

ECONOMIC FEASIBILITY OF DAIRY FARMING SYSTEM IN HARYANA STATE

SAROJ KUMARI*¹, NISHI SETHI² AND RAMAN JODHA¹

Department of Extension Education and Communication Management

CCS Haryana Agricultural University,

Hisar-125 004 (Haryana), India

*(e-mail : saroj208@gmail.com)

(Received : 29 September 2017; Accepted : 14 December 2017)

SUMMARY

Dairying is an important source of subsidiary income to small/marginal farmers and agricultural labourers. The main beneficiaries of dairy programmes are small/marginal farmers and landless labourers. A farmer can earn a gross surplus of about Rs. 12,000 per year from a unit consisting of two milking buffaloes. Therefore, more efficient and economical production systems are needed to improve the sustainability and economic feasibility of dairy farming. The present study was conducted in Hisar district of Haryana state. From Hisar district, two blocks—Adampur and Hisar-I were selected randomly. From selected blocks, two villages, namely, Siswal from Adampur and Dabra from Hisar-I were selected by random technique. From each selected village, 50 women were selected randomly, thus making a total sample of 100 women. From selected villages, 20 women who were interested in training on dairy farming were selected purposively. Gross income was computed as Rs. 6,85,400, and annual and monthly profit as Rs. 2,75,450 and 22954.16, respectively.

Key words : Economic feasibility, dairy farming, women

Dairy farming is closely integrated with family life. Farm women play crucial and significant role in livestock rearing but their contribution in livestock rearing has not been given the due place they deserve and they always remain invisible workers. The manure from animals provides a good source of organic matter for improving soil fertility and crop yields. The biogas from the dung is used as fuel for domestic purposes as also for running engines for drawing water from well. The surplus fodder and agricultural by-products are gainfully utilized for feeding the animals. Almost all draught power for farm operations and transportation is supplied by bullocks. Since agriculture is mostly seasonal, there is a possibility of finding employment throughout the year for many persons through dairy farming. Thus, dairy also provides employment throughout the year. Many research studies have indicated that responsibilities of dairy are almost completely shouldered by women. There is considerable evidence to show that livestock and management related activities continue to be predominately rural women's responsibility and domain. Women generally are responsible for the feeding, grazing, fodder collection, milking,

processing and dung management, while men who manage the finances are generally responsible for the sale of milk and milk products (Sethi, 2010). They are actively participating in various dairy farming practices including harvesting and bringing of fodder from field, care of sick animals, feed preparation, feeding the animals, cleaning of animal sheds, milking, cow dung collection and cake making, etc. (Toppo *et al.*, 2004; Farinde and Ajayi, 2005; Narmatha *et al.*, 2009). Keeping this scenario and importance in mind, the present study was planned with the objective : To measure the economic feasibility of a dairy farm in Hisar district.

METHODOLOGY

The study was conducted in Hisar district of Haryana state. The present study was the part of state funded research project on 'sustainable development of women through entrepreneurial activities'. From Hisar district, two blocks—Hisar-I and Adampur were selected randomly. From block Hisar-I, village Dabra and from Adampur block-II village Siswal were selected randomly. Selection of respondents was done

¹Ph. D. Scholar.

²Assoc. Director (Trainings).

at two stages. At stage I : From the selected village a list of women dairy farmers who raised at least one or two cows/ buffaloes primarily for milk production was prepared. A sample of 50 women was selected randomly from prepared list of each village. Thus, a total sample of 100 women was selected for assessing their felt needs (Table 1). At stage II : From already selected 100 women respondents, a sample of 20 interested women from each village for providing training on dairy messages/practices was selected purposively. Two training programmes were planned and prepared in consultation with the experts of Animal Breeding, Animal Nutrition & Livestock Production

TABLE 1
Socio- personal and economic profile of the respondents
n=100

S. No.	Variables	Dabra	Siswal	Total
		Frequency	Frequency	
1. Age				
	Young (Up to 30 years)	8	6	14
	Middle (30-40 years)	24	28	52
	Old (Above 40 years)	18	16	34
2. Marital status				
	Married	45	44	89
	Unmarried	2	1	3
	Widow	3	5	8
3. Respondent's education				
	Illiterate	22	27	49
	Primary	5	4	9
	Middle	6	6	12
	Secondary	3	2	5
	Higher secondary	6	4	10
	Collegiate education	9	6	15
4. Family educational status				
	Low	8	12	20
	Medium	28	26	54
	High	14	12	26
5. Family occupation				
	Labourer	5	8	13
	Business	8	7	15
	Farming	25	24	49
	Government service	9	8	17
	Private job	3	3	6
6. Annual income				
	Low (Up to Rs. 40,000)	6	12	18
	Medium (Rs. 40,000-Rs. 60,000)	24	21	45
	High (Above Rs. 60,000)	20	17	37
7. Land holding				
	Landless (No land)	5	10	15
	Marginal (1-2 acres)	12	21	23
	Small (2-5 acres)	10	9	9
	Medium (5-10 acres)	16	10	26
	Large (≥ 10 acres)	11	7	18
8. Herd size				
	Up to 2	26	24	50
	3-4	10	16	26
	≥ 5 or above 5	14	10	24

Management from CIRB, Hisar and COAS, CCSHAU, Hisar. A case of one framer was taken randomly to analyze economic feasibility which was calculated by computing capital cost, annual expenditure and income.

RESULTS AND DISCUSSION

The majority of the respondents were in age group of 30-40 years, followed by above 40 years (34%) and up to 30 years (14%). Majority of the respondents (89%) were married, 8 per cent were widows and 3 per cent were unmarried. Village-wise data also followed the same pattern as majority of respondents were married and only 8 per cent were widows. The data indicated that majority (49%) of dairy farm women were illiterate. Only 15 per cent respondents had collegiate education followed by 12 per cent middle and 10 per cent higher secondary. Regards to education of family, it was very clear that almost half of the respondent's family education was of medium level (54%) followed by high (26%), while 20 per cent respondents had low level of family education.

Regarding occupation of respondents, 49 per cent did in both the villages. In aggregate, 17 per cent respondents were in government service, 15 per cent in business, 13 per cent were labourers and 6 per cent were in private job. Most of the respondents' (45%) annual income belonged to medium category (40,000-60,000), whereas 37 per cent belonged to high category (above Rs. 60,000), only 18 per cent fell in low category (up to 40000). Most of the respondents (25%) had medium land holding, whereas 18 per cent had large (≥ 10 acres) land holding. Only 15 per cent respondents were landless (no land). Further data unfolded the fact that majority of the respondents at Dabra village had large land holding as compared to Siswal village. Regarding herd size, it was observed that majority of the respondents (50%) had small herd size i. e. up to two animals (cow/buffalo) and 26 per cent of respondents had medium herd size (3-4 animals), while 24 per cent of respondents had large number of animals (≥ 5).

Economic Feasibility

Table 2 reveals the economic feasibility of dairy farmers of Dabra village having 10 buffaloes. It is apparent from the table that the total capital cost of 10 buffaloes for erection of animal shed and cost of equipments was Rs. 6, 50,000. While the total annual

TABLE 2
Economic feasibility of a dairy farm of Anita Mohil with 10 buffaloes

Capital cost		
1.	Cost of 10 buffaloes @ 50000	5,00,000
2.	Cost of erection of animal shed (40 ft × 50 ft), covered area 40 ft × 15 ft = 600 sq. ft. and open area 40 ft × 35 ft = 1400 sq. ft.	1,30,000
3.	Cost of equipment (chaff cutter, trolley/rickshaw, chins, belcha, milking pails, drums, weighing balance, etc.)	20,000
	Total	6,50,000
Annual expenditure		
1.	Depreciation (5%) on animal shed	6,500
2.	Depreciation (10%) on equipments	2,000
3.	Interest (10%) on capital cost	65,000
4.	Rent of land (Rs. 6000/acre)	18,000
5.	Concentrate @ Rs.45 per day per animal	1,64,250
6.	Green fodder production (preparation of land, seeds, fertilizers, irrigation, labour) @ Rs. 7000/acre	21,000
7.	Dry fodder 50 kg per day @ Rs. 4.00/kg	73,000
8.	Labour (one) @ Rs. 4500/month	54,000
9.	Miscellaneous expenditure (water, electricity, insemination charges, medicine, etc.)	6,200
	Total annual cost	4,09,950
Income		
1.	Sale of milk 60 litres per day @ Rs. 30 (8.0-8.5 litres/ buffalo/ day, minimum 7-8 buffaloes in milk)	657000
2.	Cost appreciation of buffalo (5%)	17,500
3.	Income from calves (3 females @ Rs.1000 + 3 males @ Rs. 2000)	36,000
4.	Income from dung (1 cubic ft./buffalo/day @ Rs. 3/cubic ft.)	7,300
	Gross income	6,85,400

Annual profit : Rs. 6,85,400 – 4,09,950 = 2,75,450

Monthly profit : Rs. 22954.16

cost was Rs. 4,09,950 including expenditure on depreciation on animal shed, equipments, interest on capital cost, rent of land, concentrate, green fodder production, dry fodder, labour and miscellaneous expenditure. Gross income was computed as Rs. 6,85,400 and annual and monthly profit as Rs. 2,75,450 and 22954.16, respectively. The findings of the study are similar with the study of Doomra *et al.* (2007), Rezvanfar *et al.* (2007), Meena and Sindu (2008) and Mishra *et al.* (2008).

CONCLUSION

It was concluded from the table that the total capital cost of 10 buffaloes for erection of animal shed and cost of equipments was Rs. 6,50,000. While the total annual cost was Rs. 4,09,950 including expenditure on depreciation on animal shed, equipments, interest on capital cost, rent of land, concentrate, green fodder production, dry fodder, labour and miscellaneous expenditure. Gross income was computed as Rs. 6,85,400 and annual and monthly profit as Rs. 2,75,450 and 22954.16, respectively.

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