Distribution of Population and Output Estimation of Some Cattle Breeds at Bawang Subdistrict Banjarnegara Regency Central Java Province

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ABSTRACT

This research was conducted from January 1st up to March 31st, 2009 to study the distribution of population and to estimate the output of some cattle breeds. Census methods were used in this research located at Bawang subdistrict, Banjarnegara regency, Central Java Province. The objects of this research were 1,369 respondents. The respondents were cattle farmers. The variables observed were cattle breed, amount of cattle every farmer, the age of cattle, sex of cattle, management of rearing, mortality, and birth. The breeding system of cattle was used to estimate requirement of replacement cattle and cattle composition. Natural Increase (NI) was calculated based on the difference of birth percentage and mortality percentage for a year. The outputs of cattle were calculated based on the difference of NI and requirement of replacement cattle. This research indicated that there were three cattle breeds: 630 Ongole Grade cattle (PO cattle) consisted of 68.15% adult cattle, 17.78% young cattle, 16.03% calves, 1,442 Simpo cattle consisted of 66.99% adult cattle, 8.04% young cattle, 24.97% calves, 20 Limpo cattle consisted of 66.54% adult cattle, 10.99% young cattle, 22.47% calves. In the PO, Simpo, and Limpo groups, every respondent had 1.44 cattle (1.21 UT), 1.49 cattle (1.18 UT), and 1.05 cattle (0.67 UT), respectively. NI of PO, Simpo, and Limpo cattle groups were 53.38%, 60.14%, and 45% , respectively with the average 59.48%. Estimation of cattle output at Bawang subdistrict were calculated based on the remainder of replacement stock and the old cattle. The remainder of replacement stock consisted of 28.54% male and 20.56% female PO cattle, 26.01% male and 17.68% female Simpo cattle, 22.50% male and 17.53 female Limpo cattle. The old cattle consisted of 7.98% female PO cattle, 8.33% female Simpo cattle, and 4.97% female Limpo cattle. Data of cattle population at Bawang subdistrict, Banjarnegara regency, Central Java Province based on information of government (3,188 cattle) were higher 52.85% than that were based on data of census (2,092 cattle). It could be concluded that Bawang subdistrict, Banjarnegara regency, Central Java Province was suitable as cattle breeds resource.

Key words: distribution of population, output , PO, Simpo, and Limpo

INTRODUCTION

Big cattle population was found in Central Java Province, the second after East Java Province. Batang Subdistrict in Banjarnegara Regency of Central Java was well known as cattle resource region. Most of population at Bawang subdistrict (94.41%) worked as farmer and cattle were raised as secondary commodity for sale when cash money was needed (Wibowo, 2009). The population of beef cattle at Banjarnegara regency in 2007 was 38,501 cattle (Agriculture, Fishery, and Animal Husbandry Department (AFAD) of Banjarnegara Regency, 2007).

Ongole Grade cattle (Peranakan Ongole/PO cattle) were raised by most farmers at the region resulted in additional numbers of crossbred animals. Introduction of new cattle breeds through artificial insemination resulted in additional on crossbred cattle. Simpo and Limpo were the examples of crossbred cattle found in the region so there were changes in numbers of PO cattle. Most of farmers chose Simpo and Limpo cattle because it had better performance than that of PO cattle.

Hardjosubroto (1994) stated that the growth, production and reproduction of *Bos Taurus* cattle were higher than that of *Bos Indicus* cattle. But *Bos Taurus* cattle had good resistance to heat