

# PERCEPTION OF MADURESE COMMUNITY ON CROSSBREEDING PROGRAM OF LIMOUSINE AND NATIVE MADURA BEEF CATTLE IN MADURA ISLAND OF INDONESIA

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## Introduction

Statistical data of 2008 indicated that there were about 400,000 heads of Madura cattle as native breed in the island of Madura (Anonymous, 2009). They were distributed in four regencies existed in island i.e. Bangkalan, Sampang, Pamekasan and Sumenep. The cattle are kept by smallholder farmers for various purposes including draught power, life saving account, producing organic fertilizer, source of income and means of cultural festivities such as bull race (*karapan*) and beauty contest (*sonok*). The bull race involving cattle with spectacle compete muscle strength and speed while the beauty contest involving dancing cow that follow traditional musical beat on a lengthy catwalk. Since 1993, on a confined area, an attempt to cross the Madura cattle with Limousine breed was made to improve live weight performance of the Madura cattle. Such attempt was slowly adopted until recently when decentralization policy was implemented in Indonesia. Aiming at improving farmers income, the regencial government are now attempting to stimulate crossbreeding of the cattle because the crossbred has high selling price. Such attempt, however, contradicts with the national policy to conserve Madura cattle as a native genetic resource. Also, the crossbred might loose the characteristic of cattle needed for the existing cultural festivities. On the basis of this situation, this study was made find out the farmers' perception on the cattle crossbreeding program. Such information can be of important for the formulation of regional policy to improve the Madura cattle performance.

## Material and methods

**Research Respondents.** A total of 128 farmers and 12 community leaders were purposively selected as respondents in this survey. Fifty percent of the farmers sample kept native Madura cattle only and the rest kept crossbreds Limousine and Madura cattle. Data were collected by enumerators using a set of questionnaire.

**Data Analyses.** The data collected were descriptively analyzed.

## Results and discussion

Madurese farmers are smallholder with 1-3 cattle per farmer. Distribution of farmers in various farmers' perception on crossbred Limousine and Madura cattle are shown in Table 1. The table shows that most farmers kept cattle for meat production. They operate cow/calf production systems. Information collected about calving interval indicate that reproductive performance of the cattle is very good i.e. mostly (89.84%) less than 15 months. Crossbreeding Madura cattle with Limousine using artificial insemination was appreciated by most farmers (82.81%) as the best solution to improve local cattle performance in terms of body weight. The crossbreds, however, were indicated to demanding higher quality and quantity of feeds. However, the proportion of farmers said that keeping crossbred cattle is

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complicated is similar to those said that complication of keeping crossbreds is similar to keeping the purebreds. With regards with conservation of local cattle, all of the respondent farmers perceived that the conservation must be implemented to sustained the bull racing and *sonok* tradition. Whether such conservation should be made on regional basis such as on a close area is irrelevant. Most farmers (57.03%) said that crossbreeding can only be done by farmers who have excess capital and labor to maintain the crossbred well so, only few in the community will have the capability. The only factor that need to be controlled is to avoid the crossbred bull/s to mate with native Madura cows owned by those who are unable to manage crossbred cattle.

Table 1. Distribution of Farmer's Perception on crossbred

Aspects	Category	Number of farmers in this category	Proportion of farmers in this category (%)
Business orientation	Karapan/Sonok	11	8.59
	Meat Production	62	48.44
	Multi Purposes	55	42.97
Calving Interval	<15 months	115	89.84
	15-18 months	9	7.03
	>18 months	4	3.13
Crossbreeding will improve local cattle performance	Yes	106	82.81
	No	22	17.19
Crossbreds required more feeds in terms of quality & quantity	Yes	112	87.50
	No	16	12.50
Rearing of crossbreds is more complicated	Yes	75	58.59
	No	53	41.41
Conservation of local cattle is compulsory	Yes	128	100.00
	No	0	0.00
Regionalization of conservation area is needed	Yes	55	42.97
	No	73	57.03

## Conclusion

The Madurese farmers perceived that crossbreeding Limousine with Madura cattle will increase the live weight of the off springs. The breeding program, however, should include a secure control to crossbred bulls to avoid possibility to mate local cows indiscriminately. In the development of policy on Madura cattle in the island of Madura, government should consider to allocate certain area to strictly conserve the Madura cattle.

## REFERENCES

- Anonimous. 2009. Peternakan Dalam Angka. Dinas Peternakan Pemerintah Provinsi Jawa Timur.
- Harmadji. (1992). In Proseding Pertemuan Ilmiah Hasil Penelitian dan Pengembangan Sapi Madura. 59-66.
- Nurgiartiningsih, V. M. A., G. Ciptadi, Aryogi, dan D. B. Waluyo. 2008. Analysis of Productive Performance in Crossbred Cattle (F1) of Local Indonesian Breed with Exotic Breed. Proceeding of The 13<sup>th</sup> Animal Science Congress of Asian Australasian Association of Animal Production, Hanoi, 22-26 September 2008.
- Nurgiartiningsih, V.M.A., S. B. Siswijono, I. Subagiyo, Kusmartono, Hartutik. 2009. Pemetaan Hasil Persilangan Sapi Madura Dengan Sapi Limousin di Madura.
- Nurgiartiningsih, V.M.A. 2010. Peran Rekording Dalam Rangka Peningkatan Mutu Bibit Ternak Sapi. Orasi Ilmiah Pada Rapat Senat Terbuka Universitas Brawijaya. 5 Januari 2010.
- Singarimbun, M dan S. Effendi. 1990. Metode Penelitian Survai. Gramedia. Jakarta.