

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

### **Milk production, composition and quality of crossbred Boer x Saanen goats receiving diets with fresh orange pulp**

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**ABSTRACT** - The objective of the present study was to evaluate the milk production, composition, quality, production efficiency and the blood parameters of crossbred Boer x Saanen goats receiving diets with fresh orange pulp. Fifteen-crossbred Boer x Saanen goats in lactation were distributed in a completely randomized design in three treatments and five replicates. The treatments were no fresh orange pulp (OP) (0% OP); 50% inclusion of OP (50% OP) and 75% inclusion of OP (75% OP) in replacement of corn silage. The concentrate ration was composed by ground corn, soybean meal and supplement mineral-vitamin, in the ratio forage to concentrate 60:40. Milk production was daily recorded and data collection (milk and blood) was performed in the last week of each period (1 to 30 and 31 to 60 days of lactation). Samples used to determine milk composition and quality were analyzed for fat, protein, lactose, total solids, temperature, pH, density, somatic cell count (SCC) and urea nitrogen in milk. Blood samples were collected to analyze the levels of urea and glucose. Live weight, dry matter intake and milk production efficiency were not altered by diets. For the milk production, there was influence of treatments, as goats that received 75%OP present higher milk production in both periods. The composition of the milk was not modified by diets; however, the fat content in the period from one to 30 days was higher by the inclusion of fresh orange pulp in the diets. There was influence of the diets on milk quality, a replacement of corn silage with bagasse in 75% presented lower values of SCC in the two evaluated periods. Urea nitrogen in the milk, the diet with 75% presented lower value in the period from 31 to 60 days. The lowest values of urea in the serum were observed with the 75%OP diet. Blood glucose concentrations were not difference among treatments. The orange bagasse can be used instead of corn silage in the feeding of crossbred Boer x Saanen goats in lactation, as it improves milk production and quality, without altering its composition. In the economic evaluation, the diet with 75% of fresh orange pulp had the highest return.

**Keywords:** goats, production efficiency, lactation, milk quality, orange residue

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