

# Mastitis Drugs: Just Say No

By Joyce Bupp  
York Co. Correspondent  
KRALLTOWN (York) — Twelve years ago, Ralph McGregor made a management decision he would avoid even telling other dairy producers about for the next several years.

The York County dairyman walked to his barn office supplies cabinet, pitched out every tube and bottle of mastitis treatment, and pledged a firm "No" to using antibiotics on mammary system flareups.

Instead, McGregor vowed a new approach to udder health in his 102-head milking herd of registered Holsteins. Rather than "shoot 'em up" when swelling and flakiness infected udders, McGregor set out to test a more positive management move. Underpinning this tactic was a belief that, relieved of as much environmental and man-made stress as is reasonably possible, the dairy cow can successfully battle invading mastitic pathogens without antibiotics.

Attending the 1976 National Mastitis Council meeting in Louisville, Kentucky, McGregor seriously weighed the message of a

speaker on the anatomy of the mammary system. Everything about the cow's mammary system is designed to safely put milk out the teat and, including microscopic hairs inside the teat canal for the glands' protection.

"How much harm do we do if we put something in there that reconstructs the system, allowing outside organisms in?" was the question that haunted McGregor. Having worked with — and treated — cows since his childhood, the Kralltown dairyman figured he had seen no real long-term improvement in the problem of mastitis.

Maybe there was a better approach.

DHIA herd average at McRal Dairy that year on the 102 cows was 15,370 milk and 566 fat. Cull rate, based on statistical data McGregor has compiled for his management comparisons, was at 22 percent. Highest somatic cell count that year was at 650,000.

Aware that his approach was veering from the norm, McGregor kept his mastitis approach pretty much to himself. Over the next six years, both herd numbers and herd

average steadily climbed.

By the end of 1983 test year, DHIA average came in at 151 head with a 18,635 milk and 668 fat record. Somatic cell counts ranged that year from a low of 207,000 to a high of 356,000. Cull rate was still at 22 percent, but had fluctuated from 19 percent in 1977 to 27 percent in 1979, responsive in part to cull-cow prices.

This continuing upward trend shows no signs of reversing. The current milking herd numbers 230 head, with an April DHIA Rolling Herd Average of 19,530 milk, 724 fat, with a SCC averaging 149,000. Cull rate for 1987 was 21 percent, up slightly from 17 percent rate in both 1985 and 1986.

"We do not need the crutches of mastitis medicine," McGregor firmly insisted.

## Controlling Stress

Instead, proper husbandry and gentle handling of the dairy herd, with emphasis on minimizing controllable stress factors, are the basis of McGregor's mastitis-management techniques. And, animals with a chronic health, breeding, hard milk-out or mastitic-prone tendency are soon culled.

"Why keep a problem cow to milk and breed from?" he wonders.

McGregor emphasizes that his milking-housing facility is not new, nor are all conditions of the operations "textbook" ideal. The 16-year-old parlor is a double-four herringbone, which takes several hours for each milking to handle 230 head. While milking is a one-person chore, seven different family members and employees help as needed in the parlor. And, herd size now outstrips freestall capacity, by about 25 percent.

"Our cows are used to anything and anybody," McGregor adds with grin. And, he quickly noted, they do occasionally flare up with mastitis.

But, in the last six months, he and herdsman, Don Dyer, can tally only two cases of mastitis. One was an older herd member, which tramped a teat, and the other a "hot bug" with swelling.

Both get the routine McRal treatment for flareups: hand stripping, at each milking. No tubes. No shots.

"If everything else is right for a cow, overcoming a mastitis infection should be like a healthy person who can fight off a cold naturally with a little time. You can finetune nutrition, the milking system, keep the cows clean, and do what you can to naturally help her do so."

That begins at McRal Farms with the handling of the cow and McGregor's adherence to the philosophy that "every cow is a lady and should be treated as such." Jumpy, nervous cows are more stressed, generally favoring mastitis and higher SCC's.

"You've got to keep a cow trusting you, by staying cool, calm and collected when working with her," McGregor teaches employees. "That means you don't hoop and holler to drive cows in a parlor or when moving them to different locations."

Adequate facilities, such as proper headgates, alleyways and loading chutes add to cattle-handling ease. McGregor houses heifer-age groups at several nearby facilities, and animals are moved to as many as four locations from weaning to freshening, making smooth handling techniques an



"My tomahawk" Ralph McGregor calls the utility knife he keeps handy for trimming cow tails. Shorter switches aid in keeping bacteria and dirt away from teat ends.



Gentle handling at all ages helps keep cattle at Ralph McGregor's McRal dairy farm tame, easier to handle, and generally less stressed.



Supplies such as Kopertox, udder balms, fly bait and new inflations now fill office cabinets that once housed an array of mastitis-treatment antibiotics.

important part of general management.

## Sand As Bedding

Soon after the NMC conference, a vet recommended to McGregor the use of sand for freestall bedding, over more conventional materials. Sand drains well, and its weight cuts down on the losses from cow movement. When fresh sand is added, about every six weeks, a dusting of hydrated lime serves as an additional bacterial deterrent.

An advocate of low milking lines to avoid the system inefficiencies of lifting milk, McGregor had lowered parlor lines in 1972. The two-inch lines installed then are still in use, though considered borderline efficient by some

milking-system experts.

All water used for udder cleaning, and in the equipment washup, is run through a softener. Softening of the naturally hard water seems to aid in keeping teat ends soft and pliable, plus perhaps ease cracking and chapping of workers' hands, where rough skin could harbor and spread mastitic bacteria.

Inflations are regularly changed every 1,000 milkings, since worn and cracked rubber in the liners will also harbor mastitic pathogens.

Only minimal water, a mere handful to wet the teats, is used in pre-milking preparation.

"Many people wash udders like they're putting out a fire," says (Turn to Page D4)



Note: Joyce explained that preparing for the Dairy Month issue became slightly unbearable at times. For this reason she sent the above photo.

## York County Correspondent Joyce Bupp

Joyce Bupp has been Lancaster Farming's York Correspondent for 10 years.

She and her husband, Leroy operate Bupplynn Farms, near Loganville, with 200 head of milking registered Holsteins. Their children Patty, 18, and Richard, 15, are actively involved in the family farm.

Joyce is a board member of the Middle Atlantic Division of Dairyman, Inc., and the Dairy Council of the Upper Chesapeake Bay. She is co-coach of the county's Junior Holstein and 4-H Dairy Bowl

teams. The Bupps are involved in the Holstein Association, 4-H and dairy promotion activities.

Holstein News, Holstein World and Hoard's Dairyman are some of the publications that have printed Joyce's work. She received an award from Women in Communications for her column, On Being a Farm Wife. One of her Lancaster Farming articles also placed third in a competition hosted by Penn-Ag Industries.

However, Joyce notes, "The greatest honors I have are my kids and my Dairy Bowl Kids."