

## APPARENT AVAILABILITY OF BIOTIN TO PIGS FROM SIX FEEDS

J.S. KOPINSKI and JANE LEIBHOLZ

There are no reports on the availability to the pig of biotin from various feedstuffs and, therefore, figures from poultry growth assays have been the source of data for calculation of available biotin supplied from feeds. The present experiment was designed to quantify the availability of biotin in six Australian feeds fed to pigs.

Six 30-kg pigs fitted with T cannulas in the terminal ileum were fed continuously six diets (see table) for 10 days each, in a latin square design. The diets contained Cr-EDTA and YbNO<sub>3</sub> as indigestible markers. Ileal digesta was collected for 3 days from day 4 of each collection period. Digesta was assayed for biotin by the method of Hood (1977) and Cr and Yb by atomic absorption spectroscopy. Preliminary results are shown in the table.

The mean intake of biotin by pigs from various diets and the apparent availability of biotin at the ileum

Diet*	Mean biotin intake ( $\mu\text{g}/\text{day}$ )	Apparent availability at the ileum
Sorghum-Casein	521	-0.31
Banks Wheat-Casein	123	+0.03
Egret Wheat-Casein	114	-0.03
Barley	204	0.31
Cornflour-Meat meal	32	0.75
Cornflour-Soya-bean meal	110	-0.01
SEM	20.0	0.05

\* All calculated to provide 16% protein and supplemented with minerals to 100% and vitamins (except biotin) to 120% of the National Research Council (1979) requirement.

The apparent availability of biotin to the ileum from wheat diets was zero while in the case of sorghum there appeared to be synthesis of biotin in the ileum. However, a further six pigs were fed a cornflour and casein diet and the flow of biotin to the ileum was less than 5  $\mu\text{g}/\text{day}$  in these animals as was also reported by Kopinski et al. (1983). For all diets, the apparent availability of biotin to the pig was lower than those reported for chickens by growth studies (Anon. 1977).

In conclusion, all feeds examined were poor sources of biotin, either by having high biotin content of low apparent availability, or a low biotin content.

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