Cornell Cooperative Extension

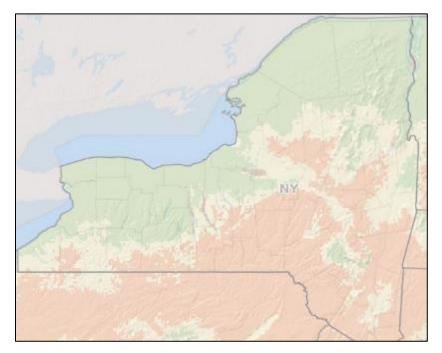
Central New York Dairy, Livestock and Field Crops

Field Crop Update June 11, 2021

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

1. Field Observations

Another reminder to **protect your winter wheat at full anthesis** from fusarium head blight if you've had trouble with it in the past. See the current risk for NY (brown is high):



I've seen an abundance of crown rust on buckthorn trees, which means we should keep an eye on spring oats. A number of different rust species can infect buckthorn and <u>not</u> oats, so this is another pes that is difficult to forecast.

Once again, I have yet to see any cereal leaf beetle in the fields I've checked, but that doesn't mean it isn't out there. Our friends in western NY have seen a few fields with lots of leaf beetle mating activity, so if you see any in your field, *please let me know*! We need to collect some larvae to hopefully reinvigorate what was a very successful biocontrol program that has lost steam over the years. So keep me in the loop....

Soybean aphid may be in the rise as we are likely to have a long period of fair weather (aphids can be washed away by rain). It's been spotted in other parts of the state, so this is another pest to watch for as we get into June. The management threshold is an average of 250 aphids/plant if plant development is prior to early pod fill (R4). Natural enemies can keep lower populations in check, so we should resist the temptation to spray on first sight.

See section 3 for the latest info on alfalfa weevil.

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

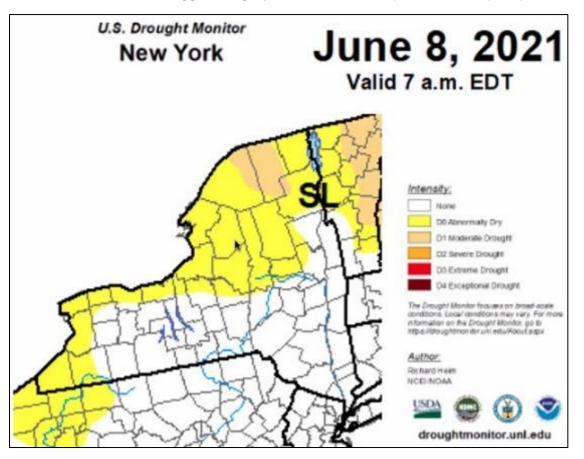
Growing degree days (GDD) are calculated by taking the average daily temperature and subtracting the base temperature for development of a given organism ((High + Low)/2 – base temp = GDD). For corn silage, we are using base 50/86, as corn development starts at 50 degrees F and ceases above 86.

While the early and late planting dates are seeing GDD accumulations hovering around normal, crops planted in the 2nd-3rd weeks of May are near record GDD. What a difference a week makes:

As of	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	430	421	382	247-511	380	332	292	189-412
Canastota	420	43.08	493	494	451	312-601	426	385	342	231-480
Saratoga Springs	365	43.08	505	470	440	306-563	426	367	336	236-467
Frankfort	530	43.03	481	478	440	300-572	415	374	334	227-461
Galway	749	43.02	482	451	428	306-559	413	351	325	232-462
St Johnsville	650	43	437	424	399	276-531	383	335	304	208-441
Fenner	1480	42.97	425	412	367	248-513	370	326	282	185-405
Fultonville	489	42.95	474	469	430	302-572	409	367	328	231-473
Bouckville	1170	42.93	428	419	374	256-504	370	330	286	187-403
Richfield Springs	1580	42.85	408	397	372	249-497	353	312	283	187-410
Cherry Valley	758	42.81	403	384	365	250-498	351	304	278	189-413
Burlington	1959	42.72	394	386	367	251-490	340	303	279	190-404
Sherburne	1115	42.69	453	453	407	275-538	382	355	309	204-430
Cobleskill	937	42.68	451	431	403	288-552	386	338	306	214-455
Oneonta	1107	42.47	384	385	369	250-496	325	300	280	189-406
Oxford	1499	42.4	385	416	377	259-510	324	325	287	192-414
Bainbridge	1000	42.3	415	436	398	273-530	344	339	302	205-433

As of	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	330	277	237	126-354	217	207	177	99-262
Canastota	420	43.08	369	320	277	157-409	242	240	207	118-297
Saratoga Springs	365	43.08	359	305	273	164-377	227	229	204	123-301
Frankfort	530	43.03	359	310	271	154-388	325	231	201	117-288
Galway	749	43.02	350	293	263	162-370	222	221	197	118-297
St Johnsville	650	43	332	280	246	143-343	215	210	184	107-271
Fenner	1480	42.97	329	274	230	124-376	213	207	173	94-279
Fultonville	489	42.95	348	306	266	161-383	226	229	199	119-292
Bouckville	1170	42.93	327	276	232	128-364	210	208	174	98-272
Richfield Springs	1580	42.85	311	259	228	128-327	199	195	170	97-255
Cherry Valley	758	42.81	308	254	226	133-323	200	192	169	101-253
Burlington	1959	42.72	300	251	225	128-313	192	189	167	96-250
Sherburne	1115	42.69	334	295	251	140-362	213	223	187	108-276
Cobleskill	937	42.68	332	282	249	157-356	214	212	186	122-275
Oneonta	1107	42.47	287	248	225	127-315	181	187	167	98-244
Oxford	1499	42.4	284	269	232	138-333	181	204	173	106-260
Bainbridge	1000	42.3	301	281	244	148-349	193	213	182	114-275

Some of us are still in the "abnormally dry" category in the drought monitor, and while we're forecast to have some thunderstorms in the early part of next week, the 2-week outlook suggests slightly below normal temperatures and precipitation:



3. Pest Monitoring

So far, potato leafhopper has not *yet* been a major issue, unlike alfalfa weevil:



(Photo by Ken Wise, NYSIPM)

In alfalfa regrowth, the economic threshold is damage to 50% of shoots:



(Photo by Ken Wise, NYSIPM)

Several of our alfalfa weevil and potato leafhopper insecticides have pre-harvest intervals of 7 days, so if you're within 7-10 days of harvest, you may be better off taking an early cutting. The most hard-hit alfalfa l've seen are in mixed stands where grass constitutes 50% or more of the crop. In these cases there's no economic return for spraying, and a spray would knock out the beneficial predators and parasites that would otherwise help suppress weevils in the future. See the following videos for info on alfalfa weevil and potato leafhopper scouting:

#CropCam Scouting for Alfalfa Weevil Larvae

Potato Leafhopper Scouting and IPM Thresholds in Alfalfa

This year we will again monitor for several pests of corn and soybean using pheromone-baited traps, including black and western bean cutworms, true armyworm, and the invasive soybean pests (and as-of-yet undetected) silver Y moth and golden twin spot moth:

Black Cutworm											
Week	Munnsville, Madison	Poland, Herkimer	Canajoharie, Montg.	C. Bridge, Schoharie	W. Charlton, S'toga	Oxford, Chenango					
April 26		Traps placed									
Apr 26 - May 3	0	0	1	0							
May 3 - 10	0	0	4	0							
May 10 - 17	0	0	0	0	Traps placed						
May 17 - 24	0	0	1	0	0	Traps Placed					
May 24 - Jun 1	0	0	1	1	3	0					
June 1 - 7	0	1	0	4	2	0					
Total:	0	1	7	5	5	0					

True Armyworm										
Week	Munnsville, Madison	Poland, Herkimer	Canajoharie, Montg	C. Bridge, Schoharie	W. Charlton, S'toga	Oxford, Chenango				
April 26	Traps placed									
Apr 26 - May 3	0	0	0	1						
May 3 - 10	0	0	0	0						
May 10 - 17	0	0	0	0	Traps placed					
May 17 - 24	0	0	0	0	0	Traps placed				
May 24 - Jun 1	0	0	0	0	0	0				
June 1 – 7	0	0	0	0	0	0				
Total:	0	0	0	1	0	0				

Trap captures of true armyworm have been relatively low across the state, but cutworm captures have been high in some locations in western NY and the north country (Lewis Co.). While we aren't seeing high numbers in either in our region, we should still **be on the lookout for black cutworm damage.** Damage begins ~300 GDD (base 50) from moth capture <u>if there was substantial egg laying in</u> <u>the crop</u>. There's no guarantee there will be, especially if your corn field is among other grassy habitats. Cutworm thresholds:

Corn at V2 stage (2 fully emerged leaves with leaf collars) -2 cut plants per 100 Corn at V3 stage (3 fully emerged leaves with leaf collars) -3 cut plants per 100 Corn at V4 stage (4 fully emerged leaves with leaf collars) -5 cut plants per 100 Corn at V5 stage (5 fully emerged leaves with leaf collars) -7 cut plants per 100

See this article for more information on cutworm damage and recommended products: <u>NYS IPM Field Corn Pheromone Trapping</u> Network for 2020 Caught Moths in Mid-April! – What's Cropping Up? Blog

Cutworm monitoring will continue for another week, after which we will continue monitoring true armyworm and begin to monitor for western bean cutworm in the pheromone traps.

I want to collect your fall armyworm adults and larvae! While Bt has done a good job of controlling fall armyworm on conventional corn here in the US, it's still a concern in our non-GMO corn and grass crops, and is a <u>major</u> invasive pest in other parts of the world. I'm teaming up with a group in southeast Asia who is studying this pest and its genetic variability around the world, so I'm looking for locations to place pheromone traps so I can collect specimens for them to evaluate. Let me know if you have a field that would be a good trapping candidate this summer, and regardless, please let me know if you encounter larvae:





We want to collect your cereal leaf beetle larvae! Many of you have had issues with cereal leaf beetle in small grains. In the late 1960s and 1970s, USDA released a parasitoid that controlled cereal leaf beetle at very high levels. It was established and did a good job for many decades. In some parts of NYS there are very low levels of these parasitoids left. We are looking to reestablish them in those areas. In 2020 NYS IPM (Jaime Cummings) conducted a survey on the percent parasitism of cereal leaf beetle larvae in several areas of the state. We are looking to conduct the same survey in 2021 as well as continuing to develop a parasitoid insectary refuge on the Cornell Farm in Aurora. This can help us reestablish the parasitoid in areas of the state that might need them. If you have cereal leaf beetle in your fields please let Erik Smith (eas56@cornell.edu) or Ken Wise (klw24@cornell.edu) know and we can come and collect them. We will also let you know the rates of parasitism of the beetles in your fields.

