

## **Awareness among buffalo owners about buffalo feeding and healthcare practices**

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### **ABSTRACT**

The present study was undertaken on 180 buffalo owners selected from three districts of Punjab to ascertain their awareness regarding buffalo feeding and healthcare practices. It was observed that majority of the respondents had high level of knowledge regarding importance of colostrums feeding to newly born calves followed by balance feeding and importance of mineral mixture feeding to dairy animals. They had poor knowledge about legume and non-legume fodders, quantity of concentrate mixture for pregnant dry buffalo and hay- silage making. Similarly in case of healthcare practices the respondents had maximum knowledge about symptoms of sick animal (68.33%) and symptoms of mastitis (65.28%) of buffalo. They had low level of knowledge regarding preventive measures to keep buffalo healthy (33.89).

**Keywords:** Awareness; feeding practices; healthcare practices; buffalo owners

### **INTRODUCTION**

Punjab is one of the major milk producing state of the country. The cattle and buffalo population here is 2038 and 5036 thousands respectively. The total milk production is 93.85 thousand tons per annum and the per capita availability of milk is 961 g (Anon 2013). The Murrah and Nili Ravi are the famous breeds of buffalo found in the state and are well known for milk production. Though the situation of per capita availability of milk in Punjab is better than rest of the country

still there is lot of scope for improvement of total milk production and productivity of buffalo. The low productivity of buffalo is mainly due to lack of proper knowledge of farmers about buffalo and other related aspects of buffalo rearing. Generally it is seen that farmers from the rural areas feed their buffalo with roughages and concentrate but they are not conscious of balanced feeding and proper healthcare. So keeping in mind the above facts it was decided to undertake a study to ascertain the extent of awareness among the buffalo owners by knowing their level

of knowledge about improved feeding and healthcare practices.

### **METHODOLOGY**

The present study was conducted in three districts namely Bathinda, Ferozepur and Sangrur of Punjab during 2009. The sampling procedure employed to select ultimate unit of sample was multistage sampling technique. One block was selected from each district and two villages were selected from each selected block randomly. Thus total six villages formed the sample of the study. Three categories of buffalo owners were indentified on the basis of number of adult buffalos possessed by them namely small (1-2 adult buffalos), medium (3-5 adult buffalos) and large buffalo owners (more than 5 adult buffalos). A separate list of all buffalo owners was prepared for each selected village and thirty respondents were selected by using proportional size of sampling technique. Thus the total sample size for the study was 180 buffalo owners. The knowledge level of the farmers was ascertained through an interview schedule comprising ten improved feeding and eight healthcare practices. The respondents were asked to answer the questions mentioned in the interview schedule. The scores of 2, 1 and 0 were assigned to correct, partially correct and wrong answer respectively and accordingly ranks were allotted to each individual practice on the basis of mean per cent score.

### **RESULTS and DISCUSSION**

#### **Knowledge level of buffalo owners about improved buffalo feeding practices**

The data in Table 1 for total 180 respondents indicates that almost all categories of buffalo owners had maximum (73.06%) knowledge regarding importance of colostrum feeding to newly born calves followed by balance feeding (59.44%) and importance of mineral mixture feeding (55%). The low level of knowledge (23.61%) was observed about legume and non-legume fodders followed by quantity of concentrate mixture for pregnant dry buffalo (25.56%) and hay-silage making (25.83%). The maximum knowledge was possessed by the buffalo owners belonging to small and medium herd size in case of importance of colostrum feeding to newly born calves to the extent of 69.28 and 73.44 per cent respectively. As far as the respondents belonging to large herd size was concerned 83.33 per cent knowledge was found about balance feeding followed by importance of colostrum feeding and mineral mixture feeding (81.82% each). The large buffalo owners had slight edge in knowledge regarding balanced feeding and importance of mineral mixture feeding over small buffalo owners. It implies that balance feeding and importance of colostrum feeding to newly born calves were the areas where all categories of the respondents had sufficient knowledge. In fact the dairy plays a crucial role in rural areas. For small landless agricultural labourers and marginal

Table 1. Knowledge level of buffalo owners about feeding practices

| Item/aspect                                       | Category of buffalo owners |      |       |      |      |                |      |       |      |      |               |      |       |      |      |
|---------------------------------------------------|----------------------------|------|-------|------|------|----------------|------|-------|------|------|---------------|------|-------|------|------|
|                                                   | Small (n= 83)              |      |       |      |      | Medium (n= 64) |      |       |      |      | Large (n= 33) |      |       |      |      |
|                                                   | TS                         |      |       | MS   |      | TS             |      |       | MS   |      | TS            |      |       | MS   |      |
|                                                   | TS                         | MS   | MPS   | RO   | Rank | TS             | MS   | MPS   | RO   | Rank | TS            | MS   | MPS   | RO   | Rank |
| Balance feeding                                   | 90                         | 1.08 | 54.22 | II   |      | 69             | 1.08 | 53.91 | II   |      | 55            | 1.67 | 83.33 | I    |      |
| Legume and non-legume fodders                     | 40                         | 0.48 | 24.10 | IX   |      | 29             | 0.45 | 22.66 | X    |      | 16            | 0.48 | 24.24 | VIII |      |
| Importance of feeding green fodder                | 77                         | 0.93 | 46.39 | IV   |      | 58             | 0.91 | 45.31 | V    |      | 32            | 0.97 | 48.48 | V    |      |
| Quantity of green fodder for lactating buffalo    | 59                         | 0.71 | 35.54 | VII  |      | 34             | 0.53 | 26.56 | VIII |      | 9             | 0.27 | 13.64 | IX   |      |
| Quantity of concentrates for pregnant dry buffalo | 57                         | 0.69 | 34.34 | VIII |      | 32             | 0.50 | 25.00 | IX   |      | 3             | 0.09 | 4.55  | X    |      |
| Hay and silage making                             | 35                         | 0.42 | 21.08 | X    |      | 41             | 0.64 | 32.03 | VII  |      | 17            | 0.52 | 25.76 | VII  |      |
| Ingredients of a concentrate mixture              | 71                         | 0.86 | 42.77 | VI   |      | 63             | 0.98 | 49.22 | IV   |      | 44            | 1.33 | 66.67 | IV   |      |
| Importance of mineral mixture                     | 77                         | 0.93 | 46.39 | IV   |      | 67             | 1.05 | 52.34 | III  |      | 54            | 1.64 | 81.82 | II   |      |
| Importance of colostrum feeding                   | 115                        | 1.39 | 69.28 | I    |      | 94             | 1.47 | 73.44 | I    |      | 54            | 1.64 | 81.82 | II   |      |
| Quantity of green fodder and concentrate required | 86                         | 1.04 | 51.81 | III  |      | 58             | 0.91 | 45.31 | V    |      | 22            | 0.67 | 33.33 | VI   |      |

TS= Total score, MS= Mean score, MPS= Mean per cent score, RO= Rank order

farmers it is the main source of income whereas the large buffalo owners adopt it as a profession. So these practices are also important from their point of view viz balance feed for increasing milk production and colostrum feeding for sustaining next generation and healthy livestock. Singh et al (2009) also reported the similar observations. The small farmers had low level of knowledge (21.08%) regarding hay-silage making as compared to medium (32.03%) and large (25.76%) buffalo owners. The possible reason for this might be that the small herd size owners mostly depended on the naturally grown grasses for feeding their buffalo. These studies are in line with the studies of Sharma and Singh (2008) and Meena et al (2009) regarding the aspects of balanced feeding and concentrate feeding to dry pregnant buffalo respectively.

#### **Knowledge level of buffalo owners about improved buffalo healthcare practices**

It is revealed from Table 2 that in overall the respondents had maximum knowledge regarding symptoms of sick animals (68.33%) and symptoms of mastitis (65.28%). These practices were ranked at first and second position respectively. The respondents gave the last rank ie 8<sup>th</sup> to the practices namely 'preventive measures to keep buffalo healthy' (33.89%). Therefore the knowledge levels of the respondents about various healthcare practices were arranged between 33.86

and 68.33 per cent with an average of 51.09 per cent. The respondents of small herd size had maximum (70.48%) knowledge about symptoms of sick animals followed by important symptoms of mastitis (59.64%) whereas they had low level of knowledge (36.14%) regarding advantage of vaccination. Meena et al (2008) also reported less knowledge of respondents regarding vaccination in their studies. It is also observed that medium and large buffalo owners had higher knowledge about important symptoms of mastitis as compared to small buffalo owners. Similarly small buffalo owners had edge over medium and large farmers regarding the item of preventive measures to keep buffalo healthy. The possible reason might be that small category of farmers due to small size of herd provided more care to their buffalo whereas reverse was in case of knowledge regarding advantage of vaccination.

#### **CONCLUSION**

It can be concluded from the study that all categories of buffalo owners had high level of awareness regarding importance of colostrum feeding to newly born calves and balanced feeding of buffalo. They had poor level of awareness regarding hay and silage making, legume, fodders and quantity of concentrate feeding to dry pregnant buffalo. The large buffalo owners had slight edge regarding balanced feeding and importance of mineral mixture feeding over small buffalo owners. Similarly

Table 2. Knowledge level of buffalo owners about healthcare practices

| Item/aspect                                           | Category of buffalo owners |      |       |      |                |      |       |      |               |      |       |      |
|-------------------------------------------------------|----------------------------|------|-------|------|----------------|------|-------|------|---------------|------|-------|------|
|                                                       | Small (n= 83)              |      |       |      | Medium (n= 64) |      |       |      | Large (n= 33) |      |       |      |
|                                                       | TS                         | MS   | MPS   | RO   | TS             | MS   | MPS   | RO   | TS            | MS   | MPS   | RO   |
| Healthy animal characters                             | 91                         | 1.10 | 54.82 | IV   | 78             | 1.22 | 60.94 | II   | 50            | 1.52 | 75.76 | II   |
| Symptoms of sick animal                               | 117                        | 1.41 | 70.48 | I    | 77             | 1.20 | 60.16 | III  | 52            | 1.58 | 78.79 | I    |
| Important symptoms of mastitis                        | 99                         | 1.19 | 59.64 | II   | 90             | 1.41 | 70.31 | I    | 46            | 1.39 | 69.70 | IV   |
| Preventive measures to control mastitis               | 93                         | 1.12 | 56.02 | III  | 66             | 1.03 | 51.56 | IV   | 50            | 1.52 | 75.76 | II   |
| Important symptoms of foot and mouth disease          | 61                         | 0.73 | 36.75 | VII  | 61             | 0.95 | 47.66 | VI   | 32            | 0.97 | 48.48 | V    |
| Important symptoms of <i>Haemorrhagic septicaemia</i> | 63                         | 0.76 | 37.95 | VI   | 56             | 0.88 | 43.75 | VII  | 30            | 0.91 | 45.45 | VII  |
| Advantages of vaccination                             | 60                         | 0.72 | 36.14 | VIII | 62             | 0.97 | 48.44 | V    | 31            | 0.94 | 46.97 | VI   |
| Preventive measures for good health                   | 64                         | 0.77 | 38.55 | V    | 35             | 0.55 | 27.34 | VIII | 23            | 0.70 | 34.85 | VIII |

TS= Total score, MS= Mean score, MPS= Mean per cent score, RO= Rank order

they had maximum awareness regarding symptoms of sick animals and mastitis whereas low level of awareness was observed in case of preventive measures to keep buffalos healthy, important symptoms of HS disease and advantage of vaccination. The buffalo owners need to be trained in the areas where they were weak.

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