

Dairy Calves are Picky Eaters



By Donna M. Amaral-Phillips

Many articles have been written about the importance of getting dairy calves to eat calf starter at an early age. Calf starter is important for rumen development as the calf transitions from a predominately simple-stomached animal to one with a functioning rumen that can utilize forages and other by-products. We rarely discuss the desirable characteristics or components needed to design and manufacture a good calf starter. The key is to design and manufacture a calf starter that calves like, consume readily, and which provides the nutrients needed by the calf. So, what are some of these key characteristics that constitute a “good” calf starter that calves like and readily eat?

Calves do NOT like fines.

They eat less starter, irrespective if it is pelleted or textured, when it contains fines. Remember our goal is to get young calves to eat their starter in addition to their milk allocation. Many calf nutritionists prefer textured starters over those solely pelleted. In textured starters, the minerals, vitamins, protein source, and ingredients other than corn or oats are usually pelleted together to prevent separation in the bag and in the calf’s bucket. Fines from pellets are sorted and not readily consumed by calves.

Calves are picky eaters and great feed sorters.

Dairy managers have long realized that dairy cows are masters at sorting their feed, preferring to eat those components they like over those that may be best in their diets. Astute calf managers have noticed this behavior in calves also. Calves are very good at sorting out the components that they do not like and eating those they prefer; even better than their mature counterparts. Calves prefer soybean meal as their protein source, but with time can adjust to cottonseed or canola meal. Dried distillers grains and corn gluten feed were preferred less than soybean meal or corn in starter diets. They do not like bloodmeal or fishmeal. Even if these products are included in the pelleted fraction of the starter feed, calves may refuse the pelleted portion.

Grains may be processed.

Corn grain is best when fed either whole, dry rolled, or roasted rolled. Steam flaking can be a variable process and thus may be a less favorable processing method for corn to ensure consistency of the end product. Oats do not need to be process to be fed and barley can be lightly processed. In addition, the starter feed must be free of molds and mycotoxins and contain “clean” grains.

Calves thrive on consistency.

Both consistency in the nutrient composition and ingredients found in starters are important for young calves. Calves can be “picky eaters” and consistently using selected ingredients calves prefer is important. When formulation changes are necessary, they should be small and made over time. As a result, more and larger price fluctuations might be seen compared to grain mixes for mature cows as ingredients are kept consistent between batches of commercially manufactured starters.

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On-farm starter management drives calf growth and future production.

When feeding starter to calves, it needs to be kept dry, fresh, and free of manure. When starter buckets are located directly beside the water source or bucket, the calf goes from one bucket to the next, often resulting in the wetting of the starter. This allows the starter to mold, resulting in a less palatable feed. Placing the water in a separate location, close but away from the starter bucket or feed trough, increases the likelihood of the starter staying dry and desirable for calves. Fresh water available from 3 days of age or earlier is critical to starter intake. Providing an environment that promotes the growth of the rumen bacteria is important for rumen development. These bacteria need a substrate to ferment, in this case the starter mixture, and moisture, provided by water. Remember that water goes in the rumen when calves drink water whereas milk, fed either through a nipple or in a bucket, results in the closure of the esophageal groove and the funneling effect of the milk into the abomasum, by-passing the rumen. Calves prefer fresh feed that is replaced daily or at least 2 to 4 times weekly, thus feeding small amounts at a feeding allows the feed to stay fresher.

Reference: Dr. Al Kertz, Feedstuffs 2022