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CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

OILSEEDS WHOLE GRAINS IN CATTLE FEEDING: SOYBEAN, CANOLA AND CRAMBE OUTPUT IN FECES

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The objective of this study was to evaluate the output and composition of whole oilseeds (soybeans, canola and crambe) for cattle in feedlot. Three cannulated steers were used, with a mean body weight of 350 ± 25 kg and 20 ± 2 months of age and randomly distributed in two non-contemporary Latin 3x3 squares; repeated over time. Experimental diets were balanced to contain 14% crude protein and were composed of corn silage, corn, urea, mineral and the inclusion of whole grains of soybean, canola and crambe. The fecal collections (300 g d-1) were performed for 3 consecutive days at 6-hour intervals; and the oil seeds separated by sieves and milled to determine the contents of dry matter (DM), crude protein (CP), neutral detergent fiber (NDF), acid detergent fibe (FDA), ether extract (EE) and Ash. The data were evaluated using the procedures PROC MIXED, SAS, at 0.05 of significance; considering as random effect the animals and the periods. The animals fed with crambe grains showed the lowest dry matter intake (6.20 kg d-1), while the animals fed with soybean and canola grains presented mean intakes of 7.85 kg d-1. The soybean grain output in feces showed the lowest levels of EE (4.32 %), while the canola and crambe grains presented average values of 16.78 and 26.46 %, indicating a better use of the lipid fraction of the diet. The same behavior was observed for crude protein; FDA and ash contents where the soybean grain had the lowest values (12.91, 14.79 and 0.26%). The grains of canola and crambe have a rigid capsule that causes them to present greater resistance to the digestive process, which provided the highest recoveries of dry matter in the feces, and thus presenting the highest CP values of 29.13% for canola and 36.51% for crambe. 42.09% and 39.32% for FDA. The type of whole grain to be used influences the amount of dry matter recovered in the feces as well as the composition of the excreted grains.

Keywords: chemical composition, *Crambe abyssinica*, dry matter recovered

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