

Milk-Fed Calves Have Fewer Worms; Same Effect Noted for Swine, Rabbits

Calves that get milk in their diet are likely to have fewer worms than calves given no milk at all.

USDA scientists report this finding from a long time series of small-scale experiments at the Regional Animal Disease Research Laboratory, Auburn, Ala. Calves on milk harbor fewer worms of certain economically important species, say ARS parasitologists G. H. Rohrbacher, Jr., D. A. Porter and H. Herlich. Furthermore, milk seems to stunt the worms' growth.

These results suggest that giving calves milk longer than usual might eliminate the need of early treatment for worms. Adding milk to the diet improves gains, too.

THE AUBURN EXPERIMENT began with Porter's work on 10 calves raised free of parasites, then paired according to age at seven to 17 weeks. One calf from each pair had been raised on milk alone, the other got grain and hay along with milk. All were infected with larvae of large stomach worms and killed four to five weeks later. The calves that had received only milk had smaller worms and far fewer of them, even though the restricted diet didn't allow these animals to gain as well as those that also got hay and grain.

In a similar test, calves on milk, grain, and hay were compared with calves weaned at 12 to 16 weeks. All were infected and killed a month later. The milk-

fed calves had fewer worms and gained better.

How about worm infections that are acquired naturally by grazing — does milk have the same effect here as it does in the case of the experimental infections?

TO FIND OUT, researchers put calves on pasture 54 days. All got a grain supplement, and half the animals got milk twice a day. There was no significant difference in number of stomach worms *Ostertagia ostertagi*, but the calves on milk had fewer *H. placei*, fewer intestinal worms, and fewer large intestinal worms.

Similar results were obtained with young rabbits in pilot tests. Significantly smaller numbers of small stomach hairworms and small intestinal worms were recovered from unweaned rabbits than from weaned rabbits after experimental infection. In a comparable test with four calves, however, weaning did not affect these species of worms.

The researchers aren't yet sure of the explanation for milk's effect on parasites. Possibilities include changed conditions in the gastrointestinal tract, enzymes and other types of protein sugars in milk, calcium provided by the milk, or a combination of factors.

One finding seems significant, milk tends to neutralize acidity in the abomasum (fourth stomach, where digestion takes place). Rohrbacher noted a direct correlation between pH of the abomasum and



FINE WEATHER THIS past week has helped farmers harvest a large portion of their tobacco crop. Laverne Mylin, left and his son, Carl, are shown loading a wagon. Mylin is a tenant farmer on the farm of

Lester H. Herr, New Providence, RD 1. Mylin said he has 11 acres out this year and started cutting his crop on Labor Day. (LF Photo)

establishment of large stomach worms — the more abomasum tends toward neutrality, the fewer worms and the smaller their size.

Fresh Legume Pastures Increase Bloat Danger

Heavy rainfall in Pennsylvania this summer has produced lush growth of pasture, says Associate County Agent Joseph H. Way. There is danger that livestock losses from bloat may result from pasturing lush legume growth. Alfalfa, red clover, and ladino clover may be "bad actors" as far as bloat is concerned. Birdsfoot trefoil is the only common legume plant with a clear record regarding bloat. However, legume pastures, in general, are excellent feed, and with a little precaution they are relatively safe.

Way suggests the following practices to help eliminate legume bloat problems:

Never turn hungry cattle into lush legume pastures.

Wet legume are much more dangerous than dry legumes. Avoid turning cattle or sheep into wet legume pasture unless they

have had opportunity to become used to it.

Alternate the herd from grass to legume pasture at least twice daily. A sudan grass pasture used alternately with alfalfa or ladino clover pasture will furnish the best kind of feed with little danger of bloat.

Give cows or sheep access to good hay every day. Feed it in the barn or in a hay rack in the pasture.

Keep a little bloat medicine on hand in case of emergency. Veterinarians are able to supply relatively safe materials for this purpose.

Bloat need not be a summer-time nightmare for the livestock or dairy farm. Way adds: Wise use of legume pasture will result in maximum production of meat or milk with a minimum of bloat danger.

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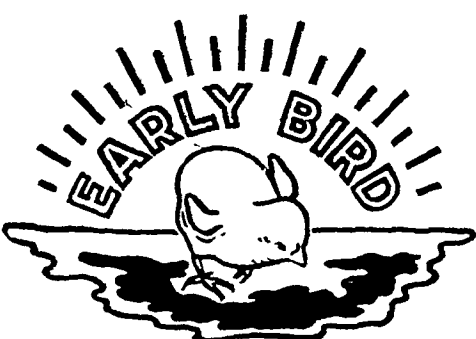
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