

# Acacia karroo, Acacia nilotica and Colophospermum mopane in pig diet

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Growth performance of pigs fed on diets containing

*Acacia karroo*

,

*Acacia nilotica*

and

*Colophospermum mopane*

leaf meals

## Abstract

Growth performance of pigs fed diets containing 10 %

*Acacia karroo*, *Acacia nilotica*

and

*Colophospermum mopane*

leaf meals was investigated using 20 individually penned male Large White pigs weighing  $32.4 \pm 5.86$  kg (mean  $\pm$  sd) over 56 days.

There was no significant effect of including leaf meals on average daily liveweight gain and feed conversion ratio (

*P*

$> 0.05$ ). Pigs supplemented with

*Acacia karroo*

had significantly higher intake than the other diets (

*P*

$< 0.05$ ). The control diet had a higher digestibility of crude protein and dry matter compared to the treatment diets (

*P*

$< 0.05$ ) except for the dry matter digestibility of the

*Acacia nilotica*

supplemented diet, which was not different to that of the control diet (

*P*

$> 0.05$ ). After the 56-day feeding period, there was an increase in the secretion of

trichloroacetic acid soluble proteins from the parotid glands in all diets that contained leaf meals.

No change was observed in the mandibular glands (

*P*

$< 0.05$ ). The activity of hepatic microsomal uridine diphosphate glucuronyl transferase

increased significantly for pigs fed on the supplemented diets (

*P*

$< 0.05$ ). Indices of mitosis in the small intestine, the kidney and the liver were not affected by

inclusion of leaf meals (

*P*

$> 0.05$ ).

In conclusion, inclusion of leguminous leaf meals in pig fattening diets reduced digestibility of the feed, but did not affect growth rate. Inclusion of leguminous leaf meals in the diets of pigs is, therefore, a feasible technology that farmers may adopt as part of their feeding strategy for pigs.

**Key words:**

alternative feeds, flavonoids, salivary proteins, tannins, tropical legumes



\*\*Department of Animal Sciences, Animal Breeding and Genetics,  
Stellenbosch, University, P Bag X1, Matieland 7602, RSA

\*\*\* Department of Livestock and Pasture, University of Fort Hare, P. Bag  
X1314, Alice 5700, RSA

\*\*\*\* Department of Clinical Veterinary Science, University of Bristol,  
Langford House, Langford, Bristol BS40 5DU, UK

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