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Corn Sidedressing Concerns for 2022

The 2022 growing season has been a challenge for much of the North Country (see our weather summary later in this bulletin.). Corn planting started early but was delayed for weeks by excessive rains for much of the region. Late corn was planted well into June. Herbicide treatments were delayed too, due to wet fields. Sidedressing would normally be complete by now, but we're still sidedressing now. Here are some thoughts to help guide mid-season N applications.

Joe Lawrence's corn trial observations from 2021

- Areas with low to average May and June rainfall:

Nitrogen mineralization requires adequate soil moisture. For much of the state there was little risk of early season leaching losses, in fact in dry areas it is likely that N conversion rates were below normal, suggesting there could be extra potentially available N left in the soil as we enter the latter part of the growing season.

- Areas with excess rainfall

It is possible that excessive early season rainfall could have resulted in considerable N loss to leaching and or denitrification but the form of N applied will have an impact on the potential magnitude of loss with more available forms on N (nitrate containing fertilizer) being more susceptible to loss compared to the slower release organic N forms found in manure and organic matter.

Reduced yields are likely, which means less N is required. The late planting and spraying will likely result in yield reductions. How much yield reduction? It's impossible to know exactly, but if yield records are kept, with or without yield maps, some experience may help judge this on individual fields. At least go with the lower end of the yield ranges on any given soil type or field.

Cool temps and rain = not a lot of soil N is available. Normally, this might make a slight increase in sidedress N logical, but this year, the delayed crop and reduced yields are probably more important. Don't bother compensating with more N. Less N probably makes more sense for most fields.

We've got some guidance on delayed sidedressing, but this is based on normal planting timing. The Ketterings lab [published a summary of 4 years of sidedressing timing research](#) in 2021. They found that sidedressing at V4 and V6 growth stages produced the same yield in an N-rich treatment, but a delay in sidedressing until V8 and V10 resulted in reduced yield compared to earlier sidedressing. However, yields with sidedressing at V8 and V10 still produced significantly higher yields than obtained in the No

sidedress N treatment. They calculated that N use efficiency declined with sidedressing beyond V6, primarily due to the yield hit taken when sidedressing was delayed (and sidedress N was needed in the first place). So, earlier sidedressing is better than too late sideressing, but, we are dealing with late-planted fields too. We expect that this same principle is at work for late-planted fields, with a lower overall yield potential, and therefore a lower overall N requirement.

Does no-till corn have the same N requirements as conventionally-tilled corn? We don't have good data on this yet. In one 1st year corn study, no difference was noted in for N supply from sods for fields with different tillage histories. More research is definitely needed. For now, we see no reason to expect much difference in long-term no-till fields but when in transition from conventional to no-till, N release from sods in no-till fields could be slightly slowed comparatively.

Current Pest Alerts

Late Postemergence Herbicide Applications in Field Corn: How Tall is Too Tall?

Corn was planted late this year and spraying on time has been equally challenging. See [page 3 in our July Ag Advisor newsletter here](#) for Mike's recommendations for late postemerge herbicides for corn.

Early season corn pests.

- No major outbreaks of early season pests have been observed.
- We're participating in a seedcorn maggot study to evaluate NNY populations this spring. We'll share data when it becomes available.
- We continue to pick up black cutworm in pheromone traps in NNY, though most fields are now well past vulnerable stages. We've not heard any reports of problems with seedcorn maggot, black cutworm or other early season corn pests. Let us know if you've had a problem field.
- Leafhoppers and aphids. Field agents in CNY are reporting some above-threshold populations of potato leafhopper in alfalfa and aphids in soybeans. Keep an eye out for these pests and let us know if you need assistance.

Western Bean Cutworm. Traps for monitoring this important and widespread corn pest will be installed across the region this week to follow flights and emergence numbers. We'll share data as it's collected.

NNY Weather Summary for April 1 through June 30, 2022.

We're now bit more than 90 days into the 2022 growing season, counting from April 1st. Some North Country locations have received rain on over half of those days, which is why we see so much first cutting hay still standing in some areas. Three-quarters of the 24 North Country locations listed below have been wet, receiving more than normal precipitation since April 1st. This has not been the story for all parts of the region, however.

----- Accumulation from April 1 to June 30, 2022 -----							
		--- Precipitation, in ---			- GDD Base 50F -		GDD Base 40F
County	Town/Village	Total	DFN	Days	Total	DFN	Total
Clinton	Champlain	18.11	6.01	49	753	23	1459
	Ellenburg Depot	18.07	6.15	52	663	19	1315
	Beekmantown	14.13	3.29	40	745	3	1451
	Peru	12.04	2.15	40	745	4	1450
Essex	Whallonsburg	10.90	-1.32	39	777	34	1485
	Ticonderoga	8.92	-2.64	37	814	21	1533
Franklin	Bombay	12.65	0.51	47	765	40	1480

	Malone	17.7	5.94	49	738	62	1436
	Chateaugay	20.34	7.79	55	707	36	1392
Jefferson	Rodman	14.51	3.20	43	721	17	1427
	Cape Vincent	9.74	-0.56	37	687	81	1402
	Evans Mills	11.83	0.39	38	793	25	1520
	Redwood	12.27	-0.57	37	730	16	1445
	Antwerp	14.17	3.02	42	715	30	1435
Lewis	Talcottville	11.25	-0.39	43	600	8	1261
	Martinsburg	11.10	0.60	42	710	27	1424
	Carthage	12.33	1.45	43	730	40	1445
St. Lawrence	Gouverneur	13.56	1.14	44	687	36	1406
	Hammond	11.92	-0.36	39	688	28	1410
	Ogdensburg	12.96	1.56	41	712	8	1432
	Canton	15.87	3.93	48	680	-41	1378
	Madrid	12.84	1.61	44	676	-27	1376
	North Lawrence	14.21	2.45	52	736	4	1447
	Louisville	12.77	1.02	47	697	-2	1394
Average		13.51	1.93	44	720	21	1425

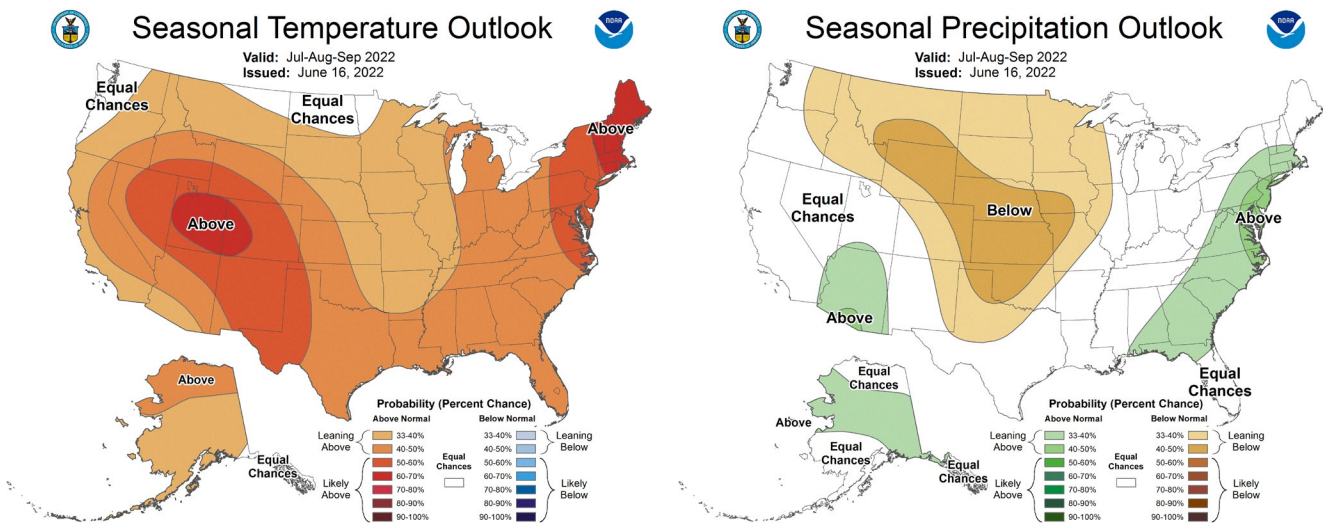
* Precipitation in inches, temperature in Fahrenheit, DFN = difference from 15-year average, Days = days with precipitation. Calculated from [ACIS NRCC 2.5-mile gridded datasets](#). **High** and **low** values within each column are highlighted.

Essex county has been dry as have a few other southern spots like Cape Vincent, Redwood, Talcottville and Hammond. Northern Franklin County and western Clinton County have been the wettest areas with Malone and Chateaugay seeing 7.8” and 9.9” in June, bringing them to 5.94” and 7.79” above the 15-year normal. Both Champlain and Ellenburg Depot are more than 6” above normal as well.

Heat units have accumulated about normally for most areas within NNY. Across the region, May was a bit warmer, and June was a bit cooler, than the 15-year average. Almost all areas remain within and day or two of average GDD₅₀. Just 3 of the 24 locations summarized here are below average, and they are all in St. Lawrence County. The warmer-than-typical spots have been northern Franklin County, Cape Vincent, Carthage and Essex County.

Elsewhere in NYS and the Northeast – Most of western NY and the parts of the Hudson Valley are currently considered ‘abnormally dry’ (D0) by the USDA and NOAA Drought Monitor folks. Portions of WNY have been categorized as D0 since mid-May and parts of the middle Hudson Valley since late June. Severe drought (D1) has been assigned to other areas of the Northeast since late June. See the current map of the Northeast conditions [here](#).

Weather Outlooks for July-August-September



The NOAA Climate Prediction Center is forecasting probable above-average temperatures for NNY in this 3-month window along with equal chances of above and below normal precipitation.

Upcoming Programs:

Dairy Cattle Handling and Safety Program for Farm Workers

July 25, 2022, 11am-1pm

Champlain, NY

[Register here](#)

Calibrating Sprayers and Applying Pesticides Effectively

July 26, 10:00am - 12:00pm (Rain date is July 28)

Juniper Hill Farm, 82 Loukes Rd. Wadhams, NY

[Register here](#)

Pesticides are important tools for plant protection on many farms. Without regular calibration, sprayers may not achieve intended pesticide rates and coverage within your crop, leading to inefficient applications. Join CCE specialists Mike Hunter and Ethan Grundberg for a hands-on demonstration of boom and backpack sprayer calibration and a discussion of nozzle types, pesticide labels, personal protective equipment, recordkeeping, and spray formulation tips for pesticide application success. Any farm with a boom or backpack sprayer is welcome to attend, including conventional and organic, beginning and experienced crop growers.

Participants will also receive water sensitive paper and complimentary water pH testing with registration. Participants are encouraged to bring a water sample to the workshop.

\$20 per farm—Pre-registration is Required

2.0 DEC credits available

Bring your pesticide applicator license with you to the workshop. You must also arrive on time and stay for an entire 2 hours to receive these credits. For more information about this program, contact

Elisabeth Hodgdon, CCE Eastern NY Commercial Horticulture Program, at eh528@cornell.edu or (518) 650-5323.

Dairy Cattle Handling and Safety Program for Youth

August 1, 2022, 1pm-3pm

Croghan, NY

[Register here](#)

Basic Dairy Vet Skills Training

August 12, 2022, 10am-3pm

Keeseville, NY

[Register here](#)

Dairy Prospects Program

August 2022 – June 2023

Jefferson and Lewis Counties

[More info here](#)

Dairy Reproduction and AI Training Course

September 8-9, 2022, 9:30am-3:00pm

Plattsburgh, NY

[Register here](#)

2 Free Webinars on Tax Preparation and Resources from Farm Service Agency

Filing taxes for an agricultural operation can be challenging, and many producers may not have the funds to hire accountants or tax professionals to assist. USDA's Farm Service Agency (FSA) and the National Farm Income Tax Extension Committee are offering two free webinars:

- Tuesday, July 12, 2 p.m. Eastern: An Introduction to Ag Taxes: What New Farmers Should Know. Learn more about who is considered a farmer for IRS tax purposes and how to choose a tax professional. [Register here](#).
- Monday, August 15, 2 p.m. Eastern: Using the Tax Calculator. The [Farm Tax Estimator Tool](#) is an interactive spreadsheet that producers can download to estimate tax liability. [Register here](#).

Find other resources at farmers.gov/taxes

Additional resources:

1. [Cornell Cooperative Extension's North Country Regional Ag Team Web Resources](#)
2. [New York Integrated Pest Management \(NYSIPM\) Web Resources](#)
3. [National Oceanic and Atmospheric Administration \(NOAA\) Climate Prediction Center](#)
4. [Northeast Regional Climate Center](#)
5. [NYS Mesonet](#)

For more information about field crop and soil management, contact your local Cornell Cooperative Extension office or your CCE Regional Field Crops and Soils Specialists, Mike Hunter and Kitty O'Neil.

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Our Mission

“The North Country Regional Ag Team aims to improve the productivity and viability of agricultural industries, people and communities in Jefferson, Lewis, St. Lawrence, Franklin, Clinton and Essex Counties by promoting productive, safe, economically and environmentally sustainable management practices and by providing assistance to industry, government, and other agencies in evaluating the impact of public policies affecting the industry.”

Building Strong and Vibrant New York Communities

Cornell Cooperative Extension provides equal program and employment opportunities. NYS College of Agriculture and Life Sciences, NYS College of Human Ecology, and NYS College of Veterinary Medicine at Cornell University, Cooperative Extension associates, county governing bodies, and U.S. Department of Agriculture cooperating.