Enhance Dairy Cattle Nutrition

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protein intake or high levels of rumen degradable protein. This is likely a result of increased water consumption in a response to excrete excess nitrogen via the urine. In addition, manure may be loose during periods of heat stress. Restricted water or protein intake often results in firmer feces. Severe dehydration results in firm balls of manure. Cows with left-sided displaced abomasums often excrete feces with a pasty dark appearance.

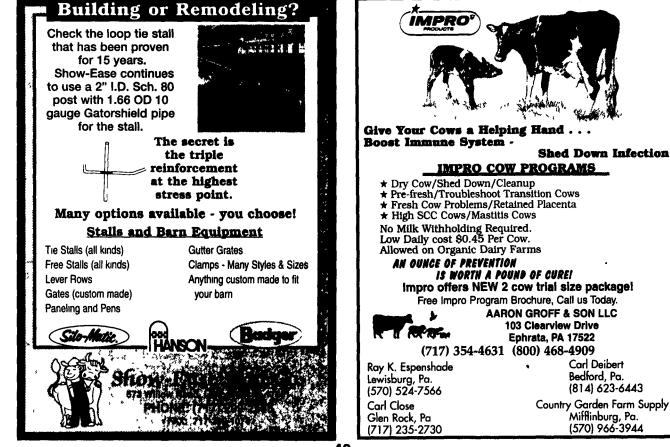
Content. Ideally, fecal samples should indicate uniform digestion and utilization of the majority of feeds and nutrients offered to the animal. If you notice large proportions of undigested grain or long forage particles (pieces greater than 0.5 inch), it may be an indication of poor rumen fermentation and possibly extensive hindgut or large intestine fermentation. Hindgut fermentation is much less valuable to the cow than rumen fermentation. This is due to the fact that little absorption of digested nutrients can occur in the large intestine. Therefore, though digestion and fermentation do occur in the large intestine, little nutritional value is gained for the cow. gested grains may indicate that cows are not ruminating properly or that rumen passage rate is accelerated. This may be due to inadequate intake of fiber that is effective in stimulating rumination or maintaining normal rumen pH.

1.80

Observation of a substantial amount of large undigested grain particles may indicate grain éngorgement or improper grain processing (including hard kernels from corn silage). Nutrients from these large particles are not available to the animals or to rumen microbes.

Be aware that finely ground grain particles, which are not easily seen, may be present. Look closely for a yellow color that may indicate their presence, or observe dried manure. A pale white color on the surface of dried manure indicates undigested starch is present and the amount of white color depends on the amount of starch present.

The presence of excessive amounts of mucus indicates chronic inflammation of or injury to gut tissue. Mucin casts (which appear like a red jell substance) also may be observed. These indicate damage to the large intestine, possibly caused by extensive hindgut fermentation and low pH. The mucin is produced by cells lining the intestine in an (Turn to Page 48)



The presence of large forage particles or undi-

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