

Targeting Corn Silage Harvest

When to start moisture testing the standing crop?

Although milk line should not be used to assess moisture, it can indicate when to start moisture testing the standing crop. As the kernels start to dent, a separation between kernel starch and milk can be seen. The firm starch is deposited in the crown (outer) layer of the kernel and the milk occupies the basal area towards the tip of the kernel. The milk line (or starch line) can be seen across the kernel shortly after denting. The milk line advances toward the kernel tip with maturity. Once the kernel milk line begins to move down the kernel following the dent stage, the fields intended to be harvested for silage should be sampled for moisture.

The "trigger" on when to start sampling for moisture depends on the intended storage structure (Table 4). Dent is 0% milk line. When the milk line has advanced completely to the kernel tip and a black layer is present, the grain has reached physiological maturity. This takes about 10 to 15 days (Table 1).

Source: Joe Lauer, Predicting Corn Silage Harvest Dates, University of Wisconsin.

| Storage System | Recommended Moisture For Ensiling (%) |
|-------------------------|---------------------------------------|
| Horizontal bunker | 70 - 65 |
| Silage bag | 70 - 60 |
| Upright concrete stave | 65 - 60 |
| Upright oxygen limiting | 60 - 50 |

Source: Jock Buchanan-Smith, Corn Silage Management Handbook

| Development | Time (days) | Average Whole Plant Moisture (%) |
|---|-------------|----------------------------------|
| Silking to dent stage | 35 - 42 | 70 |
| Silking to 1/2 milk line | 42 - 47 | 65 |
| Silking to grain maturity and black layer | 55 - 60 | 60 |

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How fast will it dry down?

Normal whole plant dry down is about 0.5% per day, but up to 1% per day in hot dry weather. When grain is poorly filled, dry down will be more rapid than 1% per day. For grain, dry down is about 0.75% per day from 30 to 25% moisture and only 0.25% when grain moisture falls below 25%.

If the corn going into a bunker silo tested 74%, then harvest should begin $[(74 - 70)/0.5] = 8$ days after moisture testing. In hot dry conditions it should begin $[(74 - 70)/1.0] = 4$ days after moisture testing.

Source: Watch Corn Silage Moisture, NOT the Milk Line OR the Calendar, Beth Wheeler, Dairy Cattle Nutrition OMAFRA
http://www.omafra.gov.on.ca/english/livestock/dairy/facts/info_watch.htm

1. Corn should be dented and at or near 1/2 milk-line
2. Collect 4-6 stalks/field
3. Label field (if you know hybrid maturity & planting date we will record it.)

TEST YOUR CORN READINESS**TUESDAY SEPT 14 1—3 pm****TULLY AG CENTER****20 ONONDAGA STREET, TULLY****Cornell Cooperative Extension**

South Central NY Dairy and Field Crops Program