

Taro leaf silage and apparent digestibility

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Effect of replacing soybean meal with a mixture of Taro (*Colocasia esculenta* (L.) Schott) leaf silage and water spinach on apparent digestibility in Mong Cai gilts at two stages of gestation

Abstract

The treatments in an experiment with purebred Mong Cai gilts were: TW0: 100% of supplementary protein supplied by soybean meal (no green foliage supplied); TW50: 50% of supplementary protein supplied by soybean meal and 50% by mixture of ensiled taro leaves and water spinach (equal parts of each foliage on DM basis) and TW100: 100% of supplementary protein supplied by a mixture of taro leaf silage and water spinach (equal parts of each foliage on DM basis). The basal diet was a 50:50 mixture (DM basis) of ensiled cassava roots and broken rice.

Coefficients of apparent total tract digestibility (CATTD), measured by the acid-insoluble ash method, of dry matter, crude protein, organic matter and crude fibre decreased as the proportion of the mixture of taro leaf silage and water spinach that replaced soybean meal increased ($P < 0.001$). There were no differences between the CATTD obtained in late (85 days after service) compared with early (25 days after service) gestation ($P > 0.05$).

It is concluded that digestibility of dry matter, crude protein, organic matter and crude fibre decreased with increased proportions of a mixture of taro leaf silage and water spinach replacing soybean meal in a basal diet of ensiled cassava root and broken rice. The limiting factor to the utilization of the taro leaf silage and water spinach appears to be the lower digestibility of the protein. There was no effect of stage of gestation on digestibility coefficients.

Key words:

Digestibility, Mong Cai gilts, soybean meal, Taro leaf, water spinach



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