

THE INFLUENCE OF PREVIOUS EXPERIENCE AS YOUNG LAMBS ON THE ACCEPTANCE  
OF PROTEIN SUPPLEMENT BY SHEEP

R.W. HODGE\*, B. BOGDANOVIC\* and B.J. SCOTT\*

The variable intake of supplements by grazing sheep has been documented by Nolan et al. (1975) and Lobato and Pearce (1978): Subsequent work by Lobato, Pearce and Beilharz (1980) showed that the extreme variation observed in the intake of molasses-urea blocks by adult sheep could be greatly reduced if the sheep had had access to the blocks as young lambs. The observations reported in this paper compare the acceptance of protein nuts and fishmeal pellets by 1½ year old sheep with or without previous experience of protein nuts.

Forty five 1½ year old sheep (BL X Mer.) that had grazed together from 6 weeks of age were allotted to three groups of 15. The animals in two of the groups had had access to oats and protein nuts (37% CP) from birth to 6 weeks of age and the sheep in the other group had had access to oats but not protein nuts during this period. The animals were placed in individual pens in an outside feedlot and offered chaffed, annual pasture residues (8.0% crude protein, 35.1% crude fibre, 48.1% digestible dry matter) ad libitum for two weeks. At the end of this time one of the groups with previous experience of protein nuts and the group without previous experience of the protein nuts was offered 100 g/d of the nuts. The other group with previous experience of the protein nuts was offered 100 g/d of a fishmeal/barley pellet (37% CP). The supplements were offered for a period of 4 weeks.

Eighty per cent of the sheep with previous experience of protein nuts as young lambs and 26% of those with no previous experience were eating the protein nuts on the first day of offer. After one week of supplementation 93% of sheep with previous experience and 33% of sheep with no previous experience were eating the nuts. Ninety three per cent of the sheep with previous experience of the protein nuts were consuming the fishmeal/barley supplement at this time. After 4 weeks of supplementation the respective percentages of sheep eating the supplement were 93, 60 and 93%. These results confirm the importance of previous experience as young lambs on the subsequent acceptance of supplements by adult sheep.

The mean ad libitum intakes of the hay by those sheep eating the protein nuts (crude protein 81% degradable) increased by 37% (709 to 974 g dm/d) compared to 16% (625 to 725 g dm/d) by those non-consumers of the protein nuts ( $P < 0.01$ ). The increase in intake of hay by those sheep eating the fishmeal/barley supplement (crude protein 49% degradable) was 21% (640 to 775 g dm/d).

Lobato, J.F.P. and Pearce, G.R. (1978). Proc. Aust. Soc. Anim. Prod.  
12, 164

Lobato, J.F.P., Pearce, G.R. and Beilharz, R.G. (1980). App. Anim. Eth.  
6, 149

Nolan, J.V., Norton, B.W., Murray, R.M., Ball, F.M., Roseby, F.B.,  
Rohan-Jones, W., Hill, M.K. and Leng, R.A. (1975).

J. Agric. Sci. Camb. 84, 39

---

\* Animal Research Institute, Department of Agriculture, Werribee.