

Increasing Local Sheep Growth Performance through Rapid Selection at Fattening Farm

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ABSTRACT

Sheep fattening farms have recently been growing rapidly to produce better quality of sheep meat, however the bussiness could make a crucial loss of good quality of local sheep because they can be sold. It is therefore elite flocks of sheep in a fattening farm should be selected. The experiment was conducted at PT Tawakal, a sheep fattening farm located in Caringin, Bogor. One hundred and sixty nine young male sheep (less than one year old) were selected based on physical judging and their average daily gain (ADG) into two groups having the highest growth rate (above 150 g/head/day) and lowest group (leass than 65 g/head/day). Selection differential and its progress of the selected flock was also calculated. The results showed that there were 13 heads of fast growing and 11 heads of slow growing sheep with the average daily gain of 173.8 ± 26.3 g/head/day and 53.9 ± 15.7 g/head/day, respectively ($P < 0.01$), while the ADG of their population was 98.5 ± 43.6 g/head/day. Based on selection differential calculation (75.3 g/head/day), it was found that selection progress was 7.53 gr/head/day of ADG per year and therefore it may need 6.8 years to improve sheep population to achieve ADG of 150 g/head/day, a relatively short period of a genetic improvement program. It is concluded that rapid selection approach can be recommended as among other selection methods used to increase growth performance of local sheep thus continuously in general, to develop sustainable sheep agribussiness.

Key words: selection, local sheep, growth

INTRODUCTION

Local sheep has a very good potency to be developed, as they have some advantages: prolific, well adapted, more disease resistant, quick yielding and low capital input than cattle, besides their weakness, i.e, slow growth rate compared to 'imported' breed (70-80 vs 200-250 g/head/day, respectively; Edey, 1983; Cottle, 1991).

In recent years, private sectors have been attracted to sheep agribussiness, but still on sheep fattening bussines, because it is less in capital and land needed and also fast in return. The fattening bussines is raising, fattening period of 2-4 months period and post weaned lamb of 6-9 months under intensive and good management practices could stimulate optimal growth of the lambs. But with this fattening bussiness, the best quality lambs can be sold and slaughtered, as previous study showed that the average daily gain (ADG) of local lambs in a fattneing farm had a very large range from 30 g/head/day to 250

g/head/day (Yamin et al., 2002; Yamin et al., 2003).

Similar condition may occur in small sheep farms, the loss for good quality lambs tend to be high because the fattening animal will have better price. These conditions will endanger sheep production and population in Indonesia, because it will decrease the genetic quality of local sheep.

It is therefore, selection of the best sheep in the population of fattening farms was proposed, aiming at obtaining elite flock as genetic sources for sheep breeding improvement. Selection methods used was low cost, simple technique, output oriented, easy to do and the results will be more obvious and sustainable.

This study was conducted (a) to develop group of sheep farmers as initial step to establish fast growing local sheep that adapted to local condition, socially and culturally; (b) to identify selection criteria for sheep flock in Bogor.