

DAIRY PIPELINE

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“Regardless of the economic conditions, it’s necessary to maintain a high quality nutrient supply to baby calves.”

“Preventing or at least limiting the negative effects of summer heat on milk production, reproductive efficiency, and udder health requires sufficient cow cooling mechanisms.”

Photo courtesy of flickr.com

IT’S NOT JUST CORN PRICES THAT ARE HIGH!

Anyone feeding calves recently has noticed that the price of milk replacers (and whole milk) is up drastically. Milk prices now exceed \$20/cwt. Dried whey and whey protein concentrate, two principal sources of proteins in milk replacers, increased from \$.52 to \$.80/lb. and from \$1.00 to \$1.65/lb, respectively, since January. Whey protein prices have increased due to its popularity as a protein source for health foods and it is also used as a substitute for skim milk powder in baking. Edible lard, a primary fat source in milk replacers increased from \$425 to over \$700/ton during the same time period due to demand for its use as biodiesel.

How should one respond to these price increases? First, remember that the calves’ nutrient requirements have not changed. These are young animals that require large quantities of high quality energy and protein for optimal growth. Deficiencies cause increased illness, mortality and poor growth. As calf feed costs have increased so have the value of calves with day old calves selling for more than \$500. At these high prices a saving of \$50 in calf rearing costs can rapidly be offset by increased illness or death of one calf. What’s the best strategy to control costs? Some do’s and don’ts follow:

Do’s:

► Wean calves early. It costs more than \$1.50/day to feed even the lowest quality milk replacer in limited amounts. Most calves can be weaned by 6 weeks when they are eating at least 1.5 to 2.0 lb. of calf starter per day. There is no advantage to feeding milk for extended periods of time. Early weaning requires good ventilation and an abundant supply of water. Each extra week of milk or milk replacer feeding adds more than \$10 to the cost of rearing the calf.

► Feed the highest quality milk replacer to calves during the first month of life as it’s the sole source of nutrients and they don’t digest vegetable proteins well. Milk replacers with all milk based protein sources will typically be low in fiber (<.15%).

Beware of off brand milk replacers that seem very low in price. Reputable manufacturers of milk replacers test incoming loads of whey proteins and reject sources which are high in Salmonella, E. coli or may be heat damaged.

► Economize by feeding milk replacers with soy or wheat proteins only to older calves (over 4 weeks of age) since they more readily digest plant proteins than the younger calves.

► Provide fresh clean water every day. Consider wiping or rinsing water buckets in dilute chlorinated water to retard growth of algae and harmful bacteria.

Don’ts:

► Use waste milk. Every farm has unsalable milk which has no value and might be dumped. Although it can be an economical source of nutrients, there are significant risks involved in feeding raw waste milk. Milk is a great growth medium and field studies have shown that it can transmit Johnes’, BVD, Staph and E. coli to the calf. On-farm pasteurizers are available but they require a significant investment in equipment and facilities as well as labor and supervision. Waste milk must be refrigerated if not pasteurized immediately after milking. Allowing it to warm to room temperature results in rapid bacterial growth and significant risk of digestive upsets.

► Purchase milk replacer on a lowest cost per bag basis. Low cost milk replacers use vegetable proteins in place of milk proteins. Avoid milk replacers containing egg products or unprocessed soy flour. These proteins are not digested well by the calf and may cause allergic reactions in the intestine.

Regardless of the economic conditions, it’s necessary to maintain a high quality nutrient supply to baby calves. Would you feed low quality or limited feed to a human infant? Why should the calf be different?

—Bob James
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LITTLE DETAILS WITH BIG EFFECTS ON COW COOLING

As we move into the hottest time of the year, it is important to reevaluate the effectiveness of your cooling system. Research from the University of Florida has shown 15 to 22 percent reductions in milk yield from summer heat stress as well as poor reproductive efficiency. Preventing or at least limiting the negative effects of summer heat on

milk production, reproductive efficiency, and udder health requires sufficient cow cooling mechanisms.

Most cooling systems in Virginia include fans or a combination of fans and sprinklers. Installing these systems is a good first step, but proper maintenance and setting selection is necessary to

Upcoming Activities

Virginia PDCA Dairy Days
August 2-4, Harrisonburg

State 4-H/FFA Dairy
Youth Field Day,
August 3, Harrisonburg

SWVA Dairy Field Day,
August 8, Bland

Cross-Breeding Evening
Meeting, Rockingham,
August 8, Contact John
Welsh, (540) 564-3080

Virginia Organic Grazing
Workshop and Field Day,
August 9, 8:00-4:30, Con-
tact Catherine Cash at
(540) 377-9945

State Fair Jr. Dairymen's
Contest, Sept. 28,
Richmond, Contact
Dave Winston at
(540)231-5693

If you are a person with a disability and require any auxiliary aids, services or other accommodations for any Extension event, please discuss your accommodation needs with the Extension staff at your local Extension office at least 1 week prior to the event.

"The dairyman's health and well being is the most important asset on his/her farm."

For more information on Dairy Extension or to learn about current programs, visit us at VT Dairy—Home of the Dairy Extension Program on the web at: www.vtdairy.dasc.vt.edu.

Bennet Cassell

Bennet G. Cassell
Dairy Extension Coordinator
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Genetics & Management

achieve adequate heat abatement. Maximal fan performance requires routine cleaning of all fan parts and accessories. Wind speed generated by a fan should always be at least 5 mph directly underneath the next fan. Speeds less than this indicate inefficiencies in fan operation, possibly due to dirt buildup. Accumulation of as little as 1/8" dirt on fan blades has been shown to reduce fan efficiency by 40 percent. Fans should be cleaned at least every 6 months, with greater frequency during the summer months when use is greatest. A vacuum cleaner or stiff-bristled nylon brush can be used for cleaning; a power washer can be used only if the fan motor is totally enclosed. Fan motors should also be lubricated annually to prolong fan life and maximize efficiency.

A DAIRY FARMER'S RESPONSIBILITIES TO HIS BUSINESS

Who is the most valuable person on your dairy farm? Herdsman? Milker? Many owners forget that they are the most important person on their farm. Why do dairy farmers immediately call their veterinarian when an animal is sick? Yet many dairyman postpone visiting the family doctor when they are sick because "they are too busy and it will get better in a couple of days." How many times does delaying visiting the family doctor result in the owner visiting the local hospital emergency room and spending several days in the hospital? How many dairy farmers have an annual check up with family doctor? How many illnesses (e.g. diabetes, hypertension, and skin cancer) can be detected at the annual checkup? Many of these health problems can be treated and monitored by the family physician before they grow into major problems. If the owner can not manage his business when he is ill, who will manage it for him? The dairyman's health and well being is the most important asset on his/her farm.

Many dairy farmers believe "they can do a better job than the hired help." Many dairy farmers take the attitude that if they work "longer and harder," they can increase the farm's profits. In times of tight cash flow, many dairy farmers try to reduce labor costs as a means of reducing expenses. What are the costs of working longer hours? How many dairy farmers routinely attend their children's school events, consistently spend time with the family, and annually schedule a family vacation? Who comes first: the cows or the family? Dairy farmers need to get away from the business to recharge and rejuvenate. Finally, dairy farmers need adequate rest to work safely. How many farm accidents could have been prevented because the owner was "over tired" and did not pay close attention to the task at hand?

Owners need time to manage their businesses. This management time is especially difficult because many dairy producers have maximized

Electricity should always be shut off and the fan disconnected from the power source prior to any maintenance or repairs.

Thermostat and cycle settings are also critical to the effectiveness of any cooling system. Sprinkler and fan systems should be set to operate when temperatures reach 70 - 75° F. Sprinkler cycles should run from 0.5 to 3 minutes using 0.03 gallons of water per square foot each cycle. Cycle length should be selected to soak the cow's back, but not allow water to reach the udder.

—Beverly Cox,
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labor efficiency on their farms years ago. Producers and employees are working at maximum capacity. Where does the dairy farmer find the time to manage the business when the owner and employees have little free time left after completing the daily tasks? A dairy farmer wears two hats in his business: owner/manager and laborer. Time spent managing the business may be the most profitable time a producer spends on his/her farm. The dairy farmer needs to ask himself/herself an important question: What management decisions improved the farm's bottom line when I spend the time analyzing my records and make decisions based on facts rather than my "gut feelings"?

Producers need time to analyze financial, DHIA, herd health, and cropping records. What are the farm's profit centers? Is dairy the primary enterprise or are there alternative enterprises on the farm – dairy steers, beef cattle, or crops? What are the three and five year profitability trends for the farm's enterprises? What are the strengths, weaknesses, and areas of improvement on the farm? Can the land, labor, and capital devoted to an enterprise generate higher returns elsewhere in the business?

Dairy farming is a dynamic business. If the dairy farmer does not take time to monitor trends on his/her farm, who will manage his/her business? The old adage "on the plains of hesitation bleach the bones of countless millions" reflects to the management style of many producers. When producers elect not to make decisions regarding the management of the farms, they are making a decision to maintain the status quo on their farms. If producers do not spend time managing their businesses and develop strategies to maximize profits on their farms in a rapidly changing business environment, their businesses may not survive in the long run.

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