

Troubleshooting weaned heifers

Kathryn Barrett

Post weaned heifers are the foundation of the milking herd. Taking the time to troubleshoot heifer management pays the farm back in profitability.

“How well you do in the heifer-rearing phase will pay you back later on. Really good milk producing cows start with the calves. The post weaning phase is where we tend to lose track of them. We can tend to lose ground. The hardest part is getting them weaned. If we have been successful up to that point, with just a little more management, we can get them through this next period,” said Rob Lynch, DVM, Cornell PRO-DAIRY, during an episode on approaches to evaluating a post weaned heifer management program in the PRO-DAIRY podcast series Troubleshooting Herd Health Issues on Your Dairy. (Episode 4: cals.cornell.edu/pro-dairy/events-programs/podcasts)

“I think what happens is getting them through birth to weaning takes a

lot of effort to be successful. It’s almost like a sigh of relief is in order, now I can ease up on management,” said Dave Balbian, Cornell Cooperative Extension regional dairy specialist.

Weaned heifers do not need the same level of management as calves on milk, but they still need to be managed well if they are to grow adequately and effectively to reach their genetic potential and the farm’s goals.

When troubleshooting a post weaning heifer program, look at both the current performance of the first-calf heifers and each stage of the heifer’s development. Balbian often starts by looking at the fresh first-calf heifer performance to see if they are hitting the farm’s goals and industry benchmarks. A quick rule of thumb is that prefresh first-calf heifers should weigh about 85 percent of mature weight for the herd (**Figure 1**). On large herds where there are enough animals to make a fair comparison, and assuming a consistent day in milk (DIM) across the herd, first-calf heifer milk production should be about 10 pounds less than second-lactation animals and 20 pounds less than third-and-greater-lactation animals. If they are not performing as expected, then Balbian looks “downstream” to see where the weak links are.

Looking at first-calf heifer performance of the current animals gives a snapshot of the program. Of course, by that time, heifers are already about two years old, and a lot can happen management wise on a farm in two years. It is crucial to evaluate the current management system at each stage of the heifer’s development.

This requires some data which is not always readily available. Obtaining milk production records

for comparison is usually not hard. Most farms have that information. Growth and health information can be a different story for both heifers and mature cows. If the farm has that data, great, but very often they do not, and at the very least some spot checking of cohorts is in order.

MEASURE GROWTH

Data collection for this age group of animals is challenging. It would be great if all farms had access to a scale that they could run all their heifers across. Unfortunately, that’s not the reality. If it is possible to get access to a scale on a short-term basis, weighing a sample of each group can be enough to indicate how present management activities are doing.

If a scale is just not available, a weight tape is another option. Weight tapes are not as accurate as scales, but they can still indicate growth trends. The information is most useful if the same brand of weight tape and the same person uses the weight tape across groups and time.

Weight is an important measurement of growth, but it is most useful when paired with hip height. Taking the time to handle the animals to check hip heights on even a few animals in each group is worthwhile. If the animals can’t be caught and measured, another method is to place a measuring stick in a spot that heifers walk past to be weighed. Just make sure it is not hung in a spot that can get a buildup of bedding or manure, which throws the measurements off.

Common recommendations for when to take weight and hip height measurements are: birth, weaning, four

FIGURE 1

Growth benchmarks to optimize first and subsequent lactation milk yield

Birth to Weaning:
double bodyweight

Puberty:
45% mature weight

Breeding and Pregnancy:
55-60% mature weight

First lact. post-calving BW: 82% to 85% mature weight. Goal is to achieve 82% of mature size to achieve 80% of mature cow milk yield.

Mature weight determined at middle of 3rd and 4th lactation – 80 to 200 days in milk on healthy cows, not cull cows.

Troubleshooting weaned heifers, cont'd from front



to six months, and at pen changes. If it is not possible to measure all the heifers in each group, shoot for measuring a subset of animals in each group.

MONITOR DISEASE INCIDENCE

In addition to growth data, disease incidences can be very insightful. These kind of health records must be a part of everyday record keeping. Weaned heifers tend to have fewer health problems, but tracking incidences of respiratory illness and diarrhea can reveal whether there is a problem with housing, nutrition, or hygiene protocols.

Use the data collected to evaluate trends in growth and health. Animals can be benchmarked within the herd if enough data is collected over time. Another good practice is to compare results to industry benchmarks and recommendations.

Dr. Lynch suggests looking at the present management to see if the program checks all the boxes.

Diet

Are animals getting the nutrients they need to support growth before and after breeding and during pregnancy? Is the farm working with a competent nutritionist who tracks forage quality and adjusts the heifer ration? Balbian encourages farmers to have their nutritionist look at each stage of post-weaned heifers at least once a month. If animals are out on pasture, make sure the forage from the pasture is providing what is estimated in the diet. A dry spell, or worse a drought, can significantly alter the forage harvested by the heifers.

Feed Access

Similar to lactating animals, feed access for heifers is key to performance. Is there enough bunk space for the animals? Does the grouping strategy allow for comparable size animals to be housed together? If the heifers cannot reach the feed, they cannot eat it. Pushing feed up can mitigate that

situation. "Perhaps some of the slug feeding behavior we see in lactating animals is developed during the heifer phase when feed is provided once a day and not pushed up," Balbian said. Feed access on pasture is just as important.

Housing

It is not unusual for heifers to be housed in facilities that were not specifically designed for them. This makes it difficult to provide the best environment. Clean and dry are key factors. That entails adequate bedding that is kept dry and changed as needed. Strive for slip-free flooring. If stalls are provided, ideally, they should be sized for the heifers that will use them. Check industry standards for space requirements for bedded packs or freestalls. Stocking density should be one stall per animal. There should be enough feeding space for all animals to eat at the same time and plenty of free-choice water. Overcrowding can make the bunk space inadequate, tax the ventilation system, negatively impact cleanliness, and increase bedding needs. Not to mention the stress the animals are under because they can't lay down and rest or move around freely. As always, it's the smaller, less aggressive animals that bear the brunt of this situation.

Ventilation

Ventilation plays a significant role in maintaining health and growth in heifers. Be sure air is turning over at a rate that removes stale and dirty air. This is necessary even in the cold weather with young animals. The air circulation recommendations for heifers as young as two to six months is 20 cfm in cold weather, 60 cfm in mild weather, and 130 in hot weather. It pays to work with an engineer or someone knowledgeable about ventilation to evaluate and troubleshoot ventilation in your heifer facilities.

Disease Incidence

Once heifers are weaned successfully and off to a healthy start,

disease incidence is relatively low but is still a factor. Respiratory disease is the most common issue with weaned heifers, followed by diarrhea. Occasionally hoof disease or some unusual disease will crop up as well. A necropsy can shed light on the cause of death and the severity of illness. Again, record keeping, along with consistent observation is crucial to disease detection and mitigation.

Vaccinations

Work with your vet to develop a vaccine program that provides what your herd needs. Equally important is to set up a procedure to get animals vaccinated that is doable.

Parasite Control

Whether inside or outside, heifers need fly and parasite control. Work with your vet to set up an achievable protocol that addresses your farm's situation.

Pasture Considerations

Make sure that pasture is providing the level of forage the diet is formulated for. Weather, in particular drought, impacts forage availability and quality. Be sure the animals have adequate access to feed with enough feeding space. Provide water that is clean and free-choice. Do the animals have access to shelter from the weather, such as shade and wind protection? Is someone tasked with checking on the heifers to observe them and make sure they are healthy and growing? It can be especially tough to get growth data on pastured animals, but this information can tell you a tremendous amount about how the animals are doing. ■

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