

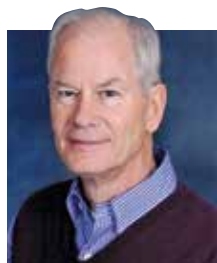


Weaning slumps can be avoided

Ensuring that calves are consuming enough starter to begin the weaning process can help them avoid a performance stumbling block during or after weaning.

by A.F. Kertz

MUCH like our dry cows, calves need time to transition as they are the most sensitive and vulnerable animals on a dairy. Their first transition occurs over the two weeks before and after weaning — the weaning transition period. The next critical period is the month following weaning



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and relocation to a group setting. The 2007 NAHMS study found that the most popular age at weaning was 8 weeks (33 percent), followed by 6 weeks (20 percent). But what does that tell us about how age at weaning was determined? Since calves cannot count, weaning is a management decision.

Starter intake the trigger

Really, the most significant factor in determining when calves can be weaned is not necessarily age but level of starter intake. If starter intake is inadequate, calves will struggle both during and after weaning. Too often, weaning is accompanied by other major changes because it is convenient. Since calves are very sensitive to changes, their immune system is compromised when stressed. Then they are more likely to have a respiratory problem which impairs them for life. So why are we giving up the good progress that calves have made up to this point with too much change?

The basic weaning transition hinge is starter intake. Starter should be fed during the first week of life, but only provide a little bit at a time to ensure it is fresh. Daily intake

may only be 0.1 pound or less that first week. Intake will approximately double each week unless other factors impede this growth.

Milk volume drives starter intake

One major factor is how much milk is being fed and its fat level. There is an inverse relationship between the amount and energy level of the milk being consumed and starter intake. The more milk fed, the slower the starter intake ramp-up. Consequently, this will impact when calves can be weaned. While on one hand feeding more milk limits starter intake, it also improves daily gain.

As calves grow and get larger, they are driven to eat more. And that's the role starter has to fill. For a full week before weaning (see table), calves should be averaging a minimum of 1 pound daily starter intake. Then, when one-half of total milk fed is eliminated, daily starter intake should double to 2 pounds. The week after full weaning, starter intake should double again to 4 pounds daily. In the second week postweaning, calves should elevate daily starter intake to 5 to 6 pounds.

What about the impact of the milk feeding program on the weaning transition and calf performance? We now know that it is best to double a calf's birth weight by 2 months of age in order to positively impact subsequent milk production. That is an average daily gain of 1.5 pounds during those two months. The daily gain in the first week or so of life may be a bit lower than this but will be greater at the end of the two months.

Weaning transition week and starter intake	
Week	lbs./day
Week before weaning begins	1.0
Reduce milk feeding one-half	2.0
Fully wean calves	4.0
Second week after full weaning	5.0 to 6.0

TRY TO KEEP CALVES IN HUTCHES OR INDIVIDUAL PENS for two weeks after full weaning. This provides more time for calves to improve their starter intake and further rumen development before being grouped; it is also one less major change for calves to endure when being moved.

What if 8 to 10 quarts of milk are being fed daily? Then, starter intake and its rate of increase will be slower, prolonging the age at which calves can be weaned. And there may need to be a progressive step down in feeding over a two-week period to allow for higher starter intake before weaning begins.

Try to keep calves in hutches or individual pens for two weeks after full weaning. Invariably, on some farms, calves are being weaned at 8 weeks, and to keep them another two weeks would require 25 percent more calf capacity. Then why not wean them at 6 weeks of age? The rejoinder is that you can't do that, especially if a program is being used to double calf birth weight.

This dilemma led to a calf study at the University of Illinois, in which a texturized calf starter was fed. Following a more traditional calf feeding program, a 20 percent protein/20 percent fat milk replacer was fed at 2 quarts twice daily with 1.25 pounds of milk replacer. That was compared to a 28/15 accelerated program fed at 2 percent of calf body weight.

Since more 28/15 milk replacer was being fed, starter intake each week was less compared to the 20/20 treatment. During Week 5, starter intake was over 1 pound for 20/20 calves but about half that for the 28/15 treatment. But, when half of the milk volume was removed during Week 6, starter intake more than doubled for the 28/15 treatment — a greater relative increase than for 20/20 calves.

After calves were fully weaned, starter intake nearly equalized during Week 7. At the end of eight weeks, birth weight had doubled for the 28/15 treatment while the 20/20 calves weighed 22 pounds less. Thus, it is not age at weaning, per se, that is the key factor, but level of, in this case, texturized starter intake.

Small groups are the answer

Too many times it has been assumed that postweaned calves are now home free. But we need to think of the first three months of a calf's life as a continuum that is very sensitive to changes. Therefore, the number of calves in the first grouping should preferably be six to eight and no more than 10 to 12.

There are some indications that calves may even be paired either after, or maybe even before, weaning to ease into group dynamics. Calves also like a buddy, so keep the numbers even, not odd. By keeping the group size smaller in this third month, social order establishment and the effects of adjusting to a new environment are minimized.

To keep the ration changes to a minimum, continue to feed the texturized starter up to about 6 to 8 pounds along with about 0.5 to 1 pound alfalfa hay. This provides a good dietary transition and avoids creating a "hay belly" due to gut fill from a high forage TMR.

For your operation, begin by taking some measurements of calf starter intake by weeks for the current milk feeding program you are on. Next, determine your target body weight gain from birth to the end of 2 months of age. That should then determine when you can wean calves, rather than just arbitrarily deciding.

When calves are ready to be moved into their first grouping, keep it smaller. Calves will now have weathered transitions and maintained their gains during the first three months of life. And they'll be ready for larger groupings and higher forage TMR as they progress on their continuum to becoming high-producing, lactating cows. 🐄