

Abstract

Summary: Zebu cattle (*Bos indicus*) constitute 72.3% of the cattle population in Sri Lanka, consisting of indigenous (43.6%), exotic (12.3%) and crosses (16.4%). Indigenous zebu cattle were primarily found in the dry (54.4%) and the intermediate (35.5%) zones with the remainder (10.0%) in the wet zone. In the latter two zones the indigenous zebu animals have been gradually replaced by dairy type exotic animals. In the dry zone zebu cattle farming is done as a traditional village system (DTVS) and irrigated settlement system (DISS). The DTVS is most common in which 24% of small holdings rear cattle, where in 91.4% of the households it is either a primary (29.3%) or a secondary (62.1%) occupation. The family size of the small holdings was  $6.1 \pm 4.8$  members. The herd size was  $18.3 \pm 15.5$  animals/herd and the animals were managed extensively. Daily milk yield was  $0.4 \pm 0.9$  litres with  $141 \pm 32$  days of lactation. The Zebu cattle farming provides a modest income with meat, milk, draught and manure contributing 45%, 34%, 9% and 12%, respectively to the total income. Scarcity of grazing lands, high incidence of crop damages by cattle, a low veterinary coverage and poor milk collecting network affects the sustainability of the system.

The body weight at birth was estimated at  $15.7 \pm 2.5$  kg. Pre-pubertal growth rate was  $88.3 \pm 26.7$  gm/day. Ages at puberty, first oestrus and first calving were  $858.0 \pm 96.3$ ,  $929.7 \pm 112.9$  and  $1185.1 \pm 86.4$  days, respectively. Length of gestation was  $281.8 \pm 5.2$  days. Calving was seasonal with a peak occurring between October and January. The calving interval was  $338.0 \pm 36.5$  days with calving rate of 77%. Involution of uterus was completed by day  $24.9 \pm 4.7$  and approximate dimensions of postpartum ovaries were  $13 \times 10 \times 7$  mm. Calving to first oestrus and conception intervals were  $63.2 \pm 30.2$  and  $74.8 \pm 40.0$  days with 77% of cows conceiving at the first postpartum oestrus.

Cattle farming in dry zone of Sri Lanka with very fertile indigenous zebu animals is a widespread practice which demands timely and appropriate measures to ensure its sustainability.