Mastitis management turns dairy losses into profits

NEWARK, Del. — Mastitis costs the American dairy industry close to $2.8 billion a year, or about $225 per cow annually. Dairy producers can reduce these losses by adopting a preventive mastitis program, says University of Delaware extension dairy specialist Dr. George Haenlein.

Both clinical and subclinical forms of mastitis hinder production, he says. With either type, cows produce less than they could, but few dairy farmers are aware of the extent of their losses. He estimates that with subclinical mastitis, milk production drops 10 to 15 percent per infected quarter, for an average annual loss of $147 per cow, compared to losses of $78 per cow with clinical mastitis.

Roughly half of all cows go into their dry period with subclinical mastitis, Haenlein says. Without treatment, 60 percent will develop clinical mastitis when they freshen.

"If producers look at these figures, they will realize that the real challenge is to eliminate the nonvisible subclinical cases," the specialist says. He suggests they adopt a *seven-step management* program to reduce infection and loss of milk.

1 - Maintain a clean environment by providing fresh bedding and keeping barns, pens and free stalls clear of manure.

2 - Maintain and sanitize milking equipment properly.

3 - Follow good cow hygiene by washing and drying teats with single-use paper towels.

4 - Dip teats in a recommended antiseptic after each milking.

5 - Follow a dry cow therapy program by treating quarters at drying off with preparations proven effective against mastitis infections. To cure subclinical infections use antibiotics such as novobiocin, penicillin and dihydrostreptomycin, known to control mastitis-causing bacteria.

6 - Check each lactating cow for subclinical mastitis by running a California Mastitis Test (CMT) or enrolling in the DHIA somatic cell counting program (SCC).

7 - Culture and treat infected quarters showing a "trace" on the CMT, or 250,000 somatic cells or more on the DHIA SCC program.

Haenlein says dry cow mastitis treatments can be 90 percent effective in reducing the incidence of Staph. aureus infections. When a clinical mastitis infection occurs, treat it immediately. He recommends using a combination antibiotic formulation containing penicillin and novobiocin on lactating cows. This formulation can control the bacteria responsible for 90 percent of all mastitis infections. By following these management guidelines for dry and lactating cows, producers can maintain milk quality and avoid milk losses.

"Mastitis adversely affects the quality of milk and milk products just as it affects production," the specialist says. "If dairy producers are to continue providing the quality milk products consumers demand, they should make mastitis control a top priority in their herd health program."

"Of course, cost is a major factor to consider when establishing a mastitis management program," Haenlein says. Individual producers must decide whether the program is worthwhile to them. They should look at production loss mastitis would cause, put a dollar figure on it, then consider what a management program would cost. Most will find the money is well spent.

"If a cow is producing 12,000 to 15,000 pounds of milk each year at a value of 13 cents per pound, she's bringing in approximately $1,500 to $2,000 each year. After a mastitis infection, it's possible that she could stop milking althoghter, but she will definitely have a drop in milk production. Treating the four quarters at dry-off costs only $6. That $6 could actually save the producer up to $1,500 a year," Haenlein says.

Check lactating cows for subclinical mastitis by running either California Mastitis Test or enrolling in DHIA somatic cell counting program.

Good management can make oats profitable

UNIVERSITY PARK — "Using modern oat varieties and managing them carefully will go a long way toward increasing your chances for producing a profitable, bumper crop," declares Harold G. Marshall, USDA research agronomist at Penn State.

He claims that farmers producing 100 or more bushels of corn per acre, using comparable management, should do the job with oats and at about half the cost for corn.

"You may need more fertilizer than you have been using, but otherwise the cost per acre of producing either good or poor oats is similar – so good management is essential," Marshall affirms.

He says oats are worth growing if farmers can harvest 80 to 100 bushels of grain per acre – plus one and one-half ton of straw or more per acre.

Marshall has been doing research with oats for 24 years at Penn State. He and Elwood Hatley, extension agronomist in the College of Agriculture, suggest a seven point program for farmers to use in producing high yields of oats, given favorable weather:

Proven Variety

First, use an adapted variety of proven performance. Don't limit grain yield and quality by growing varieties that are genetically inferior. In general, the newer varieties have substantially improved standing ability, disease resistance, and grain yield. They should increase the chances of harvesting a bumper crop if weather and management conditions are favorable.

According to Penn State's Agronomy Guide, the best oat variety choices for 1983 are Noble, Larry, Ogle, and Porter. The average grain yield of these varieties in Penn State tests over the past four years has been over 100 bushels per acre.

Larry and Ogle are two high yielding new varieties developed by the Illinois Agricultural Experiment Station and released jointly with Penn State. These varieties have good tolerance to barley yellow dwarf virus (BYDV), transmitted by aphids and able to cause serious damage to oats. They have yielded 10 to 15 percent more grain than the older varieties. Larry is an excellent choice for an early variety. Ogle is a few days later in maturity but is the most lodging resistant of the recommended varieties.

Porter is a new variety from Indiana. It has good resistance to barley yellow dwarf virus, excellent bushel weight, and is high yielding. Porter matures later than the other recommended varieties, and is best adapted in the central and northern areas of the state. It is not the best choice to grow in southeastern Pennsylvania. Risk of damage by heat or drought, or both, is greatest there during the critical grain-filling period.

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