Identifikasi Ukuran Tubuh dan Bentuk Tubuh Domba Garut Tipe Tangkas, Tipe Pedaging dan Persilangannya Melalui Pendekatan Analisis Komponen Utama

(Identification of Body Size and Body Shape of Garut Sheep Fighting Type and Meat Type and Garut Cross Based on Principal Component Analysis)

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Abstract. This research was done to identify the body size and shape among three types of local sheeps of Garut fighting type, Garut meat type and their crossbred fighting and meat type in Garut district (Margawati, Sukawening and Wanaraja) and Bogor district (Ciomas and Cinagara). The total number of sheep from Garut district used in this study were 520 head consisting of crossbred sheep from Margawati (71 head), fighting sheep from Wanaraja (79 head), meat sheep from Wanaraja (84 head), fighting sheep from Sukawening (87 head) and meat sheep from Sukawening (62 head). Whereas the total number of sheep from Bogor district were 137 head consisting of those of fighting sheep from Ciomas (66 head) and from Cinagara (70 head). Some body measurenments measured in this study were body weight, body length, wither height, chest width, chest circumfrence, cranium, tail length and tail width. Analysis of all those sizes were based on principal component analysis (PCA) then visualized into the group of crowded diagram. Different group of crowed builded on the base of scoring in body size and body shape derivated from covarian matrix were able to identifed morphologycal penotypic differences among garut sheep studied. The results from canonical analyses showed that body lenght, chest girth,chest width, and wither height were the most discriminant variables had impact to the diferences score size between types of Garut sheep. However, the tail length and tail width were variables had impact to diferences score shape. The crowed diagram showed that an intersection among three types (fighting, meat and crossbred) of sheeps suspected as resulted from the same genetic resource, namely Garut sheep. Genetic flow was suspected from crossbred in Margawati to meat sheep in Cinagara as well as the sheeps from Sukawening and Wanaraja to fighting sheep in Ciomas. Close genetic distances that were found among fighting and meat sheeps in Sukaweining as well as fighting and meat sheeps in Wanaraja could be considered that these two groups of sheeps as the genetic resource of fighting sheep in Ciomas.

Key Words: garut sheep, principal component analysis (PCA), body size and shape

Pendahuluan

Domba Garut merupakan sumber genetik ternak lokal Indonesia yang perlu dilestarikan keberadaannya. Kecamatan Wanaraja dan Kecamatan Sukawening sebagai salah satu sentra pengembangan dan penghasil bibit domba pedaging dan tangkas di Kabupaten Garut. Populasi domba di Kabupaten Garut mencapai 337.036 ekor (Badan Pusat Statistik Kabupaten Garut, 2004).

Upaya pengembangan dan peningkatan populasi domba Garut perlu dilakukan di luar kabupaten Garut dalam upaya meningkatkan produksi daging nasional khususnya dari ternak domba yang masih kurang jumlahnya melalui peningkatan produktivitas ternak. Pemilihan domba Garut untuk dikembangkan didasarkan atas potensi sifat prolifikasi dan kemampuan beradaptasi yang cukup baik. Domba Garut memiliki tingkat kesuburan tinggi (prolifik), memiliki potensi yang baik sebagai tipe pedaging untuk dikembangkan sebagai sumber daging dan sebagai tipe tangkas yang dapat dijadikan sebagai daya tarik pariwisata daerah. Pada perkembangannya domba Garut sekarang