

Pricing Forage in the Field

Questions often arise about how to arrive at a fair price for standing crops such as corn silage, oats, hay, and cornstalks. Although there are no widely quoted market prices for these crops, they can be valued according to their relative feed value and compared to some crop that does have a known market price, such as corn grain or baled hay.

Corn Silage

Corn silage can be valued most easily according to the price of corn grain. Taking into account the value of the grain, the extra fertilizer cost, and the harvesting costs saved, a ton of corn silage in the field is worth about 6 times as much as a bushel of corn. Use the local harvest price as a guide. If the current market price is below the county USDA loan rate, use the loan rate instead.

Example 1	
Expected price of corn	\$4.50 per bushel
Value of standing silage	$\$4.50 \times 6 = \27.00
Yield of corn silage	18 tons per acre
Value of standing corn	$\$27.00 \times 18 = \486.00

This ratio assumes silage is harvested at 60 percent moisture. To adjust for other moisture levels, subtract the actual moisture level from 100, divide by 40, then multiply by the estimated value for 60 percent moisture silage.

Example 2	
Silage moisture level	70%
Silage dry matter level	$100\% - 70\% = 30\%$
Silage value at 60%	\$27.00 per ton
Silage value at 70%	$\$27.00 \times 30/40 = \20.25

Corn silage that has already been harvested and stored is worth more, naturally. A value of 9 times the price of corn for each ton of usable silage is commonly used. Adjustments can be made for the condition and accessibility of the corn silage.

Oats

Standing oats sold for silage can be priced relative to oats grain. Based on the value of the oats and straw that could have been harvested and sold, minus the harvesting costs saved, a price of 13 times the price of a bushel of oats per ton of oat silage (70 percent moisture) is reasonable for the standing crop. For oat silage already harvested and stored, a price of 17 times the price of a bushel of oats can be used.

Example 3	
Expected price of oats	\$3.00 per bushel
Value of oat silage	$\$3.00 \times 13 = \$39.00/\text{tn}$
Yield of oat silage	6 tons per acre
Value of standing oats	$\$39.00 \times 6 = \$234.00/\text{a}$

Roughly one ton of 70 percent moisture oat silage can be harvested for each 12 bushels of oats that could be harvested as grain. Oat silage is higher in percent crude protein than corn silage but lower in percent total digestible nutrients (TDN), so its feeding value is approximately 80 percent that of corn silage.

Hay and Haylage

Selling hay or haylage as a standing crop is essentially the same as renting established hay land. Cash rent for land with an established grass/legume hay crop varies widely depending on yield, hay quality and local demand. Across the state grass hay rental rates range from \$100 to \$120 per acre in northern Iowa and from \$60 to \$80 in southern Iowa. For established alfalfa, rental rates are from \$130 to \$160 in northern Iowa and from \$80 to \$100 in southern Iowa. For the first cutting of hay or haylage a charge equal to 40 to 50 percent of the yearly rent is appropriate. Later cuttings are usually worth only 25 to 35 percent of the yearly rent.

The value of standing hay also can be estimated by subtracting harvesting costs from the market value of the same hay. Custom rates can be used to estimate harvesting costs.

Example 4	
Price of alfalfa hay	\$5.00 per bale
Harvesting costs	\$1.00 per bale
Hay value in the field	\$5.00 - 1.00 = \$4.00/bale

For haylage, the feed value of a ton of 40 to 50 percent moisture unharvested haylage can be estimated as equal to roughly half that of a ton of dry hay, minus the costs for windrowing, harvesting, and hauling.

Example 5	
Price of hay	\$90 per ton
Harvesting cost	\$18 per ton
Standing haylage value	$(\$90 \times \frac{1}{2}) - 18 = \$27/\text{ton}$

Some owners prefer to keep part of the hay crop instead of charging cash rent. For an established crop for which the owner pays all the fertility costs, the owner is probably entitled to about 60 percent. If the person who harvests the crop pays part of the establishment and fertility costs, the owner's share should probably be only 40 to 50 percent.

Cornstalks

Cornstalks can be used as a partial replacement for late fall pasture or winter hay. For beef cows, a ton of harvested corn stalks is worth about 50 percent of the value of grass hay per ton. If the buyer harvests the stalks, then a value of 25 percent of the price of grass hay is appropriate. See AgDM File A1-70, *Estimating a Price for Cornstalks*, for more information.

Cornstalks also can be rented for grazing. Rental rates are typically about \$6 to \$10 per acre, or \$4 to \$8 per AUM. One AUM is equal to a mature beef cow grazing for one month.

When hay or corn stalks are harvested as large round bales, weighing them may not be convenient. The weight of a large round hay bale can be estimated by multiplying the length of the bale (in inches) by the diameter squared (in inches) and dividing by 200. For corn stalk bales, divide by 300.

Example 6	
Length of hay bale	60 inches
Diameter of bale	65 inches across
Weight of bale	$60 \times 65 \times 65 / 200 = 1,267 \text{ lb.}$

In years of low production, prices for standing forages may be considerably above those discussed. On the other hand, when feed is in good supply the landowner may have to accept a lower price. If there is no ready alternative use for the feed, then both buyer and seller will still benefit from the sale.

... and justice for all

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