Tropentag, October 5-7, 2011, Bonn

"Development on the margin"

Growth of Pigs Fed with *Brachiaria* Hybrid Mulato II × *Cratylia argentea* Meal as Protein Supplement

Patricia I. Sarria[1], Angelo Rebolledo[1], Benjamín Salázar[1], Siriwan Martens[2]

[1] *Universidad Nacional de Colombia (UNAL), Dept. of Animal Science, Colombia*
[2] *International Center for Tropical Agriculture (CIAT), Tropical Forages, Colombia*

Abstract

Gramineous or legume foliages such as *Brachiaria* hybrid Mulato II and Cratylia argentea are tropical perennial species interesting for pig nutrition, because of their yield and protein content. These plants have been studied in ruminant animals but not in monogastric species. The aim of this experiment was to assess the productive behaviour of pigs fed with a mixed forage meal of Cratylia and Mulato II (1:1) as protein supplement in the phase of 85–110 kg live weight.

The trial took place on the experimental farm of the National University of Colombia, Palmira. The foliages were harvested before flowering, sun-dried and milled to 3 mm mesh size. Fifteen commercial female pigs of 84.5 kg initial weight were utilised for the experiment. It was a completely randomised block design with 3 treatments and 5 replicates. The 3 diets were Control, mixture of Cratylia and Mulato replacing 15 % of the crude protein (CP) contributed by soybean meal, and Cratylia and Mulato mixture, 30 % CP replacement.

As result, the variables consumption (2.39, 2.36 and 2.3 kg DM/day resp.) and daily feed consumption in terms of g DM per kg of metabolic live weight (LW0.75) (85.8, 79.9 and 85.2) were similar for the treatments ($p > 0.05$). Daily live weight gain (LWG 0.768, 0.631 and 0.614 g) and feed conversion (FC 3.19, 3.63 and 4.00) did not show significant differences between treatments ($p > 0.05$).

No differences were observed in the digestive tract in pH of stomach, duodenum ileum, cecum and colon between treatments. The carcass parameters showed no significant differences (rate of carcass yield, backfat, back pH, carcass temperature, colour and loss by dripping), although higher forage inclusion (33 % of the diet) showed an interesting tendency to less fat content and loss by dripping. The inclusion of a Cratyilia and Mulato mixture as herbage meal of up to 33 % of the total diet is regarded as a viable option for pigs in the final growing phase.

Keywords: *Brachiaria* hybrid, Cratylia argentea, herbage meal, pig, protein supplement

Contact Address: Patricia I. Sarria, Universidad Nacional de Colombia (UNAL), Dept. of Animal Science, Carrera 32 Chapinero via Candelaria, Palmira, Colombia, e-mail: pisarriab@palmira.unal.edu.co