



DAIRY PIPELINE

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Are Your Revenues Decreasing? Have You Been Monitoring Your Herd Size?

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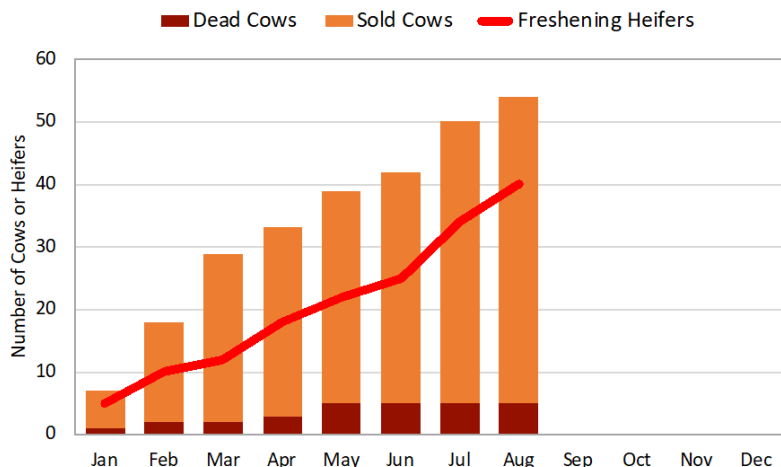
Every manager knows that herd size is not constant. This means that the herd size can fluctuate from day to day. However, in the long run managers may lose track of the changes in herd size if they do not pay attention to some variables. Let us discuss this further.

The herd size can be considered a pool of cows that have an input and an output, which are the springing heifers and the culled cows, respectively. If the input is greater than the output (i.e., springing heifers > culled cows), then the herd size should grow. This would be common for herds on “expansion mode.” If the input equals the output (i.e., springing heifers = culled cows), then the herd size should not

and the number of heifers that freshened. As the information is obtained each month, the cumulative number of culled cows (output) and the cumulative number of freshening heifers (input) can be combined into a chart. In the figure to the left, for example, the reader can see that this farm has culled 54 cows since the beginning of the year (see column height) whereas only 40 heifers have freshened since the beginning of the year (red line). If this trend holds, then the herd size would have decreased by 14 cows by the end of the year.

“The big problem is when the input is less than the output...”

Culled Cows vs. Freshening Heifers



change or change marginally. This scenario would be common for herds keeping a good balance between herd health, replacement management, reproduction, and use of facilities. The big problem is when the input is less than the output, which means that the number of springing heifers is less than the number of culled cows. In this scenario, the herd size will inevitably decrease... a situation that will likely decrease the revenue of the herd.

To track the dynamics of herd size, I recommend keeping monthly records of the number of cows sold, the number of cows that died,

Considering a \$18.50/cwt-milk price, for a 275-cow herd with a 27,000 lb/year rolling herd average this decrease will signify a reduction in revenue of approximately \$70,000/year. In addition to a reduction in revenue, the farm might end up operating below maximum capacity resulting in an inefficient use of resources if a catch-up of freshening heifers is not anticipated. In that case, the purchase of heifers might be necessary and convenient. For example, purchasing 14 heifers at \$1,300/head implies an investment of \$18,200. Considering a cost of production of \$16.00/cwt, a mailbox milk price of \$18.50/cwt, and a 6% interest rate, the net return of these purchased heifers would be approximately \$9,450/year, which will result in a net present value (NPV) equal to \$6,600 for such investment.

In conclusion, keep a close watch on your culled cows and your freshening heifers to anticipate drastic changes in your herd size. If you anticipate a decrease, evaluate the reasons for the high culling rates (i.e., large output) or the low number of replacements (i.e., low input). And if a reduction of your herd size is inevitable, evaluate purchasing springing heifer to ensure the economic sustainability of the farm.



Upcoming Events

PLEASE CONFIRM EVENTS WITH HOSTING OFFICE. WE WILL UPDATE VTDAIRY.VT.EDU AS WE LEARN MORE.

April 2, 2020
ZOOM Meeting
Ag Policy & Market Forum, Harrisonburg

April 4, 2020
Cancelled
Virginia Sports Horse Show, Rockingham

April 18, 2020
Cancelled
92nd Annual Little All-American Show, Canaan, Blacksburg

April 18, 2020
Cancelled
Pittsylvania Youth Dairy Show

May 18, 2020
***POSTPONED* TBA**
Hokie Cow Classic Golf Tournament, Blacksburg

May 9, 2020
Cancelled
State Dairy Judging Workshop (online)

July 19-24, 2020
2020 Annual Meeting and Professional Improvement Conference of the National Association of County Agricultural Agents

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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Who Let the Cows Out?

—Cynthia Martel, Extension Agent, Franklin County; cmartel@vt.edu

Yes, the grass may be greener on the other side, but don't fall victim to opening the gate too early this spring. The warm weather is tempting, but that grass may not be ready. The growing season last year was rough on pastures and hay fields. The wet spring and hot, dry summer meant a lot of fields didn't have time to recover before winter.

Padlock the fence, hide the key, and keep the cows in a little longer! Grass needs time to grow and recover. Whether you reseeded in the fall or spring, grass needs time to get established. Here are some helpful tips to ensure a pasture that can thrive this year:

► **Soil Testing** — When was the last time you took soil samples and used the results to improve your fields? In Virginia, farmers can get soil testing at no charge through the Virginia Tech Soil Testing Lab. It is time-consuming to get out in the fields and collect samples, but don't spend money on lime and fertilizers when it's not needed.

► **Species Growing** — What type of legumes or forages are established in your fields? It is key to know what you are growing in order to understand how to correctly manage it. Different species of grasses have different grazing heights or cuttings. To prevent damage, the key is to not graze or cut below 3-4 inches for cool-season and some warm-season grasses don't like to be grazed below 6-8 inches. Allow a regrowth period with no animals for 21-28 days during adequate conditions. Grass production is reduced more than half when leaf surface is removed frequently by close grazing and mowing. Not allowing regrowth of leaves and roots will eventually cause death.

► **Weed Identification** — Beautiful pastures that thrive require time and energy. Walk fields and record weeds. If you are unsure what weeds are growing reach out to your local Extension office for identification. It is important to remember when you use a company to spray your fields you are at the mercy of their schedule. This may not always be conducive to when you need spraying. Prevention is key! Consider purchasing a small, pull-behind boom sprayer for the ability to spray when the weeds are

young, before they go to seed. It is harder to kill and reduce weeds once they go to seed.

► **Benefits of Brush-hogging Pastures** — It is time-consuming to brush-hog, but the benefits far outweigh the time required. The simple act of brush-hogging is important for weed management, maintaining forage quality, and reducing grazing patterns.

Keeping pastures clipped and clean is a great way to deal with weed control. You are trying to prevent weeds from over-growing pastures. Brush-hogging prevents weeds from developing strong root systems and producing mature seeds. Brush-hogging after livestock have grazed and moved on to the next field can help maintain quality

and reduce patterns. By keeping forages clipped to a vegetative state and not allowing advancement to the reproductive stage, plant nutrients are used for increased quality and not seed production. Clipping also reduces older, mature growth that may be less favored by livestock. By clipping pastures, you reduce the tendency for animals to only graze in certain areas that they favor.

► **Rotational Grazing, Stockpiling, and Sacrifice Lots** — These three topics play a huge role in a grazing operation, making sure you have adequate feed for your livestock. Allow 21-28 days for fields to recover and regrow. Knowing when to stop grazing and start stockpiling a pasture can increase the grazing season and reduce supplemental feeding. Sacrifice lots allow for fields to be reseeded and become reestablished.

Now is the time to get the soil probes ready (ask your local VCE office to borrow one), sharpen your weed identification skills, and prepare the sprayer and brush hog for work. Maintaining and managing pastures that are both productive and profitable is not a simple task. Devote some extra time now to preventive field maintenance and your fields and animals will thank you. When the time is right open that gate for happy spring grazing!

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