

FARMER'S PERCEPTIONS OF LIVESTOCK PRODUCTION PRACTICES INTRODUCED BY PUNJAB RURAL SUPPORT PROGRAM (PRSP)

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Livestock plays a vital role in Pakistan's economy. It contributes almost 52.2% to the value addition in the agricultural sector, and about 11% to Pakistan's GDP, which is higher than the contribution made by the crop sector. In Pakistan 30-35 million rural population is engaged in livestock raising, having an average of 2-3 cattle/buffalo and 5-6 sheep/goats per family which help them to derive 30-40% of their income from them. The core problem lowering the growth rate, productivity and economic returns from livestock is nutritional inadequacy and a century old management practices. Thus productivity of livestock can be enhanced using improved husbandry practices. Punjab Rural Support Programme (PRSP) not only provides the loans to livestock farmers but also delivers them modern technology, feed formulation and training in livestock management. The present paper focuses on the perceptions of farmers regarding various livestock production practices introduced by PRSP among the farmers of district Faisalabad. The population of the study consisted of active livestock members of PRSP. 32 Community Organizations (COs) were selected out of 468 by simple random sampling. From each selected CO five livestock farmers were taken at random. Thus, a sample of 160 respondents was selected. The data were collected with the help of a pretested, valid and reliable interview schedule. Analysis of data showed that the top most information received by the farmers was about feed for growth of calves and milch animals. Artificial insemination, use of salt blocks in mangers, vaccination, drenching against endoparasite was the important information received by the farmers regarding health management practices in livestock.

Keywords: Livestock, farmers' perceptions, PRSP, animal feed

INTRODUCTION

Livestock plays a vital role in Pakistan's economy. It contributes 52.2% to the value addition in the agricultural sector, and almost 11% to Pakistan's GDP, which is higher than the contribution made by the crop sector (GOP, 2008). During the years 2001-05 net foreign exchange earnings from livestock sector were nearly Rs.51 billion, which accounted 11% of the overall export earnings (Khan, 2006). The importance of livestock in rural areas may be realized from the fact that 30-35 million rural population is engaged in livestock raising, having an average 2-3 cattle/buffalo and 5-6 sheep/goats per family which help to derive 30-40% of their income from them (Ahmad, 2005). Livestock is used for ploughing, land leveling, threshing, fodder chopping, cane crushing and water lifting besides supplying substantial traction power for cultivation and rural transport. It serves as a regular source of cash income for farm families and provide recreation facilities like horse and camel race/dancing, tent pegging, show jumping, hacking and polo (Akmal and Taj, 2004). In Pakistan, productivity and growth rate of livestock are much below the desired level, which is mainly due to unawareness of farmers regarding proper feeding, breeding, management and treatment of livestock.

Jensen (2003) suggested to overcome these problems by cultivation of improved fodder varieties, improved breeds of livestock; vaccine, medicine and services such as veterinary and extension and access to micro credit were very important for getting the potential production from livestock. Several Non-Governmental Organizations (NGOs) are working in the country for providing services to livestock and crop sectors. Among the NGOs working in the Punjab, Punjab Rural Support Program (PRSP) is the biggest one that provides technical assistance to farmers, thus making a major contribution in rural economy. PRSP not only grant the loan for livestock but also provides technical knowledge and trainings related to livestock production and protection measures. The present paper focuses on the farmers' perceptions of livestock production practices introduced by PRSP in Faisalabad district.

MATERIALS AND METHODS

PRSP in Faisalabad district has four Field Units (FUs), i.e. Faisalabad, Salarwala, Sataina and Khidarwala working in 23, 22, 14 and 13 Union Councils (UCs) with 468, 446, 440 and 301 Community Organizations (COs), respectively. Of these four FUs Faisalabad was selected, through purposive

sampling technique because it has maximum number of UCs where PRSP is working and has organized maximum number of COs. Out of 468 COs, 32 were selected at random. From each selected CO, five respondents (livestock farmers) were selected randomly, thereby making a sample of 160 respondents. The data were collected in 2007 with the help of a pretested, valid and reliable interview schedule. The data, thus collected, were statistically analyzed using Statistical Package for Social Sciences (SPSS).

RESULTS AND DISCUSSION

Balanced ration and cultivation of improved varieties of fodder/grasses: The provision of sufficient feed of adequate nutritional quality is likely to be the most important factor in increasing livestock production. The feed of cattle and buffaloes in most of the developing countries is generally based on crop residues, roadside grasses or grazing on boundaries between crops. These feeds do not meet the nutritional requirement, as well as their nutritive value varies greatly during different seasons (Leng and Preston, 1987). Thus inadequate feeding of livestock is the major constraint resulting in low productivity. The extension field staff of PRSP has introduced different combinations of feed for buffalo and cattle. Based upon the farmers' perceptions about these combinations, their ranking was made (Table 1). The data presented in Table 1 indicate that the respondents ranked the combinations of feed regarding growth of calves, milch animals, fattening of calves and dry animals as 1st, 2nd, 3rd and 4th, respectively. These practices were perceived to be medium by the respondents. However, cultivation of improved varieties of fodder was rated as low, tending towards medium, with the rank order of 5th, while information related to young calves was perceived to be the lowest, with the rank order 6th.

Health management practices: Dairy animal, especially the young ones are more susceptible to worm infestations. The most serious worm is *Haemonchus contortus* or the Barberpole Worm, which implants in the stomach and sucks blood, resultantly the animal becomes anemic and die without any sign of diarrhoea (Mackenzie, 2004). The use of salt blocks in manger is very useful practice. This helps to create optimum rumen environment, which stimulates the digestion of the basal diet increasing not only digestibility but also roughage intake (Xuan *et al.*, 1992). The PRSP introduced health management practices based on the farmers perception are ranked in Table 2.

The data given in Table 2 reveal that artificial insemination was rated high, with rank order 1st and fell between high and very high categories. Use of salt blocks in mangers, vaccination, drenching against endoparasite and hay making were perceived to be medium, tending towards high, with rank orders 2nd, 3rd, 4th and 5th, respectively. While practices such as dipping against ectoparasite, culling, dehorning and silage ranked at 6th, 7th, 8th and 9th, respectively.

CONCLUSIONS

The combination of different feeds for growth of calves and milch animals were perceived the top most information received by farmers regarding balanced ration and fell under medium category. Cultivation of improved varieties of fodder/ grasses and feed combination for young calves were perceived low. The artificial insemination, use of salt blocks in manger, vaccination and drenching against endoparasite were perceived the top most information received by the farmers regarding health management practices. The information regarding silage preparation was perceived at the lowest by the respondents.

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Table 1. Ranking of information received from PRSP about balanced ration and cultivation of improved varieties of fodder/ grass for buffalo and cattle

| Information received from PRSP | | Weighted score | Ranked order | Mean |
|--|---|----------------|--------------|------|
| Growth of calves | Cottonseed cake+wheat bran+wheat straw+molasses+mineral mixture | 552 | 1 | 3.45 |
| Milch animals | Cottonseed cake+maize+oil cake+ wheat bran+salt+molasses+DCP | 536 | 2 | 3.35 |
| Fattening of calves | Citrus peel+cottonseed cake+ wheat straw+ molasses+ husk+ mineral mixture | 518 | 3 | 3.23 |
| Dry animal | Rapeseed cake+ molasses+ wheat straw + salt +DCP | 512 | 4 | 3.20 |
| Cultivation of improved varieties of fodder/ grasses | | 471 | 5 | 2.91 |
| Young calves | Maize+ cottonseed meal+berseem+ maize gluten feed+ molasses+ mineral mixtures+ salt | 372 | 6 | 2.32 |

Table 2. Ranking of information received from PRSP regarding animal production and health management for buffalo and cattle

| Information received from PRSP | Weighted score | Ranked order | Mean |
|---------------------------------|----------------|--------------|------|
| Artificial insemination | 660 | 1 | 4.12 |
| Use of salt blocks in mangers | 626 | 2 | 3.90 |
| Vaccination | 623 | 3 | 3.89 |
| Drenching against endoparasites | 620 | 4 | 3.87 |
| Hay making | 588 | 5 | 3.60 |
| Dipping against ectoparasites | 560 | 6 | 3.50 |
| Culling | 556 | 7 | 3.47 |
| Dehorning | 456 | 8 | 2.85 |
| Silage making | 243 | 9 | 1.50 |

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