

What's New in Milking Management

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The term "Milking Management" can mean many different things. In this talk it will cover the milking machine and mastitis, milk quality and even the use of the computer in culling for mastitis.

One of the many good things about Florida is the cooperation between the various departments in the university system which makes many of these variable projects possible.

What I'm reporting today is not my research or Dairy Sciences work but the work of a team of researchers from several departments.

The Milking Management Team consists of the following:

R.K. Braun, Veterinary Sciences
D.R. Bray, Dairy Science
D. Morse, Dairy Science
P. Reed, Veterinary Science
J.K. Shearer, Veterinary Science

Other cooperators are:

K.C. Bachman, Dairy Science
K. Smith, Food Science
C.J. Wilcox, Dairy Science

And also the following county agents involved in our research:

J. Brenneman, Polk County
P. Glasscock, Hillsborough County
W. Odegaard, Lafayette County

The Quarter Milker

We have just started the Quarter Milker Experiment at the Dairy Research Unit. We are using a special claw developed by the N.I.R.D. in England which has check valves for each quarter. This should prevent any cross contamination of infection from an infected quarter in a cow to another quarter in the same cow. This research is needed because in previous research cows with one infected quarter often became infected in one or more other quarters with the same pathogen. This is especially true with over milking.

We think this claw has one advantage over other quarter milkers that have been developed in that it does not have four separate milk hoses. The chances of four hoses coming off is much greater than one hose. This may not be a problem in small dairies but in our large herds where milking is done for most of the day it may be important.

Predipping

The second trial is the use of pre-teatdipping. Predipping is quite popular in some parts of the country and research is needed to determine if it is an effective way to prevent mastitis.

The first part of the study will be to check this practice and its effect on milk quality. If iodine residues are high and cannot be avoided we can not recommend this practice. Our overall concern should be for milk quality.

If no residues can be found in the milk then the second part of the trial will begin. Predipping will actually be teat spraying, using automated teat sprayers before milking. Several ways may be tried: spraying and a short 10 second contact time made and then applying the machine, or spraying then wiping off much of the iodine with a paper towel.

The idea behind predipping is to reduce mastitis by milking a sanitized teat and this should also improve milk quality by reducing bacteria counts.

Backflushing

Some preliminary work has been done on several dairies as far as consistency of both iodine concentrations and the total volume of liquid flushed. Work has also been done on the reduction of bacteria in liners back flushed and liners that are flushed with cone type sprayers. The lower the bacteria level the higher the milk quality.

We have 2 backflushers installed in the Food Animal Barn at the Veterinary College which are on loan from Babson Brothers. We will use them to do much of the next phases of backflush research which includes removing antibiotic and chemical residues from the liners. We will also test for a reduction in mastitis pathogens in the liners using the backflusher and finally using the backflusher in trying to eliminate or reduce Mycoplasma from the teat cup liners.

Herd Health Management Computer Program

We hope to develop a computer program that will identify cows with a history of mastitis and hopefully to predict which cows may become reinfected. This program should benefit the Florida dairyman with large herds and hired milkers where often management really has no way of knowing how many times a lactation a cow has been treated for mastitis. This program would flag cows who have been treated enough times for mastitis that due to the cost of drugs and dumped milk she is no longer profitable or will not be profitable if treated another time in this lactation. The dairyman can cull these cows before he loses money on them.

Feed Trial with "Somato-Staph"

We now have five herds in the state who are vaccinating one half of their cows, and in some cases heifers also with "Somato-Staph". We are in the second year with this trial and hopefully can continue for several more

years to determine if we can prevent or at least lessen the severity of clinical mastitis due to Staphylococcus aureus.

Philips Roxane, Inc. is supplying the "Somato'Staph" for this experiment and the county agents in these counties are doing most of the work in monitoring the program.

Summary

We think that we have some valuable research going on that is especially geared to the problems of the Florida dairyman and their unique problems. I'm sorry I don't have all the results of these experiments but it will give you something to look forward to in upcoming Dairy Production Conferences.