

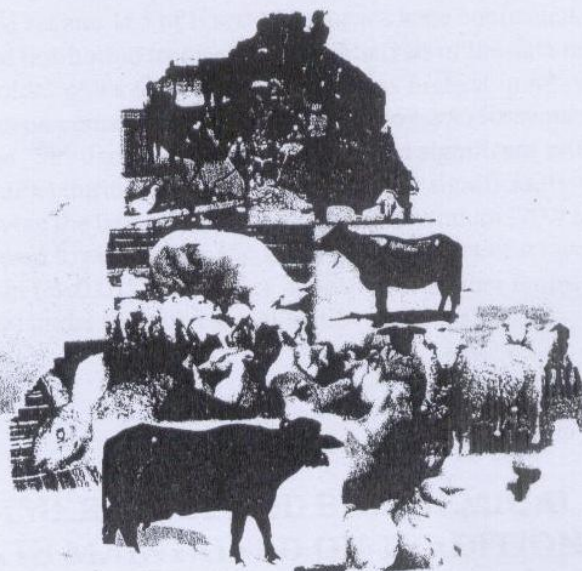


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RHM-07

CONCEPTION RATE OF FRIESWAL BULLS UNDER FIELD PROGENY TESTING PROGRAM IN U.S.NAGAR DISTRICT OF UTTARAKHAND

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The field progeny testing program of Frieswal bulls was undertaken at G.B.P.U.A.&T., Pantnagar since February 2010. A total of 2,528 inseminations (1,784 inseminations from 10 bulls of I set and 744 inseminations from 6 bulls of II set) were carried out till August 2011. Based on the 1,845 inseminations (1,598 inseminations from I set and 247 inseminations of II set) followed up 1,192 (1,027 of I set and 165 of II set) pregnancies were confirmed, giving rise to an overall 64.6% conception rate. The area experienced hot-humid tropical climate. Analysis of the data revealed that conception rate was lowest (62.3%) in first calvers and older cows (>4 lactations) and was highest in 4th parity cows (67.5%). Season of calving had significant ($P<0.01$) effect on conception, being maximum (67.2%) for winter calvers and lowest (61.9%) for those who calved during rainy season. Similarly, season of breeding had significant effect on conception, being lowest (59.4%) during autumn and best (68.6%) during winter. Month of AI also significantly ($P<0.01$) influenced conception rate. February, April and November were the best months for achieving maximum (70.4 to 73.6%) conception rate, while August, September and October showed lowest results (54.2 to 57.5%). Effect of AI worker (range 50.9 to 70.5%) and bull on conception rate was significant ($P<0.01$). Results are indicative of further improvement in conception rate if the factors affecting it are well understood under the particular climatic conditions.

Key words: *Frieswal, Conception rate*

RHM-08

EFFECT OF HOT SUMMER ON BLOOD BIOCHEMICAL PARAMETERS OF SMALL RUMINANTS MAINTAINED ON TRADITIONAL PRACTICES

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Effects of age, breed and species on blood biochemistry of small ruminants reared during hot summer, a season characterized with relatively low available grazing resources were assessed. Accordingly, healthy animals ($n=54$) were chosen and divided into nine comparable groups having 6 animals each; male Deccani lambs (3 months old), male Nellore lambs (3 months old), male non-descriptive kids (3 months old), Deccani rams (15 months old), Nellore rams (15 months old), non-descriptive bucks (15 months old), aged Deccani rams (36 months old), aged Nellore rams (36 months old) and aged non-descriptive bucks (36 months old). All the animals were maintained on available grazing resources with little supplementation of concentrate (rice bran/groundnut cake/cotton seed cake) in the evening after returning back from grazing. Blood samples were collected in the month of May when the available pasture level for grazing was at its minimum. Electrolytes (Na, K and Cl) level was within the normal range in 3 months age group animals irrespective of breed and species, which might be due to non-exposure of these animals to hotter climate as they are not allowed for grazing along with the dams. However, increase in Na level and decrease in K and Cl was observed in 15 and 36 months age group grazing animals. Total protein levels were higher in all age groups of goat than in sheep. This might be due to efficient utilization of available tree fodder in goats by virtue of their browsing habit. Among the sheep breeds, Deccani is