When is it time to harvest silage?

Determining when to harvest corn as silage to maximize yield and quality can be a daunting task depending on the environmental conditions the crop has endured during the growing season. Every year is different! The "normal" timing for harvesting corn silage depends on two key factors:

- When the overall plant moisture has reached the optimum of 65-70 percent moisture.
- When the kernels have reached the half milk line.

In addition to that rule of thumb, here are three tips for estimating when silage harvest will fall in a given year based on environmental conditions:

- **Take note of when tassels first appear (VT):** At that time, take note if there are areas of the field that tassel 5-7 days later. This delay will follow through the growing season and complicate reaching the ideal moisture range at harvest time.
- **40-47 days after silking:** Typically, silking will occur 1-3 days after the tassels emerge (R1). This is the first date range to predict when to harvest for corn silage in the dent stage (R5), which typically occurs 37-42 days after silking. Black layer formation (R6) occurs 55-60 days after silking and the half milk line occurs roughly 14 days before black layer. Thus, your predicted start date which will need to be field checked will be 40-47 days after silking.
- **Track Growing Degree Units (GDU):** The final method is to track the GDUs during the season. The range from silking to black layer is 700 to 1200 depending on the hybrid, environmental conditions and disease pressure.

Example: The corn in the Baldwin, WI Knowledge Plot tasseled (VT) on July 20th. This would put our predicted silage harvest in the week of September 5th time frame with normal GDU accumulation but with the cool cloudy August it appears it will be 7-10 days later.

Table 5. Required growing degree units between corn development stages and maturity (black layer).

Corn development stage	Relative maturity zone *(days)* 85-90	95-105	110-120
	Growing degree units		
R1 (silking)	1000	1100	1200
R2 (blister)	800	880	960
R3.5 (late milk / early dough)	600	660	720
R4.5 (late dough / early dent)	400	440	480
R5 (dent)	200	220	240
R6 Maturity (black layer)	0	0	0
Harvest (kernel moisture at 25%)	150	150	150

derived from Carter, 1991

Table 5. derived from Carter, P.R 1991, Corn development and growing degree days, Agronomy Advise Mimeo Series 28.10. View here: http://corn.agronomy.wisc.edu/AA/pdfs/A046.pdf

For additional information on corn silage, visit these Extension resources:

- University of Wisconsin Extension | Sampling Corn Silage Fields to Accurately Determine Moisture: http://fyi.uwex.edu/forage/sampling-corn-silage-fields-to-accurately-determine-moisture/
- NDSU Extension | Dairy Focus: The Basics of Corn Silage https://www.ag.ndsu.edu/news/columns/dairy-focus/dairy-focus-the-basics-of-corn-silage
- SDSU Extension | Silage Management: http://igrow.org/agronomy/other-crops/silage-management/
- SDSU Extension | Corn Silage Harvest Moisture and Management: http://igrow.org/agronomy/other-crops/corn-silage-harvest-moisture-and-management/
- University of Wisconsin Extension | On-Farm Moisture Testing of Corn Silage: http://fyi.uwex.edu/forage/files/2014/01/CSMoistTest-FOF.htm_.pdf

Example of height of Legend Next Generation silage corn in Wisconsin. After over a decade of breeding and research, these hybrids offer dairy and livestock producers a quick, 30-day ensiling period and 10-12% more starch digestibility than a dual-purpose or BMR hybrid through the recessive “floury” genetics.

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