Buyer Beware When Buying Roughage

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With much of Minnesota experiencing severe drought for most of last summer, roughage to feed cattle has become scarce. Next to snowplow drivers and cashiers, grass hay has become a limited commodity. Even with CRP opening in late summer, many are scratching their heads about what to do next.

There is a lot of hay moving around the country. For many, buying hay is the only real option. Unfortunately, the cost of all roughage has gone sky-high, with grass hay leading the charge at $120-$200+. However, many do not have a lot of experience with buying roughage. Here is an outline of a few things to think about when buying roughage for beef cows in a really tight market.

Buying sight unseen. If you need to buy roughage in quantities of a truckload or greater, never buy sight unseen. It is worth spending the time and money to make sure what you are planning to buy is accurately represented. There are wide differences of opinion of acceptability on several points concerning hay characteristics.

Weeds, brush, and other trash. When buying hay outside your area, it is important to take note of weeds you don't already have on your farm; you will have them moving forward. Also, be aware of brush and other trash, as many areas that aren't normally hayed, including ditch hay, were cut and rolled up. Not all road ditch hay is bad, but it can be something to be cautious about.

Table 1. Calculations to aid in figuring your hay cost compared with corn grain.

A	B	C	D	E	F	G	H
			C/B	D x 2,000	1,400 x .023	F x D	G x 30
Bale size, ft	Est. Bale weight, lbs	Price/ bale, $	Price/ pound, $	Price/ ton, $	Cow intake/ day, lbs	Cow feed cost/day, $	Cow feed cost/ month, $
4x4	512	90	0.17	351.56	32	5.44	163.20
4x5	800	90	0.11	225.00	32	3.52	105.60
4x6	1,150	90	0.08	156.52	32	2.56	76.80
5x5	1,000	90	0.09	180.00	32	2.88	86.40
5x6	1,440	90	0.06	125.00	32	1.92	57.60
Corn grain	2,000		0.10	214.00			

Adapted from J. Banta, 2012, Texas A&M Extension, E-319.

Composition and quality. It is a good idea to have a quality test done on hay you are buying. Although not often feasible, collect samples yourself if possible. Important things to look for on a hay test include crude protein (%CP), total digestible nutrients (%TDN), and moisture. Percent CP and TDN on a dry matter basis determine roughage value. While you don't necessarily need the best quality, you need to know what you are buying to feed it correctly.

Price by bale or ton. Buying hay by the individual bale can be difficult to value. Different size bales, baler models, and levels of baler maintenance will inherently produce a wide range of actual material stored in the bale. Thus, it may be advantageous to buy roughage on a measured weight basis, normally by the ton. It is also important to note bale size and bale density are two principal components in valuing a lot of hay, as they both affect the amount of material in the bale. As an example, the amount of hay stored in a 4x4' bale is one-half the amount of hay stored in a 5x5' bale, assuming the belt tension on the baler is set correctly for both bales (Table 1). Furthermore, do not assume bale density of one hay lot is the same as another just because the bale size is the same – a reason to physically evaluate hay before buying it. Table 1 shows calculations needed to figure expenses based on hay cost when compared with corn grain. You can plug your costs into the table and make relevant calculations.

Alternative roughages. Although grass hay is the hot ticket item right now, it is worth noting many are replacing some or all of their hay with alternative roughages; mostly corn stover. There seems to be a decent supply of stover providing a great opportunity to "cheapen up" ration costs. Table 2 shows what you can expect for the bale size-weight relationship on properly tensioned bales. You may notice stover bales are quite a bit heavier than the same size grass hay bale. They also sell at a significant discount. It is important to understand corn stover tends to hold quite a bit more moisture than grass hay (+20% is not uncommon). Additionally, stover will rarely have CP over ~5%, so you are going to have to feed a protein supplement with it. Table 3 is an example ration for a standard 1,400-lb beef cow using only corn stover and dry distiller's grain. The lower cost of stover brings down ration cost quite a bit. Note, distiller's grain cost is the material only; it does not include trucking, storage, handling, and feeding. There are many other protein supplements that can be used.

Table 2. Different corn stover bale sizes, estimated weight at 20% moisture, price per bale, pound, and ton.

Bale size, ft	Est. Bale weight, lbs	Price/ bale, $	Price/ pound, $	Price/ ton, $
4x5	1,000	40	0.04	80.00
5x5	1,250	40	0.03	64.00
5x6	1,750	40	0.02	45.50

Table 3. Example ration formulation for a 1,400-lb beef cow, ration cost/head/day, and ration cost/head/month using corn stover and dry distiller's grain (DDG).

Feedstuff	Pounds/ day	Cost/ pound, $	Ration cost/head/ day, $	Ration cost/head/ month, $
Corn stover	27	0.03	0.81	24.30
DDG	5	0.09	0.45	13.50
Total			1.26	37.80