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DETERMINATION OF OPTIMUM TIME OF SEMEN COLLECTION BY MICROSCOPIC EVALUATION OF SEMEN, PLASMA TESTOSTERONE CONCENTRATION AND SEXUAL ACTIVITY OF IRANIAN NATIVE BREED OF BUCKS (MERGHOZ) IN KERMANSHAH PROVINCE

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The aim of this experiment was to determine the optimum time for the best semen collected from Merghoz bucks over a 12 months period. Ten Merghoz bucks with initial live weigh of 29 ± 2.9 kg were kept under natural day length condition in Kermanshah ($34^{\circ} 18' N$ and $47^{\circ} 3' E$). Semen was collected monthly using an electroejaculator and examined microscopically after collection. Blood samples were taken monthly and the plasma testosterone concentration estimated. The libido was evaluated as reaction time to mating. The greatest and lowest ($p < 0.05$) semen volume was observed in November and February respectively. Conversely, the greatest and lowest ($p < 0.05$) sperm concentration was observed in February and November respectively. The greatest ($p < 0.05$) sperm index was found from mid-September to early December, and the lowest value was observed during winter and spring. Gross and progressive motility of sperm (%) and live sperm (%) were greatest ($p < 0.05$) during September and December, and the lowest values were observed in winter and spring. Sperm abnormality (%) and semen PH were lowest ($p < 0.05$) during September and December, and the greatest values were observed during winter and spring. The greatest ($p < 0.05$) testosterone concentration was observed from August to early November, and the lowest value was observed during winter and spring. The same change also was found for testicular length and width, and libido. It can be concluded that Merghoz bucks have a seasonal pattern of spermatogenic, with best semen characteristics being recorded in autumn. This would be useful for semen collection in A.I. programme and also when implementing an intensive breeding system of three kidding seasons in 2 years, with natural mating being implemented.