



Field Crops, Forages and Soils Updates for NNY

5 May 2017

- Corn and forage planting considerations for a late, stressful spring - May has started out wet which has delayed new seeding establishment and corn planting. There are many growers that want to plant their new seedings before they start planting corn. In NNY we have two windows of opportunity to establish new seedings-early spring and late summer. With corn, you only have one opportunity to plant. At this point, you should consider postponing any new seeding establishment until late July or early August and focus on planting corn.



It is tempting to rush, but be patient and wait for good soil conditions. Don't try to get back into the field until the conditions are right. When are corn planting conditions right? Take a handful of soil from the top 2 to 3 inches and form a soil ball. If you can drop the soil ball from waist high and it stays intact or only breaks into a couple of parts, it is too wet to plant corn. Trying to rush things one day too soon can result in sidewall compaction in the furrow, or cause surface compaction. Planting into too-wet soils can result in poor seed-to-soil contact and surface compaction, which leads to inconsistent germination and restricted root growth throughout the season. One way to minimize sidewall compaction is to reduce the down pressure on both the planter gauge wheels and the closing wheels. It will also be important to resist the temptation to increase planting speed. Planting too fast will result in improper seed spacing and depth, uneven germination, etc. Speeding up will not get corn in that much faster, but it will result in a suboptimal stand.

No-till planting may be an attractive option to optimize time and labor resources and allow you to get onto sods earlier than onto tilled fields. No-till is a proven and desirable practice that warrants much greater adaption by producers in NNY; however, it is not a short cut. No-till is successful as a management system when planting equipment is set up correctly and when soil conditions are correct – as described above.

Until about May 25th, it's too early to begin switching full season corn hybrids for shorter day varieties. For now, keep going with the current hybrids you have and plant the full season hybrids up to about May 25th. After May 25th start dialing back your relative maturities 5 days for each week that goes by.

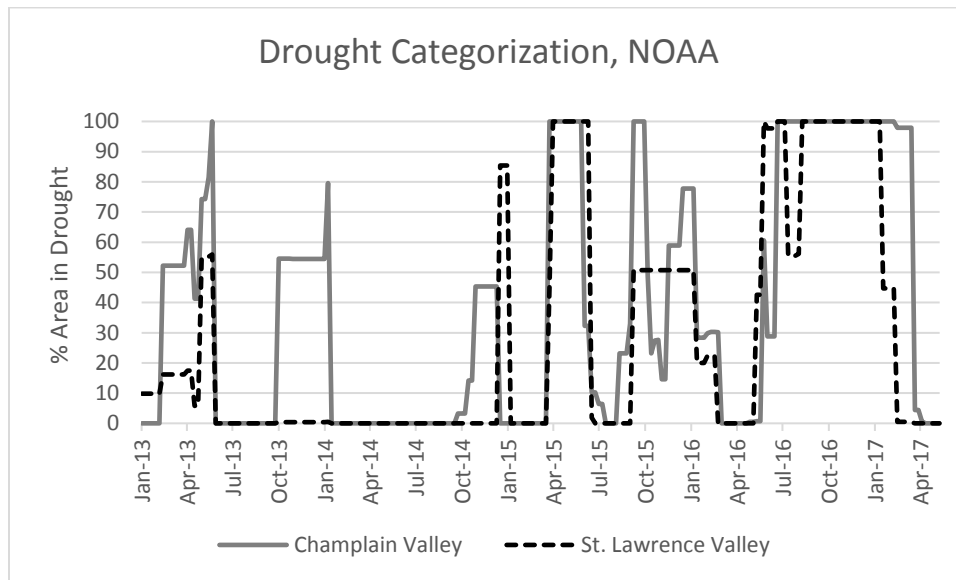
Unfortunately, it appears that corn planting and hay harvest are going to conflict this spring. When the hay is at optimum quality to harvest, park the corn planter and mow hay. You can't afford to miss the opportunity to harvest high quality forage. One option that may be feasible for some farms would be to put a "skeleton" field crew on the night shift for tillage and corn planting, and the rest of the crew on day shift for harvesting haylage.

It will be important to continually prioritize and re-prioritize hay fields for harvest as time progresses. Target fields that you can get at the optimum quality. Utilize alfalfa heights to determine harvest timing. Weekly reports on alfalfa heights in NNY can be found at <https://ncrat.cce.cornell.edu/topic.php?id=2>. If fields are already past their prime when it is feasible to harvest them, move them to the bottom of the list and return to them as time permits.

With the likelihood you may have some late cut, low quality first cutting, consider separate storage options for this crop so you have the option to use it for non-lactating animals.

- 2016 drought conditions are drastically improved, but not completely gone, for NYS and the Northeast. Much of the Northeast recorded above-normal precipitation and above-normal temperatures for the last week in April and rain began to fall in early May. Temperatures were 3-5 degrees below normal, and precipitation was above normal, for the second week of May across the Northeast. Despite short-term wet conditions, there are still some indicators of long-term dryness in the region, but the most recent wet pattern has eliminated all drought concerns for the time being. The complete elimination of dryness and drought in the region will be slow, however. The past week brought improvements in Maine, eastern Massachusetts, Vermont, New Hampshire and central Pennsylvania.

For some context for the weather over the past year, percentage of the Champlain Valley and St. Lawrence Valley areas that were categorized in any type of drought between January 2013 and May 2017 is shown in the graph below. We've only very very recently returned to non-drought conditions according to NOAA criteria. Champlain Valley mostly returned to normal in March 2017 while the St. Lawrence Valley finally lost all dry and drought categorizations in February 2017.

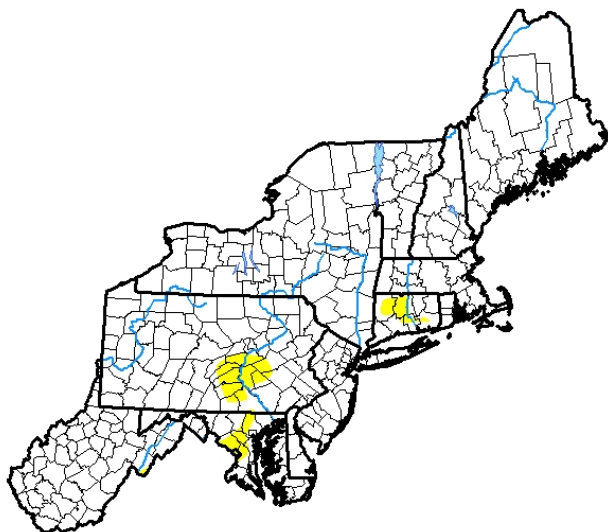


Many effects of the 2016 drought will linger into 2017. Though most grasses can survive extended dry conditions, some hay fields and pastures may have areas that did not survive the drought. Many grass fields were grazed or mowed too short, due to limited forage availability. This stress, in addition to the drought stress, could cause death of grasses and legumes in extreme cases. Many hay seedings planted in spring 2016 were failures. Many of those fields remain open into spring 2017 and will need to be dealt with. 2017 annual crops such as corn and soybeans and new seedings, will be fine – assuming proper planting and adequate and typically patterned rainfall. Watch for drought effects in our forests, orchards and vineyards into 2017 and beyond. Trees respond more slowly than annual and perennial ag crops. Many trees were severely stressed by the 2016 drought, and will respond to it with increased pollen and seed production this year. Some trees will succumb to pest pressures, as their defense mechanisms are now compromised. Many trees will die, but they may not appear dead for a couple of years.

The current, May 9, 2017, Northeast US drought map is shown below. For comparison, the October 4, 2016 map is also shown.

U.S. Drought Monitor Northeast

May 9, 2017
(Released Thursday, May. 11, 2017)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	97.00	3.00	0.00	0.00	0.00	0.00
Last Week <i>05-02-2017</i>	88.81	11.19	3.00	0.00	0.00	0.00
3 Months Ago <i>02-07-2017</i>	39.74	60.26	34.82	7.88	0.70	0.00
Start of Calendar Year <i>01-03-2017</i>	30.54	69.46	43.67	11.68	1.39	0.00
Start of Water Year <i>09-27-2016</i>	21.72	78.28	40.32	19.59	6.68	0.00
One Year Ago <i>05-10-2016</i>	67.79	32.21	1.00	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:

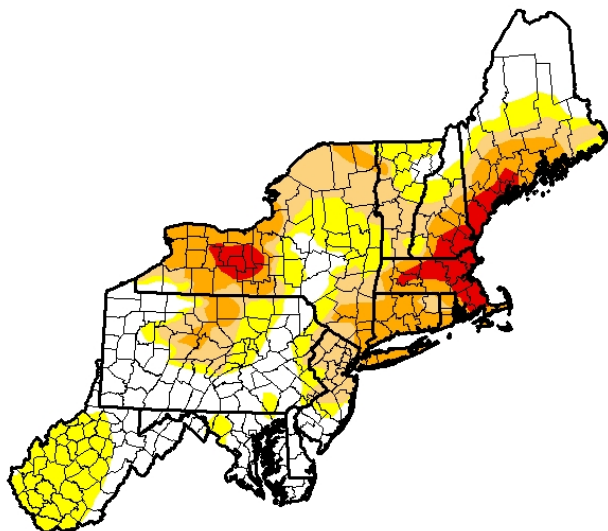
Brian Fuchs
National Drought Mitigation Center



<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor Northeast

October 4, 2016
(Released Thursday, Oct. 6, 2016)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0	D1	D2	D3	D4
Current	34.88	24.13	19.01	16.36	5.61	0.00
Last Week <i>09-27-2016</i>	21.72	37.96	20.73	12.91	6.68	0.00
3 Months Ago <i>07-05-2016</i>	34.35	44.83	19.00	1.82	0.00	0.00
Start of Calendar Year <i>12-02-2015</i>	62.10	31.30	6.60	0.00	0.00	0.00
Start of Water Year <i>09-27-2016</i>	21.72	37.96	20.73	12.91	6.68	0.00
One Year Ago <i>10-06-2015</i>	71.27	22.95	5.78	0.00	0.00	0.00

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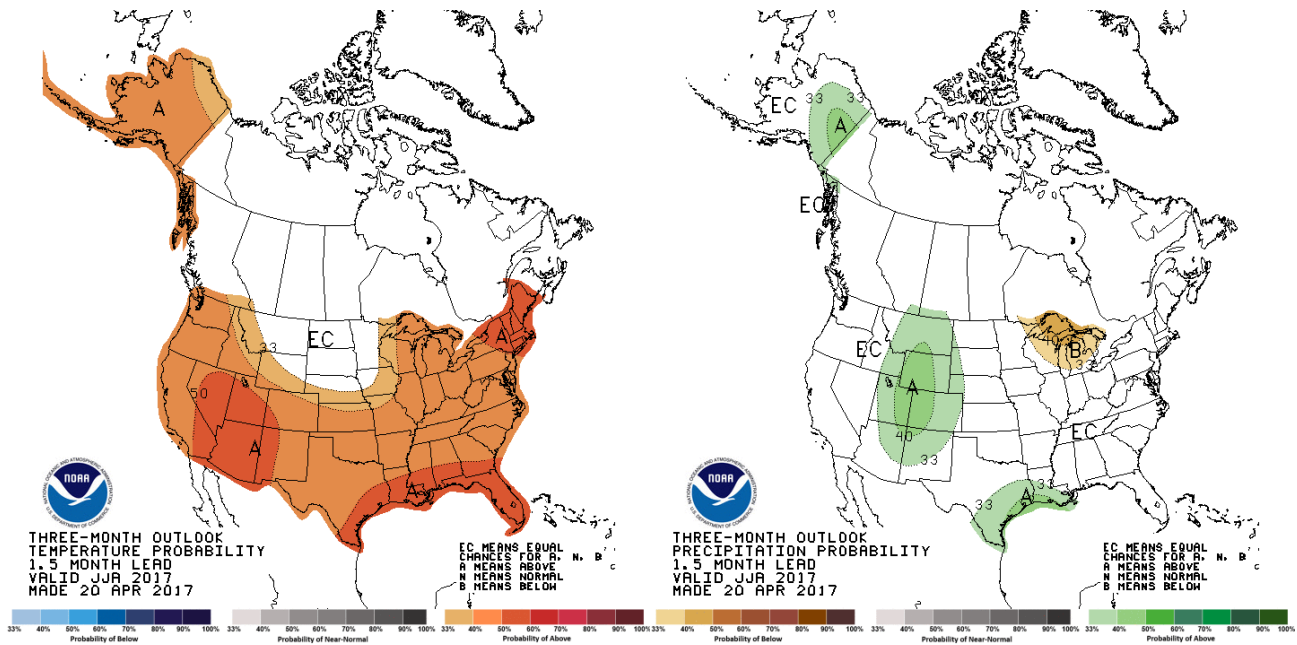
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- June-July-August 2017 weather is predicted to be warmer than average with average precipitation. See 2 maps below. Warm temperatures are forecast for the entire contiguous US and Alaska. In the Northeast, the probability of warm weather over this time frame is greater than 50%. Precipitation in the Northeast is predicted as a tossup, or equal chances, of above and below average climate norms. As long as the above average temperatures don't become extreme, warm weather in June will mean we stand a good chance of overcoming our early spring GDD deficit.



- NNY Weather Summary for April 1 through May 10, 2017

Cool and wet all over NNY, but some areas have been cooler and wetter than others.

County	Town/Village	GDD50		Precip (in.)	
		April	May*	April	May*
Clinton	Beekmantown	86.5	23.0	3.90	1.83
	Peru	97.0	26.0	3.74	1.59
Essex	Whallonsburg	98.0	27.5	4.52	1.94
	Ticonderoga	93.0	29.0	5.11	2.36
Franklin	Bombay	69.5	11.0	4.06	4.18
	Chateaugay	64.5	10.5	5.68	3.42
Jefferson	Rodman	83.0	13.5	5.06	3.73
	Lafargeville	71.5	11.5	4.76	4.34
Lewis	Copenhagen	90.0	15.0	5.22	3.88
	Turin	62.0	12.0	5.16	3.90
St. Lawrence	Louisville	60.5	4.0	5.16	4.38
	Canton	65.0	6.0	4.98	4.62
	Hammond	51.5	6.0	5.07	5.06
Average		76.3	15.0	4.80	3.48

*Totals for only the first 10 days of May

Additional resources:

1. [Weekly Crop Progress & Condition Report. 2017. 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 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.”

Contact us directly through our website: <http://ncrat.cce.cornell.edu>

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