

CONSTRAINTS PERCEIVED BY THE CONTRACT FARMERS AND INTEGRATING FIRM UNDER CONTRACT DAIRY FARMING

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ABSTRACT:

The study was carried out purposively in Satara district of Maharashtra to ascertain constraints perceived by contract dairy farmers and integrating firm under contract dairy farming system. A detailed interview schedule in relation to various aspects of production and marketing constraints involved in dairy farming were enlisted by asking non respondent sample from study area through open ended questions during pilot study and the contract dairy farmers and functionaries of integrating firm in the study area were asked to rank the each constraint which was analyzed using Garret's ranking technique. Study revealed that under contract dairy farming major constraints perceived by contract dairy farmers were difficulty in meeting quality requirements, followed by pressure for maintaining quality of milk, delayed payment of milk produce, faulty grading of milk, delay in arranging inputs and lack of credit for milk production. Similarly major constraints perceived by integrating firm were frequent milk price fluctuation in market, followed by input diversion by farmers, farmer's negligence in maintaining quality, difficulty in maintaining communication with farmers, difficulty in arranging quality inputs and violation of terms and conditions by farmers.

Key Words: Constraints, dairy farming, contract farming, livestock farmers and integrating firm.

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INTRODUCTION

The livestock sector contributed over 4.07 per cent to the total GDP during 2010-11 and about 29.7 per cent to the value of output from total agricultural and allied activities. In 2010-11, dairy sector produced 121.8 million tones of milk (Annual report 2010-11). India possesses largest livestock population, which play a vital role in improving the socio-economic conditions of rural masses. The per capita availability of milk has also increased from 112 grams per day in 1968-69 to 269 gram per day in 2010-11. It is however still low compared to the world average of 286 grams/day. About 80% of milk produced in the country is still handled in the unorganized sector and only the remaining 20 % is equally shared by cooperatives and private dairies (Kumar, 2004; Indian Study Team, 2007). Despite the appreciable growth in the milk production in the last six decades, the productivity of our animals is still low. Our marketing systems are also not modernized or developed to a satisfactory level.

In this situation in India contract dairy farming helps to organize and modernize dairy production and marketing. It provides benefits to both contract dairy farmers and contracting firm which in turn help to increase milk production in India. As per Birthal *et al.* (2006) in dairy farming the contract offers the guarantee of supply of intermediate inputs, livestock services and market outlet for the smallholder producers, in exchange for the guarantee of supply of milk to the processor,

through its intermediary. The contract farmers received higher profits per unit of output than independent farms. Also the farmer is insured for livestock mortality rates, beyond that farmer bears the risk of loss. This controls moral hazard and provides incentives for farmers to supply their best effort. Still this system is not free from limitations, both the contract dairy farmers and contracting firm face various constraints related to dairy production and marketing. According to Jongeneel (2011) vertical contracts between producer groups and dairies are no remedy for solving demand and supply imbalances or disturbances unless system would end in a 'contractualized' supply control system. The farmers face oligopsony or even monopsony situation but also processors might have limited milk procurement alternatives. Similarly Birthal *et al.* (2008) states that integrators are the dominant party they can extract monopsonistic rent in the output market. The benefits of contract farming were skewed toward large producers mainly due to economies of scale in the use of family labour in production and disposal of milk. Thus keeping above scenario in mind, the present study was undertaken to ascertain constraints related to dairy production and marketing perceived by contract dairy farmers and contracting firm.

MATERIALS AND METHODS

In order to ascertain constraints under contract farming, the study was carried out purposively in Satara district of Maharashtra during

November 2010-February 2012. The district was having the highest number of contract dairy farmers and those being engaged with the Govind Dudh Phaltan constituted the population for study. Based on findings of pilot survey the two blocks Phaltan and Maan were selected purposively and from each block 6 villages and from each village 10 farmers and one extension functionary of contracting firm were selected randomly, thus making total sample of 132 respondents for the study. Thus multistage random sampling method used to select final respondent for study. The respondents were categorized into small (1-4 anim.), medium (5-8 anim.) and large (9-12 anim.) farmers on basis of equal class interval of respective herd size and from each category. An interview schedule was developed on the basis of objective by incorporating all the variables required for the study which was tested with representative population of study area other than final respondent. The items of constraints from study area to give major constraints perceived by them through open ended questions during pilot study. The data was collected through semi-structured interview schedule, the respondents were asked to rank the given factors that were limiting dairy production through contract farming.

Garrett's ranking technique (Garratt and woodworth, 1971) was adopted to analyze the problems faced by contract dairy farmers in the study area. The respondents were asked to rank the given factors that were limiting dairy production. The order of merit

thus given by respondents was converted into ranks by following formula:

$$\text{Percentage position} = \frac{100 (R_{ij} - 0.50)}{N_j}$$

Where,

R_{ij} = Rank given for the i^{th} item by the j^{th} individual,

and

N_j = Number of items ranked by the j^{th} individual.

The percentage position of each rank was converted into scores using Garrett table. For each constraint, scores of individual respondents were added together and were divided by total number of respondents for whom scores were added. Thus, mean score for each constraint was ranked by arranging them in the descending order. Based on the information furnished by sample farmers, the constraints being faced by contract farmers in practicing contract farming were ranked and prioritized by using the Garrett's ranking method.

RESULTS AND DISCUSSION

The list of commonly occurring production and marketing constraints in dairy farming were ranked by contract dairy farmers and contracting firm in the study area were collected and analyzed by using Garret ranking technique and the results are presented in Table 1 and Table 3.

The pooled figure from table 1 indicates that difficulty in meeting quality requirements was the most important constraint with mean score 70.5. The reasons perceived by farmers were lack of knowledge regarding quality of milk production and its desired output for dairy farmers. The second important constraint perceived by farmers was pressure for maintaining quality of milk by contracting firm with mean score 70. Regarding this contract dairy farmers revealed that contracting dairy firm required good quality milk for getting additional benefits. The delayed payment of milk produce with mean score 69.4 was the third important constraint perceived by contract dairy farmers. The reason for delayed payment might be due to inefficient management of contracting firm. The other important constraints ranked by contract dairy farmers were faulty grading of milk (64.9), delay in arranging inputs (51.9) and lack of credit for milk production (46.7). It was also observed that some constraints like poor service delivery by firm (40.8), lack of quality inputs (37.5), cheating by an agency (34.8), scarcity of labour (32.3), lower price for milk produce (30), were being faced by contract dairy farmers. The above findings get support from study of Fulton and Clark (1996) which states that contract farming has several disadvantages like poor extension services, low prices to farmers due to haphazard pricing of the produce, inherent higher risk to cultivators, frequent delays in payment, weak bargaining power of farmers, and sole dependence on companies for inputs as also credit. Similarly Glover (1987) revealed that contract farming is just another

form of exploitation with limited equity impact, increasing socio-economic differences and evidence of some unsuccessful schemes and problems for many out growers. In practice, growers have encountered problems with respect to manipulation of quality standards, poor technical assistance, and sometimes plain cheating and deliberate default. Correlation analysis show that education status of farmer was negatively correlated with lack of quality inputs (-0.54) and lack of credit for milk production (-0.46) while herd size didn't showed significant correlation with any constraints perceived by farmers (Table 2).

Similar to contract dairy farmers the contracting firm also faced various constraints related to dairy production and marketing which were prioritized based on Garrett score and presented in the table 3. It was found that milk price fluctuation in market was the most important constraint with mean score 75.5. The reason behind this as perceived by functionaries of contracting firm was the major sale of milk through unorganized sector. The next important constraint perceived by contracting firm was input diversion by farmers (70). This might be due to the fact that the contract dairy farmers were diverging inputs other than dairy farming to agriculture. The third important constraint perceived by contracting firm was the farmer's negligence in maintaining quality of milk (69). Lack of knowledge in producing good quality of milk could be reason for farmers' negligence. Following are the other important constraints ranked by contracting firm, difficulty in maintaining communication with farmers (56.2),

difficulty in arranging quality inputs (51.75), violation of terms and conditions by farmers (46.75), selling of milk to other firms by farmers (42), extra contractual marketing (31.7), poor service delivery by health specialists (28.7), non availability of extension staff (25). The above findings get support from study of Kumar (2008) which states that the major constraints expressed by the contracting agencies in expanding contract farming include violation of terms and conditions by farmers, lack of proper management by the company, frequent price fluctuations in international markets and scarcity of transport vehicles during peak periods.

CONCLUSION

The education status, herd size, land size and availability of infrastructure were the major socio-personal and economic characteristics showed the more favorable trend among the contract farmers due to good dairying practices, which were contributing in socio-economic progress of society and adoption of new dairy husbandry practices. Though sufficient measures are underway for improving productivity of dairy animals in the study area through suitable dairy management practices. The major constraint perceived by contract dairy farmers under contract dairy farming were difficulty in meeting quality requirements, followed by pressure for maintaining quality of milk, delayed payment of milk produce, faulty grading of milk, delay in arranging inputs and lack of credit for milk production. Also at the same time major constraint perceived by contracting firm were

milk price fluctuation in market, followed by input diversion by farmers, farmers' negligence in maintaining quality, difficulty in maintaining communication with farmers, difficulty in arranging quality inputs and violation of terms and conditions by farmers. Hence, any efforts to augment dairy production by adopting modern dairying practices should aim at encouraging vulnerable dairy farmers by providing various incentives.

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Table 1
Distribution of contract dairy farmers according to constraints perceived by them

Constraint	Small farmers Ranks	Medium farmers Ranks	Large farmers Ranks	Pooled Ranks
Delayed payment of milk produce	II(69.2)	III (69.2)	III (70)	III (69)
Poor service delivery by firm	VII (39)	VII(40.2)	VII(43.2)	VII(41)
Lack of quality inputs	VIII(39.5)	IX (34.7)	VIII(38.2)	VIII(37.5)
Pressure for maintaining quality of milk	I (70.25)	II(69.5)	II(70.5)	II(70)
Delay in arranging inputs	IV (53.5)	V(53.7)	V(48.7)	V(52)
Lack of credit for milk production	VI (47)	VI(44.7)	VI(48.2)	VI(47)
Faulty grading of milk	V (53.2)	IV(64.7)	IV(67.50)	IV(65)
Difficulty in meeting quality requirements	III (69)	I(71)	I(71.5)	I(70.5)
Cheating by an agency	IX (34)	VIII(35.5)	IX(35)	IX(35)
Scarcity of labour	XI (31)	X(32.7)	X(33.2)	X(32)
Lower price for milk produce	X (31.5)	XI(29.7)	XI(28.7)	XI(30)

Figures in parenthesis indicate Garrett mean score

Table 2
Correlation between constraints perceived by farmers
and socio-psychological factors

Constraint	Education status	Herd size
Delayed payment of milk produce	0.21	0.33
Poor service delivery by firm	0.08	0.12
Lack of quality inputs	-0.54*	0.23
Pressure for maintaining quality of milk	0.11	0.15
Delay in arranging inputs	-0.3	-0.18
Lack of credit for milk production	-0.46*	0.27
Faulty grading of milk	0.3	0.25
Difficulty in meeting quality requirements	0.08	-0.35
Cheating by an agency	0.21	0.22
Scarcity of labour	0.13	-0.25
Lower price for milk produce	0.28	0.1

*Significant at 5% level

Table 3
Constraints perceived by integrating firm

Constraint	Ranks	Garrett Mean score
Difficulty in arranging quality inputs	V	51.7
Violation of terms and conditions by farmers	VI	46.7
Selling of milk to other firms by farmers	VII	42
Extra contractual marketing	VIII	31.7
Poor service delivery by health specialists	IX	28.7
Non availability of extension staff	X	25.7
Difficulty in maintaining communication with farmers	IV	56.2
Frequent milk price fluctuation in market	I	75.5
Input diversion	II	70
Farmers' negligence in maintaining quality	III	69