



Buying and Selling Corn Silage: What's A Fair Price?

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Base price at 65% moisture..... \$ _____ / ton
 ...7-9x price of shell corn...\$2.00 x 8 = **\$16 / ton**
 ...cost + return...\$275 ÷ 15 ton/a + 10% = **\$20 / ton**
 ...1/4 to 1/3 price of baled hay...\$100 x 0.25 = **\$25 / ton**

Adjusted price for moisture (see table below).....\$ _____ / ton

| Base Price (\$ / ton as fed) at 65% moisture | | | | | | |
|--|---------|---------|---------|---------|---------|---------|
| % Moisture | \$16 | \$18 | \$20 | \$22 | \$24 | \$26 |
| 71 % | \$13.26 | \$14.91 | \$16.57 | \$18.23 | \$19.89 | \$21.55 |
| 69 % | \$14.17 | \$15.94 | \$17.71 | \$19.49 | \$21.26 | \$23.03 |
| 67 % | \$15.09 | \$16.97 | \$18.86 | \$20.74 | \$22.63 | \$24.52 |
| 65 % | \$16.00 | \$18.00 | \$20.00 | \$22.00 | \$24.00 | \$26.00 |
| 63 % | \$16.91 | \$19.03 | \$21.14 | \$23.26 | \$25.37 | \$27.48 |
| 61 % | \$17.83 | \$20.06 | \$22.29 | \$24.51 | \$26.74 | \$28.97 |
| 59 % | \$18.74 | \$21.09 | \$23.43 | \$25.77 | \$28.11 | \$30.45 |

Quality adjustment factor for maturity..... x _____ %
 (Darby and Lauer, 2002...see attached graph)
 ... pre-tassel = **90%**
 ... silk = **80%**
 ... soft dough = **85%**
 ... early dent = **90%**
 ... 1/2 kernel milk line = **100%**
 ... black layer = **90%**

Adjusted price for moisture and quality..... = \$ _____ / ton

Estimating Corn Silage Yield

Two “quick and dirty” ways to estimate corn silage yield are:

Based on Grain Yield...for stressed corn, about one ton of silage per acre can be obtained from each 5 bushels of grain per acre. For example, if you expect a grain yield of 50 bushels of grain per acre, you will get about 10 ton/acre of 30 percent dry matter silage. For corn yielding more than 100 bushels per acre, about one ton of silage per acre can be expected for each 7 to 8 bushels of grain per acre.

(over)

Based on Plant Height

If little or no grain is expected, a rough pre-harvest estimate of yield can be made by assuming that one ton of 30 percent dry matter silage can be obtained for each foot of plant height (excluding the tassel). On this basis, "waist-high" corn 3-4 feet tall will yield about 3 to 4 tons per acre of silage at 30 percent dry matter.

Sample Weight Method

A more accurate way to estimate yields is to weigh the corn plants from a portion of an acre (1/100th) in several spots of the field. To do this, determine row width, then cut corn plants in one row for a certain length according to row width in the following table:

| Row Length | Row Width |
|------------|-----------|
| 32.50 ft. | 30" |
| 28.75 ft. | 36" |
| 27.50 ft. | 38" |
| 26.25 ft. | 40" |

Next, weigh the amount of whole corn plant material cut in pounds. Divide the pounds harvested by 4. That's the estimated tons produced per acre. Follow this method for several areas and average the results.

For example – If the row width was 30" and 32.5 ft. or row was cut and weighed 64 lbs., this field would yield 16 tons of corn silage /acre (64 divided by 4 = 16 tons).

In order to obtain actual tons harvested, weigh each wagon load or count how many feet of silage went into a silo after settling. If you know the silo size, how many feet of silage was put up and what the moisture was, silo charts can be used to calculate tons stored. Dividing stored tons by acres harvested will give you yield per acre.

Finally, multiply your adjusted base price with yield and acre to determine total value. If the buyer is responsible for harvesting, then use the following custom rate guides to establish credit toward the final payment.

| | With Kernel Processor | | Without Kernel Processor | |
|-----------------------|-----------------------|---------------|--------------------------|---------------|
| | \$ / Acre | \$ / Hour | \$ / Acre | \$ / Hour |
| Pull-Type | | | | |
| Chop | NA | \$75 - \$100 | \$25 - \$50 | \$50 - \$100 |
| Chop & Haul | NA | NA | \$40 - \$60 | \$100 - \$160 |
| Self-Propelled | | | | |
| Chop | \$30 - \$90 | \$100 - \$400 | \$25 - \$50 | \$125 - \$275 |
| Chop & Haul | \$45 - \$100 | \$175 - \$450 | \$50 - \$90 | \$175 - \$425 |

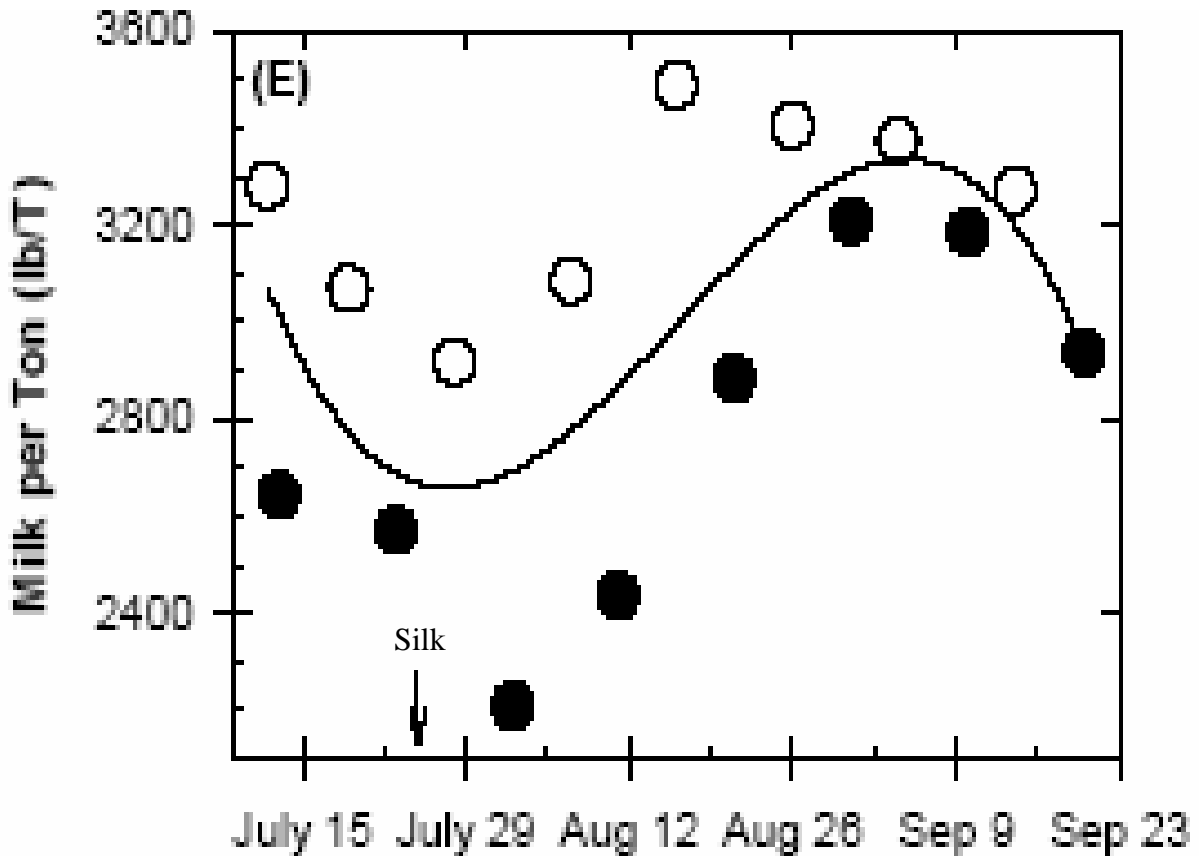


Figure 1. Forage value (milk per ton) of corn harvested at Arlington during 1998 and 1999. The arrow indicates the average silking date of July 25. Derived from Darby and Lauer (2002).

Table 1. Projected dates when corn growth stages are achieved for various 2004 planting dates. Predictions assume that temperatures are average from July 28 on.

| Growth stage | GDUs | Days after silking | Planting date | | | | | |
|--|------|--------------------|---------------|---------|---------|---------|---------|--------|
| | | | April 15 | May 1 | May 15 | June 1 | June 15 | July 1 |
| Arlington (Full-season hybrid = 105 to 110 d RM.) | | | | | | | | |
| R1 (silking) | 1250 | --- | July 25 | July 31 | Aug. 6 | Aug. 14 | Aug. 26 | Sep. 7 |
| R5 (dent) | 2150 | 38 | Sep. 1 | Sep. 7 | Sep. 13 | Sep. 21 | Oct. 3 | Frost |
| R5.5 (½ milk) | 2275 | 49 | Sep. 12 | Sep. 18 | Sep. 24 | Oct. 2 | Frost | Frost |
| R6 (black layer) | 2400 | 60 | Sep. 23 | Sep. 29 | Oct. 5 | Frost | Frost | Frost |
| Marshfield (Full-season hybrid = 90 to 95 d RM.) | | | | | | | | |
| R1 (silking) | 1150 | --- | July 26 | July 30 | Aug. 4 | Aug. 10 | Aug. 21 | Sep. 2 |
| R5 (dent) | 2000 | 38 | Sep. 1 | Sep. 6 | Sep. 11 | Sep. 17 | Frost | Frost |
| R5.5 (½ milk) | 2150 | 49 | Sep. 13 | Sep. 17 | Sep. 22 | Sep. 28 | Frost | Frost |
| R6 (black layer) | 2250 | 60 | Sep. 24 | Sep. 28 | Frost | Frost | Frost | Frost |

GDUs = modified Growing degree units (base= 50 F, maximum = 86 F)

Average frost date (<32) at Arlington = Oct. 7 and Marshfield = Sep. 27.