

# Enhance Dairy Cattle Nutrition

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to be representative of the group of animals. Mix the collected samples and place a pint-sized sample on a .05-.08 inch mesh sieve (flour sifter) or in a strainer. Using a hose, wash a gentle, steady stream of water over the sieve, passing across the sample continuously until the water running from the bottom of the sieve is clear. Then gently use running water to roll or float the particles to one corner of the sieve and remove all material from the sieve. Place the washed sample on a flat dark surface and examine it.

It is inevitable that some long forage particles will appear, but if most are greater than 0.5 inch there may be cause for concern. Poor digestion of forages may be due to the makeup of the fiber component of the diet (low quality forages) or to the ability of the animal to digest the forage being fed (poorly balanced rations).

The small intestine is capable of digesting starch, allowing the cow to utilize this nutrient. However, the amount of starch digested is limited by the rate of digesta passage through the small intestine.

Some grain will be observed in the manure of nearly all high producing cows. This is inevitable because high producers have a high rate of feed intake and a rapid passage rate of feeds out of the

rumen. In addition, these cows require higher ration energy density, and in turn high grain diets, to try to meet their energy needs. This often creates a situation where starch is fed in excess of the amount that can be utilized in the rumen. The feeding of excess grain should be minimized and must be monitored constantly by the herd nutritionist. It is possible for the starch in corn kernels to be partially or fully digested, while the kernel remains intact. Corn silage often produces such kernels with the starch digested from the outer shell, so inspect kernels carefully, especially when corn silage is fed. Finding the optimum amount of grain and extent of grain processing to optimize digestion in a high producing cow is part of the challenge of dairy nutrition, and may vary between cows and groups. Ruminant starch digestion is optimized when other dietary requirements are being met in the rumen. It is recommended to attempt to minimize the grain level in the manure while understanding that some grain will always be present if the cows are being fed adequate amounts of concentrates.

## Final Thoughts

Examining general herd health and nutrition involves the collection of information from all areas of the farm, and fecal evaluation is one of several valuable sources of information. Paired with a close ex-

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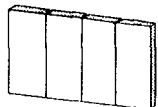
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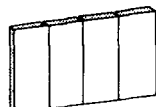
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