

Year Old Hay - Is it a Good Deal?

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This summer, there are regions around the country that are short of hay and forage. Other areas have surplus hay stacked in long rows in feed yards or at the sides of hay fields. Buyers may see this surplus as an option to fill their bale yards now instead of worrying about securing hay supplies later in the summer. Buyers are looking for deals and sellers want to make room for the next hay crop, everybody wins: well, maybe. Purchasers should be sure to re-weigh and re-test year-old hay before purchasing.

“Hay is a perishable commodity that deteriorates when exposed to weather,” says Barry Yaremci, beef and forage specialist with Alberta Agriculture and Rural Development. “Time is a factor. For example, 90 days after cutting, the vitamin precursors lose strength, and animals will require supplementation. The fat soluble vitamins A, D, and E are the first nutrients to oxidize. Injecting or feeding vitamins 90 days after animals are taken off fresh forage is necessary until they are put back on pasture the following spring.”

Bales that are stored under a shed, covered or wrapped in plastic do not deteriorate over the winter as much as hay stored unprotected outdoors. If you were to feed test in the spring and compare it to the results from the previous fall, the protein, fibre (energy) and mineral content of the hay stored under cover would be very similar. These values would be much lower for hay that is stored outdoors, uncovered on the ground.

“In a six-foot diameter round bale, 27 per cent of the bale weight is found in the outer five inches of the bale,” says Yaremci. “For every inch of rain, 82 litres or 180 pounds (18 gallons) of water will land on the bale. Some will run off, but some will enter the bale. When the exterior of the bale is rain soaked and is exposed to weather, it rots.

“More weather damage occurs to legume hay compared to grass hay. Applying twine at four inch spacing reduces moisture entry into the bale compared to bales with twine at eight inch spacing. Net wrapped bales shed rain better and have less damage than bales tied with twine. Bales wrapped with solid plastic have the least amount of damage. A dense or tight bale sheds more water than a loose bale.”

Late summer and fall rains can reduce bale weights by 8 to 12 per cent. A bale weighing 1450 pounds in July can shrink to 1275 pounds by October, although there may be no visible difference in bale size or appearance. If paying for hay by the pound, re-weigh the bales and adjust the weight to a standard 15 or 16 per cent moisture.

“Much of the 2010 hay crop was rained on and turned many times before baling,” says Yaremci. “Hay growers who waited four to eight weeks for the weather to change, harvested a larger volume of lower-quality, over-mature hay. Generally, the feeding value of the 2010 forage crop was lower than what is considered to be average quality from other years.

Last year's bales that may have been baled wet (more than 20 per cent moisture) will absorb moisture from fall rains or when in contact with wet soil. High levels of microbial activity can be expected.

"Molds and bacteria have to live on something and what they use up first is the best nutrients," says Yaremcio. "The soluble proteins and highly digestible sugars are consumed leaving off-coloured moldy feed. Feed quality of the hay is reduced. Weather damage can increase the indigestible fibre levels in hay by five per cent or more and reduce energy levels by similar amounts. Hay that had 14 per cent protein in the fall may only have 11 to 12 per cent next spring, and total digestible nutrient (TDN) values can be reduced from 65 to 58 per cent. Again, cautionary advice producers should glean from this information is that even if you see last years' feed test results, re-weigh and re-test the hay before purchasing.

"If you compare the feeding value of straw and good hay from previous years, much of the 2010 hay had the nutrient content about half way between straw and normal good quality hay. Protein was lower, acid detergent fibre and neutral detergent fibre levels much higher, and energy content was reduced. The impact of this lower quality showed up with many cows coming through a tough winter carrying less condition than what is required."

If producers expect this older feed to be the majority of this years' feeding program, protein and energy supplementation will be required to meet animal requirements. As a guideline, hay made in 2010 should not be more than 25 to 30 per cent of the forage in the ration for cows in early to mid-pregnancy and 15 to 20 per cent in late pregnancy. Depending on quality, year-old hay may not be suitable to include in lactating cow or newly weaned calf rations.

Coming up with a fair price when buying year-old hay:

- weigh the bales – don't use average weights from last fall
- take a representative sample and test the feed to ensure that the quality meets requirements
- price should reflect the 10 per cent reduction in digestibility for hay that was stored outdoors (if cows cannot digest the hay efficiently, more nutrients end up in the manure)
- compare the price of year-old hay to greenfeed or straw, and pay according to quality not forage type

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