

# Dairy specialist shares formula for heifers

**UNIVERSITY PARK** — The objective of any successful heifer rearing program should be to keep the calves alive, keep them healthy and have them big enough to breed at 15 months, according to Richard Warner, department of animal science, Cornell University.

Speaking at the dairy herd management conference held recently at Penn State University, Warner said one of the best ways to meet these objections is for dairymen to hire their wives to do the calf raising.

Warner said data support the fact that women are more successful in calf raising than men.

Warner said the most important consideration is to immunize calves with colostrum, since they have no immunity at birth because immune globulins won't cross the placenta as they do in humans and rabbits.

He said, "Calves get no passive immunity except by drinking." There are important immunities in the mother's milk which a calf can absorb only during the first 24 hours after birth. The sooner the calf drinks the better off it will be, according to Warner.

He added, "Immunity is a race to see which gets to the gut first - colostrum or bacteria." Warner made it clear that it is vital to feed 15 pounds of first and second milk colostrum during the first four feedings.

Also important in the rearing of herd replacements is to have a clean calving site. If none is available, Warner suggests dairymen move the tractors and equipment out to make room for clean calving facilities.

The smaller the herd size, the lower the mortality rate will be, according to Cornell research Warner also noted that variations in temperatures can be crucial in calf rearing, with wide fluctuations worse than the extremes of weather. Windbreaks and housing therefore become important considerations in a good

herd management replacement program.

Warner said it is important to have a planned feeding program, not a haphazard approach. "The system is just as good as the feeder. Poor feeders will not be happy with the results of low levels of milk."

He cautioned, "Never wean a calf unless it is consuming at least one and one half pounds of grain per day."

For the calf which insists on eating hay to the exclusion of grain, Warner suggests removing the hay. He says the removal of hay won't hurt the calf and gain will be superior in that way.

While once-a-day feeding usually works well, Warner said dairymen must nevertheless check calves twice daily.

Warner discussed alternatives in feeding calves and said that while whole milk is good, it is expensive. Milk replacer, he said, makes an effective, highly useful substitute. "Hospital milk" can be fed with no adverse effects, if this dairyman avoids garget.

Fermented colostrum is good to feed, and Warner offered some guidelines, suggesting that the dairymen collect the first six milkings after the calf has nursed. Clean plastic cans are required, and it must be used within one month.

Warner said colostrum should be started with one cup buttermilk and fresh milk can be added. Fermented colostrum should be fed at a two-to-one ratio with

warm water and can be fed at a level of eight to ten pounds daily, diluted.

The ideal way to handle fermented colostrum is to have three cans: one clean and waiting, one full and waiting, and one filling and fermenting. With fermented colostrum, the calf can be

switched to milk and back to colostrum if necessary.

Warner gave ingredients for a calf starter used by Cornell up to eight weeks, but added that prices affect which ingredients are in the formula.

The Cornell formula is: Corn and cob meal, 20 percent; crushed oats, 25

percent; beet pulp, 15 percent; brewers grain, one percent; soybean meal, 20 percent; molasses, eight percent; dicalcium phosphate, one percent; and salt, one percent.

Warner also showed statistics which illustrated the response of calves to mash was far superior to

pellets. Their rumination started earlier and was observed more frequently. Warner said feeding all-in-one starter after eight weeks probably has merits.

He added heifers on pasture may not do as well as expected, but concluded: "They can recover." — SBB

## USDA to test electronic marketing

**WASHINGTON, D.C.** — The U.S. Department of Agriculture will test an electronic meat marketing system, along with traditional methods, in buying meat for school lunch and other feeding programs, Secretary Bob Bergland announced Monday.

The system, called the Computer Assisted Trading System—or "CATS"—is a bidding and trading procedure which uses a central computer in conjunction with remote computer terminals. CATS also stores and compiles transaction data and furnishes market information to subscribers. It was developed by the American Meat Exchange, Inc., with technical assistance from the General Electric Information Services Company.

Bergland said his decision to test the electronic system was the result of a recommendation submitted to him by meat pricing task force last year.

The task force, composed of meat producers,

processors and consumers, was established in March 1979 to recommend ways to improve meat pricing systems.

The group met several times and held a series of public hearings. Their report, issued in June 1979, concluded that the potential benefits from electronic trading in improving market information and enhancing competition were promising. The group recommended that the meat industry be encouraged to develop and test the system and that USDA participate in such testing.

USDA's general counsel subsequently ruled that USDA had the authority to participate in a pilot test of such a system.

The Department of Defense, the other major federal meat buying department, has also agreed to test the system, and will work alongside USDA in acquiring, installing and programming the necessary equipment.

USDA's Food Safety and Quality Service will continue to buy meats on a competitive basis. Prospective contractors may bid using either CATS or the traditional electronic or mail methods. The agency will also use the system, along

with traditional procedures, to announce meat purchase programs, invite offers and award contracts.

FSQS officials said the system should be in operation when meat buying for the 1980-81 school year begins.

## Glen Rock 4-H changes meeting date

**GLEN ROCK** — The Glen Rock 4-H club held its monthly meeting recently at the Susquehannock High School Administration building.

In connection with the club's health project, members responded to roll call with their favorite foods. The members with the most

nutritious foods received prizes.

The next meeting date was changed to Thursday, April 10.

All members between the ages of 8 & 12 were encouraged to attend the county-wide Junior Fun Night April 11.

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