DEVELOPMENT OF THE KATJANG GOAT CONSERVATION CENTRE

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Introduction

Katjang goat is Malaysia's indigenous goat breed. It is found in small populations in several parts of Malaysia, and it is considered to be at risk (DVS 2006). Katjang goat is a meat-type of animal and as described by DVS (2006), it possesses the morphological characteristics of a thin, black-coloured coat, sometimes with white patches. Individual goats are also found with black and brown coat colouration (DAD-IS, 2010), as shown in Photos 1 and 2. Average birth weight is 1.5 kg with mature weight of 25 kg for males and 20 kg for females. The average daily weight gain of the Katjang goat is 55 g/d. (Devendra & McLeroy, 1982). As an indigenous goat, Katjang possesses the natural characteristics of heat and tick tolerance under the local climate. Although their meat production may be relatively low compared to exotic goat breeds in Malaysia, they are highly adapted to the local equatorial environment (FAO 1992). Indigenous Katjang goat can act as an insurance factor against future changes in environment, particularly due to climate change; and to possible changes in production systems and utilization.

Photo 1: Black coloured Katjang goat at the National Institute of Veterinary Biodiversity

Photo 2: Brown coloured Katjang goat at the National Institute of Veterinary Biodiversity

Objectives

The objective of this project is to establish *in-situ* conservation of indigenous Katjang goats, supported by *ex-situ* conservation through maintaining a Semen and Embryo Bank.

Current Status of Research

In 2009, the Department of Veterinary Services obtained funding under the Agricultural Science Fund, to undertake research on the Katjang goat (Grant no. 05-05-17-SF1004). The project entitled, "A Survey To Bioprospect for Indigenous Katjang Goats", is currently in progress. The project cost is RM237,000. Currently, *in-situ* conservation

facilities are being established at the National Institute of Veterinary Biodiversity (NIVB). Land clearance for a grazing paddock and has already been undertaken (Photo 3). A Katjang yard with an area of 110 sq. meters has been built (Photo 4).

***In-situ* conservation**

As a base population, the centre will in the medium term accommodate 50 Katjang females and 10 males. Together with smart partners in the private sector, we are aiming for 300-500 purebred Katjang goats under conservation. For genetic variability, the animals will be procured from throughout the country. All the goats will be tagged and their production and reproductive performance will be recorded.

Management

A semi-intensive management system will be applied. Goats will be released from the yard in the morning to graze in the day at the paddock and will be stalled in the evenings. The lands for grazing paddock total 18 acres, consisting of three 5-acres paddocks and a 3-acres paddock (Figure 1). Hoof trimming will be done continuously.

Feeding

All the goats will be allowed to graze in Guinea and Humidicola plots. Napier will be given by cut and carry technique whenever needed. Goat pellet will be given weekly at the yard in the evenings.

Herd Health

Continuous monitoring of health status will be done on all the animals. Screening for Brucellosis, Caseous Lymphadenitis, Melioidosis, Salmonellosis, Johne's disease, Leptosprosis and Foot and Mouth Disease (FMD) will be done once a year. FMD vaccination will be applied every 6 months. Deworming and deticking will also be done every 3 months.

Breeding

Breeding management will be carried out throughout the year, whereby the ratio of male to female is maintained at 1:20. The males used for breeding will be at least 12 months of age with 25 kg of bodyweight.

Photo 3. Land clearance for Katjang paddock

Photo 4. Katjang yard at NIVB

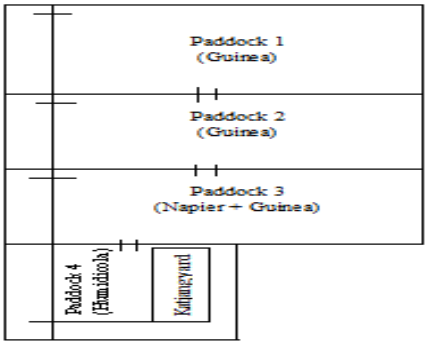

Figure 1: On-farm *in situ* conservation of Katjang goat with semi-intensive management system

***Ex-situ* conservation:**
The semen and embryos from selected males and females will be harvested and frozen. Both of these genetic resources will be disseminated whenever required. It is planned to freeze 2,000 doses of semen per buck.

Conclusion
The development of farm infrastructure is progressing according to schedule. The infrastructure development is expected to be completed by the middle of year 2010. Napier, Guinea and Humidicola are being planted. New animals will be brought in by mid 2010. Further work needs to be done to improve the body weight genetically, to meet the market demand for a particular size at a specific age.

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