

RESEARCH PAPER

## Effect of abnormal calving on post partum productive traits of crossbred cattle

S.S. KAMBLE, A.P. FERNANDIS, S.B. ADANGALE AND A.R. DESHMUKH

Accepted : May, 2010

### ABSTRACT

With onset of the crossbreeding in India the incidence of abnormal calving in crossbred are concerned to be very light *i.e.* more than 50%. To study effect of abnormal calving on subsequent post partum production trait the present study was under taken at RCDP on cattle Mahatma Phule Krishi Vidyapeeth, Rahuri (M.S.). In all 1004 records of calving was collected cow analyzed by L.S.Q. Technique. To study the effect of abnormal Calving the effect of type of calving, on productive traits was significant ( $p < 0.001$ ) on all traits under study. The overall L.S.Q. means for Lactation Yield, Lactation length and dry period were 2912.80+ 109.45 Kg. 338.46 +7.57 days and 93.85+ 5.99 days, respectively. The cow calved normally had given more milk yields.(3387.99+45.10 kg.).In abnormal calving the L. Y. was lowest(2355.69+110.72 Kg.). It was noticed that Lactation Yield of abnormal AND still birth cows affected seriously. Highest lactation length was noticed in (356.86+4.25days) cow suffered from R.P. but lowest L.L. was recorded in abnormal cases (308.88+7.66 days) Dry Period lowest was recorded (71.25+2.4)days in normal Calving but light observed in still birth cases (111.25+11.90days).

See end of the article for authors' affiliations

### S.B.ADANGALE

Department of Animal Science and Dairy Science, College of Agriculture, DHULE (M.S.) INDIA

**Key words :** Abnormal calving (Ab), Lactation length (LL), Lactational Yield (LY) Lactation period (LP), Dry period (DP)

India Possesses an enormous cattle population (209.5 million ) which constitutes about 1/6<sup>th</sup> of the worlds population Though India ranks first in milk production the average milk production per cow is far below than the world average. Adoption of cross breeding of non descriptive indigenous cows with exotic breeds like Holstein Friesian and Jersey resulted in to improvement in production and reproduction performance of crossbreds, but reproductive and productive efficiency of a crossbred generated is very sensitive to environment and management. One of the important factors affective these economic traits is types of calving showed adverse effect on productive efficiency.

The present study was under taken with view to know the effect of various types of calving on productive traits of cross bred cows.

### MATERIALS AND METHODS

Data pertaining to 1004 calving of cross bred cattle's maintained at R.C.D.P. on cattle, Mahatma Phule Krishi Vidyapeeth, Rahuri, Dist. Ahmednagar was utilized for present investigation. Data pertaining to different production trait *viz.* L.Y, L.L, and D.P. was collected and classified according to different types of calving *Viz.* normal abortion, still birth, dystokia and retention of placenta. For studying different type of calving under study the data was statistically analyzed by using the least squares analysis technique of fitting constant (Harve,

1991) with following model.

$$Y_{ij} = \mu + N_i + e_{ij}$$

where,

$Y_{ij}$  = Value of Productive traits under study of  $j^{\text{th}}$  individual belonging to  $i^{\text{th}}$  calving

$\mu$  = Population mean

$N_i$  = Effect of type of calving.

$e_{ij}$  = The random error, NID with mean and various  $(0, \sigma^2_e)$ , respectively

### RESULTS AND DISCUSSION

The analysis of variance showing the significance of various effects is depicted in Table 1 and the least squares means for various type of calving is presented in Table 2. It was revealed from Table 1 that the type of calving exerted significant effect ( $P < 0.01$ ) on all the post partum production traits under study *viz.* L.Y., L.L. and D.P. The L. Y. was the lowest (2355.69+110.72kgs.) found in abortion cases but L.Y. was recorded in normally calved calves (3387.79+45.10kgs.) Roy and Tripathi (1989) recorded that the type of calving had significant effect L.Y. for normal abortion still birth premature birth and dystokia cows was 3305.94, 2122.40, 2884.46, 3889.37 and 2643.51kgs

The L.L. was lowest in Abortion cases (308.88+7.66 days) and was the highest (356.86+4.25 days ) the cow suffered from R.P. the result are in agreement with Mandal