

NEWS COLUMN

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Assessing Value and Yield of a Standing Corn Crop for Forage

Each year I get various calls about the value of standing corn for silage. Historically, there have been no established markets to enable producers to determine the value of forage crops prior to or at harvest time.

When coming to a fair value, three general steps are necessary to arrive at a sale price for forages: 1) the quality and quantity of the forage available, 2) feed equivalent price, 3) considerations relevant to market price determination.

Estimating yield is obviously important. This can be done by weighing each load as it is harvested or estimating the yield prior to harvest.

Weighing one or two loads and multiplying times the number of loads is quick and easy; however, this can be inaccurate.

Weighing each load and adjusting moisture or nutrient content is the most accurate method of determining yield but can be impractical because it is very time consuming and inconvenient.

Various methods have been developed to estimate the tonnage yield of standing corn for silage. A general method is estimating the grain yield of the standing corn and dividing by five to obtain the tons of silage. Example: If the estimated yield is 50 bushel per acre, the expected silage yield would be ten tons per acre (50 divided by 5 = 10). This value changes, however, as yield increases and can also vary depending on the hybrid and maturity. The following table estimates tonnage yields of silage based on grain yields.

50 bushels = 10 tons

70 bushels = 13 tons

90 bushels = 15 tons

110 bushels = 18 tons

130 bushels = 20 tons

150 bushels = 22 tons

180 bushels = 25 tons

Various methods have also been developed for assessing the value of corn silage.

One method is to price corn silage in relation to the grain it contains. Generally between six and seven bushels of No. 2 shelled corn are present in one ton of corn silage. Therefore, to arrive at the price of silage per ton, multiply bushels per ton times the price of corn per bushel. Example: Six bushels per ton times \$5.00 per bushel equals \$30.00 per ton for silage without any harvest costs.

Another method that can be used to determine price is to set it in relation to the price of hay. Corn silage has less protein but more energy than most classes of hay. There is about one ton of hay equivalent in three tons of corn silage. This correlates to dividing the price of hay by a factor of three to arrive at the price of silage. If hay is priced at \$100 per ton, corn silage would be valued at \$33 per ton without any harvesting costs. This assumes equally good quality of both hay and corn silage.

When these two formulas are quite different because of price structures or differences in the market value of corn vs. hay it is always best to go with an average of the two.

The goal of setting a price for corn silage at or before harvest is to set a price that is fair to both the seller and buyer. The purchaser of a standing crop needs to consider quality and quantity needed. In addition, harvest costs, risk, local market conditions and alternative feedstuffs available. The seller of a forage crop, in this case corn, must evaluate some of the same things to be sure he/she receives a price necessary to cover the lost crop residue or organic matter sold as silage. Both buyer and seller must be aware of all issues so that a fair and equitable price can be reached.