

Opportunities for feeding forages to pigs in Uganda

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Background

- Pigs can play an important role in risk diversification and livelihood security of many smallholder and poor households in Uganda.
- Women and youth/children provide most of the pig-production labour, especially for forage collection, feeding and watering; being responsible for about 90% of pigs produced in Uganda.
- In smallholder production systems practiced both in rural and peri-urban areas, a variety of forage species are traditionally used for pig feeding, the majority of them being gathered for several hours every day.
- There is an over-reliance on feeding crop residues, 'weeds' and forages both through collection and scavenging/tethering, usually not meeting the nutritional requirements of pigs, which results in slow growth rates.



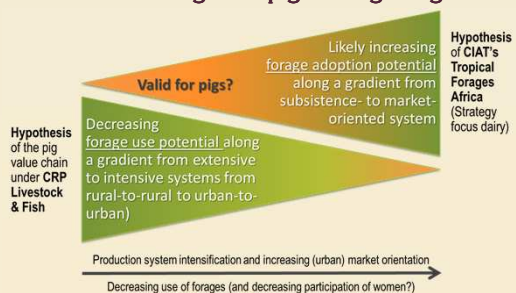
Conclusions

1. Some cultivated forages show nutritional attributes suitable for pigs, making farm-grown forages a possible supplement instead of purchased concentrates.
2. Investigating carefully the identified paradox of feeding forages to pigs may help better understand reasons and conditions of smallholders under which they may adopt cultivated forages or not.
3. To improve their adoptability in smallholder pig systems, aspects of integrating cultivated forages into mixed crop-livestock production systems, labour requirements, gender issues, and economic returns need to be considered.
4. Generating more knowledge not only on nutritional value of improved forages for pigs, but also on their adoptability can help bridge the gap for smallholder farmers to cope with limited resources for purchasing commercial pig feed.

Results

- Forage research in Uganda has traditionally focused on feeding ruminants, while research on feeding pigs with forages has been neglected.
- Local forages, e.g., *Bidens pilosa*, *Euphorbia heterophylla* or *Commelina* spp., collected by women and youth play a substantial role for feeding pigs in Uganda; they are fed with 30-40% of the total diet, their nutritional quality has been insufficiently studied.
- A literature review revealed that it is mainly animal nutritionists who research nutritional effects of improved forages on pigs and their suitability as pig feeds, without considering socio-economic, especially gender issues.
- Some cultivated forages (e.g., *Canavalia brasiliensis*) are nutritionally suitable for pigs, technically making them an option to supplement pigs with farm-grown forages instead of purchased concentrates.
- Despite the widely recognized constraint of insufficient animal feeds, especially during dry seasons, adopting cultivated forages in the tropics has been generally slow, and hindering factors have not been fully understood.

Paradox of forages for pig feeding in Uganda



Paradox of forages for pigs

- A paradox of feeding forages to pigs in Uganda has been identified that suggests
 - ◀ decreasing use potential of forages along a gradient from extensive (mostly rural) to intensive (more urban) smallholder systems because of space limitations to plant forages and more concentrate feeds may be fed;
 - ◀ versus increasing forage adoption potential along a gradient from subsistence- to market-oriented smallholder systems presumed by CIAT's Tropical Forages Program, with focus on dairy.
- Investigating this paradox may help better understand reasons and conditions of smallholders under which cultivated forages may be adopted or not.

Approach

- Data on feeding pigs in Uganda were collected in focus group discussions (FGD) and key informant interviews in three districts, Masaka, Mukono and Kamuli, during the years 2013-2014.
- A comprehensive literature review on feeding forages to pigs in the tropics.

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