

LIVESTOCK

Hay analysis provides value

by Clay Wright / jcwright@noble.org



Over the years, there have been many articles in this publication regarding hay – its true cost of production, storage and feeding techniques, and stockpiling to reduce the need for hay, among other topics. Hay and the feed often required to supplement its quality make up a large percentage of annual cow costs. Until we can produce consistent grazeable forage year-round in the quantity and quality necessary to meet animals’ nutrition requirements, hay will remain a part of most livestock enterprises in the Southern Great Plains.

Producers in this area have begun to bale excess small grain and ryegrass pastures. Warm-season perennials and annuals will also be “rolled up” as the growing season progresses. As you are looking for next winter’s hay, you should take a sample of each lot before committing to purchase. There are many places to get samples analyzed with the cost being around \$10 to \$15 each. Is that cost justified? A hay analysis prior to purchase offers one of the greatest returns on investment in the ranching business.

To illustrate how important this is, assume you have the option of pur-

chasing hay from three different lots. Without an analysis, you have no idea of their quality. So how do you know which is the better buy? You have to sample it for analysis. Once you know the nutritive value, there are several ways to determine hay value. One is to calculate the amount of supplemental feed that will be needed, if any, to meet the nutritional needs of the class of animal to which you will be feeding the hay. Let’s say you will be feeding it to a 1,200-pound, spring-calving cow through a 135-day winter period. She will be non-lactating, and in her second trimester for 45 days and last trimester for 90 days. Table 1 shows three hays and their nutritional values for total digestible nutrients (TDN) and crude protein (CP).

For comparison, what would the total winter feed costs per cow be using 20 percent cubes costing \$364 per ton to supplement each of the three hays?

The range in hay quality used in this simple example is fairly common and often even greater. Knowing quality before buying made an incremental difference in winter feed costs of roughly \$20 per cow between each of these hays and over \$40 from best to worst as illustrated in Table 2. The cost of an analysis for CP and TDN is trivial compared to the value of knowing what you are feeding. For details on taking hay samples, see *Sampling Hay and Standing Forage* (www.noble.org/ag/pasture/sampling) by Hugh Aljoe. ■

Table 1
Hay Nutritive Values

	% TDN	% CP
Hay 1	48	6
Hay 2	50	8
Hay 3	52	10

Table 2
Cost Per Cow for 135-day Winter Feeding Period

	Hay*	Supplement	Total Cost
Hay 1	\$101.00	\$100.51	\$201.51
Hay 2	\$105.30	\$75.33	\$180.63
Hay 3	\$109.62	\$51.01	\$160.65

*As hay quality increases, individual consumption increases; that value is included in the totals.