

研究报告

用6个微卫星座位研究BMY牛和婆罗门牛的遗传多样性和群体遗传结构

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摘要

对6个牛微卫星座位的遗传变异及多态性分析, 以期了解BMY牛和婆罗门牛的群体遗传结构与育成情况。6个微卫星座位的多态信息含量为在0.524~0.752间, BMY牛、婆罗门牛两个群体的平均期望杂合度和观察杂合度值接近, 分别为0.737 6和0.739 6, 0.641 2和0.653 7, 进入横交固定第二世代的BMY牛期望杂合度值较高, 这与我们的育种进展相符。红安格斯的期望杂合度较低(0.460 9)接近日本和牛0.471, 暗示红安格斯牛的同质性较高。

关键词 [BMY牛](#); [婆罗门牛](#); [遗传多样性](#); [微卫星](#)

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Genetic Diversity and Population Structure of BMY and Brahman Cattle Revealed by Six Microsatellite Loci

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Abstract

The genetic variations and polymorphisms of six microsatellite loci were analyzed to determine the population structure and breeding progress of BMY and Brahman cattle. The range of polymorphic information content of six loci was 0.524~0.752. The unbiased expected and observed heterozygosity were similar and were 0.7376 and 0.7396, 0.6412 and 0.6537 for BMY and Brahman cattle, respectively. The expected heterozygosity was relatively high in the second generation of BMY in inter se breeding, which was congruent with the breeding progress. In addition, the value for Red Angus was 0.4609, which was lower and close to the Japanese Brown cattle (0.471), and may indicate its relative homogeneity.

Key words [BMY cattle](#) [Brahman cattle](#) [genetic diversity](#) [microsatellite](#)

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