

## Cattle Genetic Resources in Japan:

### One Successful Crossbreeding Story and Genetic Diversity Erosion

#### II-1 Mishima Cattle

Mishima Island is situated at latitude 34°46' N and longitude 131°8' E with an area of 7.8 km<sup>2</sup> in the Sea of Japan. Mishima Island is small and with a restricted flat area. The rice fields are therefore small and terraced. Mishima cattle are suitable for small landholding farmers because of its small body size and good temperament.

The first official record indicated that 350 cattle were annihilated for rinderpests in 1672. After that, a new herd was established. Four hundred thirty-three cattle were recorded in 1739 and about 400 cattle had been kept up to the Meiji Restoration in 1868.

Mishima cattle can be thought of as the original type of Japanese Black cattle. They were designated a natural monument in Japan in 1928. After this designation, Mishima cattle have been kept as farm animals and for *in situ* conservation.

More than 300 female Mishima cattle were kept up to 1961. The number decreased after that and only 33 females remained in the middle of the 1970s (Furukawa *et al.*, 1997). The number of females has gradually increased to nearly 100 in 2002.

Mishima is classified as late maturing cattle with dark brown coat color and small horns as well as narrower body compared to the modern Japanese Black. The average wither height, chest girth and body weight of a mature Mishima female (60 months old) are 112.8 cm, 152.1 cm and 261.1 kg, respectively (Harada *et al.*, 1996).

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