THE MILK RING TEST

FOR THE DIAGNOSIS OF BRUCELLOSIS

NORTH DAKOTA STATE UNIVERSITY

Prepared by:
Br. D. F. Hveleth
Chairman, Department of Veterinary Science
Br. G. O. Holm
Prof. of Veterinary Science

EXTENSION SERVICE
R. J. Basler, Director
NORTH DAKOTA AGRICULTURAL COLLEGE
AND U. S. DEPARTMENT OF AGRICULTURE
COOPERATING

FOR: NORTH DAKOTA
WHAT IS THE MILK RING TEST?

The milk ring test is a quick method of testing your cattle herd for brucellosis. It serves as a method of checking your herd much oftener than can be done if the blood test alone is used. However, the milk test is not an official test and is not a substitute for the blood test.

The milk ring test for the diagnosis of brucellosis is new in America but has been used for several years in Europe. This test is based on the same principle as the serum agglutination test, except that in the milk test the cream aids in concentrating the stained organisms.

ADVANTAGES OF THE MILK TEST

1. Test can be made at any time on milking cows.
2. The herdsman can collect the samples.
3. Herd tests can be run frequently without disturbing production. (Some herdsman dislike having high producing cows bled.)
4. Routine testing of clean herds is possible at low expense.

DISADVANTAGES OF THE RING TEST

1. Bulls and non-milking cows and calves can't be tested.
2. Other diseases, particularly mastitis, interfere with accurate testing.
3. The stage of milking may interfere with the test results.
4. The test, as it is now run, does not apply to individuals.
5. Brucellosis vaccination may interfere with the test just as it does with the blood test.

WHERE ARE THE TESTS MADE?

The ring test will be made at the Brucellosis Laboratory, Bismarck, North Dakota, on any satisfactory milk specimen submitted.

HOW TO GET TUBE AND SHIPPING CARTON

The sample tube and shipping container can be obtained from your County Extension Agent. Fill out the form that asks for the herd history and location of your farm and send it with the sample.

WHAT IS A SATISFACTORY SAMPLE?

A satisfactory milk sample is one composed of equal quantities of milk from each milk cow in the herd. A simple method is to take a tablespoonful of milk from each cow, and put into a pint jar. Mix this sample well and fill the test tube.

Beef herds may be tested by drawing milk from cows, using a chute or some other type of restraining device. Milk from 10 percent of the cows in the beef herd will give a pretty good indication as to the presence of the disease.

If there are known reactors in your herd it is useless to use the milk test. Milk from first calf heifers that have been vaccinated against brucellosis or adult vaccinated cows should be sampled separately and so identified. A drop of 5
percent formalin added to the milk in the test tube insures its getting to the laboratory without souring. The test is less accurate if the milk is sour or has been frozen.

Samples should be sent in the first part of the week so they do not lay over a weekend in the post-office.

WHEN TO USE THE MILK RING TEST

Use the milk ring test to detect the presence of new reactors in herds that are in the process of eradication—that is where no reactor cows are kept on the farm and in brucellosis-free herds that are being kept free of the disease by good husbandry and sanitation. Tests at six-month or shorter intervals can be used to detect new infections even though there have been no abortions.

Use the test to detect infection in herds that have not been blood tested in counties that have not had an area test.

Use it to check clean or accredited herds. Tests at least once a year may spot the disease and avoid serious difficulty.

When an abortion appears in a herd, a milk ring test can be made quick to determine if there is brucellosis in the herd.

When the milk ring test is positive the Bureau of Animal Industry, Bismarck, North Dakota, will notify the owner and a blood test will follow as soon as possible.

Distributed in furtherance of acts of Congress of 1916, and June 30, 1914.