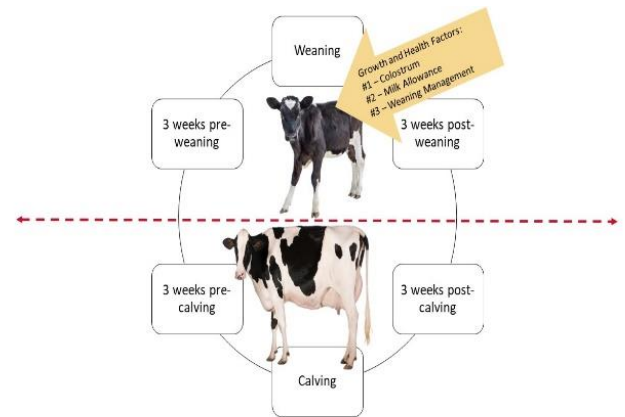


## Weaning – The Other Transition

When we think of the word “transition”, often we think of the transition cow as she transitions from pre fresh to post fresh. For this article, “transition” your mind to the other transition as calves go through the weaning process!

In general, it takes 3 weeks from the time the calf starts consuming feed to the time when the rumen is mature enough (papillae development) to support the nutritional needs of the calf. There is no one size fits all approach to weaning as facilities and management styles vary across farms. However, all calves risk critical growth and health during this transition. We really can't afford a poorly weaned heifer as it results in a heifer that takes longer to get to breeding size and costs more to feed and manage.



### Here are my top suggestions for a smoother weaning transition:

#### 1. Start with the end goal in mind

The rumen will grow with the calf's body size, regardless of if it's ready, causing growth to stall out waiting for the rumen to catch up and costing more for pounds of growth. Take a step back and evaluate what it is that you want to achieve in terms of desirable and productive animals in your herd. Then calculate average daily gain (ADG) based on your herd's mature body weight and desired age at first calving (AFC). A target goal for any heifer program should be an AFC of 22-24 months, where heifers are 80% of their mature bodyweight. Please reach out to the dairy extension team if you need assistance with determining goals for target growth rates!

#### 2. Water is important to rumen development

Microbes need a wet environment to thrive and grow in the rumen and can only be achieved from calves drinking water. While milk is a liquid, it goes into the abomasum and does not contribute water to the rumen. There is a direct correlation between water and starter consumption, whereas the more water consumed, the more starter intake consumed. For every pound of starter that calves are consuming, they need at least .75 gallons of water. Implement a water feeding strategy that works for your individual farm, making sure to start offering on day 1.

#### 3. Feeding Strategies for Milk

Feeding higher planes of nutrition has tremendous benefits to the calf in preweaning weight gain, overall health, and future milk yield. However, some of this can become undone during weaning if calves go through a slump due to lower amounts of solid feed intake, thus delaying rumen development. A step-down process that incorporates age, bodyweight, and solid feed intake can help balance milk levels to develop the rumen and avoid any weight loss after weaning. Noted in a current study (JDS, Mirzaei et al., 2020), a step-down procedure implemented earlier, starting around 4 weeks of age, was a better strategy than implementing gradual weaning at a later age to promote solid feed intake and minimize loss of bodyweight gain.

#### 4. Calf Starter Guidelines

Calves consuming high amounts of milk most likely will not be consuming high amounts of solid feed. As milk levels are decreased, solid feed intake should increase quite rapidly. Monitor calves and consider weaning when they are eating enough for at least 3 consecutive days. Work with your nutritionist or veterinarian to determine adequate levels of calf starter intake as this will depend on the quality of the starter, weather conditions, and breed. When the calf is no longer receiving milk, they should be consuming approximately 4 pounds of calf starter.

## 5. Role of forage

Hay plays a role in nutrition but can fill up valuable space in the young calf's rumen, reducing starter intake and rumen development. Introduce hay gradually and after calves are consuming 4-5 pounds of solid feed, and then free choice after 4 weeks post weaning. consuming 4-5 lbs of solid feed.

### Life after milk

Congratulations, your calves are weaned! But the hard part is not over, and we can't forget about them until breeding! Keep the transitions gradual, minimize stressors, avoid pen movements for 1-2 weeks, and then introduce into smaller groups if not already socially acclimated. Facilities should provide adequate bedded space (min. 35-40 square feet/calf), feed space for all to eat at the same time, access to water, and air quality like milk fed calves. There is no "undo" button, so this is an important time to monitor growth and body condition. The [Dairy Calf and Heifer Associations Gold Standards](#) recommend calves gain 2.2 pounds per day from 61 to 120 days of age. If calves are struggling and you are observing health issues, re-evaluate the feeding program pre and post weaning.

Happy Weaning!

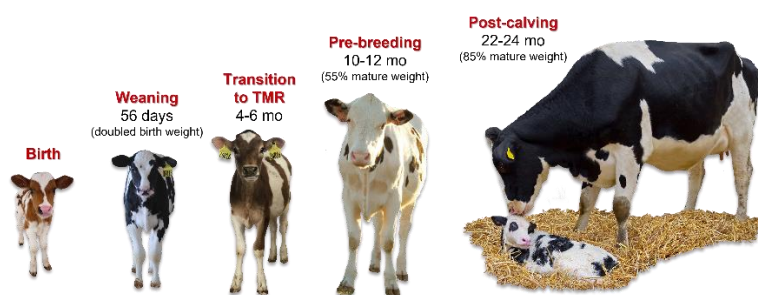


Photo credit: Aerica Bjurstrom , University of Wisconsin Extension

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For more calf and heifer resources visit: <https://www.extension.iastate.edu/dairyteam/calves-heifers>