

## Constraints in adapting animal husbandry practices by the dairy farmers in the marathwada region of Maharashtra

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### Abstract

The study was conducted to review the situation of dairying in Marathwada with the objectives to identify major constraints of the dairy farmers in adapting the recommended animal husbandry practices. The survey work was carried out for the milk pocket areas in eight districts of the Marathwada region. Out of 144 dairy farmers, 109 farmers cared crossbred animals; 65 out of 85 dairy farmers adapted cooling arrangement to cross-bred cows during summer; 35 of 45 adapted washing their animals during summer; 98 of 230 dairy farmers followed vaccination to their animals; 45 of 230 dairy farmers followed de-worming their animals; 37 of 230 adapted to control the ecto-parasite; 65 of 230 reacted for removal old debris; 105 of 230 dairy farmers adapted A.I. policy and only 88 of 230 dairy farmers were positive for the animals insurance. Higher proportion of the farmers has accepted the importance of crossbred cows. Higher numbers of farmers have positive response to cool their animals. Significantly more numbers of farmers did not care to vaccinate and accept other health measures for their animals. Non-significant differences between dairy farmers adapting and non-adapting A.I. practices were recorded while significant ( $P>0.01$ ) difference was observed between the farmers adapting and not adapting the insurance policy.

**Key words:** Husbandry practices, Dairy Farmer, Constraints.

### Introduction

Livestock contributes about 9% of the total GDP, which is over  $\frac{1}{4}$  of the GDP from agricultural sector. The dairy sector today provides some 70 million families triple benefits of nutritious food, supplementary income and productive employment to family. Dairying is important for India because it is a rural set-up, land saving industry. Dairying is a secure path and future of our rural development and is now becoming a commercial preposition. The Indian dairy industry is in the hands of small landholder and the bulk of milk production in our country is handled by major portion of small milk producers who are illiterate and ignorant of economic aspect of milk production. Therefore there is a need for poverty alleviation to make stronger through dairying. The present research survey was undertaken to review the position of milk production in the Marathwada region with the objectives of to identify the major constraints of the dairy farmers in adaptation of animal husbandry practices.

### Materials and methods

The survey work was carried out for 19 months from May, 2004 to December, 2005 covering the milk

pocket areas of eight districts of Marathwada region. The village of the milk pocket, as identified by the District Animal husbandry officer from each district, was visited. The manager of the milk plant, village Sarpanch or Chairman of the milk collection society were contacted for getting information of milk producers in the selected villages. From these, 253 farmers were identified on the basis of their contribution in selling milk either to milk co-operative society or in the open market and preparing milk products at their homes. As such 50 dairy farmers from Aurangabad district, 24 farmers from Jalana, 33 farmers from Beed, 49 from Parbhani, 21 from Nanded District, 23 from Hingoli, 28 farmers from Ousmanabad and 25 farmers from Latur district were identified. They were then contacted individually, informed the purpose of visit and requested to react on the questionnaire as approved by the National Productivity Council, New Delhi. The data so collected were compiled, tabulated, classified and described through following heads.

### Results and Discussion

From these milk pocket areas, adaptation of various animal husbandry practices such as special

care of crossbred animals, cooling arrangement during summer, washing crossbred animals during summer, vaccination to dairy animals, de-worming for the control of ecto-parasites, removal of old debris, A.I., animal insurance and use of milking machine. Were collected tabulated and subjected to  $\chi^2$  test and results are described through following heads.

**1) Special care for crossbred animals:** The data on 109 dairy farmers (out of 144) were collected on the basis of special care adapted by dairy farmers for crossbred animals and the result are presented in Table-1.

Table 1 reveals that significantly higher proportion of the farmers (109 out of 144) accepted the importance of crossbred cows. When questioned about providing cooling facility to crossbred animals, significantly higher numbers of farmers (65 out of 85) had positive response. Spain *et. al.* (1997) observed economic benefit of cooling lactating dairy cows. Bhaga *et. al.* (2003) also revealed that spray cooling increased the physiological comfort and milk yield in high yielding animals during hot climate condition. Similarly significantly more proportion of dairy farmers (35 out of 50) realised that crossbred animals should be washed during summer. Koshta *et. al.* (1996) revealed higher net returns under specialized dairy farming with better management. Bhosale (1982) also recorded that a significant association between milk production and adaptation of scientific animal husbandry practices.

**2) Adapting other health measures:** The data were subjected to  $\chi^2$  analysis and results are presented in Table 2. Significantly higher number of dairy farmers did not adapt the practices of de-worming (185 out of 230), controlling the ecto-parasites (193 out of 230) and removal of old debris (165 out of 230). Thus it can be concluded that the negligence to care dairy animals may be due to total ignorance, not knowing the importance of animal health, not looking the 'dairying' on commercial ground or, more correctly, the dairy

farmers are not made aware of importance of animal health by the extension and development agencies of State. Natraju (1989) revealed that animal health and feeding practices were adapted by large per cent of dairymen and all the beneficiaries thought of this business as commercial one. Thoranus-Chapetch (1997) recommended that training on animal health, animal management, milk increase and cost reduction factors should be implemented continuously.

**3) Adapting A. I. by dairy farmers:** The data on adapting A.I. by the dairy farmers were collected and subjected to  $\chi^2$  analysis and results are presented in Table-3. Table-3 reveals non-significant difference between a group of dairy farmers adapting and non adapting A.I. It was further revealed that unlike crossbred cows, practice of A.I. is not regularly followed in buffaloes. Dairy farmers should be known the importance of A.I. in getting not only quality progeny but also increased conception rate. Sinha and Sinha (1973) revealed that majority of dairy farmers were having large sized herds and there was a significant association with adaptation of A.I. practice. Similarly Gandhi and Singh (2006) reported that the importance of A.I. network under field condition is the need of day to disseminate superior germ plasma from exotic bulls besides improving the conception rate from A.I. Bhosale (2006) reported that out of 3 commercial dairy farms, one used A.I. while second followed A.I. + natural service and third farm used A.I. for crossbred cows. Telford and Jennings (1997) reported that 82 percent of farms practiced A.I.

**4) Insurance:** The data on insurance of animals were collected and subjected to  $\chi^2$  analysis and results are presented in Table-4. Table- 4 revealed significant ( $P>0.01$ ) difference between the farmers adopting insurance practice (88 out of 230) and those not following it at all. It can, therefore, be concluded that this significant gap be decreased by imparting the importance of animal insurance and actually adapting it.

Table -1. Adaptation of animal husbandry practices by the dairy farmers

Major animal husbandry practices	No of farmers adopting	No of farmers not adopting	$\chi^2$ Value
Special care for crossbred animals	109	35	38.028**
Making cooling arrangement during summer	65	20	23.825**
Washing frequently during summer	35	15	8.000**
Vaccination to dairy animals	98	132	5.026*
De-worming	45	185	45.217**
Control of ecto-parasite	37	193	105.88**
Remove of old debris	65	165	43.478**
A.I.	105	125	1.729**
Insurance	88	142	12.678**

**5) Milking machine adapted by the dairy farmers.**

The data on use of milking machine were subjected to  $\chi^2$  test. The results revealed that none of the dairy farmers adapted machine milking ( $P>0.05$ ); the main reason is its cost and maintenance. Chaudhary *et. al* (2001) revealed that the cost of milking per kg of milk by machine was higher (Rs.0.40 in buffalo and Rs.0.25 in cows) than hand milking (Rs.0.25 in buffalos and Rs.0.21 in cows). Bhosale (2006) reported that one out of two commercial dairy farm adapted machine milking.

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