

# Growth performance and alternative protein sources in diets

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Growth performance of pigs fed water spinach or water spinach mixed with mulberry leaves, as protein sources in basal diets of cassava root meal plus rice bran or sugar palm syrup plus broken rice

## Abstract

The aim of the study was to determine the effect on growth performance of pigs of a mixture of mulberry leaves with water spinach compared with water spinach alone as protein supplements to energy sources with different levels of fibre, derived from cassava root meal plus rice bran or sugar palm syrup plus broken rice. Sixteen female crossbred pigs (Large White X Local breed) of average live weight 20kg were allocated into 4 treatments in a 2\*2 factorial arrangement with 4 replications. The factors were the energy source (cassava root meal plus rice bran [CRRB] or sugar palm syrup plus broken rice [SPBR]) and the protein source (water spinach [W] or a 50:50 mixture of water spinach and mulberry leaves [WM]).

Intakes of DM and crude protein were higher for the CRRB compared with SPBR diets ( $P<0.001$ ) and were higher when mulberry leaves were mixed with the water spinach compared with water spinach as the only forage ( $P<0.001$ ). Growth rates and feed conversion tended to be better ( $P=0.22$ ) when mulberry leaves were mixed with the water spinach compared with water spinach as the only forage.

It is suggested that the diuretic effect associated with water spinach could be responsible for the poorer growth performance when it is given at high levels ( $>28\%$  in DM) in the diet.

### Key words:

Diuretic effect, energy sources, feed conversion



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