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# Constraints faced in adoption of improved management practices by rural and urban weaker section milk producers in Bulandshahr district of U.P.

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**ABSTRACT :** Scientific dairy management has been recognized as an important tool to improve milk production of dairy animals. A successful milk producer needs to adopt various animal husbandry practices. The present study was made to sort out the constraints related to breeding, feeding, veterinary care, marketing and financial management practices faced by the rural and urban milk producers of weaker section's community to suggest suitable measures to overcome these constraints in Bulandshahr district of U.P. in the year 2008-09. The data were collected from 70 rural and 70 urban milk producers of weaker section community (small, marginal farmers and landless labourers) through interview schedule. The results depicted that distant location of A.I. centre, lack of availability of improved breed, lack of knowledge about balance ration, non-availability of green fodder throughout the year, limited and poor quality grazing land, distant and location of veterinary hospitals, no knowledge about vaccine schedules, lack of marketing facility in the village, lack of finance for working capital and low price of milk were perceived as the most serious constraints faced by rural and urban weaker section's milk producers . Hence, there is a need to set up the A.I. centre within the reach of the milk producers and popularize the services provided by veterinary department and arrange the training programme for mainly problems related to breeding, feeding and management practices for the rural and urban weaker section's milk producers in the study area.

**KEY WORDS :** Rural, Constraints, Feeding practices, Urban, Breeding practices

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## INTRODUCTION

Animal husbandry and dairy development play a prominent role in the rural economy in supplementing the income of rural household, particularly the landless, small and marginal farmers. Animal husbandry output constitutes about 30 per cent of the country's agricultural output. As per 19th Livestock census, 2012 India's livestock sector is one of the largest in the world with a holding of 11.6 per cent of world livestock population which consists buffaloes (57.83%), cattle (15.06%) (Livestock Census, 2012). Livestock development has always been a major concern in the Indian economy along with agriculture. Livestock sector plays a significant role in the welfare of India rural population as it employs a major section of the countries labour force and

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contribution of livestock sector to the national economy in terms gross domestic product (G.D.P.) is 4.1 per cent (Islam *et al.,* 2016). The economic survey (2015-16) noted that India ranks first in milk production with an annual output of 146.3 million tonnes with a growth of 6.26 per cent during 2014-15 accounting for 18.5 per cent of world milk production. The per capita availability of milk in India has increased from 146 g/day in the year 1990-91 to 322 g/day by 2014-15 which was more than the world average of 294 g/day during the year 2013 (Madhu *et al.*, 2016).

The inadequacy of the quality and quantity of feeds in the country has resulted in low productive animals and the deterioration of milk yield. Compared to world averages, the milk yields (per lactation per cow) in India are very low. It is mainly attributed to the low production potential of cows and shortage of feed and fodder resources. It is not possible to accomplish increased milk yields without concomitant increase in the inputs, which include quality feed and fodders. In fact the area under crop production is decreasing over the years reflecting on substantial decrease in the grain as well as straw yield, which invariably is affecting the livestock production. In general, farmers are keeping their animals just to utilize their available resources. They had never taken this as a planned business and not at all in economic way. Therefore, they are not aware about improved breeding, feeding, housing and health management practices. Dairy has a better scope to raise the economy of the milk producers but it is not free from associated constraints. There are various constraints being faced by them in rearing their milch animals. It is well known facts that adoption of scientific management practices not only increase the productivity of dairy animals but reduces the reproductive and health problems also. Ultimately it helps in enhancing the return of dairy farming. There are a number of constraints responsible for not adoption of scientific management practices. Keeping in view the above points the present study was undertaken to find out the constraints faced in adoption of improved animal husbandry practices related to breeding feeding, veterinary care, marketing and financial management practices in rural and urban weaker section's milk producers in Bulandshahr district of U.P. with the following objectives :

– To search the breeding and feeding constraints faced by the rural and urban weaker section's milk producers.

– To sort out the veterinary care, marketing and financial constraints faced by the rural and urban weaker section's milk producers.

## MATERIAL AND METHODS

The study was confined to Bulandshahr district in western U.P. The Bulandshahr district was purposively selected for the study because the dairy development facilities are well developed for increasing the milk production in the district. The Bulandshahr district consists of sixteen development blocks, one blocks namely Bulandshahr was selected for the present study purposively. Since, this block is near the district headquarter. After selection of block the list of villages falling in Bulandshahr block was taken from the block headquarter. Then the whole villages were divided into two categories *i.e.* villages located out of the city boundary (rural area) and secondly the villages located in the urban vicinity (urban area) *i.e.* city boundary (Nagar Mahapalika) at different distances in the area. After doing so, 5 villages from rural area and 5 villages from urban area were selected, randomly.

After selection of villages, two separate list of milch animal keeper of weaker sections community small farmers (1-2 hectare), marginal farmers (>1 hectare) and landless labourer were prepared for urban and rural area. The number of rural and urban milk producers of (small, marginal and landless) in all ten villages came to 98,147,245 and 72,96,252, respectively. Then 70 cases from rural milk producers (14 small, 21 marginal farmers and 35 landless labourer) and 70 cases from urban milk producers (12 small,16 marginal farmers and 42 landless labourer) based on proportion to its size were selected for the present study for the comparison of constraints faced by the rural and urban milk producers. The final selection of cases of rural and urban milk producers families was made purely on random basis. The study was based upon primary data. The primary data were collected with the help of pre-prepared schedules and questionnaires by personal interview method and during collection of data one milk producer family reported more than one constraints. The primary data was related to the year 2008-09. The data obtained from different categories of rural and urban milk producers were analyzed with the help of tabular analysis for drawing

the result. However, percentage have also been calculated for interpretation of data.

## RESULTS AND DISCUSSION

The results of the present study as well as relevant discussions have been presented under following sub heads:

### Breed and breeding constraints :

The constraints regarding breed and breeding faced by the rural and urban milk producers of weaker section's families were sort out and presented in Table 1.

The Table 1 indicates that there is a serious lack of knowledge and information regarding the indigenous genetic resources in terms of improved breeds and their productivity as reported by 50, 66.67 and 54.29 per cent in rural milk producers and 75, 68.75 and 52.38 per cent in urban milk producers families in case of small, marginal farmers and landless labourers category, respectively. About 57.14 per cent small farmers, 71.43 per cent marginal farmers and 85.71 per cent of landless labourers in rural milk producers and 75 per cent small, 75 per cent of marginal farmers and 54.76 per cent of landless labourers in urban milk producers reported the lack of availability of improved breed in their locality. whereas, 42.46 per cent small, 40 per cent marginal farmers and 65.71 per cent of landless labourers in rural milk producers and 66.67 per cent small, 62.5 per cent marginal farmers and 59.52 per cent of landless labourers in urban milk producers reported that improved breed was not suitable for the area, because of very hot and dry climate during the summer season in the area. The exorbitant value of the improved breed was the most important constraints to the categories to adopt the improved breeds as reported by about 50 per cent small, 85.71 per cent marginal farmers and 88.57 per cent of landless labourers in rural milk producers and 50 per cent small, 62.50 per cent marginal farmers and 61.90 per cent of landless labourers in urban milk producers. Regarding the constraints pertaining to A.I., majority of the farmers *i.e.* 57.14 per cent small, 80.95 per cent marginal farmers and 85.71 per cent of landless labourers in rural milk producers and 50 per cent small, 68.75 per cent marginal farmers and 47.62 per cent of landless labourers in urban milk producers reported that the artificial insemination (A.I.) centers were located of longer distances. These findings are accordance to earlier research workers Singh *et al.* (2002); Choudhary and Intodia (2000); Meena and Fulzele (2004); Sharma (2005); Malik and Nagpaul (1998); Malik *et al.* (2005) and Garg *et al.* (2005). Thus, it could be concluded that the majority of the milch animal could not avail of the services of the A.I. centers due to their distant locations. Hence, there is a need to set up the artificial insemination centre within the reach of the rural and urban milk producers.

### Feed and fodder constraints :

For successful dairy farming balanced feeding of dairy animals is needful. Balanced ration containing energy and protein sources promote better health, growth, reproduction and milk productivity. A profitable dairy must not only have genetically higher yielders but also should

**Table 1: Breed and breeding constraints reported by different categories of rural and urban milk producers**

| Category | Constraints | | | | |
|---|---|---|---|---|---|
| | Lack of knowledge about improved breed | Lack of availability of improved breed in the locality | Non- suitability of improved breed in the locality | Exorbitant value of improved breed | Distant location of A.I. centre |
| **Rural** | | | | | |
| Small | 7 (50.00) | 8 (57.14) | 6 (42.46) | 7 (50.00) | 8 (57.14) |
| Marginal | 14 (66.67) | 15 (71.43) | 14 (40.00) | 18 (85.71) | 17 (80.95) |
| Landless | 19 (54.29) | 30 (85.71) | 23 (65.71) | 31 (88.57) | 30 (85.71) |
| Overall | 40 (57.14) | 53 (75.71) | 43 (61.43) | 56 (80.00) | 55 (78.57) |
| **Urban** | | | | | |
| Small | 9 (75.00) | 9 (75.00) | 8 (66.67) | 6 (50.00) | 6 (50.00) |
| Marginal | 11 (68.75) | 12 (75.00) | 10 (62.50) | 10 (62.50) | 11 (68.75) |
| Landless | 22 (52.38) | 23 (54.76) | 25 (59.52) | 26 (61.90) | 20 (47.62) |
| Overall | 42 (60.00) | 44 (62.86) | 43 (61.43) | 42 (60.00) | 37 (52.86) |

(Figures in parenthesis indicates percentage)

have a provision of feeding these animals on least cost balanced ration for sustaining higher economic returns. Feeds and fodders are essential to be feed to the milch animals to get higher milk production. The constraints regarding to feed and fodder faced by the rural and urban milk producers of weaker section's families were sort out and presented in Table 2.

The Table 2 reveals that majority of milch animals owners did not know about the importance of balanced ration required for feeding to their animals as reported by 50 per cent small, 61.90 per cent marginal farmers and 54.29 per cent landless labourers in rural milk producers and 50 per cent small, 62.50 per cent marginal farmers and 50 per cent of landless labourers in urban milk producers. It was also noted that there was serious scarcity of green fodders throughout the year. This fact was reported by all the categories in case of rural and urban milk producers was 57.14 per cent marginal farmers and 52.38 per cent of landless labourers, respectively. Thus, the non-availability of green fodder during the summer was a major case for decreased milk production in this season especially in case of buffalo and cow. Hence, the availability of green fodder is necessary to feed the milch animals in order to obtain higher milk production. It was also observed from the findings that the feed and fodders in study area were available at higher cost on account of their scarcity. A large majority of farmers, 64.29 per cent small, 95.24 per cent marginal farmers and 57.14 per cent of landless labourers in rural milk producers and 41.67 per cent small, 75 per cent marginal farmers and 85.71 per cent of landless labourers in urban milk producers reported that the grazing land was most limited and is in very poor condition. Since grazing helps to increases milk productivity of the animals and reduces the cost of milk production and it is also beneficial for the animals health. These findings are accordance to earlier research worker Singh *et al*. (2002); Kaushal *et al*. (2012); Malik and Nagpaul (1998); Garg *et al.* (2005) and Kumar *et al.* (2006). Thus, there is need to educate the farmers about the nutritional significance of fodders so that they could grow it throughout the year particularly during summer season, ultimately the production of milk is not adversely affected. Hence, there is a need to increase the grazing area and quality of the herbage through converting the waste land of the village in to pasture land.

**Veterinary service constraints :**

The constraint regarding to veterinary services faced by rural and urban milk producers of weaker section families were sort out and presented in Table 3

For higher productivity better health care of animals is required. The constraints regarding to veterinary services faced by rural and urban of weaker section milk producers were sort out and presented in Table 3.

It is apparent from the Table 3 that due to distant location of veterinary hospital the non-availability of veterinary services was expressed by 64.29 per cent small, 76.19 per cent marginal farmers and 62.86 per cent of landless labourers in rural milk producers and 58.33 per cent small, 68.75 per cent marginal farmers and 80.95 per cent of landless labourers in urban milk producers. It was also observed that no knowledge about the vaccination schedule was expressed by 35.71 per cent

**Table 2 : Feed and feeding constraints reported by the different categories of rural and urban milk producers**

| Category | Constraints | | | |
|---|---|---|---|---|
| | Lack of knowledge about balance ration | Non-availability of green fodder throughout year | High price of feed fodder | Limited and poor quality grazing land |
| **Rural** | | | | |
| Small | 7 (50.00) | 6 (42.86) | 3 (21.43) | 9 (64.29) |
| Marginal | 13 (61.90) | 12 (57.14) | 10 (47.62) | 20 (95.24) |
| Landless | 19 (54.29) | 18 (51.43) | 20 (57.14) | 20 (57.14) |
| Overall | 39 (55.71) | 36 (51.43) | 33 (47.14) | 49 (70.00) |
| **Urban** | | | | |
| Small | 6 (50.00) | 4 (33.33) | 4 (33.33) | 5 (41.67) |
| Marginal | 10 (62.50) | 9 (56.25) | 11 (68.75) | 12 (75.00) |
| Landless | 21 (50.00) | 22 (52.38) | 30 (71.43) | 36 (85.71) |
| Overall | 37 (52.86) | 35 (50.00) | 45 (64.28) | 53 (75.71) |

(Figures in parenthesis indicates percentage)

small, 61.90 per cent marginal farmers and 48.57 per cent of landless labourers in rural milk producers and 41.66 per cent small, 68.75 per cent marginal farmers and 54.76 per cent of landless labourers in urban milk producers and more than 65 per cent of the milch animals keepers in all categories complained that the medicines were available at higher cost, which they could not afford. It was found that 28.57 per cent small, 33.33 per cent marginal farmers and 54.29 per cent of landless labourers in rural milk producers and 75 per cent small, 81.25 per cent marginal farmers and 66.67 per cent of landless labourers in urban milk producers did not have proper cattle shed to house their animals. It could be observed that there was some shortage of potable water in the area and the constraints was reported 35.71 per cent small, 42.86 per cent marginal farmers and 71.43 per cent of landless labourers in rural milk producers and 58.33 per cent small, 56.25 per cent marginal farmers and 88.1 per cent of landless labourers in urban milk producers. Mortality through disease was also causing economic losses in livestock production. A considerable number of the respondents in all categories ranging from 42 to 93 per cent were not insuring their animals. This may be due to the fact that most of them were not aware of the facility and also because of the tedious procedure which is involved in the insurance of the animals. The farmers may get encouragement to get their animals insured against risks because of insurance agencies

**Table 3 :Veterinary service constraints reported by the different categories of rural and urban milk producers**

| Category | Constraints | | | | | |
|---|---|---|---|---|---|---|
| | Distant location of vet. hospital | No knowledge about vaccination schedule | High cost medicine | Lack of proper cattle shed | Lack of sufficient portable water | Non-availability of insurance facilities |
| **Rural** | | | | | | |
| Small | 9 (64.29) | 5 (35.71) | 8 (51.14) | 4 (28.57) | 5 (35.71) | 8 (51.14) |
| Marginal | 16 (76.19) | 13 (61.90) | 17 (80.95) | 7 (33.33) | 9 (42.86) | 13 (61.90) |
| Landless | 22 (62.86) | 17 (48.57) | 23 (65.71) | 19 (54.29) | 25 (71.43) | 19 (54.29) |
| Overall | 47 (66.14) | 35 (50.00) | 48 (68.57) | 30 (42.86) | 39 (55.71) | 40 (57.14) |
| **Urban** | | | | | | |
| Small | 7 (58.33) | 5 (41.66) | 3 (25.00) | 9 (75.00) | 7 (58.33) | 5 (41.66) |
| Marginal | 11 (68.75) | 11 (68.75) | 12 (75.00) | 13 (81.25) | 9 (56.25) | 10 (62.50) |
| Landless | 34 (80.95) | 23 (54.76) | 29 (69.05) | 28 (66.67) | 37 (88.10) | 39 (92.86) |
| Overall | 52 (74.28) | 39 (55.71) | 44 (62.86) | 50 (71.43) | 53 (75.71) | 54 (77.14) |

(Figures in parenthesis indicate percentage)

**Table 4: Marketing and financial constraints reported by different categories of rural and urban milk producers**

| Category | Constraints | | | | |
|---|---|---|---|---|---|
| | Lack of marketing facilities in the village | Low price of milk | Lack of knowledge about determination of cost of milk production and price | Lack of finance for working capital | Problem in getting loan |
| **Rural** | | | | | |
| Small | 7 (50.00)s | 4 (28.57) | 6 (42.86) | 7 (50) | 6 (42.86) |
| Marginal | 11 (52.38) | 5 (23.81) | 8 (38.10) | 12 (57.14) | 4 (19.05) |
| Landless | 17 (48.57) | 9 (25.71) | 16 (45.71) | 18 (51.43) | 13 (37.14) |
| Overall | 35 (50.00) | 18 (25.71) | 30 (42.86) | 37 (52.86) | 23 (32.86) |
| **Urban** | | | | | |
| Small | 6 (50.00) | 6 (50.00) | 5 (41.67) | 8 (66.67) | 4 (33.33) |
| Marginal | 11 (75.00) | 14 (87.50) | 14 (87.50) | 12 (75.00) | 13 (81.25) |
| Landless | 23 (54.76) | 28 (66.67) | 33 (78.57) | 25 (59.52) | 21 (50.00) |
| Overall | 40 (57.14) | 48 (68.57) | 52 (74.28) | 45 (64.28) | 38 (54.28) |

(Figures in parenthesis indicates percentage)

should lay down simple procedures of insurance. These findings are accordance to earlier research workers Mohi and Bhatti (2006); Ashalatha *et al.* (2003) and Kumar *et al.* (2006). Hence, more attention is needed for the provision of health cover for the animals and there is a need for gradual culling to remove uneconomic stock and animal insurance scheme should be popularized in the area.

**Marketing and financial constraints :**

The constraints regarding to marketing and financial faced by rural and urban milk producers of weaker section's families were sort out and presented in Table 4.

The Table 4 shows that in rural milk producers about 48 to 53 per cent in rural and 50 to 75 per cent in urban milk producers reported about lack of marketing facilities. The rural milk producers was reported lower price as compared to urban milk producers. It was further noted that 42.86 per cent small, 38.10 per cent marginal farmers and 45.71 per cent of landless labourers in rural milk producers and 41.67 per cent small, 87.50 per cent marginal farmers and 78.57 per cent of landless labourers in urban milk producers had no knowledge about the determination of cost of milk production and they were not aware of the actual price of milk which they produced. In order to reduce the marketing costs and to provide remunerative price to the milk producers, it is suggested that attempt should be made to organize the dairy business. Due to lack of finance for working capital the weaker section families were unable to purchase good quality of feeding stuff for their milch animals. It could be further observed from the table that there is a need to educate the milk producers. This constraints was reported by 50 per cent small, 57.14 per cent marginal farmers and 51.43 per cent of landless labourers in rural milk producers and 66.67 per cent small, 75 per cent marginal farmers and 59.52 per cent of landless labourers in urban milk producers. Because of tedious procedures, the farmers face problem in getting loan, about 42.86 per cent small, 19.05 per cent marginal farmers and 37.14 per cent of landless labourers in rural milk producers and 33.33 per cent of small, 81.25 marginal farmers and 50 per cent of landless labourers in urban milk producers that they could not get direct and adequate loan in order to purchase milch animals of good quality breed. These findings are accordance to earlier research worker Kaushal *et al.* (2012); Rathore *et al.* (2009) and Singh and Chauhan (2006). The institutional agencies should, therefore, supply adequate loan direct to the farmer for purchase of animals of better breeds. The dairy farmers should also be provided adequate short term loan for purchasing feed and fodder for their milch animals which will enable the families to get higher milk production and thus better income to sustain the living. It will also save them from the grip of milk venders who gives advance loan to milk producers and purchase the milk at low rate in rural and urban milk producers families.

**Conclusion :**

The major constraint faced by the rural and urban weaker section's milk producers reported as majority of milch animal could not availed the service of A.I. due to distance location, no knowledge about vaccination schedule, no knowledge about balanced ration, lack of marketing facilities in the villages, low price of milk, lack of finance for working capital. Thus, there is a need to set up A.I. centre within the reach of milk producers and popularize the services provided by veterinary department, cattle insurance scheme should be popularize to cover the risk of milk producers, training programme for mainly problems related to breeding, feeding and management practices should be arranged and short term loan should be provide for purchasing feed and fodder for their animals for rural and urban milk producers of weaker section's families in the study area.

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