

York Holstein Field Day hears vet

Dairymen have a drug problem

BY JOYCE BUPP
Staff Correspondent

BAIR — Area dairymen have a drug problem. The abuse doesn't center around heroin, marijuana, uppers, downers or speed. Instead it lies in bottles, boluses and syringes of penicillin, streptomycin, tetracycline, or a whole gamut of similar substances commonly found on dairy farms across the nation.

That's the word from Dillsburg veterinarian Dr. Robert Owens, whose message at Tuesday's York County Holstein Association's field day centered on misuse of bovine antibiotics. Owens allowed that his audience of over two hundred Holstein enthusiasts at the 4-H Center might not be too happy with what he was about to tell them.

"I'm not real nuts about anybody being able to buy drugs off the trucks that come around to the farms," the vet asserted. "I want drugs used right. Every day I see people misusing antibiotics. If they're going to be used, they're worth using right - or not at all."

Bottom line of this drug situation is that veterinarians are having to use increasingly stronger drugs to clean up dairy herd diseases. As might be expected, the number one problem lies with that perennial bane of every dairy cow: mastitis.

The new disc assay antibiotic test that went into effect on July 1 is a super-sensitive detective in the crackdown against drug residue in farm milk shipment. A bacillus organism used in the antibiotic culturing is so sensitive that it can detect one cubic centimeter (cc) of penicillin in 15,000 gallons of milk.

"If you're treating a quarter, and only throwing away the milk for that quarter instead of the cow's total output, believe me you're gonna get burned," warned the large animal practitioner.

Contrary to some beliefs, the method of administering an antibiotic has no countering effect on the withdrawal time for dumping treated milk. Regardless of the treatment site, whether through mouth, vein, hip, uterus or mammary system, the drug is absorbed into the bloodstream and carried to every part of the body. A hip injection of antibiotics will get into the milk just as quickly as a direct infusion into a quarter.

Drug misuse also results from not maintaining what Owens labeled "M.I.C. - minimum inhibitory concentration," or the proper level of a drug in an animal's system for the complete period of time that it takes to kill all the bacteria.

You can't stick an animal once and have it work," he emphasized. It should be used at least three days, or 24 to 48 hours after fever levels drop. And that's a rule.

Failure to continue an-

tibiotics for this concentration level results in the survival of a few drug-resistant bacteria, which will multiply and cause a reoccurrence. Then the first antibiotic is no longer effective and a stronger one will be needed.

Withdrawal time is also different on the varied drugs, based on metabolic absorption by the liver or the rate of excretion by the kidneys. Penicillin, for instance, spreads throughout the bloodstream within a half-hour after an intramuscular injection and lasts for a full 24 hours, thus making only one treatment per day necessary.

Streptomycin, while also through the system within a half-hour, only remains at killing levels for up to 12 hours, requiring twice-daily use. For this reason, a popular blend of penicillin and streptomycin is, in Owens' opinion, "one of the poorest treatments in the market," because the period of concentration at killing levels is not compatible. Separate injections of the two would be much preferable, he advised.

Then there's another frequently used antibiotic, tetracycline, which lasts only for six hours and must be used four times daily, and ampicillin, good for eight hours and needed three times a day.

Dumping of milk must be based on the number of hours since the last treatment was given, not the number of milkings, a crucial point in herds being milked three times daily. And, even though the actual milking time may be slightly past the final hour of withdrawal, some of the milk accumulating in the cow's system was being produced during the withdrawal period and it must be dumped because some residue will still be there.

Owens also shot holes through what he calls the "Doc, this cow just isn't coming in heat" syndrome. About 90 percent of those animals, he says, are actually cycling regularly.

"Part of the problem is that cows seem to come in heat during the coolest part of the day - like 2 a.m. - when very few dairymen are in the barn," he wryly noted. Twice daily herd observations of 20 minutes at both dusk and dawn is Owens' key to catching cycling individuals. Regular adherence to dusk and dawn observation should result in a near 90-percent detection level. Heat observation after morning milking is the least desirable time, since only about a 25-percent detection level can be expected.

One useful tool for catching cycling cows is the K-mar heat detector strip. The vet warned, however, that it must be used properly as a detection aid, and not be relied upon as a crutch against poor reproductive management.

Dr. Owens presentation was the wrap-up of a day of activities that included a chicken barbeque luncheon at the 4-H Center and cattle judging and a herd visit at Sunnybend Farm, Biesecker Road, York, owned by Tom and June Boyer.

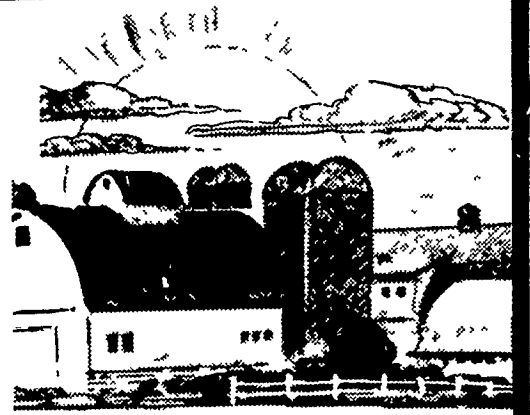
The Boyer's milk 35 registered Holsteins with a rolling herd average of over 19,000 pounds of milk and almost 700 of fat, while maintaining a BAA rating of 106.1 on type classification. Over 80 percent of the herd is homebred, with sires like Valiant, Mars, Milestone, Sexation and Kit Builder in use. Sunnybend's cropping program is geared toward cattle feeding, with the 130 acres in corn, alfalfa and mixed hay and a small quantity of wheat for bedding straw.

Three winners were announced in the highly-popular cattle judging event. Junior winner was Steve Feeser, R6 Hanover, with Geraldine Wolf of R1 Abbottstown capturing the women's class award and Wayne Mummert, R1 East Berlin, topping the men's division. Jed Beshore, R1 New Cumberland, was official judge for the 2-yr.-old and 4-yr.-old classes.



Dr. Robert Owens, Dillsburg area large animal practitioner, tackled the issue of bovine drug therapy as key speaker for Tuesday's Holstein field day.

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 - A An Enzyme Based Product?
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 - C A Urea Product?
 - D A Molasses Based Product?
 - E A Cultured Additive?
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 - C Total Return Vs Dollar Investment!
- 3 HOW WILL I APPLY THE PRODUCT I CHOOSE?
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 - B Requires Special Applicator!
 - C Must Be Applied By Hand!

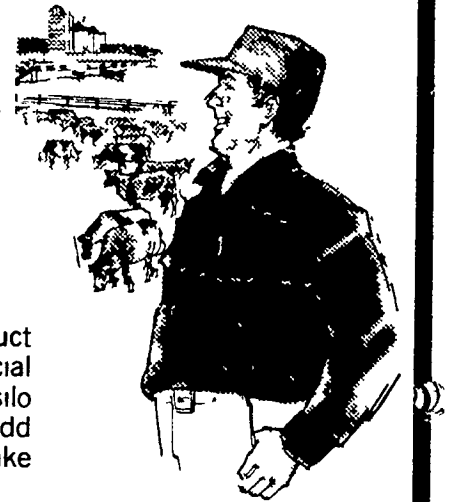
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