

18 0

Prevent

MASTITIS



*Produce
Quality Milk*

Cows are cash---Don't lose them

Cooperative Extension Service
Oregon State University • Corvallis

Extension Circular 682 May 1961

7/61 25M 18 H. P. Ewart
 (300 low) W 218

✓

Prevent Mastitis . . . Produce Quality Milk

K. J. PETERSON, *Associate Veterinarian*
Department of Veterinary Medicine, and
H. P. EWALT, *Dairy Extension Specialist*
Oregon State University

What is mastitis?

Mastitis is an inflammation of one or more quarters of the udder and is usually caused by the invasion and multiplication of infectious micro-organisms.

What causes mastitis?

Many types of micro-organisms are capable of causing mastitis, if they can get into the udder and if conditions exist within the udder which favor their multiplication and invasion of tissue. Injuries within the teat or udder make an ideal environment for these micro-organisms.

How can mastitis be detected?

Acute cases are easily detected as a quarter usually becomes swollen, hard, hot, and painful, and milk becomes abnormal in appearance. The cow may lose her appetite and usually production is lowered. Chronic cases may be difficult to diagnose, and it may be necessary to perform tests on the milk to find these cases.

What tests can be used to locate infected quarters and to determine the extent of mastitis in a dairy herd?

There are a number of tests that can be used. The California Mastitis Test is easily and quickly performed, will locate infected quarters, and will give a good indication of the extent of the disease within the herd. Your veterinarian can supply you with materials for this test. Test at least once each month.

How should mastitis be controlled?

Control depends, to some extent, on the types of micro-organisms causing the disease.

Streptococcus agalactiae is responsible for a contagious type of mastitis which will usually spread rapidly through the herd. Many of the other micro-organisms cause mastitis only when conditions within the udder are favorable. This type of mastitis is sometimes called constitutional mastitis.

Should a strip cup be used?

Yes, it should be used at each milking to help locate infection, speed up the milk "let down," and locate abnormal milk. *Milk from infected quarters must be discarded.*

Can contagious mastitis (caused by *Strep. agalactiae*) be eradicated from a herd?

Yes, this type of mastitis has been successfully eradicated from many herds. Successful control depends upon how completely the dairyman follows the program outlined below.

What is the best procedure to eradicate contagious mastitis?

- Have your veterinarian perform a laboratory test on milk samples from each quarter of every cow in the herd.
- Identify the infected cows and cull those which are badly infected. It is difficult and often impossible to cure these animals.
- Segregate and have your veterinarian treat the remaining infected cows.
- Milk the uninfected or clean cows first. This procedure must be followed faithfully. One slip and weeks or months may be added to the time necessary to complete eradication.
- Carefully clean and disinfect all milking equipment after each milking. Remember, this disease is contagious.
- Test fresh or newly purchased cows before they are allowed with the clean herd.

- Place cows formerly infected but apparently cured with the clean cows, but milk them immediately following the clean cows.

- Retest the herd every month to be certain that clean cows have not accidentally become infected, and to determine if and when infected cows have been cured.

Once the disease is eradicated, the herd will remain free of contagious mastitis unless it is again introduced.

Can so-called constitutional mastitis be completely eradicated?

Not completely but it can be controlled and kept at a low level. The micro-organisms causing this type of mastitis are continually present in the environment and cannot be eradicated.

How can constitutional mastitis be controlled?

Control can be achieved through the use of sanitary procedures and good management. As far as possible, the micro-organisms should be prevented from entering the teats and udder. Infection cannot take place unless micro-organisms are present within these structures. Many micro-organisms require injured tissue before they can cause disease. Good management and proper milking machine operation will greatly reduce this tissue injury.

The control program should consist of the following practices:

- **Good milking procedures.** Wash the teats and udder well with warm water from a hose with a spray nozzle or with a clean individual towel dipped in disinfectant solution. Use a strip cup. *Abnormal milk should not go into the milk supply.* Apply the teat cups immediately after the cow has let down her milk, not before. This is very important since an empty teat is much more subject to injury than one which contains milk. Machine

strip by gently pulling down on the teat cup assembly and massaging each quarter. Do not allow the machine to operate on the teats after the milk has been removed; this procedure is responsible for much mastitis. Break the vacuum before removing the teat cups. Teats and udders are extremely delicate. Handle gently. Proper milking is half the battle.

● **Proper machine care and operation.** Malfunctioning, improperly installed, and improperly operating machines injure udders and are responsible for a high percentage of constitutional mastitis. Also, they may cause rapid spread of contagious mastitis.

Clean vacuum lines regularly with hot water and lye, following the manufacturer's recommendations. Keep vacuum controllers clean and operating properly to maintain correct vacuum under all conditions.

Check pulsators with a vacuum gauge at least once a month to be certain they are operating correctly. Pulsators are the heart of the milking machine. Worn, sticky, malfunctioning pulsators spell mastitis.

Have a vacuum pump large enough to handle peak loads without large fluctuations of vacuum. Worn parts will reduce its capacity. Keep teat cup inflations clean and change them regularly. The use of worn, stretched inflations is false economy and means more mastitis and less milk.

● **Protection of the udders and teats from injury.** The skin of the teats and udder is relatively tough and many injuries which on the surface appear unimportant are severe enough to damage the delicate inner tissue. Crowded feeding and loafing areas are responsible for many such accidents. Keep these areas clean, dry and free of loose wire and boards. Allow 80 square feet per cow in each area. Segregate cows in heat. The use of teat dilators and milking tubes may cause teat injury.

A Prevention and Control Program

- **Test** milk from each quarter regularly and keep permanent test records.
- **Contact** a veterinarian or a responsible laboratory to determine the specific type of micro-organism causing the disease and its drug sensitivity. Use only those drugs which will kill the micro-organisms found to be present.
- **Follow** the veterinarian's advice on treatment and on the development of an eradication or control program for your herd.
- **Use** good milking practices as outlined in this circular. Fast but not hurried milking, using approved methods and good equipment, will result in less mastitis and greater net return from the dairy operation.
- **Check** milking equipment regularly for correct vacuum, correct and complete pulsation, and worn parts that need replacing.



**HIGH QUALITY MILK IS A MUST.
CHECK THE MILK FROM EVERY
COW AT EVERY MILKING AND SELL
ONLY A WHOLESOME PRODUCT.**