

THE NUTRITIONAL VALUE OF RICE POLLARD FOR LAMBS

The Late L.J. COOK*, J.P. HOGAN* and P. DAVIS*

The use of rice pollard which contains about 20% oil is limited in ruminant diets, presumably because the oil depresses roughage intake. This depression may be overcome by adding calcium salts (White *et al.* 1958). The present work studied the effects of oil content and a calcium supplement on feed intake and growth in lambs offered diets containing 50% rice pollard.

Extraction with solvent produced rice pollards containing *ca.* 1, 7, 14 and 19% oil. Pelleted diets A - D (Table 1) were prepared after mixing these pollards with equal parts ground wheaten hay and, per kg, 0.5 g calcium carbonate to satisfy needs for calcium, 1 g sodium chloride, and 2 mg ammonium molybdate; diet E consisted of diet D with an additional 2.5 g/kg calcium carbonate. The protein content of these diets ranged from 10.3 to 11.1% and acid detergent fibre levels from 19.5 to 22.2%. Each diet was offered *ad lib.* for 83 days to 10 crossbred lambs, mean weight 23.8 kg, held under cover, two per pen. Initial problems with feed intake were overcome by dosing twice with a broad spectrum anthelmintic and results for the final 54 days are reported. One lamb died with each of diets A and D; data from these lambs and their pen mates are excluded. Data are presented for weight gain on 8 or 10 lambs per diet and for feed intake and conversion on four or five pairs of lambs per diet. The digestibility of diets A, D and E, offered at 1000 g/d was measured during 10 days on four similar lambs, prepared with fistulae in the rumen and abomasum.

TABLE 1. Results

Diet	Oil (%)	Gain g/d	Lamb data (\pm S.E.)	
			Feed eaten g/d as fed	Feed conversion (kg feed/kg gain)
A	1.1	147 \pm 12.5	1142 \pm 44	7.9 \pm 0.6
B	5.0	111 \pm 10.8	1015 \pm 36	9.2 \pm 0.5
C	7.4	126 \pm 12.9	1129 \pm 20	9.0 \pm 0.4
D	9.7	132 \pm 9.7	1108 \pm 29	8.5 \pm 0.5
E	9.6	135 \pm 8.0	1159 \pm 22	8.6 \pm 0.4

The intake of diet E was significantly higher than that of diet B ($P < .01$) but growth rate and feed conversion did not differ significantly between diets. In the digestibility studies, the intake of diet D was significantly less ($P < .05$) than that of diets A and E. Organic matter digestibility was in the range 58.8 to 61.5% for the three diets. The results indicate that rice pollard with or without oil can form a useful dietary component for ruminants and that feed refusals with unextracted pollard can probably be overcome by supplying calcium carbonate in amounts above those needed to satisfy the calcium requirement.

WHITE, T.W., GRAINGER, R.B., BAKER, R.H. and STROUD, J.W. (1958) *J. Anim. Sci.* 17 : 797.

* CSIRO Division of Animal Production, P.O. Box 239, Blacktown, N.S.W., 2148.