Ruminant Research

Feeding Lambs Potato Meal

In a University of Maine trial, performance of lambs fed a control ration was numerically, but not significantly, superior to that of lambs receiving a ration containing potato meal. A third ration — with urea — fell short of both the control and potato meal ration.

The control ration had 58% hominy feed, 20% soybean oil meal and 20% chopped hay. The potato meal ration had 36% hominy feed, 22% SBOM, 20% chopped hay and 20% potato meal. The urea ration was 75.5% hominy feed, 20% chopped hay and 2.5% urea.

Results of the 65 day trial are reported in the accompanying table.

The cost of the potato meal ration, at $60.20 per ton, was about $7 per ton cheaper than the control and more than $4 cheaper than the urea-containing ration.

The relatively poor rates of gain, efficiency of feed conversion and consequent high production cost exhibited by lambs fed the ration containing urea are difficult to explain in view of previous experiments, Drs. H. H. Brugman, beef professor, and H. C. Dickey, dairy professor, reported.

Although all rations were profitable under the market conditions prevailing at the time this study was conducted, the urea fed lambs performed "appreciably poorer than lambs fed either of the other rations."

This difference cannot be explained on the basis of mortality or morbidity. No deaths occurred during the experiment; all lambs were vigorous and parasite counts were negative.

Performance of Lambs Fed a Conventional Ration and Rations Containing Urea or Potato Meal[1]: University of Maine

Performance criterion	Control	Urea	Potato meal
Average gain, lb	39.00	31.03	36.00
Average daily gain, lb	0.61	0.49	0.56
Feed consumed/lb. gain, lb	4.32	4.72	3.76
Feed cost/lb. gain, cents	14.90	21.90	16.90

[1]65 day experimental period; control group of 11, 8 and 8, respectively. Urea and potato meal rations were fed to

The inclusion of 20% chopped hay in the rations studied began to prevented wool pulling and wool chewing; neither was observed. Wool pulling and wool chewing have been encountered in previous trials with rations containing a smaller percentage of chopped hay.

From the January Research in the Life Sciences, "Utilization of Lamb Rations Containing Hominy, Soybean Oil Meal, Urea, Potato Meal and Chopped Hay," by Drs. H. H. Brugman and H. C. Dickey, and published by the University of Maine Life Sciences and Agriculture Experiment Station, Orono.)

PCBs in Milk

In a test with two lactating Jersey cows, Canadian scientists found that the percentage of PCBs excreted through milk is much greater than through either urine or feces.

The cows were given 10 and 100 mg of PCBs per kilogram of bodyweight orally, respectively. Milk was collected for up to 30 days after the PCB administration. Total urine and feces were collected for two days prior to and seven days after the administration of the PCB. Polychlorinated biphenyls were extracted from samples and analyzed.

One day after the administration of PCBs, the two animals showed concentrations of PCBs in milk of 6.27 and 74.43 ppm. These levels were reduced to less than half within three days post administration, whereafter the milk levels decreased slowly and persisted beyond 30 days.

The low levels of PCB detected in feces are indicative of their good absorption from the gastrointestinal tract, the scientists reported.

Total collection for seven consecutive days of urine, feces and milk accounted for 9.42% and 6.06% of PCB in animals given 10 and 100 mg per kilo gram, respectively. Polychlorinated biphenyls excreted in milk during seven days accounted for 7.35% and 4.76% of the total dose in animals given 10 and 100 mg per kg respectively. In both animals urinary excretion of PCB was insignificant, less than one hundredth of 1% in both animals. The PCB detected in feces collected for seven days accounted for 2.07% and 1.30%, which represent 3.5 and 3.6 times less than in the milk of the respective animal.

(From P. W. Stachenbeecker, H. B. Pollard and N. E. Platonow, Veterinary Record, Jan. 22, 1972.)

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Cattle News Notes

Milk Promotion

The first check off for obtaining funds for the promotion, advertising and research on milk products to be added to any federal milk marketing order as authorized by a 1971 amendment of the Agricultural Marketing Agreement Act has been approved for the middle Atlantic federal milk marketing order.

Milk producers approved the check off by the required 2/3 vote, according to Consumer & Marketing Service of the U.S. Department of Agriculture.

The new program will be funded by a deduction of 5¢ cwt. on all milk that producers deliver to the middle Atlantic milk order market each month, before returns are paid out to producers.

Funds derived from the check off will be turned over to an agency comprised of local producers to be expended for research and development, advertising, sales promotion, education and other programs designed to improve the domestic marketing of milk and its products.

Dairy Magazine Consultant

Dr. R. W. Touchberry, head of the University of Nebraska animal science department, has been appointed to the editorial advisory board of Dairy Herd Management, a Miller Publishing Co. publication. He will serve as a consultant in the area of breeding.

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