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 38% 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 63 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 experiences, Drs. H. H. Broughman, 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

	Control	Urea	Potato meal
Average daily gain, lb.	30.98	31.62	30.98
Average daily feed, lb.	6.61	6.99	6.99
Feed conversion, lb.	4.62	5.17	5.09
Feed cost/cwt. gain, $	16.66	17.96	16.66

[1] 63 day experimental period; ration, mineral, salts and antibiotic meal rations were fed to groups of 11 5 and 6, respectively.

The inclusion of 20% chopped hay in the rations studied appears to have prevented wool pulling and wool chewing; neither was observed. Wool pulling and wool chewing have been reported 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. Broughman 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 tallow 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 50 days after the PCB administration. 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 9.27 and 74.45 ppm. These levels were reduced to less than half within three days post administration, whereafter the milk levels decreased slowly and remained detectable 50 days.

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

Total collections for seven consecutive days of urine, feces and milk accounted for 9.42% and 4.06% of PCB in animals given 10 and 100 mg. per kilogram, respectively. Polychlorinated biphenyls recovered in milk during seven days accounted for 2.35% and 4.21% of the total dose to animals given 10 and 100 mg. per kg. to [illegible]. In both animals [illegible] of PCB [illegible] 50 days [illegible] 1.5% [illegible] 100 mg. per kg. [illegible] 0.5% [illegible] 0.1% [illegible] 0.1% [illegible] 0.1