for seperate production.

The Janata co-operative milk Dairy of Uttur Performs various types of commerical activities in its dairy. The main function of the JMD is the collection and distribution

of milk. The milk is sold to the local consumers, schools and to the District Milk Federation.

In case of and their commercial A number of related activities are performed by the JMD in its commercial field :

- 1) The JMD manages to sale of various type of animal feed to their milk producer-member.
- 2) ~~XX~~ It makes payments of the milk will to their members after 10 day.
- 3) It gives advance money to their members to purchase milch animals, animal feed, medicines etc. on credit basis.
- 4) It also arranges monthly meetings of their directors and annual meetings of all members to discuss the affairs of the JMD.
- 5) The Dairy also gives gifts to any social voluntary agency, Schools, Temples from its cheratibal funds.
- 6) The Dairy provides green fodder seeds to its members, to grow more green fodder for their milch animals and manage educational tour for the directors.

The dairy maintains a number of registers for its keep various activities in the commercial field.

This chapter examines the various types of registers of the JMD and their function.

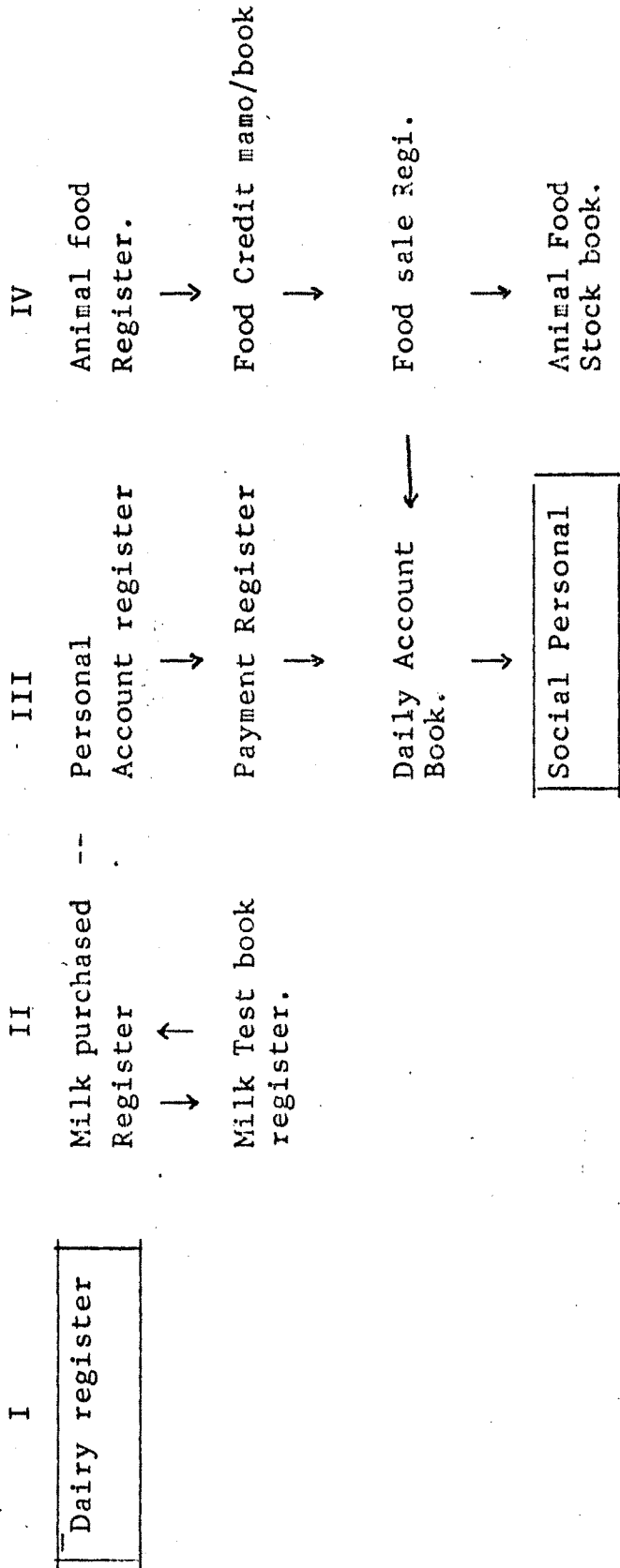
There are :

- a) Dairy registers.
- b) Milk purchase registers.
- c) Payment registers.
- 4) Personal account registers.
- e) Milk Test book registers.
- f) Animal food registers.
- g) Credit registers.
- h) Prociding registers.
- i) Daily account books.
- j) Personal Account books of the Society.

There are some affiliated sub-registers and books of registers which are given above.

CHART NO.3.1

Schematic diagram of the JMD register is given below :-



The schematic diagram 31 indicates that every register has relation to other registers. To complete an entry of any register we have to take relevant figures from another register.

The Name of the register which is written in square has very importance among all registers of the dairy. The Dairy register and the personal account register of the Dairy are two important registers and show present financial and other positions of the Dairy.

All these registers are to be kept safely and is the responsibility of the secretary of the dairy.

To consider the functional relationship of the registers to each other the registers are divided into four groups. Explanation of each register with their internal relation is given below.

1) Dairy register :-

Dairy register is the main register of the dairy. Total functions of the dairy regarding milk collection and milk sales are enumerated in the column of dairy register. Details shown by the dairy register are as follows, Date &

shift of milk collection, total members whosupplied milk to the dairy. Total of milk in liters, price of respective milkl by their bulk fat proportion, total sale of milk at local level, Total milk. sale to District milk Federation. Fat detected by federation, lower quality milk and 'D' grade milkl quantity. In the last column a page of this register indicates how much profit/loss has been made by the dairy in it's milk purchasing and selling activity..

The tabulated format of the inner page of the Dairy register is given below :-

Contd....

One page of the Dairy register consists of 40 columns. Two separate pages are used for cow and buffalo milk. After examining the readings on the Dairy register's page, it is clear that the Dairy register keeps account of the purchasing of milk and the sales of milk, as well as how much profit or loss is made by this activity. The columns 1 to 15 show milk purchasing figures and the columns 16 to 35 indicate figures regarding milk selling at local level and to the federation.

The columns 36 and 38 are for indicating profit & loss respectively, columns 37 and 39 show increase and decrease in total weight of milk. Milk which has to be sent to the Milk federation is weighted two times, first the dairy weight total milk which has to be sent to the federation. After sending the milk to the federation, federation accepts milk after weighing it. There is always a difference in these two weights at the milk.

2) Milk purchase Register :-

These are two milk purchase registers, one for purchase of cows milk and the other for the purchase of the buffalo milk.

The milk purchase register clearly indicates the detail of milk collected by each members, the amount of his milk according degree of fat determined by his milk and the remarks column.

The replica of the columns of the milk purchase register is given below :-

Janata co-operative milk dairy, Uttar.

Date :- / /199

Milk Purchase Register.

Index	Account Page	Name of Member	Bottle No	Milk Lit. Ml.	Test	Rate Rs. Ps.
1	2	3	4	5	6	7

Prize Rs. Ps.	Remarks.
8	9

There are nine columns in the milk Purchase register.

When the milk producer brings the milk to sell to the dairy, it is accompanied by a milk pass-book. These is already written an account page number. On each member's pass book. The milk-weigher, weights the milk which is brought by the member, takes 50 ml. milk to test it for the degree/fat of the, milk, Normally, he would write the account page number of the member. The rate to be paid to the member for his milk will depend upon the quality of milk and the quality is determined with the help of the electronic miltemeter or on acid test.

The testing remark can be gathered from the testing register

3) The Milk-test Register.

The milk-test register and the milk purchase register are fills on same time. Milk purchasing and testing of respective milk, these two functions should be done at the same time. Without testing respective milk, the dairy cannot determine the rate of milk to be paid for the purchased milk.

The fat-test book, indicates date of purchasing the milk source of Milk i.e. cows or buffelo, Shift of milk

collection, i.e. when was the milk collected, morning or evening. These are only two columns in the fat-test book (Milk-test book) one is at Sample number and Second is at fat-test. Sample numbers are to be written on the wooden racks where the bottle of milk sample have to to be placed. The sample numbers are not to be written on the bottle.

When the milk weicher, collects 50 ml of milk, from the milk brought in by a member, to test for fat content he put the milk sample bottle in a particular numbered rack, that number is the bottle number. This bottle number has been write before a name of respective member, in column of bottle number in milk purchase register of the dairy.

The columns and headings at the milk-test register are indicated below.

----- milk co-operative society Ltd.,

Date..... fat-test book.

Cow/bufflow

Morning/Evening.

Sample Number	Fat-test	Sample Number	Fat test	Sample Number	Fat test
86		90		94	
87		91		95	
88		92		96	
89		93		97	

CHAPTER - III (Registers of JMD)**4) Payment Register**

The payment register is used for maintaining the details of the milk payments to be made to the milk produce member.

The milk payment is made every 10 days. This milk payment is for 10 days milk supplied by member. The milk producers sell their milk to the dairy in the mornings as well as in the evenings. The dairy calculates the total amount of milk received in ten days from each member, along with the type of milk write its respective fat content etc, and determines the rupee value of this supply. The federation pays the milk bill of the dairy every day, but the primary co-operative milk dairy makes the payment to its members after ten days.

The format of the payment Register is given below :-

Contd.....

Sr.	Name of Producer	Morning		Evening.		Total Milk
		Milk (ltr)	Price B.Ps.	Milk (Ltr)	Price B.Ps.	
1	2	3	4	5	6	7

Total	Signature.
8	9

In the second column of the payment register. Here are name of milk producer members who sell their milk to the dairy. Columns 3,4,5 and 6 indicate milk sold by the producer to the dairy in the mornings and the evenings with its price. The column 8 indicates the total amount of milk received form the member in ten days and finelly the signature of the respective milk producer member of the dairy is found in the within column.

5) Individual Account Book.

The individual account book of the dairy show milk purchased from the milk producer member every day. There are three parts in every page of the register from these

three parts the dairy gets the figures of three months. There are three blocks of 10 days included in each part. A single part shows one month's milk purchased from the member. A format of the single part is given below.

Name of member ---

Date	Month Morning milk			evening milk.			Month Morning Milk			Evening Milk.			Month Morning Milk.			Evening milk.		
	Lit	MLR	Pa.	Lit	ML	R.P.	Lit	ML	R.P.	Lit	ML	R.P.	L	M	R.P.	L	M	R.P.
1.																		
2.																		
3.																		
4.																		
5.																		
6.																		
7.																		
8.																		
9.																		
10.																		

Payment date :-

On the right hand top side of the page the dairy mentions the reference number of the milk produced member. The dairy always uses this reference number instead of the name of the member.

Each column shows milk purchased from the member, two times in a day. The details of the quantity of milk received along with its price, fat content etc., and the time of receipt (i.e. morning or evening) are indicated in the columns.

6) Milk purchase Register.

The Milk purchase register shows the total amount of milk collected from the members every day. This register is being used for each day. From this register the dairy gets the information of daily milk purchase as well as the testing bottle number, degree of milk after testing, rate and total amount of milk according to milk testing degree (Fat, S.N.F.) and finally remark about the milk.

Intex	Account Page No	Name of member	Bottle No	Milk		Test	Rate		Price		Remarks.
				L.	MI		Rs.	Ps.	Rs.	Ps.	

This register is used for daily milk collection. This register has importance in making milk payment bill. Dairy always insert respective reference numbers at the members instead of writing their full names under the column Name of the member. The reference number of the member is denoted in column second. 'Account page No.' Account page Number means, the reference number of member which was written on the top right hand side of the page in the individual account books.

7) Dairy's Personal Account Register.

The register is the personal register of primary co-operative milk dairy. In this register the dairy writes its every transaction which takes place in its area of operation. From this register we can examine all financial activities of the dairy and also can judge the present financial condition of the dairy. This register carries details of dairy's transactions, such as personal dues, advance recovery, amount of total milk purchased, amount of total animal feed sold etc.

The Dairy's personal Account register is as important as the Dairy register. This register is always kept under the safe custody and the responsibility of the Secretaries of the cooperative dairy.

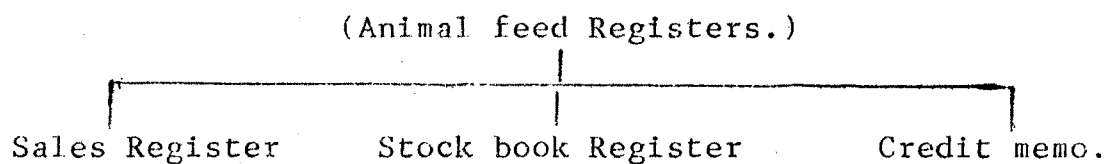
The farmer of the Dairy's personal Account Register is given below.

Account.

Date	Particular	Kird Page	Income		Expenditure		Dues Rs.Ps	Balance.	
			Rs.	Ps.	Rs.	Ps.		Rs.	Ps.

8) Animal feed Registers :-

There is no separate register for animal feed. There are registers which mention animal feed sales of the dairy, along with credit memo receipt books. The following chart of animal feed registers can explain the type the register of the animal feed services.



a) Sales Register :

The nature of the format of the sales register of the Animal feed is like a receipt. In this register there are mainly three columns. The first column it indicates the name of the purchaser the second column indicates the particulars of various kind at animal feed like Mahalaxmi mash, Mahalaxmi tablets, mineral mixture, wheat husk etc. The third column indicates the total amount of purchased items. The format of the sale register is given below.

Sr. No	Name of purchase	Mahalaxmi mash		Mahalaxmi tablet		Sugrass palet		Wheat nust		Mineral mixture		Total Amount	
		Item	R. P.	Item	R. P.	It.	R. P.	It.	R. P.	It.	R. P.	R.	Ps.

b) Stock-book (Animal feed)

The stock book of animal feed shows the sales of various kinds of animal feed, total of animal feed stock, and finally the balance of animal feed after sales. The format of the stock-book register of the animal feed is given below.

Stock-book (Animal feed)

(In Kg)

Name of feed	Stock of feed	Sales of feed	Balance of feed.
Mahalaxmi mesh	200 Kg	100 Kg	100 Kg.
Mahalaxmi tablelet.			

c) Credit Memo Book.

The JMD as a primary co-operative milk Dairy, sells animal feed on credit basis. The format of the credit memo is as usual.

No. Credit Memo Kird Page.

Janata Kukkat Phān wa Puddha Vyawasai Sansta Ltd.Uttur.

Tal Ajāṅṅ, Dist. Kolhapur

Date:

Name :-

Sr No.	Particulars	Qty.	Rate	Weight Kg	Total Rs. Paise.
1)	Wheat blusa.				
2)	Mahalaxmi Mush				
3)	" Palet				
4)	Mineral Mixture.				
5)	Sugar Palet				
6)	Oil cake.				
7)	Cattle min.				

Sd/-
Signature of Censurer.

Sd/-
Secretary.

Thus, uses of various dairy, registers and their importance are numerated brietly. These registers are kept under the responsibility of the secretary of the Dairy. The JMD Uttur, has kept all the above mentioned dairy registers upto date. After examining the personal Account register ofl the JMD we conclude that this dairy is a well established primary co-operative milk dairy in Ajara taluka.

3.2) MILK COLLECTION & DISTRIBUTION OF JMD DURING 1984-88.

Introduction :-

The Milk collection and Milk Distribution are the main functions of the Janata co-operative Milk Dairy, Uttur, and also of all primary co-operative milk dairies of Kolhapur District. Besides this function the JMD also takes interest in other activities like animal feed senicin, veterinary aid senicin, green fodder seeds distribution etc.

Frist the analysis of the main functions of the JMD is given inl this portion.

a) Milk collection of JMD.

From the year of the establishment of the JMD 1964 to 1977. In this 13 year period the JMD could not run poultry form and Dairy business too.

However, the March 1977, particulars with respect to milk collection started functioning again under a new dispensation form the collection.

The average daily milk collection of the JMD in this month was only 100 litres. However, the daily average

(Source) Audit reports of 1984, 1985, 1986, 1987 and 1988 of JMD, Uttur.

The Table 3 indicates that the share of the cow milk in the population of buffaloes is much higher than that of cows.

The cross bred cows like holsten and Jersey from Uttur give between 5 litres and 12 liters of milk per cow. The cross bred buffaloes are rare in Uttur village, indigenous buffaloes from Uttur give milk upto 4 litres milk early at one time.

The total cow milk collection for the five years (1984-88) was 13,09406.8 litres and the buffalo milk was 5,88,880.6 litres. The collection of cow milk is nearly three times more than that of buffalo milk according to the total milk collection of five years, 1984 to 1988

collection of milk continued to increase and reached the respectable figures of 12,00 litres per day. The JMD reached its expected milk collection goal. Today the JMD is recognised as second best primary co-operative milk.

Dairy in the whole Kolhapur district, with respect to milk collection. This year the Bhaveshwari Co-operative milk dairy, Uttar, secured the first position/rank in the milk collection among all co-operative milk dairies from Kolhapur district.

The Milk collection of the JMD during in the five years, from 1984 to 1988, is given in the following table.

T A B L E 3.1

The milk collection of the JMD during the year, 1984-88.

(litres)

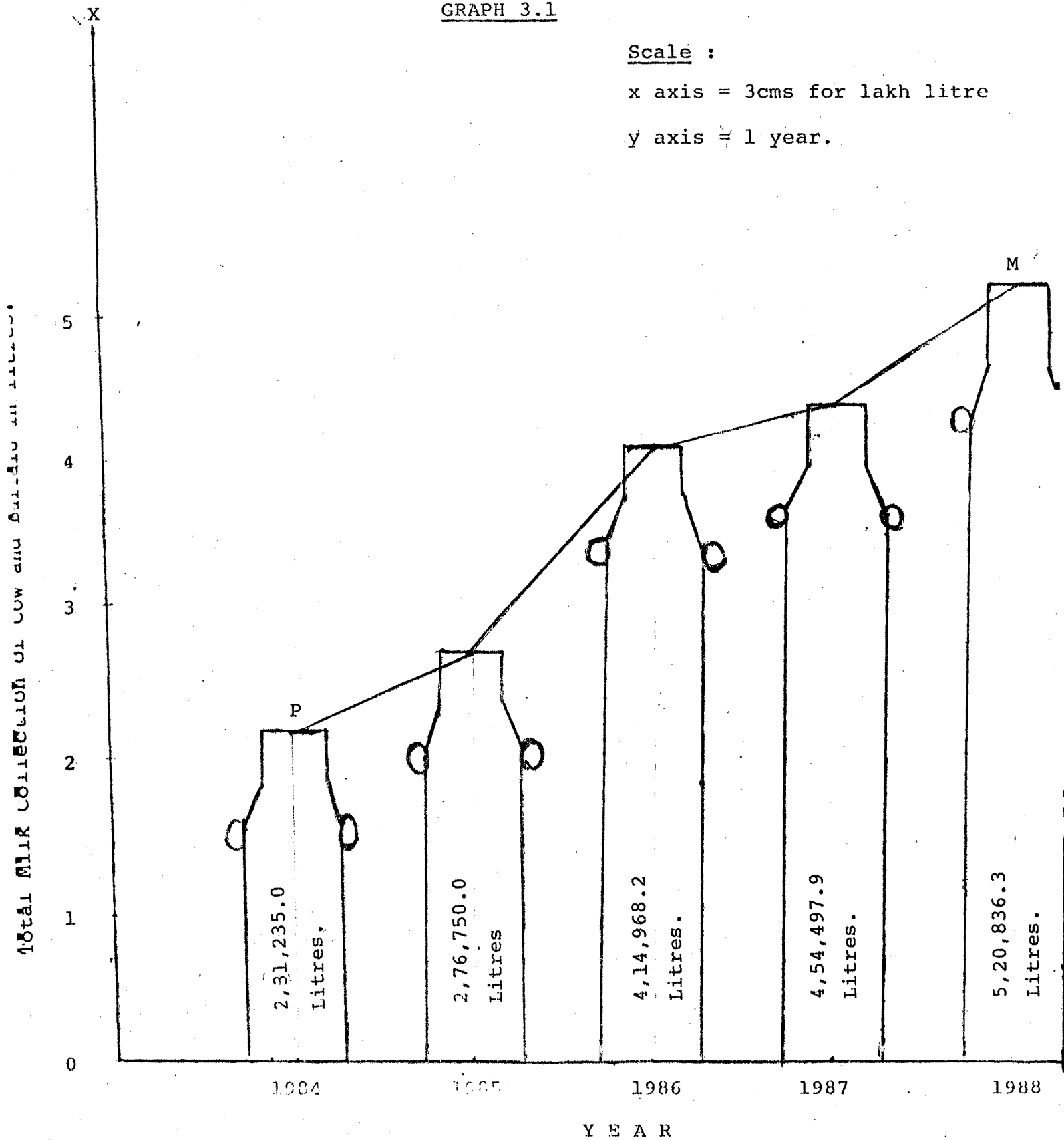
Year	Cow Milk	Buffalo Milk	Total Milk. Collection.
1984	217351.1	13883.9	231,235.0
1985	185227.4	91522.6	276,750.0
1986	302137.6	161460.2	414,968.2
1987	302137.6	152360.3	454,497.9
1988	351182.7	169653.6	520,836.3
TOTAL	1309406.8	588880.6	1898287.4

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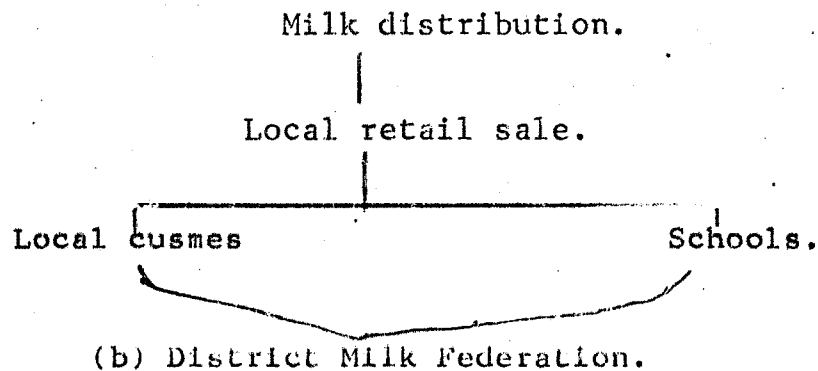
GRAPH 3.1



Curve 'PM' show increase in Milk collection of JMD, Uttur.

b) Milk Distribution of the JMD During 1984-88.

After collecting milk from different Milk Producer members, JMD, sells out bulk milk quantity to local milk consumers and district milk federation. The following chart shows the milk distribution channels of the JMD.



The Milk collection from different Milk producers and retail sales of milk take place on same simultaneously. After the milk is sold to the local consumers, the balance is sent to the chilling centre, Ningapur, Tal. Gudhinglaj which is authorised by the District milk federation, Kolhapur, to do so.

a) Local retail sale :- It is a socio-economic activity of the JMD. to fulfill local requirements of the consumers.

The JMD performs this function. There is no regulation about milk selling in retail in the local area of the

dairy. The JMD make its profit is retail selling of milk. This is because the milk purchasing rate is always less than the retail milk sale price. The margin between milk purchasing rate and milk retail selling rate is profit of the JMD.

The JMD also provides its collected milk to local schools. The schools are provided with cow milk. The schools do not offer buffalo milk to the School children. However the local consumers always prefer to buy buffalo milk: The rate of cow milk is always less than that of buffalo milk. Besides the schools, the JMD does not sell cow milk to any local consumer. The sale of cow milk to any local consumer. The sale of cow milk to the schools does not take place in the months of April, May, and June due to the examination activity as well as the summer holiday in the schools.

b) Sale to District Milk Federation.

After the retail sale of milk, the JMD sends its remaining bulk quantity of milk to the District Milk federation for sale. The Federation makes out a milk bill twice a day with its total weight and respective degree/S.N.F. in the mornings and evenings. The milk is tested two times. First the dairy tests the degree of milk before sending it to the chilling centre. The chilling

centre of the District Federation also tests the degree of milk again. There occurs different testing degrees by these two testings. Many a times, the degree which is tested at the chilling centre is higher than that at the spot of milk collection. From this activity the Dairy receives higher revenue from its, milk. In this activity thus, the JMD earns more profits compared to what it earns at the local retail sales.

TABLE 3.

Milk distribution of the JMD during 1984-88.

Table 3.2

Milk distribution of JMD to District Milk Federation, Kolhapur during 1984-88.

Year	Grade of milk	Cow Milk		Buffalo Milk b	Total sale of milk to Federation a+b=c	Surplus in Milk		Shortage in	
		a				Cow	Buffalo	Cow	Buffalo
1989	Best	175,880.3		105,610.9	314,717.9	1645.7	1197.7	883.2	409.7
	Low	25,274.9		7,518.8					
	Snelling	119.0		325.0					
1985	Best	165,721.5		60,014.5					
	Low	18,192.6		6,424.5	249,353.1	1824.0	1057.1	1019.4	179.7
	Snelling	--		--					
1986	Best	246,062.2		109,934.5					
	Low	7,165.5		10,890.5	374,145.7	2436.6	2239.6	419.1	114.3
	Snelling	22.0		71.0					
1987	Best	314,565.1		94,021.7					
	Low	37,239.3		12,501.0	1903,809.7	3442.3	1373.0	444.0	319.9
	Snelling	878.0		55.0					
1988	Best	278,992.9		62,435.8					
	Low	24,867.6		18,139.0	1308,048.1	2991.1	1824.3	257.0	186.8
	Snelling	141.0		99.0					

Source :- Audit reports of JMD of 1984, 1985, 1986, 1987, and 1988,

According to table 3, the total quantity of milk which is sent to the District Milk Federation during the five year period (1984-1988) was 4,149,074.5 litres. The total quantity of milk which was sent to the federation in year 1984 was 3,14,717.9 litres while it increased to 13,08,048.1 litres in 1988 an increase of up to 9,93,330.2 litres.

Shortage & surplus of milk :-

The shortage and the surplus of milk can be determined after getting the total bulk milk which is sent by the co-operative milk dairy, to the chilling centre. The chilling centre at the federation weights the milk which is sent in by the co-operative during, and sends a weight list to the dairy. According to this list the dairy tallies. He two weights, the weight has been determined at the spot of the dairy and at the chilling centre.

If the weight at milk at the chilling centre is more than that at weight the dairy spot the dairy will gain surplus milk and its change too. The question arises as to why is the weight of the milk at the chilling centre higher than the weight of the same milk when weighed at the

dairy ? This is mainly because of the practice the fact adopted for testing the milk for fat content etc. The Dairy takes a sample of milk of about 50 ml. from each member to test for fat content. Actually the dairy used only 10 ml. of milk from this 50 ml. The remaining 40 ml. of milk is poured back into the milk can. The dairy does not consider these 40 ml. per member for deciding on the total value of the milk received from the members. The total weight of such milk comes to nearly 10 to 15 litres, twice a day.

On the other side, some times there occur malpractices during milk transportation. Employees of the chilling centre do not take proper care in handling milk cans, while loading or unloading these. Some cans fall and can do result in milk spillage. Thus some milk does get lost during transportation etc. The shortage of milk is also known as "handling loss". However, the total quantity of shortage is significantly made less than the total quantity of surplus milk.

3.3) Methods of milk testing and rate determination of milk.

The whole milk business depends on the milk testing process. The dairy as well as the District milk federation

can determine the milk rate only after fat testing of the respective milk quantity. Without testing for fat content in the milk the dairy cannot calculate the price to be offered for the respective milk. Hence, it is necessary to study various methods of milk testing.

a) Methods of milk testing :-

Methods of milk testing are classified according to three different techniques of milk testing. Three different equipments are to be used to test the degree/fat at milk. The three types of tests are. Betrometer test, Lactometer test and Mitco test.

1) Lactometer testing method :-

The lactometer is an injection tube shaped glass equipment which is used to test the degree of milk. From the degree we can confirm the thickness of milk from testing by Lactometer it can be found whether the milk has been diluted or not. If the Milk producer has indulged in such a malpractice, then the diluted milk shows less degree when the betrometer tube is placed in the milk. The Betrometer does not indicate the quantity of fat content in the milk. However, there is a certain chart indicating the degree and its respective fact. For example if milk shows 25 degrees,

it will contain 6.0 fat in it. It is a primary equipment of the dairy to test milk.

The process of milk testing by using Lactometer is easier. People with lower educational levels and even untrained employees can operate this equipment. Every dairy keeps this equipment to test milk. Undeveloped or new dairies may not be able to purchase Betrometers or mirco-tester machines because of their high cost. (Figure No.3.1)

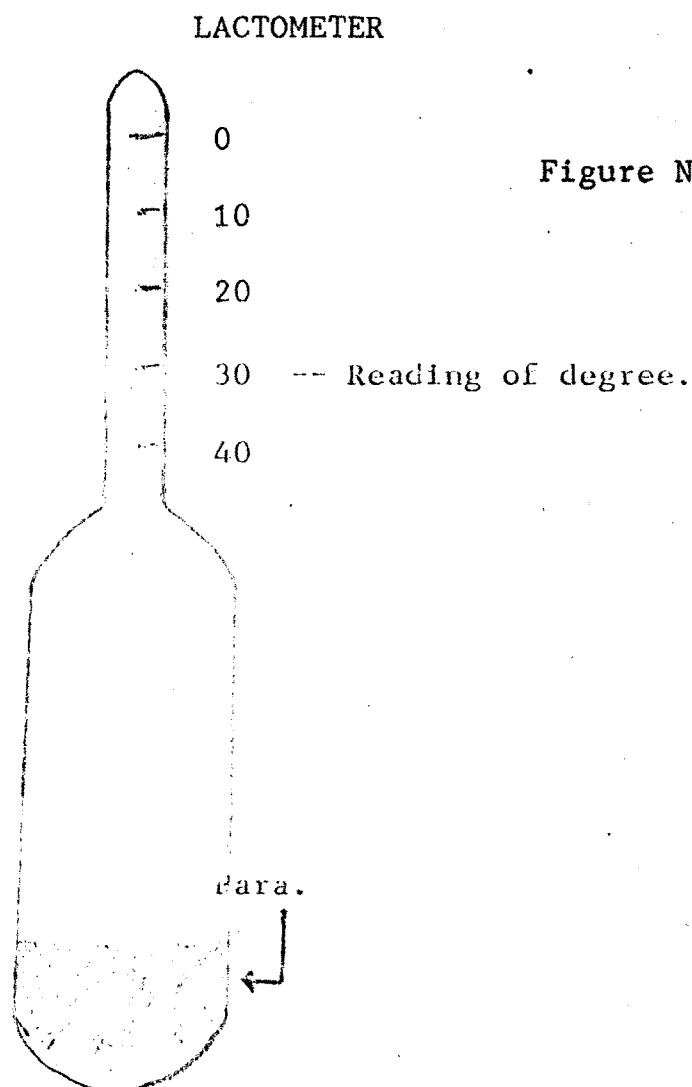


Figure No.3.1

b) BETROMETER TESTING METHOD.

By using lactometer we can determine only the degree of milk. However, by using the lactometer, the density of milk can be determined; but it can not confirm the fat particles contained in the milk.

In the betrometer testing. The testing process depends on chemical titration method. Some chemicals like Alcohol, Acids are to be used in this testing. This method is also known as "Garbar method". In this chemical process, following are to be put in the betrometer testing tube.

Acid 10 ml + milk 10 ml. + Alcohol 2 ml.

First, 10 ml acid is put in the butrometer tube, then 10 ml milk are added. Finally 2 ml. alcohol are dropped in it. After mixing these three components the tube is closed and placed on the centrifugal machine. Twenty four such testing tubes can be placed at a time in the centrifugal machine. After rotating for about 7 minutes the chemical reaction takes place in the test tube. Acid burns water particles and fat precipitates on the upper side of the testing tube. The wider part of the testing tube contains black chemical residue.

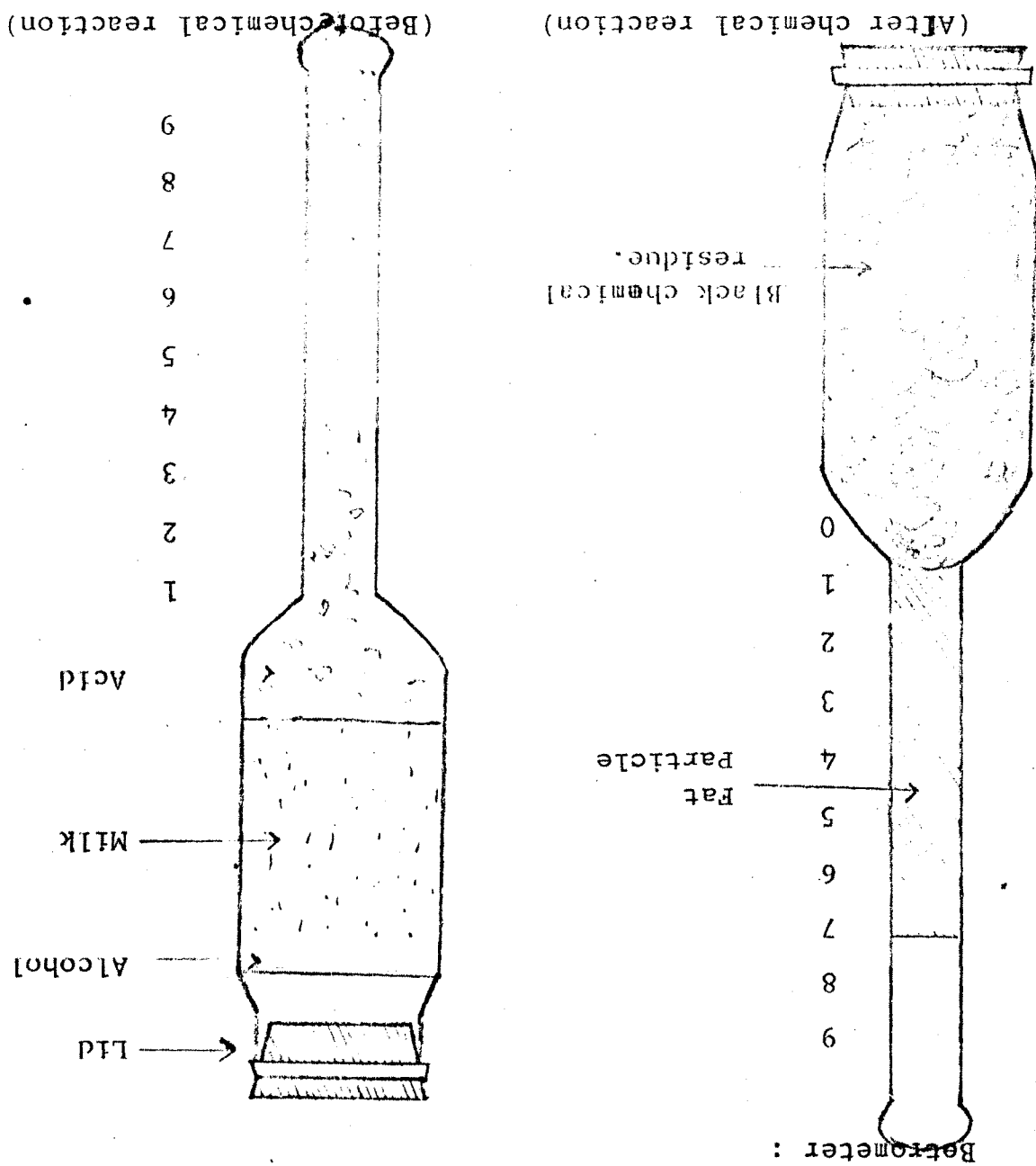


FIGURE 3.2

c) Milco-Tester testing method :-

The milk testing process, has undergone innovation these days. The Milco-tester testing is one advanced technique to examine fat/S.N.F. of milk. The cost of this machine is much higher compared to lactometer equipment. It can be economically expensive for a new dairy or an undeveloped dairy. The federation offers 25 percent discount on purchases of this instrument.

This is an automatic, electronic machine and can operate on electricity only. It has big capacity to show quick results as compared to any other testing instrument. Within one second we can find fat content in the milk.

In operating this machine, 10.75 ml. milk have to be dropped in the beaker of the machine. The chemical solution is already filled in the machine. After handling a handle of this machine two or three times, it shows fat/S.N.F. at respective milk. The JMD has such type of machine.

In case of buffalo milk the fat content must be 6.00 degrees or more and 3.5 degree or more in case of cow milk. The S.N.F. content must be 9 percent in buffalo milk and 8.5 percent in cow milk. Lactometer reading should be from 28

to 32 degree. Some dishonest milk producers mix different types of materials such as caustic soda, sugar, salt, starch etc. to increase the S.N.F. or lactometer reading. Therefore milk has to be tested every day. If the JMD, there is regular process of milk testing.

b) Method of rate determination of Milk.

At present the government is paying different milk rates during different milk rates during different seasons. In the flush season (September to February) the milk rate paid is higher than that paid in the lean season (March to August.) The Government should pay one flat milk rate throughout the year because the prices of necessary items and management costs remain same in both the seasons.

The co-operative dairies have been satisfied by KZDUS, because Kolhapur District Milk Federation Pays 1.50 more milk rate than the government milk rate per litre.

From the effective date of 1-11-91 the Kolhapur District Milk Federation issued new milk rates to their member dairies. According to its new rates, the KZDUS can purchase milk from their member dairies according to the following rate .

Kind of milk	Fat	S.N.F.	rate per litre.
Buffalo milk	7.0	9.0	Rs. 7.00
Cow milk	4.5	8.5	Rs. 4.50

The District Milk Federation of Kolhapur also fixed milk rate chart to their member dairies. The co-operatives should apply milk rate according to this chart to their milk producer members.

CHART NO.3 :- The following chart indicates milk rate for different fat of milk.

Buffalo Milk		Cow Milk.	
(Fat)	(Rate) Rs.	(Fat)	(Rate)Rs.
5-5 to 5-7	5.38	3.0 to 3.1	3.37
5-8 to 5-9	5.47	3.2 to 3.3	3.43
6-0 to 6-2	6.62	- to 3.4	3.49
6-3 to 6-5	6.74	3.5 to 3.6	4.19
6-6 to 6-8	6.87	3.7 to 3.8	4.26
6-9 to 7-1	7.00	3.9 to 4.0	4.33
7-2 to 7-4	7-18	4.1 to 4.2	4.40
7.5 to 7.7	7.35	4.3 to 4.4	4.46
7-8 to 8.0	7.47	4.5 to 4.6	4.53
8-1 to 8-3	6.61	4.7 to 4.8	4.60
8-4 to 8-6	7.73	4.9 to 5.0	4.74
8.7 to 8.9	7.86	5.1 to 5.2	4.74
7-1 to 7-2	7.99	5.3 to 5.4	4.81
		- to 5.5	4.55

3.4) Animal feed & veterinary services of the JMD during 1984-88.

According to Bylaws of the primary co-operative milk dairy, every dairy has to provide animal feed to their milk producer members at cheap rates. The District Milk Federation, Kolhapur always encourages its member co-operatives to start animal feed seeling activity through ltheir dairies. The KZDUS has its own animal feed production factory at MIDC area Kolhapur. The KZDUS produces Mahalaxmi mash and Mahalaxmi palet and sell these products through its member dairies.

The Animal feed servicing was opened in the JMD from the commen cement of site milk collection. In the benining onlyMahalaxmi lmash was available in its fee services. The JMD provided wheat Bhusa and Oil cakes also to its members, Now a days, the value of the animal feed sold by the JMD is around Rs. 10 lakhs per year. In 1988 the JMD's sales of animal feed was Rs. 89,4295.00, and the purchases amounted to Rs. 8,77,453.38.

The Janata co-operative milk dairy Uttur, sells various iteams of animal feed through itsfeed services unit. The following items are available atthe JMD wheat Bhusa,

Mahalaxmi mash, Mahalaxmi palet, Mahalaxmi tablet, old cake, cattle meruel, mineral mixture, Boni-vita, sugrass, Nutramine, according to stock-book and audit report of the JMD. The following table show balanced animal feed of the JMD during the period 1984 to 1988 with their rates and total.

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Table 3.3 (A)
Balanced stock at Cattle Feed of JMD of year 1984.

Particular	Quantity bags/ K.g.	Rate Rs. Pai.	Total Revenue (Rs)
Mahalaxmi mash	45	90-00	4050-00
Mahalaxmi tabelet	24	100-50	2412-00
Mahalaxmi palet	21	75-00	1575-00
Oil-cake	13	175-00	2275-00
Cattle m.m.	38	8-25	313-50
Nutramine	2	6-00	12-00
Bonivita	16	11-80	188-80
Sugrass	132	96-50	12738-00

Table 3.3 (B)
Balanced stock of Cattle feed of the JMD of year 1985.

Particular	Quantity	Rate Rs. Pai.	Total Rs. Pai.
Mahalaxmi mash	73	91-00	6643-00
Mahalaxmi tabelet	18	102-50	1845-00
Wheat Bhusa	9	103-00	927-00
Cattle m.m.	64	8-25	528-00
Oil-cake	12	150-00	1800-00
Sugrass	18	101-00	1818-00

Table 3.3 (C)

Balanced stock of Cattle feed of the JMD of year 1986.

Patticular	Quantity	Rate	Total Amount
Mahalaxmi Mash	11	104	1144-00
Mahalaxmi Tabelet	37	110	4070-00
Wheat Bhusa	37	86	5762-00
Cream table mash	65	132.48	8611-20
Cattle Min	2	7.25	14.50
Sugrass Palet	9	123.	1107-00
Cattle min	45	6.	270-00
m.m.	4	208	832-00

Table 3.3 (D)

Balanced stock of Cattle feed of the JMD of Year 1987.

Particular	Quantity	Rate	Total Amount
Mahalaxmi tabelet	74	114-00	8936-00
Mahalaxmi Supriya mash	63	157-00	9891-00
Mahalaxmi Supriya Palet	7	154-00	1078-00
Wheat Bhusa	23	103-00	2346-00

Table 3.3 (E)

Balanced stock of Cattle feed of the JMD of year 1988.

Particular	Quantity	Rate	Total Amount
Mahalaxmi mash	54	114	6156-00
Mahalaxmi Supriya mash	38	157	5966-00
Mangochi	3	118	354-00
Wheat Bhusa	56	128	7168-00
Oil cake	5	200	1000-00
Nutramine	130	9	1170-00
m.m.	3	240	720-00
Cattle min	65	10	650-00
Amrut mash	51	119	600-00
Supriya Amrut mash	55	117	6465-00

Veterinary Services Provided by the JMD.

In order to preserve good strain of milk giving animals, veterinary department of KZDUS provides various veterinary facilities to its member co-operative.

The JMD is a member dairy of the KZDUS hence it receives veterinary facilities through, KZDUS at every step.

To maintain the of each animal in a good condition they must receive checkups every fifteen days.

The veterinary doctor, of KZDUS pay visits to the JMD four times in a month every Wednesday. This veterinary doctor has been appointed through the KZDUS, Kolhapur to cater to the needs of 15 villages. These 15 villages are his responsibilities.

The doctor of the KZDUS provides free veterinary service to the milch animals at the dairies members. The doctor provides two types of certificate insemination, i.e. Mura and Surti, to the cows. He also visits member

producers in emergencies, but for such but visit a fee is charged by the veterinary doctor, though the medical charges are paid initially by the respective dairies. This amount is recovered through milk bills. The veterinary doctor of the KZADUS also provided free vaccination to milch animals at the dairy manners. Lava vaccine and other preventive vaccines are mainly provided free of cost to the members.

The JMD also provides Animal feed supplement to its members on credit, i.e. Balivata, Nutramine, cattlemin, Mineral mixture etc.
