

Cornell Cooperative Extension

Central New York Dairy, Livestock and Field Crops

Field Crop Update – 1 September 2022

1. **Announcements**
2. **Field Observations**
3. **Growing Degree Days**

1. Announcements:

Corn Silage Dry Down Days:

- a. GoldStar Feed and Grain, 7593 State Route 20, Sangerfield. Please bring 5-7 stalks of corn from each field you would like to have sampled. John Winchell from Alltech will check DM, Protein, and starch. Lunch provided. **Today until 2pm.**
- b. CCE, Richardson Farm, John Brouillette and Mark Smith will be at Richardsons Farm 5959 Skinner road, Vernon center NY at **10 am on Wednesday September 7th** to accept your whole plant corn samples. Bring 8 representative corn plants harvested at chopper height (obtained in the morning) from each of the fields you want to test. Please write your name, telephone number, date of planting, day maturity, town and attach to your sample.

Herbicide resistance survey: With the recent documentation of evolved herbicide resistance in New York, including Palmer amaranth (glyphosate, ALS-inhibitors), waterhemp (glyphosate, ALS-inhibitors), horseweed (glyphosate, ALS-inhibitors, paraquat), lambsquarters (bentazon), Cornell is looking to get a better feel for the current “state of the state” with respect to herbicide performance and failure. Specifically, we want to survey growers/land managers/crop consultants/extension specialists/industry personnel, etc..., across cropped (e.g. agronomic, vegetable, fruit), ornamental/horticultural (e.g. Christmas tree farms, golf courses), and non-cropped (e.g. industrial, roadsides) systems in NY. This survey is very short and should be QUICK to answer. It is also completely ANONYMOUS. Answers will help Cornell weed scientists plan future research and extension projects. Please access the survey using the link here: https://cornell.ca1.qualtrics.com/jfe/form/SV_a2F9urYcHjpl5Ay

2. Field Observations

a. I'm seeing a lot of in-field variation in both corn and soy. Early group soybeans are extremely patchy. See this article by Mike Hunter for [burndown options in no-till soybeans](#).

b. **Now is the time to also plan for your last alfalfa harvest.** If you've taken a cutting in the last week or so, you should get one more. Whether or not we've had a hard freeze (~25F), alfalfa starts to go dormant around mid-October, so harvesting after that should not affect overwintering health. The last thing you want to do is cut and then accumulate less than 200 GDD before crowns go dormant for winter. That will deplete root reserves and leave the crop vulnerable to winter kill. See [this article](#) for some more insight into last-harvest timing for alfalfa.

c. **The rest of this week's update will focus entirely on corn silage harvest and the associated Growing Degree Day units.**

Lots of reports of corn silage crops reaching ~35% whole-plant DM before the kernels seem to have reached full maturity. At this point, there is not much development to be gained if we see a rain event that *might otherwise* jump-start kernel development. So trust your whole-plant DM and *take your crop* when it's reached the target ~35%.

Regarding GDD, nearly every location in our region has experienced at- or near-record GDD since silking, *especially crops that silked the last week of July (after July 23rd)*. Coupled with the recent dryness, many crops are ready to be chopped as we speak.

Check your silage crops' whole plant dry matter to make sure you're ready to harvest – your crop may be ready before you know it! See our recent emails regarding Corn Plant Dry Down and Kernel Processing. A reminder from Joe Lawrence (PRO-DAIRY):

“The status of the corn crop is highly dependent on where you are in the state this year but in areas with drought stress (but not complete plant death from drought) it will be really important to watch kernel maturity in combination with whole plant dry matter. In these fields the plants look pretty ugly but the kernels continue to attempt to mature. You will see in the attached that the year and health of the plants makes a difference in how much ear DM contributes to whole plant DM vs. stover DM. For this droughty scenario this could look more like the data from 2019 where the plants are not healthy and therefore contribute slightly more to whole plant DM but ear DM is still driving the dry down process and patience is needed to allow this to happen: <https://ecommons.cornell.edu/handle/1813/104222>.”

And to assess the effectiveness of this year's nutrient plan, see this [factsheet](#) and this [factsheet](#) on the Corn Stalk Nitrate Test.

3. Growing Degree Days as of Aug 31st: See: [Climate Smart Farming Growing Degree Day Calculator](#)
 Growing degree days (GDD) are calculated by taking the average daily temperature and subtracting the base temperature for development of a given organism ((High + Low)/2 – base temp = GDD). For corn silage, we are using base 50/86, as corn development starts at 50 degrees F and ceases above 86. **Check your location, planting date, and silking date.** Silage corn needs 750-800 GDD (depending on hybrid maturity) after silking to reach a whole plant DM of 32%. Under typical late season dry down conditions we can expect the crop to reach 35% DM four to seven days later (Remember that we can expect to accumulate **20-25 GDD per day**, or even up to 30, so this is not a large window). For more details, see [this article](#). **No matter what the numbers say, always check your crop to see how close you may be to harvest.**

Hybrid relative maturity	GDD from silking to reach ~32% DM
101-110	800
96-100	750
<96	750 or slightly less (extrapolated)

Time to make plans (35% DM anywhere between 5 – 11 days from now, depending on maturity)

Gas up the harvester and the trucks (35% DM in 2 – 8 days, depending on maturity)

See you in the field (35% in less than a week):

It's either already in the bunk or it's going in the bin or for high-moisture corn (DM likely > 30-40%)

As of: 24 Aug 2022 (Base: 86/50)			Planting Date				Silking Date				
Location	Elevation (ft)	Latitude N	May 10	May 15	May 20	May 25	July 17	July 20	July 23	July 26	July 29
Poland	675	43.23	1845	1763	1721	1651	883	818	744	684	630
Canastota	420	43.08	2138	2042	1994	1918	1019	941	860	787	725
Saratoga Springs	365	43.08	2099	2005	1953	1879	985	911	836	766	712
Frankfort	530	43.03	2048	1959	1911	1832	965	894	816	750	692
Galway	749	43.02	2007	1918	1869	1800	953	881	806	739	688
St Johnsville	650	43	1903	1821	1778	1703	895	828	753	691	640
Fenner	1480	42.97	1898	1813	1773	1708	922	852	774	709	656
Fultonville	489	42.95	2026	1940	1892	1816	954	883	807	740	688
Bouckville	1170	42.93	1872	1790	1750	1682	901	831	757	692	640
Richfield Springs	1580	42.85	1810	1733	1693	1620	865	800	728	666	615
Cherry Valley	758	42.81	1805	1732	1691	1619	867	802	730	668	617
Burlington	1959	42.72	1745	1670	1632	1567	852	787	718	656	607
Sherburne	1115	42.69	1932	1850	1805	1734	921	851	778	711	658
Cobleskill	937	42.68	1984	1905	1858	1785	954	882	806	738	682
Oneonta	1107	42.47	1707	1634	1595	1531	841	777	710	648	601
Oxford	1499	42.4	1817	1737	1694	1628	885	819	748	683	631
Bainbridge	1000	42.3	1866	1785	1739	1670	907	839	768	702	650