Cornell Cooperative Extension

Central New York Dairy, Livestock and Field Crops

Field Crop Update

September 2, 2021

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- 2. Growing Degree Days and Weather Outlook
- 3. Pest Monitoring

1. Field Observations

Corn is maturing fast, though the fall-like weather over the last 36 hrs and into the next few days will slow things down *a bit*. So use this time to check your crops' conditions and see if you're ready for silage harvest. The latest GDD numbers are in for Aug 31st (see section 2), so keep in mind that yesterday we likely had a few more GDD but *not much dry-down* (especially if you were in Ida's path).

As part of a project I'm conducting with overseas colleagues, I began monitoring fall armyworm (FAW) activity in July using pheromone-baited traps (in the same fields as our other moth traps). FAW seldom cause issues for us in NY (Bt corn is resistant, and non-GM crops seldom see much damage), but in light of this year's outbreak across the country (<u>'Unprecedented' outbreak of armyworms are destroying lawns across the US</u>, often overnight (msn.com)), the decision to monitor their local activity seems prescient now! This picture actually comes from a skeletonized 50-acre alfalfa field in <u>Kinderhook, NY</u>. A bit too close to home:

I saw a spike in adult FAW in my traps a few weeks ago (highest number in a given trap was 2 dozen, which is not terribly concerning), which has since dropped to near zero. After adults come larvae, and I have seen very few larvae in the alfalfa fields that I've been sweeping over the last few weeks, but there may be time left this summer for a second local generation. I will keep you apprised of this situation as we go along, but of course, <u>let me know</u> if you see or suspect an outbreak. They can be managed via early harvest or insecticide application, but action must be taken quickly. See the next page for identifying characteristics.



Color can vary, but worms are generally darker than other larvae that infest hay crops. Look for the inverted "Y" on the head, and the four dots near the hind end:



If early harvest is not an option, many classes of insecticides are capable of controlling FAW, including pyrethroids, diamides, spinosyns, and insect growth regulators. Some pyrethroids and spinosyns are OMRI-listed.

Click to see the latest <u>Oneida County Scouting Report</u>, <u>Northwest NY Crop Alert</u>, <u>Capital Area Ag Report</u>, and <u>New York State IPM</u> <u>Weekly Field Crops Pest Report (cornell.edu)</u>

2. Growing Degree Days (GDD) for planting date and silking date (Climate Smart Farming Growing Degree Day Calculator)

For corn silage, we are using base 50/86, as corn development starts at 50F and ceases above 86F. Silage corn needs 750-800 GDD (depending on hybrid maturity) after silking to reach a whole plant DM of 32%. Remember that we can expect to accumulate 20-25 GDD per day, or even up to 30, so this is not a large window. Under typical late season dry down conditions we can expect the crop to reach 35% DM four to seven days later. Check your crop to see how close you may be to harvest:

Call your backup and make your plans (you will be at 35% DM anywhere between 5 – 11 days from now)

Gas up the harvester and the trucks (you're chopping in 2 – 8 days)

See you in the field (DM is likely in the optimal 32-38% range)

It's either in the bunk or it's going in the bin (DM% is likely higher than 38-40% at this point)

As of: <mark>31 Aug</mark> 2021 (Base: 86/50)			Planting Date				Silking Date (750-800 GDD to 32% DM):			
Location	Elevation (ft)	Latitude N	April 26	May 10	May 17	May 24	July 14	July 18	July 22	July 26
Poland	675	43.23	1921	1871	1821	1708	913	834	765	701
Canastota	420	43.08	2184	2117	2060	1933	1011	928	850	778
S'toga Springs	365	43.08	2130	2050	1983	1851	996	904	828	755
Frankfort	530	43.03	2130	2064	2009	1885	998	910	834	763
Galway	749	43.02	2019	1950	1887	1759	943	870	779	708
St Johnsville	650	43	1947	1892	1842	1724	915	833	763	699
Fenner	1480	42.97	1933	1878	1836	1721	907	832	764	700
Fultonville	489	42.95	2055	1989	1929	1807	963	874	799	730
Bouckville	1170	42.93	1958	1899	1857	1739	917	838	771	705
R'field Springs	1580	42.85	1831	1776	1734	1622	860	782	718	658
Cherry Valley	758	42.81	1797	1744	1702	1593	841	763	701	643
Burlington	1959	42.72	1769	1715	1675	1567	828	751	691	635
Sherburne	1115	42.69	2047	1976	1928	1807	954	866	796	727
Cobleskill	937	42.68	1979	1914	1860	1742	925	837	767	704
Oneonta	1107	42.47	1707	1648	1610	1505	802	723	664	612
Oxford	1499	42.4	1735	1675	1635	1534	815	734	676	623
Bainbridge	1000	42.3	1883	1812	1769	1660	880	777	728	671

Not everyone planted their corn on one of the planting dates or in one of the locations I have listed, so this chart shows the estimated GDD for each location on each potential planting date in between (based on the actual GDD on those four dates). The locations are ordered top-to-bottom from lowest elevation to highest (the number after the location name is the elevation in feet above sea level). So if your farm is near one of the locations on this list but there's a location here that more closely matches your elevation, try that instead. You can find GDDs for your own specific location and planting date using the <u>Climate Smart Farming CSF Growing Degree Day Calculator</u>, but for those who might have more difficulty using that tool, maybe this chart can help.



Estimated total GDD (86/50) by planting date for each location

As we get closer to silage harvest, remember that silage corn needs **750-800 GDD after silking to reach a whole plant DM of 32%** (depending on hybrid maturity). Under typical late season dry down conditions **we can expect the crop to reach 35% DM four to seven days later**. When using this chart, remember that actual GDD were calculated for July 14, 18, 22, and 26 silking dates. Dates in-between those four dates are estimates. As always, remember that GDD estimates **are good for getting you in the ballpark, but are no substitute for actual conditions in the field.**



Estimated GDD (86/50) by SILKING DATE

Silking date

3. Pest Monitoring

Not much to report this week beyond the FAW information. The western bean cutworm traps were pulled last week, so we are down to monitoring FAW and some of the other as-of-yet undetected invasive soybean pests, and soybean cyst nematode (at harvest). I will be reaching out to some of you for my upcoming soybean cyst nematode soil-sampling program over the next few weeks.

Leafhoppers in alfalfa are still very low, while pea aphids have seen a recent surge. But so far nothing approaching threshold.

Check out Potato Leafhopper Scouting and IPM Thresholds in Alfalfa

I still have yet to see any soybean white mold, but I'm expecting to see quite a bit over the next month. I have seen some various other soybean fungi in patches, mostly associated with wet spots in fields, which of course are prevalent this year. Due to this, it will be especially important to rotate these fields into another crop next year.

Have a good rest of the week, and happy harvesting!