Cornell University
Cooperative Extension
Northern New York Regional Ag Team

Ear to the Ground

Field Crops, Forages and Soils Updates for NNY ***22 June 2016***

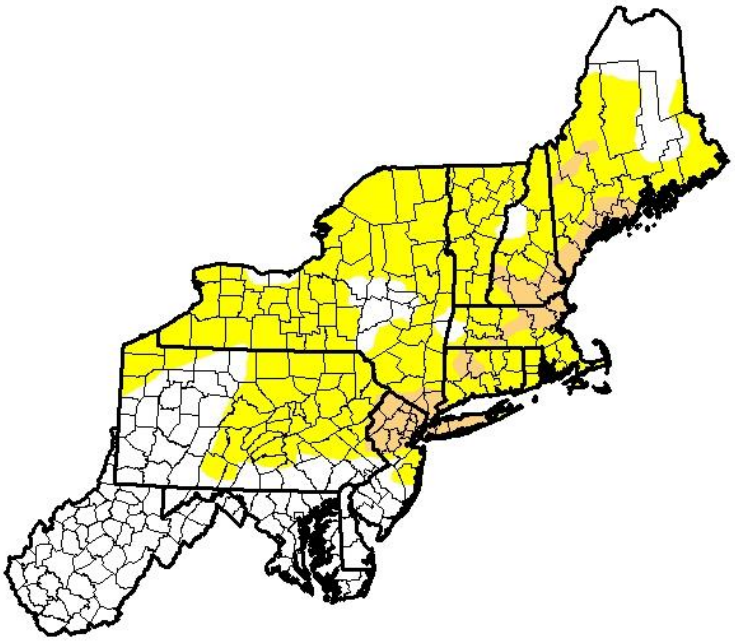
- Calling all farmers who think about the weather! Are you a dairy producer in who has recently experienced the impacts of extreme weather or other changes in climate on your farm? Would you like to participate in cutting edge social science research to better understand farmer views and adaptations to climate impacts? Please join Cornell researchers and the Northern NY Regional Ag Team at the Extension Learning Farm in Canton on Tuesday, June 28, 2016, from 7:00-9:00pm for a free dinner (catered by Sergi's) and discussion to share your thoughts and experiences. The aim of this focus group discussion is for researchers, and your peers, to learn more about how farmers respond to extreme weather. Outcomes will be better university and USDA information and tools to support ag producers. Click here to register. Space is limited to 10 farmers.

  For further information on this project, please contact Allison Chatrchyan (607-254-8808, or amc256@cornell.edu); Kim Morrill (kmm434@cornell.edu); or Kitty O'Neil (kao32@cornell.edu).

- 2016 Hay yields have been lower than normal. First cutting yield was not quite as low as anticipated, but second cutting yields have also been light due to dry weather.

U.S. Drought Monitor

Northeast



June 21, 2016

(Released Thursday, Jun. 23, 2016)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	38.53	61.47	7.62	0.00	0.00	0.00
Last Week 6/14/2016	52.79	47.21	4.00	0.00	0.00	0.00
3 Months Ago 3/22/2016	96.00	4.00	0.00	0.00	0.00	0.00
Start of Calendar Year 12/29/2015	62.10	37.90	6.60	0.00	0.00	0.00
Start of Water Year 9/29/2015	42.41	57.59	9.00	0.00	0.00	0.00
One Year Ago 6/23/2015	68.62	31.38	10.17	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
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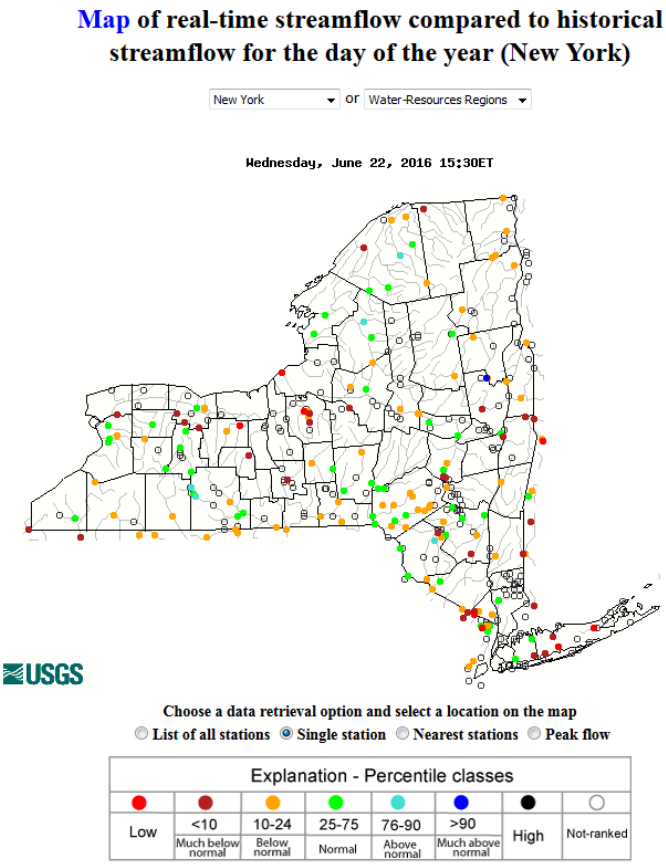
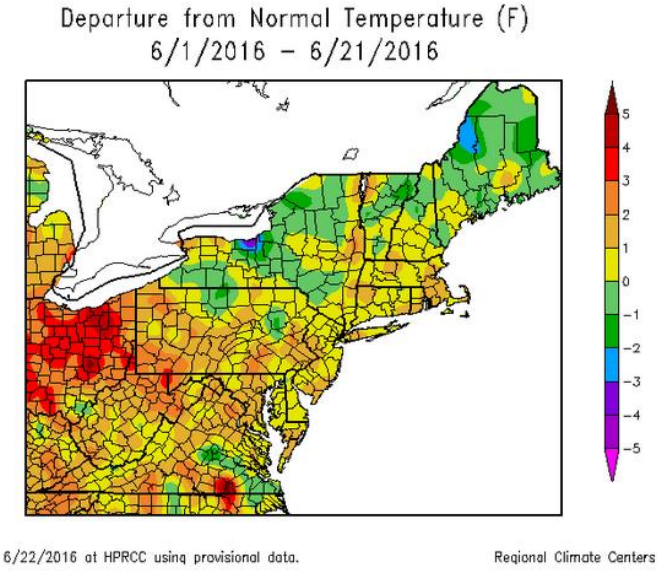
U.S. Department of Agriculture

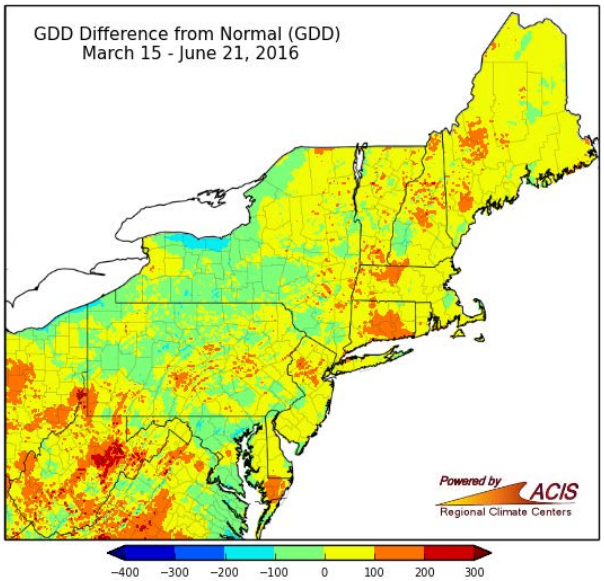
http://droughtmonitor.unl.edu/

- Dry conditions expand to include all of Jefferson, Lewis, St. Lawrence, Franklin and Clinton Counties. See the official drought map above. Though we have received some rain in the past 10-14 days in the North Country, total precipitation during the last 90 days is half of what is typical. D0 and D1 designations were increased for New York and New England due to declining streamflows (locally below the 10th percentile) and a lack of rain over the past 90 days (less than half of normal). In fact, many of the Northeast's D1 areas are now running rainfall deficits in excess of 6 inches over the past 6 months. Click the drought and streamflow maps to go to the USDA and USGS maps for more clickable details.



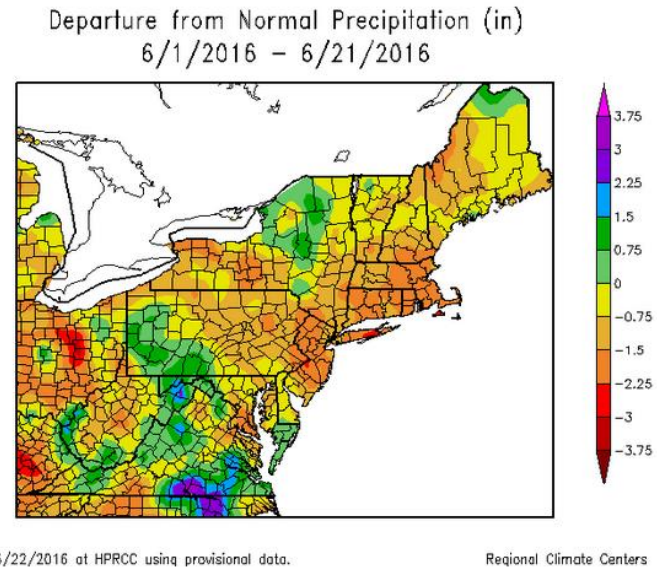
- June temperatures so far have been either extra warm or extra cool, but the monthly average is right around normal. The departure-from-normal-temperature map below on the left shows the temperature departure from normal so far for June 2016 in the Northeast region. Average daily temps have been within a degree or two of normal for much of the North Country during June. The graph below on the right depicts difference from normal base-50 GDD for the Northeastern states. In the North Country, areas close to the St. Lawrence Seaway are a bit below normal base-50 GDD accumulations while most of the rest of the North Country is slightly above normal accumulations through this week.





- June precipitation has been well below normal. Portions of the North Country have done better than other parts of the state in terms of June rain. Still, the table below, compiled by New York USDA-NASS shows that all Northern NY stations are below normal precipitation this season. Deficits range from a half-inch to over 5 inches below normal in Lowville. Deficits are largest on the western parts of the North Country and decline toward the east to closer to normal totals. GDD

accumulations listed in the table below are largely above normal for the whole growing season to date.



- Alfalfa Snout Beetle treatments for 2016 are underway. If you need nematode applications on your farm this summer, be sure to make arrangements immediately as rearing the biocontrol nematodes requires about 40 days. The Shields Lab on campus and Mary DeBeer in Moira are both rearing and supplying nematodes to NNY farms. Contact these suppliers directly or Mike Hunter and Kitty O'Neil can assist with arrangements.

- Hot, dry weather reduces effectiveness of many herbicides, so weed control this summer may become complicated. The lack of rainfall combined with warm temperatures will enable weeds in many fields to survive early-season control tactics. Hot, dry weather stresses crop plants, favors drought-tolerant weeds, and it makes subsequent weed control efforts very difficult. The hot and dry weather throws 3 curveballs into typical herbicide programs:

  - Poor herbicide effectiveness — Corn fields sprayed with a preemergence herbicide, followed by 7 to 10 days of no rain, are unlikely to have good weed control. In order for most preemergence herbicides to do their job they must be present in the soil solution where the weed seeds germinate.
  - Crop injury — A corn plant's ability to metabolize herbicides is slowed when the plant is under stress (too hot, too dry, too wet, too cold etc.) and this can cause the postemergence herbicide to injury the crop. Certain postemergence herbicides have application restrictions that are based on maximum air temperatures. Be extremely careful with high temperatures and growth regulator herbicides such as 2, 4-D, dicamba (Banvel) and dicamba-containing herbicides such as Yukon, Northstar, Status and Distinct.
  - Herbicide carryover —Herbicides commonly used for late-season rescue treatments can persist longer than normal in dry soils. Additionally, the shortened time period between application and planting next year's crop increases the likelihood of residues being present. Dry conditions during the remainder of the 2016 season would greatly increase the probability of carryover injury to 2017 crops.

- - Accumulations from April 1 to June 19, 2015 - -

	Precipitation, inches			GDD Base 50 °F		GDD Base 40 °F
	Total	DFN[1]	Days[2]	Total	DFN[1]	Total
Highmarket	8.65	-3.48	33	331	-45	826
Lowville	3.28	-5.23	27	430	-17	964
Watertown Int'l Airport	5.65	-1.83	30	470	+23	1018
Fort Drum	6.09	-2.50	33	558	+33	1122
Massena	5.44	-2.38	26	540	+28	1077
Malone	7.56	-0.52	28	447	+65	948
Plattsburgh Int'l Airport	4.96	-3.21	30	525	+30	1069
Tupper Lake	8.43	-0.72	33	369	+68	856
Newcomb	9.27	+0.07	37	354	+55	828

[1] DFN = difference from normal; [2] precipitation days = number of days with ≥ 0.01" precipitation.

Additional resources:

1. Weekly Crop Progress & Condition Report. 2015. New York USDA-NASS.
2. Northeast Regional Climate Center
3. U.S. Drought Monitor

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

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Our Mission

"The Northern New York 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."

Contact us directly through our website: http://nnyrap.cce.cornell.edu