

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## PERFORMANCE OF CROSSBRED STEERS IN INTEGRATED SYSTEMS TO SUSTAINABLE PRODUCTION OF BEEF CATTLE

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The intensification of the production system with the use of more efficient models of bovine production through the integrated crop-livestock system (ICL), strategic nutritional supplementation, and crossbreeding can make the increase of production possible, by improving the use of areas and decreasing ambient degradation. The study was carried out in the Embrapa Milho e Sorgo, in Sete Lagoas, MG, Brazil. The ILC system was implemented in a 22 hectare area, which included the rotation and mixed cropping of corn, soybean, sorghum and pasture. The study aims to evaluate the performance and productivity of crossbred cattle, re-created in ICL in two consecutive years. The animal performance in the pastures was evaluated from July 2013 to May 2015. Seven-month-old weaned calves from two crossbreeds were studied. The animals were ½ Angus × ½ Nelore (AN), and animals ½ Charolais × ¼ Angus × ¼ Nelore (CAN). In year 1, 20 AN and 10 CAN animals were used. In year 2, 12 AN and 10 CAN animals. In year 2, there were still 23 other weaned calves remained on the pasture in the ILP system for evaluating productivity. The animals were recreated in grazing from an ICL, receiving supplementation. In the first year, during the rainy season, the animals received mineral supplementation ad libitum. During the dry season, they received a low consumption protein supplement (0.1% of the live weight). In the second year, during the dry season, they received the same protein supplement of year 1, while in the rainy season the animals received a high energy supplement (0.6% of the live weight). The groups remained in the pastures of the ICL system for a period of 11 months. In order to evaluate the animal performances in pasture, a randomized blocks design was used. The AN animals showed a 76% higher performance than CAN animals. The lower performance of CAN animals may be related to the genetic composition of these animals which have a blood composition that is ¾ taurine and are less adapted to tropical conditions. The combined crop and livestock systems increased cattle productivity on the farm. The system allowed an average productivity of 1,466.10 kilos/hectare, much bigger than the average Brazilian productivity in extensive systems. Intensive grazing in ICL systems offers more efficient use of forage plants with bigger efficiency and higher production of meat.

Promoção e Realização:

Apoio Institucional:

Organização:



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**Keywords:** crossbreeding, environmental conservation, intensification.

**Acknowledgments:** To UFMG, Embrapa Milho e Sorgo, Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (Capes); Matsuda Indústria e Comércio Ltda. and to Vaccinar Nutrição e Saúde animal for providing the supplements.

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