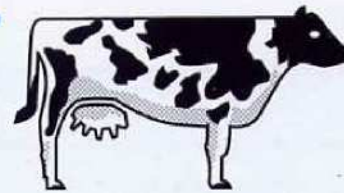


DAIRY



TECHNICAL BULLETIN

Published By Hoechst-Roussel Agri-Vet Company

No.1 • July 1992

Effect of a Herd Health Program Including Strategic Deworming with Fenbendazole on The Efficiency of Dairy Heifer Production on 25 Minnesota Dairy Farms

The economics of dairy production can be greatly improved by optimizing heifer growth rates. Dairy heifers are often raised on limited pasture where exposure to worm infections slows weight gains and growth.

This project was conducted on 25 dairy farms in three counties near Minneapolis. Herds were stratified by size and summer pasturing practices then randomly selected for either a treatment (11 farms with 198 heifers) or control (14 farms with 341 heifers) program. The treatment herds were on a complete herd health program while the control herds were not.

All herds were visited every three months. Growth and performance were monitored until calving, or until the animal left the study. Heifers on the herd health program were examined by rectal palpation if:

- no heat was seen by 15 months of age

- inter-estrus intervals exceeded 35 days in the pre-visit period
- heat was not observed after breeding if 35 days had elapsed by the visit date

Heifers on the herd health program were dewormed at 4 and 8 weeks after the start of the spring grazing during the 2 years of the trial when the heifers were treated at 250 and 700 pounds respectively. Fenbendazole was used at the recommended dose level of 5 mg/kg body weight for both strategic dewormings. Heifers on the herd health program were vaccinated with modified live virus strains of IBR, BVD, and PI3 combined with a 5 strains of *Leptospirosis* bacterin.

Reproductive results for each group are shown in Table 1.

Table 1. Summary Data of Minnesota Heifer Health Program

Reproduction Parameter	Control	Treated	Difference
Mean Age at First Recorded Estrus, Days	580 ^a	475 ^b	105 days
Percent of Heifers in Estrus at 15 Mo. of Age	69.5% ^a	91.9% ^b	22.4%
Mean Age at Calving, Days	865 ^a	797 ^b	68 days
Percent of Heifers Calving	75.7% ^a	87.9% ^b	12.2%

^{a,b} Values with different superscripts differ statistically, P<0.005

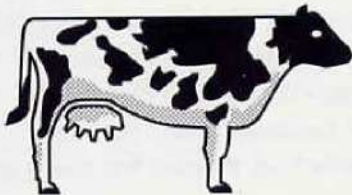
Table 2. Economic Analysis of Minnesota Heifer Program

	Cost	Value
Deworming Program Fenbendazole Twice in Spring at 4 week intervals	\$6.10*	
Reproductive Exams Mean 2.5 Rectal Palpations at \$2.00 each	\$5.00	
Vaccination Program \$2.40/dose x 2 vaccinations at 3 & 24 months of age	\$4.80	
TOTALS	\$15.90	\$136.00**

*Total cost of 2 treatments at 250 pounds plus 2 treatments at 700 pounds using a non-handling dosage form of Safe-Guard® (fenbendazole).

**It costs \$2.00 per day to maintain a heifer beyond 24 months of age in Minnesota (68 days x \$2.00 = \$136)

The herd health program improved the efficiency of heifer production. The strategic dewormings helped alleviate the negative effects of parasite contaminated pasture on heifer efficiency each year.





CONCLUSIONS

A complete heifer health program including strategic deworming:

- is practical and cost-effective
- helps alleviate the negative effects of parasite contaminated pasture on heifer efficiency
- significantly reduces the time to first calving of heifers
- improves over-all efficiency of heifer management

HRAV

Hoechst-Roussel Agri-Vet Company
P.O. Box 2500 • Somerville, NJ 08876-1258

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