

# Brucellosis Eradication and Control

## I. WISCONSIN

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**M**ILK AND OTHER DAIRY PRODUCTS from herds free from brucellosis—that is the goal established by many of the Public Health authorities throughout the country. It is certainly the goal of every good dairy farmer.

In an effort to meet the 1955 deadline for milk from brucellosis-free herds established by many of its out-of-state milk markets, Wisconsin farmers, veterinarians and others vitally concerned with the problem were called together by D. N. McDowell, Director of the Wisconsin Department of Agriculture during the winter of 1950. After many hours of deliberation, this 28-man brucellosis committee, as it was called, drew up what is essentially Wisconsin's present program of Brucellosis control.

Wisconsin's program became law on July 14, 1951, and as the program nears the end of its third year of operation, Livestock Sanitation officials point with pride to the progress already made.

The core of the plan in Wisconsin is the ABR test. With seven laboratories serving the entire state, each of the 135,000 dairy herds in the state are regularly tested at six-month intervals.

On the first round of ring testing, 41.4

per cent of the herds were shown to be positive to the test. Currently, every Wisconsin dairy herd is being tested for the sixth time and the percentage of herds positive to the test now stands slightly in excess of 26 per cent.

The ring test, as it operates, is a screening test. Only those herds which are operating under Plan A and that react positively to the test are subjected to the blood agglutination test to locate the individually infected animals. Herds consistently negative to the ring test are not blood tested as long as there is no evidence of infection present.

Plan B herds are those that have elected to retain reactors temporarily until it is economically feasible to eliminate them from the herd. At the end of the fifth round of ring testing, 73 per cent of the dairy herds in Wisconsin were operating under Plan A—herds in which any reactors disclosed are immediately sent to slaughter.

The Wisconsin program also provides for compulsory Plan A for all herds in a county when 75 per cent of the herd owners petition the State Department. On January 1, Bayfield County became the first county in the state to have 100 per cent of its herds operating under Plan A. As of April 1, 1954, an additional 20 counties in the state were circulating petitions and holding educational meetings directed toward the end that their county, too,

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This is the first of a series of articles to be published on Brucellosis Eradication and Control in several of the more important dairy states in the midwest.

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tion to be of value. Apparently, vibriosis infection is of a short duration (1-3 months).

C. Cervical mucus (obtained with a gauze tampon which is left in the vagina for 30 minutes, withdrawn, rinsed with saline, and centrifuged) is tested for *Vibrio fetus* agglutinins.

D. It is known that the bull may harbor and disseminate the *Vibrio fetus* organism. Preputial smegma obtained with a plastic pipette may be used for culture.

#### Infections of Undetermined Specialization:

Infertility problems or abortions from a herd where infectious diseases have been ruled out may be diagnosed from the culture of a semen sample from the bull (collected in an artificial vagina) or from the amniotic fluid or the aborted fetus. Specimens for culture also may be obtained from the cervical os with the aid of an expanding metal vaginal speculum and a sterile cotton swab introduced with a 24-inch forceps.

The diagnosis of infectious diseases that cause breeding problems in cattle is a tedious, time consuming task. In many herds these diseases are allowed to exist for years because they are variable in clinical symptoms and an accurate diagnosis has been neglected. They are not new diseases nor are they extremely difficult to diagnose. Yet, they are costly if allowed to exist.

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would become established as a Plan A county.

All blood testing under the state program is done at the central Disease Control Laboratory located at Madison. Samples are sent in by private veterinarians who are cooperating wholeheartedly with the state's program and, also, by the district veterinarians employed by the State and Federal Government.

Under the state program, the vaccination of calves 4 to 8 months of age at state expense is offered to every herd owner. It is estimated that Wisconsin raises slightly more than 700,000 dairy calves for herd replacements each year and during each of the last two years, over 500,000 calves have been officially vaccinated.

Indemnity payments are also provided for reactors sent to slaughter from Plan A herds. In addition to the funds available from the Federal Government, a maximum of \$25.00 for grades and \$50.00 for purebreds is provided for from state funds.

Wisconsin farmers are cooperating with their veterinarians and their milk plants in an all-out effort to eradicate brucellosis. The activities and the problems of all groups are tied in closely with educational programs of county agents and agriculture instructors. All groups with a stake in Wisconsin's billion-dollar industry are working toward the day when Wisconsin herds will be 100 per cent free from brucellosis and in a position to meet the most rigid demands of any milk market.

If more than 10 to 20 percent of the cows in a dairy herd are aborting, trichomoniasis should be suspected.