



## **Consider More Than Days of Age When Weaning Calves**

For many operations the decision to wean calves is based solely on the age of their calves. If calves are experiencing growth slumps, the transition period may need some changes to ensure that calves are ready to make this nutritional change.

Different management styles on dairy farms can create different standard operating procedures in many areas of production. The weaning process is such an example in which multiple management styles all lead to the same end result, a calf that is transitioned from a liquid diet to one consisting of solid feeds. On many operations, often times the decision to wean calves is based solely on the age of their calves. However, there are other factors that should be taken into consideration to ensure that a successful transition has occurred. Once weaned, calves should continue to gain weight as they have done on their liquid diet. If your calves are experiencing growth

slumps once weaned, your transition period may need some changes to ensure that calves are ready to make this nutritional change.

All calves are not created equal. Heath setbacks, twins, different breeds, and nutritional intakes are all factors that result in calves growing at different rates. When producers wean solely on days of age, there are calves that fall behind, are not physiologically ready to be weaned, experience more respiratory problems, and basically fail to thrive once weaned. On every operation there are factors that can arise that affect the weaning process including space availability, time and labor availability, and the health of their calves. However, to ensure a successful weaning transition, the most important factor to pay special attention to is the starter intake of each calf.

In today's feed industry, there are different types of calf starters available to dairy producers. However, regardless of the type of starter being fed, intake levels are extremely important in ensuring that a calf is capable of utilizing the nutrients being fed to her. All calves should be offered a palatable starter during the first week of life. Calves will not consume large amounts immediately, so start off slow and offer small amounts of grain at a time. Remember to change the grain daily. Wet, moldy, stale feeds are not appetizing for calves. Grain needs to be palatable and enticing to encourage starter intake. If not already in place, consider placing dividers between grain and water buckets to discourage mixing, keeping grain fresher longer. Once a calf starts to consume at least a half of a pound of grain a day, rumen development is initiated. Always offering fresh grain can result in calves starting to consume feed earlier, thus resulting in earlier weaning times, and ultimately decreased calf raising costs.

Once rumen development begins, it takes 21-28 days for maximum rumen development. At birth, a calf's rumen is not functional. As calves consume starter, digestion results in the production of volatile fatty acids, primarily butyric acid. Butyric acid is utilized by the rumen in the production of rumen papillae on the surface of the rumen wall. Once developed, the papillae will allow nutrients to be absorbed and utilized by the calf. A rumen that is not adequately developed will result in a calf that may continue to eat but fail to properly utilize the available nutrients, which often results in poor growth rates.

In monitoring grain intake, it is also important not to wean calves completely off of milk until they are consuming at least 2 pounds of grain a day for at least 3 straight days. Often times when producers wean based on days of age, these intake guidelines are not taken into consideration, resulting in underdeveloped rumens not capable of handling a significant nutritional change. Simply knowing the amount of starter intake at weaning is not as important as knowing WHEN calves started consuming adequate amounts of starter feeds. It is also important to realize the inverse relationship between starter intake and the amount of liquid feeds being offered. The more milk being consumed, the less starter intake is consumed. This should be taken into consideration when stepping calves back on milk consumption as you prepare to wean your calves. Because calves require 21-28 days of half of a pound of starter intake for

rumen development, decreasing milk feeding amounts 3 weeks before your targeted weaning date can help promote starter intake, resulting in better chances for maximum rumen development.

The more focus and attention devoted to starter intake, the better the chances for calves with developed rumens ensuring a smooth nutritional transition. Growth slumps in weaned calves often prompt producers to take a closer look into the wrong phase in their management system. If this is the case on your farm, take a few more steps backwards and reevaluate your weaning process as setbacks in transition calves should prompt a closer look into your weaning protocols. Starter intake should be the driving force in your calf weaning program and ultimately the key factor that determines weaning age.