

BLOOD MEAL AS A SOURCE OF PROTEIN FOR GROWER/FINISHER PIGS

R.H. KING* and R.G. CAMPBELL*

Blood meal is simply ground dried blood and is a rich source of protein and most amino acids, particularly lysine. However, at present blood meal is recommended only at very low levels (limited to **2.5%-3%**) for pig diets in Australia because of the reported bitter taste of blood meal and possible amino acid interactions in diets with higher levels of blood meal.

A factorial experiment involving two levels of feeding (restricted and ad libitum) and five levels of ring dried blood meal (**0%, 3.0%, 5.9%, 8.9% and 11.8%**) was carried out to study the effects of increasing levels of blood meal on the growth performance, feed intake and carcass characteristics of pigs between 21 and 70 kg live weight. The blood meal replaced **soyabean** meal and meat and bone meal in the isonitrogenous diets. Each treatment had six replicates and the results are shown in the following table.

TABLE 1: Effects of blood meal level on the growth performance and carcass characteristics of grower pigs 21 - 70 kg live weight.

Feeding level Blood meal (%)	<u>Ad libitum</u>					Restricted					LSD (5%)
	0	3.0	5.9	8.9	11.8	0	3.0	5.9	8.9	11.8	
Daily gain (g) ⁺	760	774	796	756	641	606	623	655	628	598	54
F.C.R.	3.03	2.94	2.78	2.82	3.12	2.72	2.65	2.51	2.64	2.70	0.16
Daily feed (kg) ⁺	2.30	2.27	2.21	2.13	1.99	1.64	1.64	1.64	1.65	1.62	0.12
Backfat (mm)	20.5	23.7	22.0	19.1	20.1	17.9	16.7	17.2	17.8	18.4	3.6
Lean in ham (%)	67.2	64.2	65.8	66.3	64.2	65.5	66.4	66.9	64.7	64.2	2.3

⁺ Significant interaction existed between feeding level and blood meal level.

The significant interactions revealed that when feeding was ad libitum voluntary feed intake was reduced at the higher levels of blood meal which resulted in a slower growth rate at the 11.8% level of blood meal. These results support the findings of Wahlstrom and Libal (1977) who found that more than 6% blood meal reduced the feed intake and growth rate of pigs fed ad libitum. Under restricted feeding however, our results indicate that blood meal can replace all of the protein supplied by **soyabean** meal and meat and bone meal without adverse effects on the growth performance of grower pigs. Rerat, Henry and Bourdon (1975) also observed that there was little difference in the growth performance of pigs fed either 0% or 12% blood meal in restricted amounts.

RERAT, A., HENRY, Y. and BOURDON, D. (1975). *Journees Rech. Porcine en France*, p.45.

WAHLSTROM, R.C. and LIBAL, G.W. (1977). *J. Anim. Sci.* **44**:778.

* Department of Agriculture, Victoria, Animal Research Institute, Werribee, 3030.