Consumption pattern of pigs supplemented with ensiled tropical forages

Patricia Sarria B, Siriwan Martens*, Giselle Hernández and María del Mar Méndez
Universidad Nacional de Colombia, A.A. 237, Palmira, Colombia
pisarriab@unal.edu.co
*International Centre for Tropical Agriculture (CIAT), Palmira, Colombia

Introduction

- Forages and especially legumes may offer an alternative feed supplement for pigs in a smallholder context because of their high protein content and biomass yield.
- Ensiling forages allows to preserve the nutritional value. Smell and taste might be more appetizing than fresh herbage, and silage making requires less energy and time than producing forage meal.

Objective

The objective of this study was to assess the palatability of silages in fattening pigs of the following legumes and a grass:

Material and methods

- **Silages**: Forage wilted to > 350 g/kg dry matter DM, chopped + sucrose (20 g/kg FM) and Lactobacillus CIAT S66.7 added. Material was compacted in plastic buckets (Fig. 5) and stored roofed at ambient temperature (Fig. 6).
- **Animals**: 30 commercial male pigs (46.7 ± 4.7 kg live weight (LW)), were housed individually to evaluate the consumption of silages (Fig. 7).
- **Experimental design**: A completely randomized block with 5 treatments, 3 replicates and two periods of 14 days each was applied.
- **Feeding and diets**: 50 g dry matter/kg LW0.75 of the Control diet was offered and the silages ad libitum, starting with 30 g DM/kg LW0.75. The refusals were weighed and a sample was frozen until analysis (Fig 8). Pigs were weighed weekly to adjust the diet (Fig. 9). The composition is shown in Table 1.

Conclusions

- **Cratylia argentea** and **Clitoria ternatea** silages of high DM and good quality have the potential to serve as feed supplement in diets of growing pigs.
- Inclusion rates of around 500 g/kg DM were well consumed.
- Growth performance studies have to evaluate the effect on live weight gain.

This study was part of the project "More chicken and pork in the pot, and money in pocket: Improving forages for monogastric animals with low-income farmers".

<table>
<thead>
<tr>
<th>Table 1. Nutritional content of control diet and forage silages (g/kg)</th>
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<tbody>
<tr>
<td><strong>Control</strong></td>
</tr>
<tr>
<td>Dry matter</td>
</tr>
<tr>
<td>Crude protein</td>
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<tr>
<td>Neutral detergent fiber</td>
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<tr>
<td>Acid detergent fiber</td>
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<td>Acid detergent lignin</td>
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* Control consisted of 503 g maize, 150 g wheat bran, 230 g soybean meal, 2.5 g L-lysine HCl, 3.5 g DL-methionine and 21 g mineral and vitamin supplements per kg total diet.