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High Leucocyte Count = Abnormal Milk = Mastitis in Your Herd

Michigan State University

Cooperative Extension Service

Farm Science Series

April 1969

2 pages

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# HIGH LEUCOCYTE COUNT = ABNORMAL MILK = MASTITIS IN YOUR HERD

high numbers of white blood cells as shown in milk sample tests at your dairy plant are a sure sign of trouble

COOPERATIVE EXTENSION SERVICE

MICHIGAN STATE UNIVERSITY

What does it mean if your dairy plant reports a leucocyte count of 10 or higher in a sample of your milk?

It means that very likely at least one or more cows in your herd has an abnormal condition of the udder--bacterial infection, injury or irritation--generally called mastitis.

Such a condition would increase the number of leucocytes, or white blood cells in the cow's body. These are natural weapons to overcome body infection or to promote healing of injury. Their presence in unusually high numbers can be detected in the milk; a count of 10 or higher is considered abnormal in a mixed herd or bulk tank sample.

Thus, your count of 10 is a reliable sign of a serious mastitis problem in your herd.

Dairy plant laboratories use the Wisconsin Mastitis Test to determine leucocyte level in producer milk samples. Results are usually reported back to producers by numbers 1 through 10, with five zero's omitted from the actual count. Thus, 1 would be 100,000 and 10 would be 1,000,000.

A sample reading of 5 or less is considered good, 6 to 9 indicates a possible mastitis problem and 10 or higher is a definite problem.

Regulatory agencies use the Direct Microscopic Somatic Cell Count as an official test for determining abnormal milk.

## WHAT YOU CAN DO

These are laboratory tests. How can you, as a dairyman, detect abnormal milk to insure compliance with legal requirements for your milk offered for sale?

1. USE A STRIP CUP TO CHECK THE MILK OF EACH COW AT EVERY MILKING.
2. If you find flaky, watery, or bloody milk in the cup, keep the milk from that cow out of your bulk tank supply.
3. Monthly checking of quarter milk samples of each cow with an irritation test (California Mastitis Test, Milk Quality Test) will detect cows with a high leucocyte count, but the milk will not appear abnormal as in the strip cup.

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## RECOMMENDATIONS TO AVOID OR REDUCE INCIDENCE OF MASTITIS

If trouble is experienced, have veterinarian determine if an infection is present and prescribe treatment.

Have your milking system checked by a competent serviceman every six months if possible to insure proper machine operation.

Here are some items to check for proper operation of your milking system:

1. With an accurate vacuum gauge on the line, is the recommended vacuum level maintained when all milker units are operating or within 2 or 3 seconds after units are changed?
2. Is regulator located between pump and first stall cock?
3. Are vacuum lines tied together to eliminate dead ends?
4. Are vacuum lines flushed monthly?
5. Is the size of vacuum line adequate for the number of milker units?
6. Are inflations and air hoses free of checks or cracks and in good condition?
7. Do you average 4 to 5 minutes machine time per cow for milking?

(A yes answer to all questions indicates that equipment is operating properly.)

Withhold milk from any cows treated for mastitis as recommended by your veterinarian or as indicated on the package label of medicinal agent used.

Proper operation of the milker and milking procedure is up to the "Man" in Management and is of great importance to udder health. Follow this recommended procedure at every milking:

1. Wash teats and udder with warm, approved sanitizing solution about a minute before putting on milker unit. If udder is sprayed with a solution, wipe and massage the udder to remove excess moisture.
2. Use a strip cup to check two or three streams of milk from each quarter. Exclude milk from cows appearing abnormal.
3. Put on a clean, sanitized milking machine.
4. Machine strip each cow and remove milker when milk stops flowing.
5. After milking each cow, rinse the teat cups in water by immersing in an approved sanitizing solution before attaching to the next cow.
6. Disinfect each teat with a sanitizing solution following milking.

Thoroughly wash milking machine and other parts of the milking system after each milking. Sanitize all milk equipment just prior to milking.