

Controlling Insects For Healthier Cattle

CATTLE PROTECTED against horse and horn flies are healthier and have greater muscular development than unprotected cattle, according to a 2-year study conducted by the Delta Branch Experiment Station at Stoneville, Miss.

ARS entomologist Richard H. Roberts said that test cattle, sprayed on a weekly basis with an insecticide mixture, were plagued by fewer flies and gained more weight than an untreated control group.

The cattle were sprayed with a water-based spray containing 0.5 percent methoxychlor, 0.5 percent carbaryl, 0.1 percent pyrethins and 1.0 percent piperonyl butoxide.

The day before and after each treatment, the number of horse flies and horn flies were counted on all animals between 1 p.m. and 3 p.m. Previous data showed that a greater percentage of flies fed on the cattle at that time of day.

Hemoglobin and hematocrit values (ratio of red blood cells to the volume of whole blood) were obtained every 2 weeks to determine whether blood reproduction capabilities had any reaction to insect feeding.

The animals were weighed every 4 weeks during the study. In an attempt to standardize weights

through the evacuation of the intestinal and urinal tracts, the cattle were weighed after an 18-hour shrink period, during which the cattle were not allowed to feed or drink.

Results showed that control of horn flies was excellent. Control of horse flies ranged from good to excellent the day after the treatment, to fair the day before the next treatment a week later.

During one year's tests, on the day before the next treatment, results showed a 100-percent reduction in the number of horn flies on the treated cattle over the untreated group.

The following year, there was a 98-percent reduction over the untreated group.

The treated group showed a 53-percent reduction of horse flies over the untreated group the first year, and a 75-percent reduction the next. The 22-percentage-point range was attributed to field variability and weather conditions.

During the first year the treated steers gained an average of 0.20 pounds per day per animal over the untreated steers; the next year, the gain was 0.23 pounds per day per animal under pasture conditions.

The treated group, under feedlot

conditions, had an average daily weight gain slightly higher, while requiring less feed per pound gained than the control group. During the first year the treated group required .45 pounds less feed per pound of gain than the control group, while during the following year, the treated group required .59 pounds less feed per pound gained.

Carcasses of the test cattle were

evaluated for dressing percentage, conformation, marbling, USDA carcass grade, fat thickness, and yield grade. Dr. Roberts said the carcass value quality of the treated group tended to be slightly better than the untreated control group. The animals treated with the spray were also easier to handle and did not exhibit the wildness that characterized the untreated group.

Hastings Appointed To Inter-State

William B. Hastings, Centreville, Maryland, has been named Management Assistant for Inter-State Milk Producers' Cooperative, Southampton, Pennsylvania. Bill took over responsibilities of Golden W. Davis, who retired September 1, 1974.

Bill was born and raised in Southern Lancaster County, and graduated from Quarryville High School in 1937. He went on to Penn

State University, where he graduated in 1942 with a degree in Dairy Husbandry.

He served with the U. S. Army during World War II. He is married to the former Ruth Louise Woodmansee, Detroit, Michigan, and is the son of the late James T. and Sarah I. Hastings, Kirkwood, Pa.

His employment with Inter-State Milk Producers' Cooperative began in November 1945, as a member of the Field Staff. Bill was the first Interstate fieldman to have an in-

spector's license at Centreville Milk Producers Cooperative plant.

Bill is a member of Centreville Methodist Church, and is active in civic affairs, including past Commander of Jeff David Post No. 18, American Legion, Centreville, Maryland; past department Vice Commander, State of Maryland, American Legion; charter member and past President of Centreville Lions Club; and past President of Delmarva Dairy Sanitarians, Inc.

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