

DAIRY PIPELINE

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“Success with the replacement herd begins with recognition of its importance to the overall success of the dairy operation.”

Keeping the Replacement Herd on Target

—Dave Winston, Extension Dairy Scientist & Dairy Youth Program Coordinator; dwinston@vt.edu

A suggested overall goal of the heifer rearing program is to economically raise heifers to be of adequate size and body condition to calve at a reasonable age and to produce high levels of high quality milk during the first lactation. The ultimate measure of success of the program is how well heifers perform in the milking herd. There are lots of steps along the way that impact heifer program success.

The first step concerns economics because of its importance to the dairy operation. The heifer enterprise typically accounts for 15-20 percent of the cost of milk production. Herd replacement rates and age at first calving greatly impact heifer rearing expenses. High culling rates and high age at first calving result in larger replacement herds and consequently result in a more expensive heifer enterprise. Nutrition and health also affect the economic picture. A sound nutrition program is just as important for heifers as it is for the milking herd; it requires regular monitoring and adjustments based on forage quality and availability as well as heifer performance. Growth monitoring can provide necessary feedback on the effectiveness of the diet, just as milk and components do for the milking herd. A nutrition program that promotes growth at a reasonable cost is desired. The adage, “An ounce of prevention is worth a pound of cure,” is applicable to the herd health program for heifers. A preventative herd health program requires an investment but can lower overall expenses by reducing morbidity and mortality rates.

The target weight for a heifer at first calving is 85 percent of her mature bodyweight. For example, if the average mature bodyweight for a Holstein herd is 1,400 pounds, the target weight at first calving in that herd would be 1,190 pounds. Mature bodyweight averages vary by herd; the calculation avoids

the one size fits all recommendations of the past. Holstein herds can achieve this weight target with average daily gains of 1.6-1.8 pounds per day.

The target for age at first calving is 22-24 months. Keep in mind that size and body condition are more important than age. An undergrown heifer that calves at 22 months will spend much of her first lactation playing catch up and will not perform to expectations. On the other hand, heifers that calve beyond 24 months of age are in a non-productive state for a longer period of time and have lower lifetime milk production.

A seamless transition into the milking herd without calving difficulty, metabolic issues (milk fever, ketosis), or mastitis will enable the heifer to achieve higher peak milk production and lactation milk yield. Calving difficulty can be prevented through proper growth and use of calving ease service sires. Transition cow management that includes heifers is the best way to prevent metabolic disease associated with calving time. Measures to prevent heifer mastitis include: preventing calves from suckling one another, particularly when fed waste milk; fly control; eliminating heifer access to ponds, lagoons, and standing water; and providing a sanitary maternity area. Mastitis prevention will allow a herd to meet the part of the goal relating to high milk quality production.

Success with the replacement herd begins with recognition of its importance to the overall success of the dairy operation. Goals for the heifer enterprise can be achieved through management that includes strong nutrition and preventative herd health components. Facilities and personnel also play important roles in keeping the replacement herd on target.



Upcoming Events

See [VTDairy](#) for details.

July 8-13, 2018

Southeast Youth Dairy Retreat, GA

July 23-24, 2018

MQ-IQ "The Teaching Parlor" Workshops—
July 23: Rocky Mt, VA
July 24: Harrisonburg, VA

Additional workshops are being scheduled for TN, KY, and NC.

August 2, 2018

VA colored breed show and Shenandoah district Holstein show

August 3, 2018

Dairy Farmer appreciation dinner, Rockingham

August 3, 2018

Dairy youth activity day

August 4, 2018

VA Summer Holstein show

Fall 2018—Date TBD

Hoof Care Management Franklin County

Fall 2018—Date TBD

QuickBooks Workshop Franklin County

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.

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.



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“Easy Money”: Control Shrink

—Kevin Spurlin Extension Agent, Grayson County; spurlink@vt.edu

Dairymen seek opportunities to uncover “easy money” in times of low milk prices. Controlling shrink on a dairy is one such avenue. Unlike reducing the cost of a ration as milk prices decline, which may negatively affect production and income, reducing shrink losses has virtually no downside.

Shrink is the amount of loss of an asset that cannot be used to generate revenue. Shrink is the reality that for every ton of forage or feed produced or purchased, a portion of those feedstuffs are not consumed by the herd and converted to a saleable product. Storage and feeding losses are common for all homegrown and purchased feeds. Homegrown feeds suffer from harvest losses as well. Dr. Mike Brouk, Kansas State Dairy Extension Specialist, attributes 15-20% of the total feed cost to shrink.

Rotz and Muck (1994) suggest that harvest losses for legume hay can range between 7% and 41%. A farmer who can achieve a modest 7% loss can meet their hay inventory needs with 34% less acres or yield than if he or she has 41% loss. Shatter loss, or the loss of the highest quality leaf components during harvest operations, is the major harvest loss for grass or legume hay. Harvest losses also occur for ensiled forages when harvested too wet or too dry. Harvesting near 65% moisture is generally adequate for most forage types and storage structures.

Storage and feeding losses make feeds more expensive when fed than when initially produced or purchased. University of Tennessee survey data shows hay losses ranging from 6% when stored in a barn to 37% when stored outside on the ground. Silage stored in bunker silos on average lose about 15% with silage piles closer to 20% loss. These silos should be fed at 6 inches of silo face daily to avoid excess spoilage at feedout. Silo bags and oxygen-limiting upright silos can achieve storage losses of 5%

or less. Feed bins can minimize storage losses of expensive ingredients at roughly 3% while commodity sheds can be as high as 8% loss due to wind, animals, spoilage, and moisture. With each storage system, a wide range exists between exceptional management and sloppy management.

For example, a farmer with \$45/ton corn silage at harvest has a true cost of \$64.29/ton with a 30% feed loss. That level of shrink is like McDonalds producing at full capacity, and then trashing every third Big Mac. That is not a sustainable business model! By cutting silage losses in half to 15%, the farmer will save \$11.35/ton. At a 65 lb feeding rate, that is a \$0.37/cow daily savings. Consider reducing storage losses of a custom premix at \$390/ton from 8% to 3% by simply moving the premix from a commodity shed to a feed bin. That is a cost savings of \$21.33/ton. Dairymen switch feed companies for less!

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Feeding losses should also be considered. These occur from scale inaccuracies, transfer losses as feeds spills out of loader buckets, and poor feed bunk management. I witnessed feeding losses of nearly 20% where a farm did not maintain an elevated feed bunk. The pen of roughly 100 cows was being fed for 120. What happened to the feed for the extra 20 cows who were not in the pen? It was pushed into the manure lagoon! In any dairy economy, we cannot afford to spend money on vast amounts of feed assets only to waste them with no chance to convert them to income.

Improving milk quality, getting a better price on the same feed mix by shopping the formula around with different feed companies, or purchasing bulk ingredients at a discount are other easy ways to enhance a dairy’s finances. Consider controlling shrink because it’s “easy money”!

