Cornell Cooperative Extension

Central New York Dairy, Livestock and Field Crops

Field Crop Update July 2, 2021

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

1. Field Observations

Most corn in the area is V5-V8, and just about all beans have put on at least their first trifoliate leaves. The window is cloing for herbicide application in corn, and we're now entering the stage where Nitrogen demand is surging - from V8 until pre-tassel.

Many folks are either a few weeks past second cut, or will take it by this time next week. Now would be a good time to either clip or spot-spray troublesome weeds in hayfields and pastures, as they are likely to be surging above the rest of the crop at this point. Grasses may begin to slow down as the weather heats up and dries out, but perennial weeds will be in their prime. No matter how, take them down before they set seed.

According to NOAA, Utica experienced hail this week, but none was reported in our eight-county region. In case we do get some hail in the near future, here are some tips for assessing the implications of hail damage at this time of year:

1. Wait 7 days to fully assess the damage, as this is usually enough time for the plant to recover.



- 2. Soybeans are much more tolerant to hail damage *before* the reproductive stage, and even a 66% defoliation event at R1 or a 33% defoliation at R3 will only reduce yield by ~6%.
- 3. Corn damage from hail is usually minimal prior to V7. Consult this publication from Wisconsin for more detailed information on how to proceed after V7: <u>Hail damage effects on corn Wisconsin Corn Agronomy</u>

See this week's Oneida County Scouting Report and the Capital Area Ag Report.

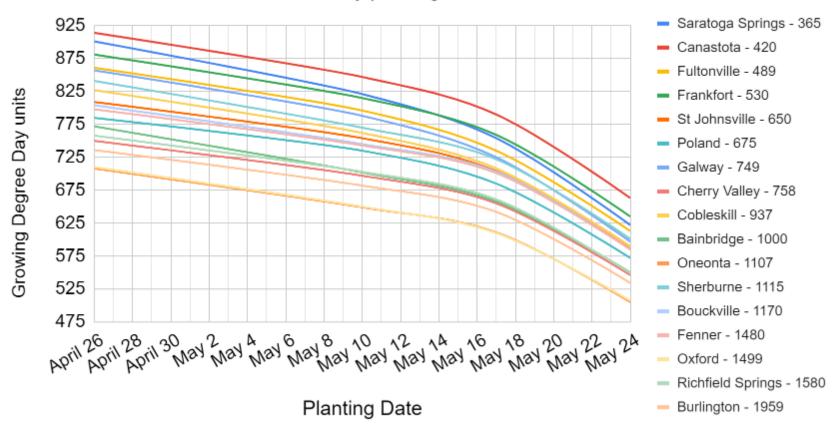
2. Growing Degree Days as of June 2nd (See: Climate Smart Farming Growing Degree Day Calculator)

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.

As of: 1 July 2021	Planting Date: April 26 (<u>Base 86/50</u>)				Planting Date: May 10 (<u>Base 86/50)</u>					
Location	Elevation (ft)	Latitude N	2021 to date	15 yr avg	30 yr avg	Record L-H	2021 to date	15 yr avg	30 yr avg	Record L-H
Poland	675	43.23	785	753	712	580-857	735	664	622	504-770
Canastota	420	43.08	914	874	829	713-1022	847	765	721	585-861
Saratoga Springs	365	43.08	901	843	815	703-973	821	740	711	597-878
Frankfort	530	43.03	881	848	810	680-963	815	744	704	582-865
Galway	749	43.02	857	812	790	696-957	788	712	687	573-861
St Johnsville	650	43	809	764	741	614-917	754	674	646	540-826
Fenner	1480	42.97	798	745	691	574-855	743	659	606	491-736
Fultonville	489	42.95	861	839	796	679-974	796	737	693	593-875
Bouckville	1170	42.93	804	750	696	583-840	745	660	608	495-755
Richfield Springs	1580	42.85	758	709	689	558-854	703	625	600	496-767
Cherry Valley	758	42.81	750	693	681	552-858	697	612	594	492-773
Burlington	1959	42.72	736	686	677	548-829	682	603	588	491-743
Sherburne	1115	42.69	841	799	749	625-897	770	700	652	530-804
Cobleskill	937	42.68	827	770	746	619-942	762	678	650	534-845
Oneonta	1107	42.47	708	676	678	538-840	649	592	588	475-749
Oxford	1499	42.4	710	737	698	594-860	650	646	608	516-770
Bainbridge	1000	42.3	772	770	734	624-893	702	673	638	550-800

As of: 1 July 2021	Planting Date: May 17 (<u>Base 86/50)</u>				Planting Date: May 24 (<u>Base 86/50)</u>					
Location	Elevation (ft)	Latitude N	2021 to date	15 yr avg	30 yr avg	Record L-H	2021 to date	15 yr avg	30 yr avg	Record L-H
Poland	675	43.23	685	609	566	417-707	572	539	506	358-659
Canastota	420	43.08	790	700	656	510-795	663	620	585	447-709
Saratoga Springs	365	43.08	754	678	648	532-778	622	602	580	464-702
Frankfort	530	43.03	759	680	641	491-763	635	601	572	423-716
Galway	749	43.02	725	654	625	512-760	597	582	559	447-670
St Johnsville	650	43	704	619	589	443-729	586	550	526	380-671
Fenner	1480	42.97	701	607	554	419-704	585	540	497	364-638
Fultonville	489	42.95	735	676	632	489-772	613	600	564	424-681
Bouckville	1170	42.93	703	606	554	424-687	585	539	496	367-634
Richfield Springs	1580	42.85	661	571	545	419-674	549	507	487	359-636
Cherry Valley	758	42.81	655	562	542	406-683	546	500	485	348-626
Burlington	1959	42.72	642	552	534	412-654	534	489	476	356-618
Sherburne	1115	42.69	722	640	593	455-708	601	568	529	393-657
Cobleskill	937	42.68	708	622	592	445-746	590	552	530	383-654
Oneonta	1107	42.47	611	540	534	409-660	505	478	476	353-625
Oxford	1499	42.4	610	590	554	431-677	507	524	495	371-609
Bainbridge	1000	42.3	658	615	580	458-702	550	547	518	393-622

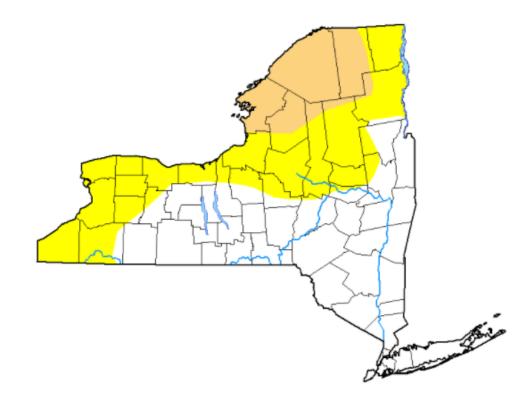
We exceeded the high temps that were initially forecast this week, but hopefully most of us picked up some rain. Hail was a possibility, but I have not seen reports of any in the area. The weather should be fairer, if not just as warm to begin next week.



Estimated GDD by planting date for each location

Trying something new this week.... Surely 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 day (based on the actual GDD on those four dates and estimating the GDD on the days in-between). Furthermore, the locations are ordered top-to-bottom from lowest elevation to highest. The GDD at locations on this list with nearly identical elevations were generally no more than 50 GDD apart, and usually within 25 GDD. 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</u> Day Calculator, but for those who might have more difficulty using that tool, maybe this chart can help.

Still unchanged for 4 weeks running, folks in Fulton, Herkimer, and northern Madison counties are still in the "abnormally dry" category in the drought monitor. Hopefully the last few days' rain has helped the situation:



Map released: Thurs. July 1, 2021

Data valid: June 29, 2021 at 8 a.m. EDT





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3. Pest Monitoring

Potato leafhoppers are here. Most fields that I sampled were either just recently cut (after being near/above threshold last week), while the rest were above threshold this week – though they are also due to be cut this week. So far I've yet to see any fields above threshold *while still being more than 10 days from harvest*, but we may come across this over the next few weeks. So be on the lookout for yellowing foliage like this:

Sometimes rain can knock down these pests, so we'll see what kind of effect our recent wet weather has had on them.

True armyworm traps yielded one moth each in our Madison Co trap and our Herkimer trap. This is likely from the second generation, which could cause damage in grass hayfields. We'll keep monitoring them for another few weeks.



The first week of western bean cutworm trapping yielded one moth in our Montgomery Co trap. High trap numbers suggest that there may be significant eggs laid in pre-tassel corn in that location, and larvae may cause damage to ears. We'll keep an eye on this pest through August.

	True Armyworm										
Week	Munnsville, Madison	Poland, Herkimer	Canajoharie, Montgomery	C. Bridge, Schoharie	W. Charlton, Saratoga	Cherry Valley, Otsego	Oxford, Chenango	Total			
April 26		Trap	os placed					0			
Apr 26 - May 3	0	0	0	1	-	-	-	1			
May 3 - 10	0	0	0	0	-	-	-	0			
May 10 - 17	0	0	0	0	Traps placed	-	-	0			
May 17 - 24	0	0	0	0	0	-	Traps placed	0			
May 24 - Jun 1	0	0	0	0	0	-	0	0			
June 1 - 7	0	0	0	0	0	Traps placed	0	0			

June 7 - 14	0	0	0	0	0	0	0	0
June 14 - 21	0	0	0	0	0	0	0	0
June 21 - 28	1	1	0	0	0	0	0	2
June 28 - July 6								
July 6 - 13								
July 13 - 20								
Total:	1	1	0	1	0	0	0	3

Western Bean Cutworm										
Week	Munnsville, Madison	Poland, Herkimer	Canajoharie, Montgomery	C. Bridge, Schoharie	W. Charlton, Saratoga	Cherry Valley, Otsego	Oxford, Chenango	Total		
June 21		Traps placed								
June 21 - 28	0	0	1	0	0	0	0	1		
Total:	0	0	1	0	0	0	0	1		

Some helpful links:

New York State IPM Weekly Field Crops Pest Report (cornell.edu)

Potato Leafhopper Scouting and IPM Thresholds in Alfalfa