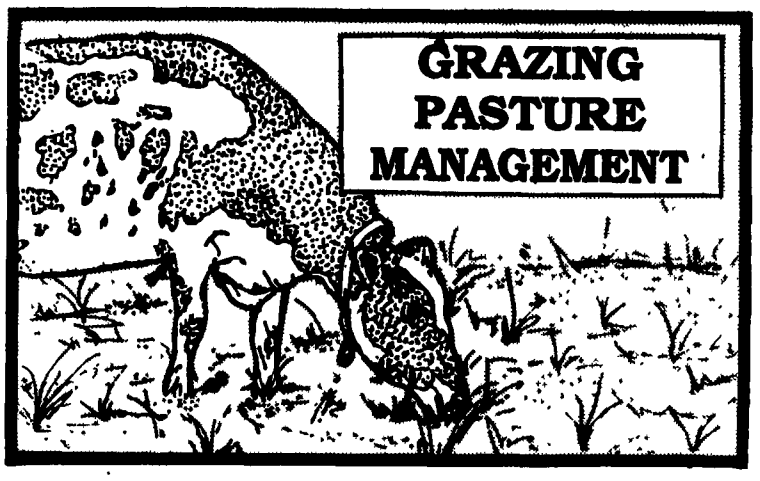

FORAGE QUALITY IN PERSPECTIVE: WHAT IS QUALITY WORTH?

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Fluctuations in milk prices, feed costs, and government programs are forcing dairy farmers to become more efficient with their farm operation.

Since feed accounts for approximately one-half of the total cost of producing milk, and high quality forage optimizes the productivity of the animals, increasing the quality of forage available is one of the best methods of improving overall feeding efficiency. But what is forage quality worth to your operation?

What Is Forage Quality?

Forage quality is defined as the sum total of the plant constituents that influence an animal's use of the feed. Along with its quality, the overall potential feeding value of a forage feed is influenced by the form in which it is fed (e.g., particle size), the palatability of the forage, and by the quality of other feeds in the ration (associative feed effects).

What Is Quality Forage Worth?

The value of high quality forage in a balanced ration is evident in Table 1. When three hays of low, medium, and high quality, along with corn silage and a mixed feed grain, are used to balance a ration, total feed cost for the high quality hay ratio is $0.11 less per cow per day than the medium quality hay ration.

Income over grain cost is $0.45 more per cow per day for the high quality hay ration than for the medium-quality hay. For 100 cows over a year, this difference is greater than $16,000.

Low quality hay does not allow an animal to consume enough digestible energy to be highly productive. A hay of lower quality than the three hays in Table 1 would substantially depress the performance of high producing dairy cows.

Keeping Quality In Perspective

If you want to produce high quality forage, keep in mind the ranking of quality factors and their relative contribution to quality. While all six factors described are important, using high quality varieties will be advantageous only when the other five factors are operant.

Quantity (yield) of forage is also a major consideration. Evaluate your total forage requirements, and then select the crop and the appropriate acreage of that crop that best meet the needs of the group or groups of animals to be fed. It ultimately comes down to economics — high quality forage can help keep farmers in the dairy business.

Table 1. What is forage quality worth?*

	Low quality hay	*Medium quality hay*	*High quality hay*
Hay composition			
Crude Protein, %	12	15	18
Net Energy of Lactation, Mcal/lb.	0.51	0.58	0.65
Balanced ration			
Hay, lbs.	13	14	17
Corn silage, lbs.	33	37	44
Grain, **lbs.	25	22	17
Feed costs			
Hay, $/ton	70	85	100
Silage, $/ton	24	24	24
Grain,$/ton	180	180	180
Total Feed Cost, $	3.11	3.02	2.91
Income Over Grain (IOG), $	4.35	4.62	5.07
IOG x 100 cows x 365 days	**$158,775**	**$168,630**	**$185,055**

*Assumes second-lactation, 1350 lb. cow producing 60 lb. milk/day containing 4% milk fat with a milk price of $11.00/cwt Adapted from the *Forage Production Manual* for the Pro-Dairy Program.
Comell Univ., Ithaca NY 14853
**Grain is a mixed dairy feed.