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Appraising Forage Quality

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When appraising hay quality, folks have two basic choices: visual appraisal or lab analysis. Generally, we use a combination of both methods, but for some folks, there is no replacement for visual appraisal of hay utilizing color, texture, smell and feel. A lab analysis without a visual appraisal is somewhat limited because it does not speak to the personal experience and practical knowledge that many have in the hay business. Many of us are familiar with the RFV (Relative Feed Value), ADF (Acid Detergent Fiber), CP (Crude Protein), TDN (Total Digestible Nutrients) and other values reported on a laboratory forage analysis. How these relate to feed value for a particular livestock species is enhanced by a visual appraisal of the hay also.

Since it is so difficult to evaluate hay based on someone else's description, without having seen the hay, visual appraisal reigns supreme. There are three basic criteria involved with the visual appraisal of hay and these are sight, smell and feel.

Sight- The look of a hay is so critical for folks in appraisal of the hay. Is the color a good shade of green or is it washed out or bleached out brown? Are the grasses and legumes in the mix leafy or fully headed out, indicating overmaturity? What are the species in the mix; grasses such as orchardgrass, timothy, fescue or bluegrass and legumes such as alfalfa, red clover, alsike clover or ladino clover? Are there any visible signs of pests such as leafhopper damage on alfalfa or mold discoloration?

Smell-For many, the smell of hay is as important or more important than the look of the hay. Does the hay smell fresh and light or is there a mustiness associated with it, indicating mold damage? Is the sweet hay aroma strong or washed out as if by rain?

Texture-Almost anyone who has looked at hay understands the need to feel the hay for texture. Is the hay brittle and coarse, as if overdry, or tough and stringy, as if slightly damp? Are you feeling good leafiness in the hay or predominantly stems from an overmature or overdry forage?

All of the above questions come into play as one evaluates hay for quality. Another consideration, of course, is the knowledge in the mind of the evaluator as to which species and stage of livestock for which the hay is intended. The requirements for a dry, pregnant cow are much different than that of a lactating

dairy cow. Utilizing this livestock intent for feed along with the visual appraisal is how most hay is still sold. Coupling this knowledge with a lab analysis for RFV or other factors allows better decisionmaking.

In brief, a quality standard for hay using RFV looks like this:

<u>Quality Standard</u>	<u>CP</u>	<u>ADF</u>	<u>NDF</u>	<u>RFV</u>
Prime	>19	<31	<40	>151
1	17-19	31-35	40-46	151-125
2	14-16	36-40	47-53	124-103
3	11-13	41-42	54-60	102-87
4	8-10	43-45	61-65	86-75
5	<8	>45	>65	<75
Reference hay of 100 RFV contains 41% ADF and 53% NDF.				