

ARTIFICIAL REARING OF RUSA FAWNS (*Cervus rusa timoriensis*)

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Two trials were conducted to investigate the feasibility of artificially rearing rusa fawns. In Trial 1 (25.5.92 to 24.8.92) 2 groups of 3 fawns initially aged 4-6 weeks and liveweight (mean  $\pm$  sd)  $9.7 \pm 2.6$  kg were bottle-fed either a proprietary calf milk replacer (MR) reconstituted to 20% solids (Group A) or reinforced Friesian cow's milk (RFM; Group B). In Trial 2 (21.9.92 to 1.2.93) 6 fawns initially aged 1-2 weeks, liveweight  $6.3 \pm 0.8$  kg, were fed reinforced Jersey cow's milk (RJM). The reinforced cow's milks were formulated according to Wilson (1984). In both trials, the fawns were fed 3 feeds daily during weeks 1 to 7, 2 feeds daily in weeks 8 to 12 and 1 feed daily thereafter. A concentrate mix, fresh kikuyu forage, soil and water were available *ad lib.* in both trials. Feed intakes were recorded daily and liveweights weekly.

MR caused severe scouring and bloat, and was replaced after 2 weeks by RPM. Average daily milk intake of Group B, over the whole period of Trial 1, was higher ( $P < .05$ ) than that of Group A, 1005 v 819 ml (146g v 129 g DM). Mean daily intake of RJM was 621 ml (119 g DM) in Trial 2. In both trials peak milk intake occurred around 9 weeks of age, and self weaning by 18 weeks of age. Solid feed intake began to increase from 10 to 11 weeks of age. In Trial 1 the mean consumption of fresh forage and air dry concentrate was 1121 g/d and 128 g/d respectively, while in Trial 2 it was 848 g/d and 198 g/d. Licking of soil was apparent only in the first few weeks. The fawns each consumed approximately 200 g during the course of Trial 2.

In each trial, 5 out of 6 fawns were weaned successfully. Group B fawns in Trial 1 had higher ( $P < .05$ ) ADG than Group A (102 v 80 g) but less than naturally reared fawns (184 g). The fawns in Trial 2 grew at 133 g/d but this was again lower than their naturally reared counterparts (205 g/d). ADG was higher after milk intake had begun to decline and solid feed intake was increasing.

The fawns were very timid initially, especially in Trial 1. They maintained flight distances and were *reluctant* to accept bottle-feeding. The younger fawns in Trial 2 adapted more quickly to artificial rearing. One fawn died in each trial from inhalation pneumonia (related to their reluctance to suckle from a bottle). Mild scouring occurred with some fawns on RFM and RJM diets at high intakes.

Two samples of milk were collected from sedated rusa hinds. The composition (% 1st and 4th weeks of lactation, respectively) was: solids 24.5, 23.0, fat 12.7, 10.3, protein 5.7, 6.0, lactose 4.8, 5.8, and gross energy 683, 620 kJ/100 g. The milk replacers used in these trials had less fat, protein and gross energy (e.g. in RJM: 19.2 solids, 4.2 protein, 7.3 fat, 7.2 lactose and 491 kJ GE/100 g).

The results suggest that rusa fawns can be hand reared on a practical diet based on reinforced cow's milk. Improved performance is likely with younger fawns, and with a higher energy density milk replacer than has been previously recommended.

WILSON, P.R. (1984). Refresher Course for Veterinarians, Proc. 72 Deer Refresher Course, pp. 45-47. Univ. Sydney Post-Graduate Committee In Veterinary Science.

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