

PERFORMANCE OF DOMESTICATED SAMBAR DEER (*CERVUS UNICOLOR*)

Ismail bin Idris and Saidi bin Moin

Faculty of Agriculture

Universiti Putra Malaysia, 43400 UPM, Serdang, Selangor, Malaysia, and Faculty of Biological Science, UKM

Keywords: sambar deer, deer farming, weight, height, heart girth.

Introduction

Deer are found throughout the world either in the wild or as farmed animals. Several species of deer have been farmed while many others are still in the wild state. The Samba deer (*Cervus unicolor*) is indigenous to Malaysia (Medway, 1978). Of 16 subspecies of the *Cervus unicolor*, *Cervus unicolor equinus* is found in Peninsular Malaysia and the *Cervus unicolor brookei* in the Borneo island. The deer are still in the process of domestication. In some countries, like Australia, the population of wild deer is much larger than that of farmed deer although it is already a firmly established rural industry). The Sambar deer, which is indigenous to Malaysia under the national wildlife regulation, is not allowed to be farmed. Since about 15 years ago domesticated deer farming was introduced to Malaysia and this new farming industry is likely to grow in the future (Vidyadaran, 1993). However, the deer are mostly animals of the forest fringe, rather than the forest itself.

Materials and Methods

Sambar deer raised in three government farms were utilised for this study. The farms are in three states of Malaysia, namely Perak in Peninsular Malaysia, and Sabah and Sarawak in East Malaysia. The Perak farm is under the National Park and Wildlife Department. The Sabah farm is at the Livestock Breeding Station, Department of Veterinary Services and Animal Industry, Sebrang, Keningau, and the Sarawak farm is at the Sabah Agroforestry Centre of the Sarawak Forestry Department. The farms at the three locations have different number of animals, with 44 in Perak, 25 in Sabah, and 46 in Sarawak. Their ages vary from three weeks to about seven years. The animals were allowed to graze the grass and shrubs freely. Supplementary feeding of cattle pellets or freshly cut green herbage was given. The animals were divided into groups and put into different paddocks. Data gathering was carried out during 1997 and 1998.

Results and Discussion

The Sambar deer are year-round breeders, unlike the Red deer (*Cervus Elaphus*) or the Rusa deer or Java deer (*Cervus timorensis*) which are seasonal breeders (Strangaard and Simonsen, 1993). In the Perak farm the deer were kept together where several mature stags, mature hinds and fawns were in one paddock, with natural mating practised. Although Slee (1984) indicated that the stags do not gather harems or fight for possession of hind it was observed that usually a dominant stag will control many hinds. Normally the dominant stags that perform most of the matings are those which have developed antlers. once their antlers fall off they will become

docile, and another stag with newly developed antler will take over. The gestation period of the Sambar deer is between eight and nine months. Normally the hind will calve down in hiding and keep their fawns away for about a month. After this time only will the mothers bring out their fawns. The fawns will normally be born healthy and they will take care of themselves naturally. The mortality rate is about 5%. It is evident that the Sambar deer will grow best under their natural environment. But to facilitate management of the deer farming reduced shading could be practised. The deer are highly nervous and temperamental but became more settled with regular human contact and feeding. The Sambar deer are a large species with a solid build. A fawn at three weeks old had a body weight of 15 kg and a height of 60 cm at the wither, while its body length is 89 cm.). The correlation coefficients between weight and height, weight and body length, weight and heart girth, height and body length, height and heart girth, and body length and heart girth of 0.63, 0.78, 0.61, 0.70, 0.60, and 0.77, respectively, were very highly significant. Thus, height, body length and heart girth are good indicators of weight. These are useful especially for deer where individual measurements are not always possible and weights more often have to be estimated.

Height, length and location had very highly significant ($p < .001$) effects on body weight. The mean height of deer was 90.17 ± 1.33 cm while the mean weight was 82.98 ± 3.14 kg. The highly significant effect of location on weight indicated that the different management systems could influence the growth of the deer. The deer at the Perak farm with a mean height of 100.18 ± 1.64 cm and a mean weight of 97.39 ± 4.58 kg was the tallest and the heaviest among the three groups. This could be attributed to the paddocks being more shaded, giving the atmosphere of the natural environment of the jungle, their natural habitat. The presence of shrubs and undergrowth for browsing may lead to better body growth and weight gain

Conclusions

A trend existed where shading has helped in increasing percent calving and survival rate over the period of the study. Height, body length and heart girth are good indicators of weight. The increase in domesticated deer farming will add to the varieties of red meat available to the general consuming public.

References

- Medway, L. 1978. The wild mammals of Malaya (Peninsular Malaysia) and Singapore. Oxford University Press, Kuala Lumpur, Malaysia. pp 106-107.
- Slee, K. 1984. The Sambar deer in Victoria. In T. G. Hungerford (Ed.). Deer Refresher Course Proceeding No. 72, University of Sydney, pp 559.
- Strangaard, H. and Simonsen, V. 1993. Genetic differentiation in populations of red deer, *Cervus elaphus*, in Denmark. *Hereditas* 119: 171-177.
- Vidyadaran, M. K., Jaffar, M. and Ibrahim, J. 1993. The deer industry in Malaysia. In Fatimah C. T. N. I., Ramlah, A. H. and Bahaman, A. R. (Eds.). The animal industry in Malaysia. Universiti Pertanian Malaysia, Malaysia. p. 111-119.