

A-18: Reproductive characteristics of indigenous Zebu cattle in Sri Lanka

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On-farm trials were conducted at 3 locations in the dry zone (Anamaduwa, Bandagiriya and Kandalama). Calving pattern and intervals were studied in 15 herds at Anamaduwa. Birth weight measurements were made on 60 calves from Anamaduwa and Bandagiriya. Pre-pubertal growth rate measurements were made at monthly intervals on 10 heifers at Anamaduwa. Blood samples were collected at appropriate intervals from 44 heifers and 58

postpartum cows for puberty, postpartum and gestation length studies. Plasma progesterone was quantified by radioimmunoassay technique. Calvings (n=696) at Anamaduwa were seasonal and 66% occurred during the period October to January. Mean calving interval (n=254) was 338.04 ± 36.55 days. Mean birth weights were 15.81 ± 2.48 kg and 15.64 ± 2.58 kg respectively for Anamaduwa (n=33) and Bandagiriya (n=17). Average prepubertal growth rate was 100.71 ± 120.62 g/day. Average ages at puberty were 845.7 ± 138.82 , 870.89 ± 92.78 and 854.66 ± 85.43 days, respectively for Anamaduwa (n=10), Bandagiriya (n=19) and Kandalama (n=15). Average gestation length (n=25) was 281.83 ± 5.19 days. Age at first calving for Anamaduwa (n=10) and Kandalama (n=15) was 1248.14 ± 130.18 and 1159.92 ± 63.53 days. Postpartum lengths were 41.67 ± 39.25 and 62.06 ± 27.06 days in trial I (n=10) and II (n=12) respectively at Anamaduwa and the values for Bandagiriya (n=18) and Kandalama (n=18) were 94.45 ± 16.56 and 64.22 ± 27.26 days respectively. Majority of the animals conceived at the first postpartum oestrus. Postpartum period and calving to conception of cows at Bandagiriya were greater ($P < 0.05$) than those at Anamaduwa and Kandalama and ad-libitum suckling at Bandagiriya may account for the difference.

In conclusion, indigenous zebu cattle in the dry zone reproduced at a high degree of efficiency following slow sexual maturity.