

## **VULNERABILITY AND COST OF TREATMENT OF DAIRY ANIMALS IN GORAKHPUR DISTRICT OF UTTAR PRADESH**

**\*Mohd. Ameer Khan<sup>1</sup> and Mahesh Chander<sup>2</sup>**

<sup>1</sup>Assistant Professor, Department of Veterinary and Animal Husbandry Extension Education,  
CGKV, Durg, 491 001 (C.G.)

<sup>2</sup>Principal Scientist and Head, Division of Extension Education, Indian Veterinary Research  
Institute, Izatnagar-243 122, Bareilly (UP)

\*E-mail: drameeronline@gmail.com

**Abstract:** The present study was carried out to analyze the vulnerability and cost of treatment of milch animals in Gorkhpur district of Uttar Pradesh. Two group of dairy farmers were selected with 120 farmers in each group. One group who insured their dairy animals and other group comprised those who did not insured their dairy animals. The average vulnerability for indigenous cow per year for insured respondents was more than the non-insured dairy farmers. More than 53 per cent crossbred cows were vulnerable 3 or more times per year due to different diseases. The average vulnerability of buffalo for non-insured and insured group was 1.64 and 1.82 times/year. Overall, about 80 % respondents spend less than Rs 1500 as treatment cost for dairy animal, whereas, about 20 % dairy farmers spend more than Rs 1500. The study reveled that crossbred cows were more vulnerable to different diseases than indigenous cows and buffaloes and the dairy farmers are more inclined to insure the crossbred cows.

**Keywords:** Vulnerability, cost of treatment, dairy animal, risk.

### **INTRODUCTION**

In India, about 75 percent of rural households are small and marginal farmers. They own 56 percent of large ruminants and 62 percent of small ruminants (World Bank, 1999). Livestock farming is inherently one of the riskiest economic activities (Hardaker, 2004). The presence of livestock diseases constitutes costly constraints towards the improvement and expansion of the livestock industry in India. Birthal and Jha (2005) reported annual loss of dairy output worth Rs. 50,939 million due to health constraints. It was reported that in 2002-03 dairy output worth Rs. 2,83,097 million was lost due to different diseases, equivalent to 26% of attainable output. It is estimated that up to 30 per cent of livestock production in developing countries is lost due to diseases (FAO, 1990). The direct losses due to FMD were estimated to be more than Rs. 15,000 - 20,000 million per year. Keeping this in view the present study

*Received May 20, 2016 \* Published June 2, 2016 \* www.ijset.net*

was carried out to analyze the vulnerability and cost of treatment of dairy animals in Gorakhpur district of Uttar Pradesh.

### **MATERIAL AND METHODS**

Data for the study were originated from a survey of a sample of 240 randomly selected dairy farmers of two groups who insured their dairy animals and who didn't insured their animals in Gorakhpur district of Uttar Pradesh. Furthermore, only those dairy farmers who owned at least two milch animals were selected for this study. An interview schedule was finally administered after pretesting and data from the selected respondents were collected through personally interviewing them in the local language i.e. Hindi.

### **RESULTS AND DISCUSSION**

The non-insured respondents reported that the average vulnerability and standard deviation of indigenous cow per year was 1.25 and 0.46, respectively, whereas, it was 1.6 (average) and 0.64 (S.D.) for insured respondents.

**Table 1:** Distribution of respondents according to vulnerability of indigenous cows

| <b>Vulnerability</b> | <b>Non-insured</b> | <b>Insured</b> | <b>Total</b> |
|----------------------|--------------------|----------------|--------------|
| One time/year        | 59(76.6)           | 23(46.9)       | 82(65)       |
| Two time/year        | 17(22.1)           | 22(44.9)       | 39(31)       |
| Three time/year      | 1(1.3)             | 4(8.2)         | 5(4)         |
| Total                | 77(100)            | 49(100)        | 126(100)     |

Figures in parentheses indicate percentage

The average vulnerability of crossbred animals for non-insured cows was 2.3 times/year, whereas, the same for insured crossbred cows was 3.2 times/year. The average vulnerability of buffalo for non-insured and insured group was 1.64 and 1.82 times/year, whereas, standard deviation was 0.70 and 0.52 respectively. It is clearly evident that crossbred cows were more vulnerable to different diseases than indigenous cows and buffaloes and the dairy farmers are more inclined to insure the crossbred cows. BIRTHAL and JHA (2005) also reported the same findings.

**Table 2.** Distribution of respondents according to vulnerability of crossbred cows

| <b>Vulnerability cross-bred</b> | <b>Non-insured</b> | <b>Insured</b> | <b>Total</b> |
|---------------------------------|--------------------|----------------|--------------|
| One time/year                   | 8(12.7)            | 0(00)          | 8(7.5)       |
| Two time/year                   | 34(54)             | 7(15.9)        | 41(38.3)     |
| Three time/year                 | 14(22.2)           | 23(52.3)       | 37(34.60)    |
| Four time/year                  | 5(7.9)             | 14(31.8)       | 19(17.8)     |
| Five time/year                  | 1(7.9)             | 0(00)          | 1(0.9)       |
| Total                           | 63(100)            | 44(100)        | 107(100)     |

Figures in parentheses indicate percentage

**Table 3.** Distribution of respondents according to vulnerability of buffaloes

| <b>Vulnerability buffalo</b> | <b>Non-insured</b> | <b>Insured</b> | <b>Total</b> |
|------------------------------|--------------------|----------------|--------------|
| One time/year                | 50(47.6)           | 28(26.4)       | 78(37)       |
| Two time/year                | 45(42.9)           | 69(65.1)       | 114(54)      |
| Three time/year              | 8(7.6)             | 9(8.5)         | 9(8.5)       |
| Four time/year               | 2(1.9)             | 0(00)          | 2(0.9)       |
| Total                        | 105(100)           | 106(100)       | 211(100)     |

Figures in parentheses indicate percentage

### **Cost of Treatment of Animal**

The insured and non-insured respondents reported that the average treatment cost per dairy animal per year was Rs 1394 and Rs 940, respectively. Chauhan *et al.* (1994) reported that economic losses due to various diseases per farm by small, medium, large farmer and overall calculated to be Rs. 2,652, Rs. 2,195, Rs. 2,172 and Rs. 2,509, respectively. There was inadequate financing by the government for the provision of animal health services and major portion of the budget allocation was spent on Direction and Administration rather than animal health and extension (Chander *et al.*, 2006).

**Table 4.** Distribution of respondents according to money spent on treatment of animals

| <b>Treatment cost (Rs.)</b> | <b>Non-insured</b> | <b>Insured</b> | <b>Total</b> |
|-----------------------------|--------------------|----------------|--------------|
| <1000                       | 64(53.3)           | 31(25.8)       | 95(39.6)     |
| 1000-1500                   | 54(45)             | 45(37.5)       | 99(41.3)     |

|           |          |          |          |
|-----------|----------|----------|----------|
| 1501-2000 | 02(1.7)  | 31(25.8) | 33(13.8) |
| >2000     | 0(00)    | 13(10.8) | 13(5.4)  |
| Total     | 120(100) | 120(100) | 240(100) |

Figures in parentheses indicate percentage

## CONCLUSION

Livestock industry has enormous potential to cope up with poverty in developing countries; however, the health and growth of this industry are being threatened by the emergence of animal diseases. Globalization of the sector increases the potential for disease introductions. Government should focus the health care services of animals by providing budgetary allocation and human resource.

## REFERENCES

- [1] Birthal, P. and Jha, A.K. 2005. Economic losses due to various constraints in dairy production in India. *Indian Journal of Animal Science*, 75,12,1470-1475.
- [2] Chander, M.; Singh, B.P.; Arya, H.P.S.; Mandape, M.K. and Ravikumar, S. 2006. Status of Government run veterinary services in Uttar Pradesh: A case of Bareilly district. *Indian J. Field. Vet.* 2,1, 61-65
- [3] Chauhan, S.K.; Sharma, R.K. and Gupta, M. 1994. Economic losses due to diseases and constraints for dairy development in Kangra district of Himachal Pradesh. *Indian Journal of Animal Science*, 64,1, 61 – 65.
- [4] FAO 1990. Cost/benefit analysis for animal health programmes in developing countries. FAO expert consultation, 10-14 September. Rome, FAO.
- [5] Hardaker, J.B., Huirne, R.B.M, Anderson, J.R., Lien, G. 2004. *Coping with risk in agriculture*, Second edition, CABi Publishing, London, UK.
- [6] World Bank 1999. *India Livestock Sector Review: Enhancing Growth and Development*. The World Bank, Washington D.C. and Allied Publishers, New Delhi.