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   - Soil N supply with cool temps and excessive rain
   - Delayed timing of sidedressing, delayed planting with normal sidedressing timing
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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 siderressing, 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.

<table>
<thead>
<tr>
<th>County</th>
<th>Town/Village</th>
<th>Accumulation from April 1 to June 30, 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>- Precipitation, in-</td>
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<tr>
<td>Clinton</td>
<td>Champlain</td>
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<td>Beekmantown</td>
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<td>Franklin</td>
<td>Bombay</td>
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<tr>
<td>Location</td>
<td>Precipitation</td>
<td>Temperature</td>
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<tr>
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<tr>
<td>Malone</td>
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<td>Redwood</td>
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<td>Antwerp</td>
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<td>Louisville</td>
<td>12.77</td>
<td>1.02</td>
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| Average           | **13.51**     | **1.93**    | **44** | **720** |

* 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
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](http://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.

Kitty O’Neil  
CCE Canton Office  
(315) 854-1218

Mike Hunter  
CCE Watertown Office  
(315) 788-8450
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.