

## The forgotten animals: Post weaned calves

The dairy industry in Ontario has made enormous improvements on cow production and reproduction. Annual pregnancy data from Lactanet has shown at least a 4 unit increase in pregnancy rates in Ontario. We commonly hear of herds producing 1.8 to 1.9kg of fat per cow per day; 10 years ago this level was almost never achieved. The milking herd has received a lot of attention and the results show we are improving.

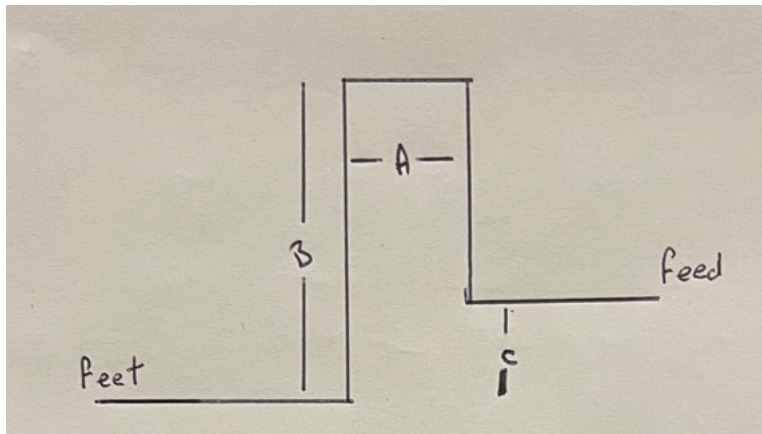
On many farms the post weaned calves are the forgotten animals, “just put them in the shed out back or in the old dairy barn and they will be fine”. These structures can work well if they allow the animals to rest, eat, and drink freely, and have appropriate nutrition and new, fresh air. Research presented in 2012 by Soberon et al showed that pre weaned average daily gain (ADG) had a huge impact on first lactation milk yield. We ran with this research and have greatly improved pre weaning ADG and decreased pre weaning sickness and death on many herds in Ontario. This same study showed that post weaned ADG up to puberty (when the heifer shows her first heat) had a significant affect on first lactation milk yields. The study showed for every 1.0 kg increase in ADG from weaning to first heat there was an associated increase of 3281kg increase in first lactation milk yield. **That sounds like milk worth working to get.**

There are many approaches to improve the post weaned calves rate of gain, starting with the space to eat, drink and rest, followed with nutrition and ventilation. All of the following recommendations are closely based on data from the Penn State website and the Dairyland Initiative, which I find very useful and have modified slightly.

Resting space for a just weaned 2.5 month old calf is 40 square feet of good pack area and then add 2 more square feet for every month of age. So a 4.5 month old calf will need 44 square foot of good pack area. This is critical for calf comfort but also for ventilation. All of our current ventilation guidelines for calves are based on normal stocking densities. If we overcrowd, we can not guarantee that even a well-designed ventilation system will satisfy the calves fresh air needs.

Ease to eat and drink is critical to achieve our desired ADG. Recently weaned calves need 18 inches of feed trough length and 2 linear inches of water space per calf. As we commonly “wedge” these calves into other areas we often use the existing feed bunks and water troughs. Many websites do not mention the height of water troughs/bowls for the recently weaned calf. I find that 18 inch height from the feet to the edge of the water bowl/trough to work very nicely. For height of feed and curb height, it all depends on the width of the curb. In the figure, “A” represents the width of the curb and it commonly varies from 8 inch (cement curb) to 2 inch

(wood curb) to 0.5 inch (metal rod curb).



For the 8 inch wide curb, “B” should be no more than 14 inches and “C” must be at least 4 to 6 inches

For the 2 inch wide curb, “B” should be no more than 16 inches and “C” must be at least 6 to 8 inches

For the 0.5 inch wide curb, “B” should be no more than 18 inches and “C” must be at least 8 to 10 inches.

Many calves have free choice calf starter but cannot consume enough as it is physically difficult to **reach** enough. Free choice does not equal adequate intake with out knowing the feed and water access!!

Nutritionally we have many options after weaning. The most sure path is a diet of dry forages and calf starter from weaning until 4 months old. Calves do not digest forages well until 4 to 6 months of age. From weaning to 4 months old, to ensure we have good growth (2 to 2.2lbs/day), calves need to consume 3 to 3.5 as fed kg of grain. How we get that delivered and into them varies significantly between farms.

Post weaned ADG has a huge impact on first lactation production. Please let us not forget about this group of calves. Taking care of the post weaned calves ability to eat, drink and rest can greatly enhance their comfort, health and feed consumption.

Happy heifer raising!