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Dairy Guidelines

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Grinding Hay for Dairy Cows Does Not Pay!

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Dairymen are fooling themselves when they grind hay and add it to their concentrate mix! They are fooled in at least 3 ways:

1. Net energy (N.E.) is severely lowered in the concentrate* mix when much ground hay is included. This shortchanges the cow in her total N.E. intake unless additional concentrate mix is consumed to make up the difference.

Adding 30% by weight of average (38 therm) ground hay to the average (70 therm) concentrate mix will reduce N.E. in the concentrate mix to about 60 therms. It fools the dairyman, but it doesn't fool the cow! She just gives less milk.

Grinding hay also results in decreased digestibility because of faster passage through the digestive tract.

When N.E. in concentrates is lowered by including ground hay and the amount of concentrates fed is limited, the cows are starved twice. The dairyman's pocket-book is also flattened in the process.

Forages contain much less net energy than concentrates. The forage testing program has shown that average Virginia hay contains only about 38 therms N.E. in 100 lb., while average concentrates will contain nearly twice this much--more than 70 therms. Therefore, in normal feeding a little more than 1 lb. of concentrates can replace the energy in 2 lb. of hay. The best concentrates may contain as much as 80 therms, while the best hay tested only contained about 45 therms.

*Concentrates normally include both farm grains and protein supplement.

2. The butterfat test will be reduced when ground hay or hay pellets make up most of the forage. Adding ground hay to the concentrate mix also tends to lower the butterfat test.

Fat test is also depressed when limited amounts of hay are fed, when lush pasture is grazed, or when extremely high amounts of concentrates are fed. Cows need a minimum amount of fiber in a form which does not pass through the rumen too quickly. A cow must consume the equivalent of at least 1 lb. of long or chopped hay, hay wafers, or 3 lb. of silage for each 100 lb. of body weight each day if she is to maintain her normal butterfat test.

On the other hand, a cow cannot eat enough forage to provide for high production requirements, and therefore must complete her needs from concentrates.

3. The cost of grinding hay is not justified. The cow is equipped to handle long hays. It is true that some increase in consumption may result from grinding, but it is extremely questionable that increased consumption can offset grinding cost even if reduction in butterfat test is disregarded. Even if no less hay and grain is supplied in this form, the value of the product is lowered because butterfat test is decreased and a lower price will be received for the milk.

Summary

Dairymen lose in 3 or more ways by grinding hay or other forage:

1. Net energy in the concentrate mix is greatly reduced;
2. The butterfat test may be lowered when most of the forage is ground hay;
3. The cost is not justified for dairy cattle. Grinding hay greatly increases the cost per therm of net energy.

Let's take the ground forage (hay, bundle oats, corn fodder, etc.) out of concentrate mixes for dairy cows. If poor-quality forage must be fed, feed it separately and provide enough extra concentrates to replace the lack of energy in the forage. Enough protein must also be supplied.