CHAPTER NO.3

In this Chapter, 'The Cost Structure', the researcher has attempted to describe in detail the cost-structure of the local cow, the cross-breed (Holstein Friesen) cow and the local buffalo under different categories of the milk producers for the milching cycle. Further, the net income is calculated as per the cost accounting principle.

CHARTER NO.3

THE COST STRUCTURE.

I) LOCAL COW.

II) CROSS-BREED (HOLSTEIN-FRIESEN) COW.

III) LOCAL BUFFALO.

The Table No.3-1 shows that the milk producers possessing 1 to 2 milch animals get the average total income of Rs.3380.30 from the local cow for one milching cycle, whereas the average fixed and recurring expenses incurred are Rs.2838.33, which means that the net average income is Rs.541.96 for one milching cycle.

The second category of the milk producers possessing 3 to 4 milch animals gets the average total income of Rs.4380.20 from the local cow for one milching cycle. The average fixed and recurring expenses are Rs.3254.17. The net average income comes to Rs.1126.03 for one milching cycle.

The third category of the milk producers possessing 5 to 6 milch animals gets the average total income of Rs.4480.20 from the local cow for one milching cycle. The average fixed and recurring expenses are Rs.3434.58 while the net average income from this group comes to Rs.1045.62.

The Table no.3-1 shows that the second category of the milk producers (possessing 3 to 4 milch animals) gets comparatively more net average income than any other groups.

Though the second and third categories of the milk producers get approximately the same average total income, the average expenses on the local cow of the third category of the milk producers is comparatively more than the second category, and so the net average income of the second category of the milk producers is more as compared to the third category.

The first category of the milk producers gets the average total income of Rs.8674 from the cross-breed (HF) cow for one

milching cycle, which the average fixed and recurring expenses are Rs.5860 and the net average income comes to Rs.2814.

The second category of the milk producers gets the average total income of Rs.11480.30 from the cross-breed (HF) cow for one milching cycle, whereas the average fixed and recurring expenses are Rs.7056. The net average income comes to Rs.4784.30 from this category.

The third category of the milk producers gets the average total income of Rs.15214.90 from the cross-breed (HF) cow for one milching cycle, whereas the average fixed and recurring expenses incurred are Rs.7637; and the net average income comes to Rs.7577.90 for one milching cycle.

In the same way, the Table No.3.2 shows clear that the daily average milk production from the cross-breed (HF) cow goes on increasing in the third category of the milk producers in comparison with the first and the second category of the milk producers. In the same way, the average fixed and recurring expenses go on increasing in the third category. But the net average income from the cross-breed (HF) cow for one milching cycle in the third category is comparatively more because the increase in the ratio of the daily average milk production is comparatively more than the increase in the average expenses.

In short, the net average income from the local buffalo for one milching cycle is Rs.1165.60, Rs.1748.15 and Rs.2066.88 for the first, second and third categories of the milk producers respectively.

In the same way, the Table no.3.3 clearly shows that there is a similarity between Table no.3.2 and the above, i.e. the net average income goes parallel with the increase in the number of milch animals.

From the Table nos.3.1, 3.2, 3.3 and the Graph no.3.1 and statistics, it can be observed that the rearing of the local cows for the milk producers, possessing 3 to 4 milch animals is economically profitable compared to the milk producers possessing 1 to 2 and 5 to 6 milch animals.

The net average income must increase as regards the local cows, as per the increase in the number of the milch animals, but the above statistics prove that if the limit of the milch animals reaches 4, the net average income has declined.

It is clear that though the milk producers go on spending more and more money for better rearing, the production of milk from the local cows cannot exceed beyond a certain limit (approximately 4 litres of milk daily).

It has been inferred that the milk production from the cross-breed (HF) cow and the local buffalo goes on increasing as the number of the milch animals increases, the ratio of milching, the daily average total milk production and the net average income out of it also go on increasing, if the milk producers go on spending more and more money on the cross-breed (HF) cow and the local buffalo, the milk producers possessing 5 to 6 milch animals have proved that their daily average milk production is comparatively higher as compared to the other two categories.

There is a positive relation between the increase in the milch animals and the milk production out of these animals.

The hypothesis no.3 has been proved because the milk producers possessing 1 to 2 milch animals are not profited in comparison with the milk producers possessing more than 2 milch animals. Neither the local cow and the local buffalo , nor the cross-breed (HF) cow are economically profitable to the milk producers possessing 1 to 2 milch animals.

To illustrate the net income per milch animal for one milching cycle under the different categories of the milk producers have been shown in the Graph no.3.1. It is enclosed after the Tables 3.1, 3.2 and 3.3.

TABLE No.3.1

I] LOCAL COW - Cost and Income Structure of the Local Cow.

Milching Cycle of 14 months.	Milk Producers possessing 1-2 milch animals	Amount	Milk Producers possessing 3-4 milch animals	Amount	Milk Producers possessing 5-6 milch animals	Amount
		Rs.		Rs.		Rs.
A) CAPITAL COST.						
1. Cost of the milch animal	800 | 1100	128.33	1200 | 1450	169.17	1400 | 1625	189.58
2. Construction of the shed *(10% interest for the cycle)	300 |		250 |		225 |	
B) RECURRING COST.						
1. Grass and Fodder	Rs.2. daily (420x2)	840	Rs.3. daily (420x3)	1,260	Rs.4. daily (420x4)	1,680
2. Cake, Rice-bran & Sugarcane Tops (during milching period only)	Re.1. daily (270x1)	270	Rs.1.50 daily (270x1.50)	405	Rs.2. daily (270x2)	540
3. Medicines	for the cycle	30	for the cycle	50	for the cycle	75
4. Rope	-do-	50	-do-	60	-do-	60
5. Misc.Expenses (baskets, buckets, pots, measures, etc.)	-do-	50	-do-	50	-do-	50
6. Labour	Rs.3.50 daily (420x3.50)	1,470	Rs.3. daily (420x3)	1,260	Rs.2. daily (420x2)	840
		2,838.33		3,254.17		3,434.58
C) INCOME DERIVED FROM THE MILCH ANIMAL.						
1. Milk (Duration of milching period is 9 months)						
a. 5 months before lactation	3 Litres daily (150x3) 450 Litres		4 Litres daily (150x4) 600 Litres		4 Litres daily (150x4) 600 Litres	
b. 4 months after lactation	2 Litres daily (120x2) 240 Litres		3 Litres daily (120x3) 360 Litres		3 Litres daily (120x3) 360 Litres	
(Average rate of Milk:Rs.2.87/ per litre	690 Litres (690x2.87)	1,980.30	960 Litres (960x2.87)	2,755.20	960 Litres (960x2.87)	2,755.20
c. Dry period of 5 months						
2. Dung	for the cycle (4 carts x Rs.50)	200	for the cycle (4½ carts x Rs.50)	225	for the cycle (4½ carts x Rs.50)	225
3. If the calf is sold after milching cycle.		1,200		1,400		1,500
		3,380.30		4,380.20		4,480.20
D) NET INCOME.	(3380.30-2838.33)	541.97	(4380.20-3254.17)	1,126.03	(4480.20-3434.58)	1,045.62

*See NOTE on page- for details.

TABLE NO.3.2

II] CROSS BREED (HF) COW - Cost and Income Structure of the Cross-Breed (HF) Cow.

Milching Cycle of 14 months	Milk producers posses sing 1-2 milch animals	Amount	Milk producers posses sing 3-4 milch animals	Amount	Milk Producers posses sing 5-6 milch animals	Amount
		Rs.		Rs.		Rs.
A) CAPITAL COST.						
1. Cost of the milch animal	4000 | 4500	525	5000 | 5450	636	6000 | 6400	747
2. Construction of the shed	500		450		400	
*(10% interest for the cycle)						
B) RECURRING COST.						
1. Grass and Fodder	Rs.5. daily (420x5)	2,100	Rs.7. daily (420x7)	2,940	Rs.8. daily (420x8)	3,360
2. Cake, Rice-bran & Sugarcane Tops	Rs.4. daily	1,440	Rs.5. daily	1,800	Rs.6. daily	2,160
*(during milching period only)	(360x4)		(360x5)		(360x6)	
*(during the dry period)	Rs.2. daily (60x2)	120	Rs.3. daily (60x3)	180	Rs.4. daily (60x4)	240
3. Medicines	for the cycle	75	for the cycle	100	for the cycle	150
4. Rope	-do-	50	-do-	60	-do-	60
5. Misc.Expenses (baskets, buckets, pots, measures, etc.)	-do-	80	-do-	80	-do-	80
6. Labour	Rs.3.50 daily (420x3.50)	1,470	Rs.3. daily (420x3)	1,260	Rs.2. daily (420x2)	840
		5,860		7,056		7,637
C) INCOME DERIVED FROM THE MILCH ANIMAL.						
1. Milk (Duration of Milching period is 12 months)						
a) 5 months before lactation	10 litres daily (150x10) 1500 litres		12 litres daily (150x12) 1800 litres		15 litres daily (150x15) 2250 litres.	
b) 7 months after lactation	6 litres daily (210x6) 1200 Litres		9 litres daily (210x9) 1890 litres		12 litres daily (210x12) 2520 litres	
	2700 litres.		3690 litres		4770 litres.	
(Average rate of milk: Rs.2.87 per litre)	(2700x2.87)	7,749	(3690x2.87)	10,590.30	(4770x2.87)	13,689:90
c) Dry period of 2 months						
2. Dung	for the cycle (8 carts x Rs.50)	400	for the cycle (9 carts x Rs.50)	450	for the cycle (9 carts x Rs.50)	450
3. If the calf is sold after milching cycle.		525		800		1,075
		8,674		11,840.30		15,214.90
D) NET INCOME.	(8674-5860)	2,814	(11840.30-7056)	4,784.30	(15214.90-7637)	7,577.90

*See NOTE on page- for details.

TABLE No.3.3

III] LOCAL BUFFALO - Cost and Income Structure of the Local Buffalo.

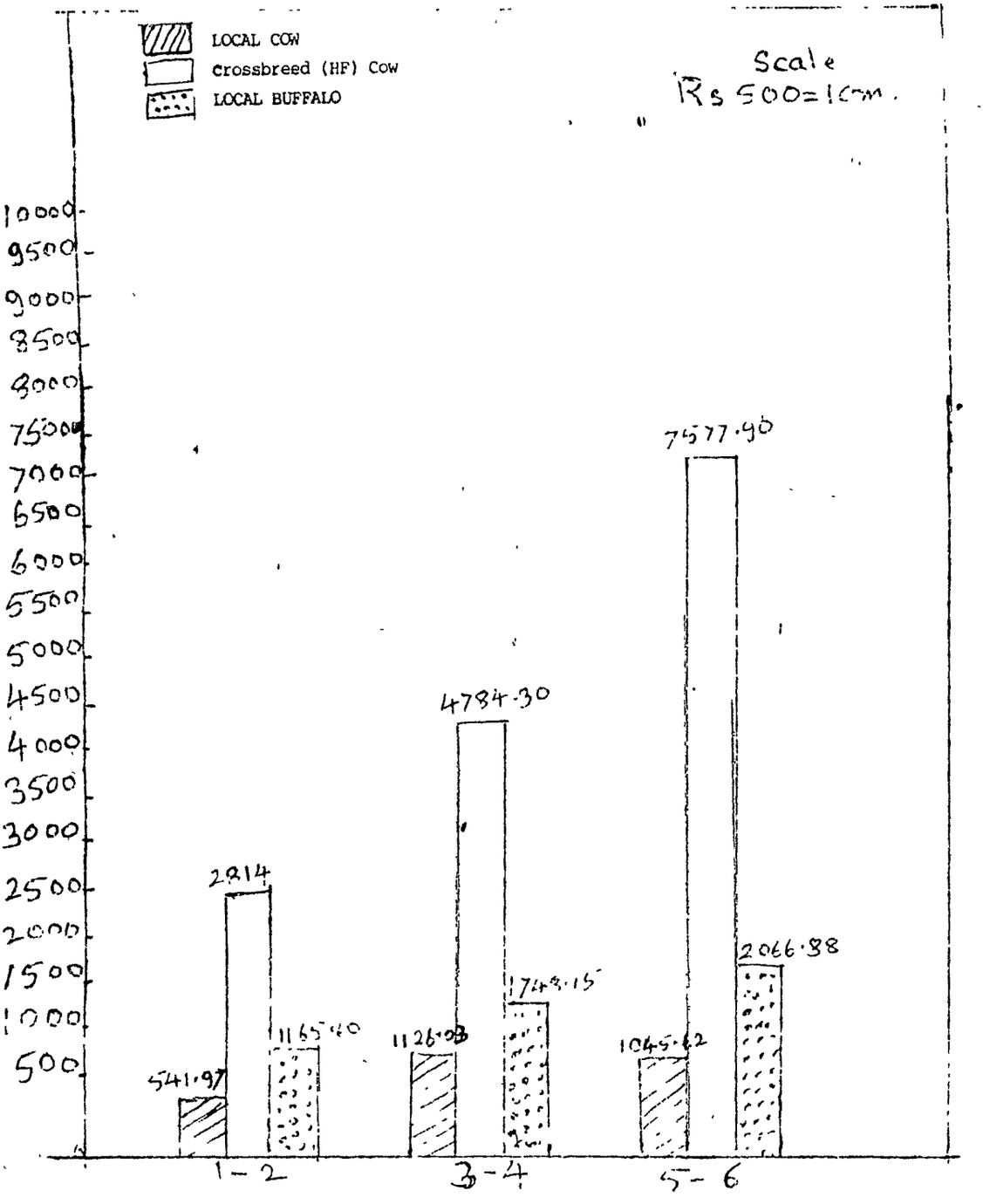
Milching Cycle of 15 months	Milk producers possessing 1-2 milch animals	Amount	Milk Producers possessing 3-4 milch animals	Amount	Milk producers possessing 5-6 milch animals	Amount
		Rs.		Rs.		Rs.
A) CAPITAL COST.						
1. Cost of the milch animal	3000 | 3400	425	3500 | 3850	481.25	3600 | 3925	490.62
2. Construction of the shed *(10% interest for the cycle)	400		350		325	
B) RECURRING COST.						
1. Grass and Fodder	Rs.3. daily (450x3)	1,350	Rs.5. daily (450x5)	2,250	Rs.6. daily (450x6)	2,700
2. Cake, Rice-bran & Sugarcane Tops (during milching period only)	Rs.2. daily (330x2)	660	Rs.3. daily (330x3)	990	Rs.4. daily (330x4)	1,320
3. Medicine	for the cycle	50	for the cycle	70	for the cycle	100
4. Rope	-do-	50	-do-	60	-do-	60
5. Shaving	twice in the cycle (2xRs.5.)	10	thrice in the cycle (3xRs.5.)	15	thrice in the cycle (3xRs.5.)	15
6. Misc.Expenses (baskets, buckets, pots, measures, etc.)	for the cycle	60	for the cycle	60	for the cycle	60
7. Labour	Rs.3.50 daily (450x3.50)	1,575	Rs.3. daily (450x3)	1,350	Rs.2. daily (450x2)	900
		4,180		5,276.25		5,645.62
C) INCOME DERIVED FROM THE MILCH ANIMAL.						
1. Milk (Duration of milching period is 11 months)	5 litres daily		6 litres daily		6½ litres daily	
a. 5 months before lactation	(150x5) 750 litres		(150x6) 900 litres		(150x6½) 975 litres	
b. 6 months after lactation	3 litres daily (180x3) 540 litres		4½ litres daily (180x4½) 810 litres		5 litres daily (180x5) 900 litres	
	1290 litres		1710 litres		1875 litres.	
(Average rate of milk: Rs.3.64 per litre)	(1290x3.64)	4,695.60	(1710x3.64)	6,224.40	(1875x3.64)	6,825.00
c. Dry period of 4 months.						
2. Dung	for the cycle (6 cartsxRs.50)	300	for the cycle (6½ cartsxRs.50)	325	for the cycle (7 cartsxRs.50)	350
3. If the calf is sold after milching cycle		350		475		537.50
		5,345.60		7,024.40		7,712.50
D) NET INCOME.	(5345.60-4180)	1,165.60	(7024.40-5276.25)	1,748.15	(7712.50-5645.62)	2,066.88

*See NOTE on page- for details.

L 3

THE NET INCOME PER MILCH ANIMAL FOR ONE MILCHING CYCLE UNDER THE DIFFERENT CATEGORIES OF MILK PRODUCERS POSSESSING 1to 2 , ------- MILCH ANIMALS (1986)

Fig. 3.1



***Rate of Interest.**

There are in all four agencies, which provide loans to the milk producers for purchasing milch animals, namely (1) the private money lenders, (2) the local co-operative Banks, (3) the district co-operative Bank (The Belgaum District Central Co-operative Bank Limited, Nipani Branch), and (4) the nationalised Banks.

As regards the first factor, namely the money lenders, the researcher has come to the observation that the rate of interest of the loans taken from this agency is unbearably high. So a negligible number of the milk producers draw loans from this agency.

As regards the local co-operative Banks, they extend loans to the general customers and they do not provide loans for agricultural purposes. So no special loan for purchasing milch animals is provided except in one or two exceptional cases. So, the loans taken by the milk producers by this agency is too negligible.

The district co-operative Bank (BDCC) has provided loans to the milk producers through the co-operative dairies and they are 9 in number. The rate of interest of this loan is 10.75%. The total number of the milk producers in Nipani town is 279. Taking into consideration this big figure, the number of borrowers of the loans by the district co-operative Bank is considerably low.

Out of the total number (279), 168 milk producers have borrowed loans from the nationalised Banks. The rate of interest of this loan is 10.95%.101 milk producers (36.20%) have purchased the milch animals by investing their own capital. If they would have deposited

this amount in the nationalised Banks, they would have received 9% interest only.

Taking into consideration the above figures of interest on loans and the interest on deposits, the researcher has calculated 10% interest for the capital cost of the milch animals for one milching cycle.

†††