

Effect of feeding supplemented sweetpotato silage on pig performance in smallholder production systems in Uganda

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Introduction

Inadequate, poor quality and seasonal feed fluctuations are a major problem in small holder pig production systems in Uganda. This is aggravated by farmers complain of high prices and poor quality commercial pig feeds on the market. This leads to low daily weight gains, high mortality, low litter sizes and poor reproductive performance. As a result farmers incur high production costs and reduced income. Sweetpotato vines and roots are amongst the most abundant and cheaply available feed resource in smallholder systems.

Materials and methods

This study was conducted to enhance the utilization of sweetpotato vines and roots as pig feed. The study was conducted in Masaka and Kamuli districts on 24 smallholder farms where 8 farms were control and 16 were trial farms. A total of 72 crossbred pigs (3 on each farm) were selected. The control farmers kept pigs under farmer practice where pigs were opportunistically fed 100% with a mixture of any locally available feed resources such as swill, forages, sweetpotato vines, maize bran etc. and at farmer rates. The trial farmers fed pigs on a test diet of 60% sweetpotato silage and 40% soy maize bran supplement. The silage comprised of 5% maize bran, 20% sweetpotato roots and 75% sweetpotato vines. The chemical composition of the test diet was 23% DM, 17.4% CP, and a 3.98 pH. The study lasted 90 days.

Preliminary Results

Figure 1; Types of feeds used by the control farmers

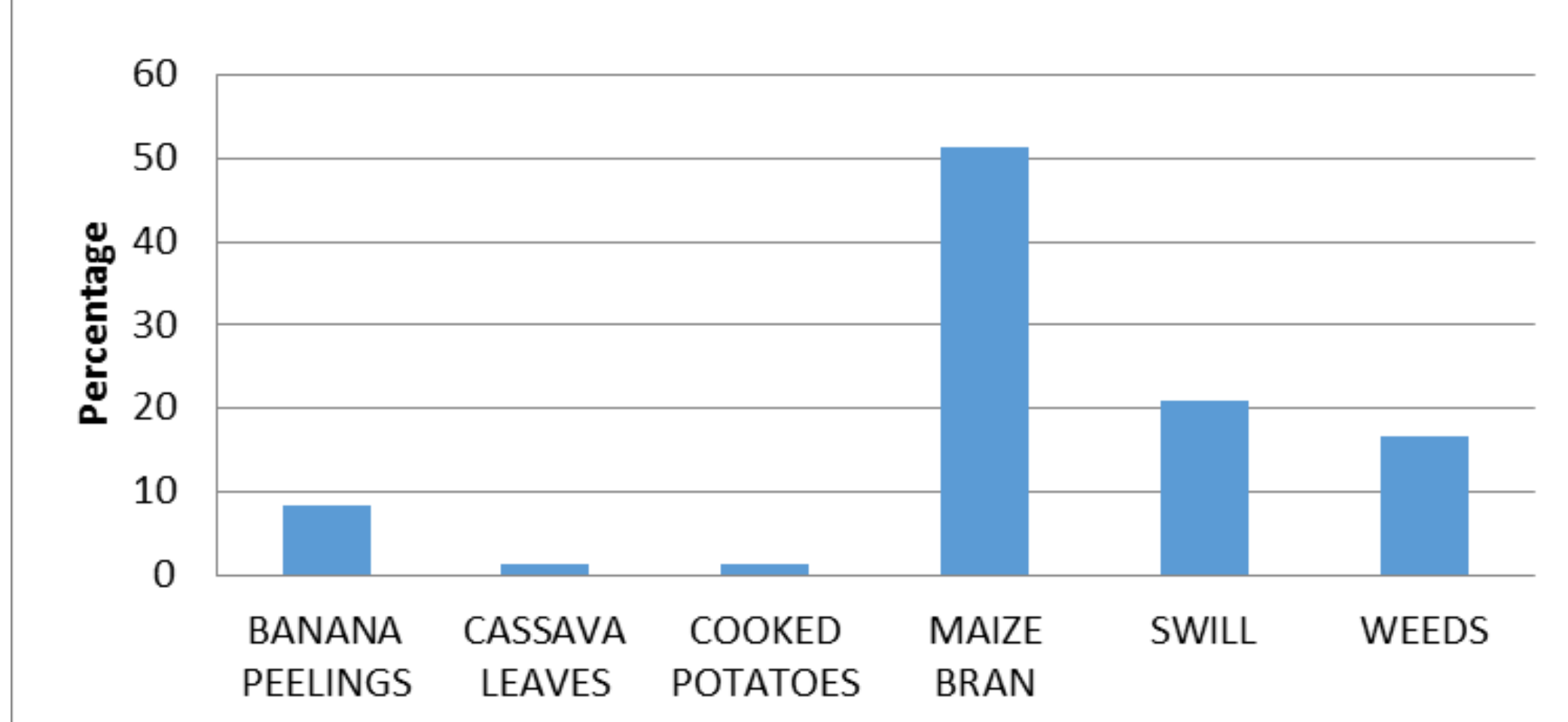


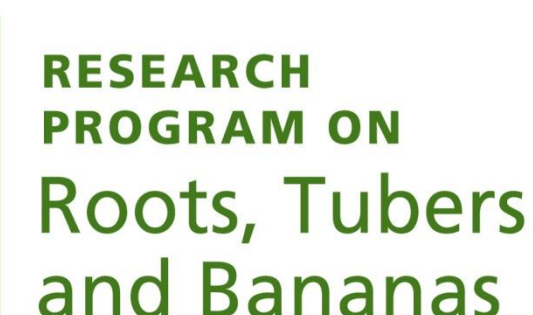
Table 1: Average daily gains per feed intake

District	Control		Feed/gain	Test		Feed/gain
	Mean	SD		Mean	SD	
Kamuli	121.92	116.51	19.42	160.26	94.31	11.17
Masaka	114.72	67.02	18.48	269.48	92.43	8.53

Recommendations

- Silage technology can be scaled out for the farmers to improve on the weight gains of their pigs
- Training of smallholder farmers about the technology and scaling it out would reduce on the shortages during the dry seasons.

- Maize bran was the commonest ingredient in the local feeds diets(Figure 1)
- Farmers had a variety of local feed resources for their pigs(Figure1)
- The test pigs had a higher average daily gain compared to the control pigs(Table 1)
- Pigs in Masaka performed better than the pigs in Kamuli(Table 1)
- The feed conversion ratio was higher in the silage based diets compared to the local diets(Table 1)



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