



Effect of placement of teats of udder on bacterial quality of raw milk in cross bred cows

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ABSTRACT: The present study was undertaken on fourteen healthy crossbred cows (Jersey × Sindhi crosses) free from Mastitis were selected from herd of Sam Higginbottom Institute of Agriculture Technology and Sciences, Dairy farm, Allahabad. Cows were housed under similar management conditions. The measurements of distance between the teats on udder of cows were taken. Cows were milked by dry full hand method of milking. Two streams of fore milk from each quarter of udder were discarded before collection of samples. Milk samples were collected with respect to placement of teats on udder as T_1 = 200 ml milk from fore left (FL) and fore right (FR) teats, T_2 = 200 ml milk from FL and hind left (HL) teats of udder, T_3 = 200 ml milk from FR and hind right (HR) teats of udder, T_4 = 200 ml milk from HL and HR teats of udder, T_5 = 200 ml milk from FL and HR teats of udder, T_6 = 200 ml milk from FR and HL teats of udder. The study revealed that the distance between teats on udder as placement was significantly different in cows. The placement of fore left and fore right teats, fore right and hind left and fore left and hind right was at par but significantly more than placement of fore right and hind left, hind left and hind right, fore left and hind left. Milk samples were analyzed for determination of standard plate count, lactic acid bacterial count, proteolytic bacterial count, lipolytic bacterial count and coliforms in raw milk. The placement of teats had a significant effect on SPC which was significantly less in milk obtained from placement of fore right-hind left and hind left-hind right teats. The placement of teats had no significant effect on lactic acid bacterial count, proteolytic bacterial count, lipolytic bacterial count.

KEY WORDS : Placement of teats, Bacterial quality, Fore left, Fore right, Hind left and hind right

HOW TO CITE THIS PAPER : Bhadouria, Deepak S., Shukla, U.K., Prasad, Jagdish and Tiwari, Harshit (2012). Effect of placement of teats of udder on bacterial quality of raw milk in cross bred cows, *Res. J. Animal Hus. & Dairy Sci.*, 3(2) : 60-62.

INTRODUCTION

Relationship between the measurements of mammary system and milk yield is an important tool in selecting dairy cow particularly in the small livestock holding units, where the production records are not available. In the absence of complete and correct production records, cow may be judged on the

basis of physical parameters because the breeders assumed a close positive relationship between external forms and production of cows (Vijaykumar and Prasad, 1989). The size and placement of teats may be judged more accurately than the future development of the udder. The size, shape and placement of teats differ in different animals. If there exists a high degree of correlation between these external features of teats and milk production, it would be convenient to select cows of good producing ability. With this in view, the present experiment was planned.

MATERIALS AND METHODS

Fourteen healthy cross bred cows free from mastitis were selected from herd of Sam Higginbottom Institute of Agriculture Technology and Sciences Dairy farm, Allahabad. Cows were housed in tail to tail barn and under similar management condition. As a measure of cleanliness hair on the udder and flanks were clipped. The measurement of distance between the teats viz., fore left (FL)- fore right (FR)

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