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Reproduction Rate of Kacang and Peranakan Etawah Goats under Village Production Systems in Indonesia

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Abstract

Small ruminants like sheep and goats are important for a larger part of the Indonesian rural population. The existing goat husbandry is normally the result of hundreds of years of tradition. The major feeding systems in goat production found in Indonesia are the cut and carry and grazing systems. The number of goats raised per farm is relatively small. Goats are kept primarily for meat production, so production traits of interest are the number of young weaned per breeding female per year and their growth rate. The evaluation of the reproduction rate of local and adapted breed of goats can provide important information to understand its productive potential using local resources. The major breeds of goats found in Indonesia are the Kacang and the Etawah goats. Indonesia is situated roughly between 6° to 11° north latitudes and 95° and 141° east longitudes. The temperature stays within a constant range, 23–31°C daily in the low plains and 18–27°C in the inferior plateau. Reproduction data of 173 and 189 Peranakan Etawah and Kacang does, respectively, were collected through on-farm research over 20 months in smallholders agriculture located in Central Java, Indonesia. At every reproductive event, date and number of the animal concerned were recorded. Parity, type of birth and litter weight at weaning were identified on reproduction rate of Peranakan Etawah and Kacang goats. General linear model were applied in the data analysis. The average reproduction rate of Kacang and Peranakan Etawah does was 2.95 and 1.76 kid / doe / year, respectively. Least squares analysis of variance reveal that doe reproduction rate was significantly affected by parity, type of birth and litter weight at weaning. The reproduction rate of Kacang and Peranakan Etawah does tended to increase with the advance in parity up to the 4th parity and slightly decrease thereafter. The reproduction rate increased progressively with the advance in birth type. Results also demonstrated that at each 1 gram increase in litter weight at weaning there was an increase of 0.17 and 0.08 reproduction rate of Kacang and Peranakan Etawah does, respectively.

Keywords: Goat reproduction, Indonesia, kacang goat, peranakan etawah goat