



## Field Crops, Forages and Soils Updates for NNY

9 September 2016

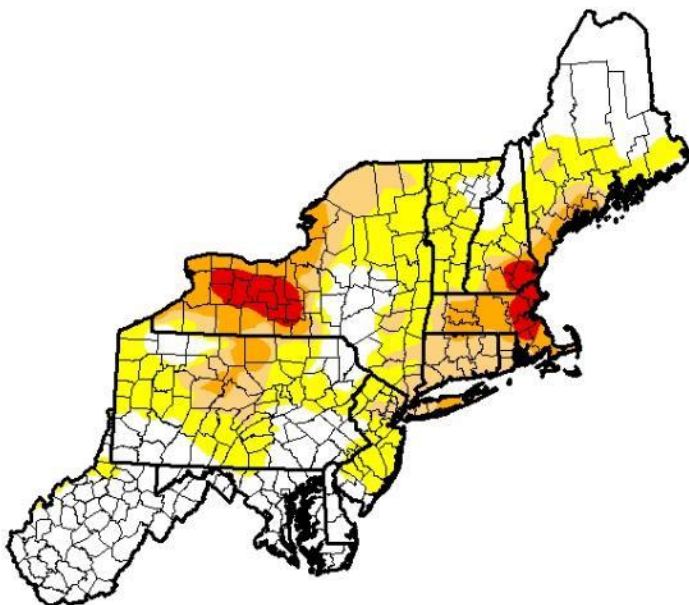
- Drought conditions continue to expand in NNY. The September 6, 2016 Drought Monitor map, shown below, indicates an expansion of Extreme Drought (D3) areas in the NYS's Finger Lakes and in southeastern New Hampshire. The experts at the Climate Center base these classifications on short-term precipitation deficits (30–60 day), low streamflows, and dry soil conditions. The entire North Country is categorized as D0, D1 or D2, as of September 6th. The Northeast US continues in an overall dry pattern with no significant rainfall accumulations observed across the majority of the region. In the past week or so, 0.05 – 1.6 inches were reported in some areas of NYS, but we are still in desperate need of rain. Average temperatures were one-to-five degrees above normal across the much of the region with the greatest temperature anomalies observed in northern Maine. Eighty-six percent of NYS is categorized as D0-D4 drought, as are 62% of Pennsylvania, 84% of Vermont, 74% of New Hampshire, 44% of Maine and 100% of Massachusetts, Connecticut, and Rhode Island. The 9 Midwestern states are in much better shape with only 9% of their combined area assessed as any of the drought categories.



Many folks across NNY have reported digging holes or ditches for construction projects and finding bone-dry soils down to 3 or 4 feet or beyond. Many trees are showing evidence of drought stress this fall, losing leaves without turning fall colors. Lots of snow and rain are needed this winter to return us to normal soil conditions.

## U.S. Drought Monitor Northeast

**September 6, 2016**  
(Released Thursday, Sep. 8, 2016)  
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	40.48	59.52	27.78	13.70	3.86	0.00
<b>Last Week</b> 8/30/2016	41.51	58.49	27.29	12.82	2.52	0.00
<b>3 Months Ago</b> 6/7/2016	56.82	43.18	2.17	0.00	0.00	0.00
<b>Start of Calendar Year</b> 12/29/2015	62.10	37.90	6.60	0.00	0.00	0.00
<b>Start of Water Year</b> 9/29/2015	42.41	57.59	9.00	0.00	0.00	0.00
<b>One Year Ago</b> 9/6/2015	51.55	48.45	4.39	0.00	0.00	0.00

Intensity:

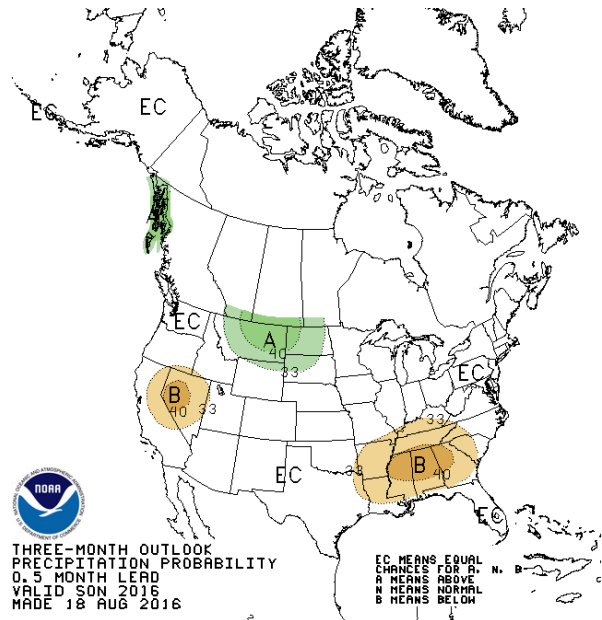
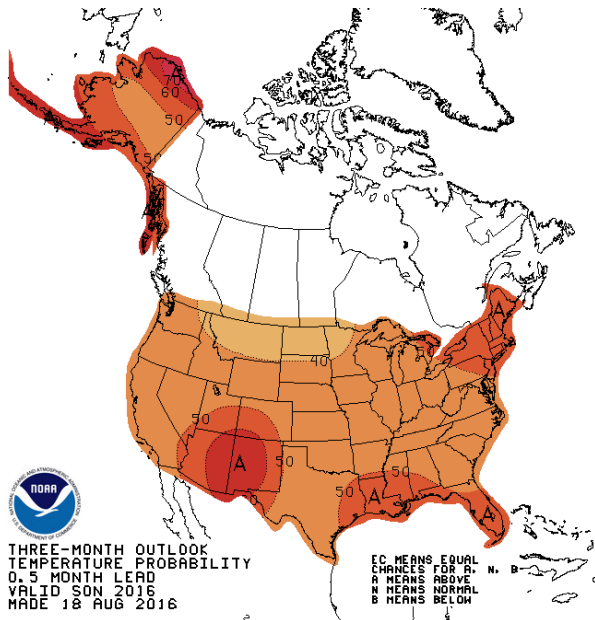
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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

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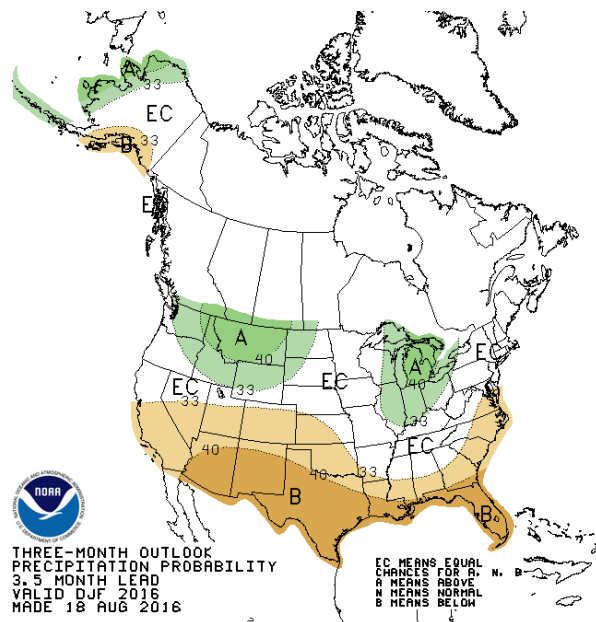
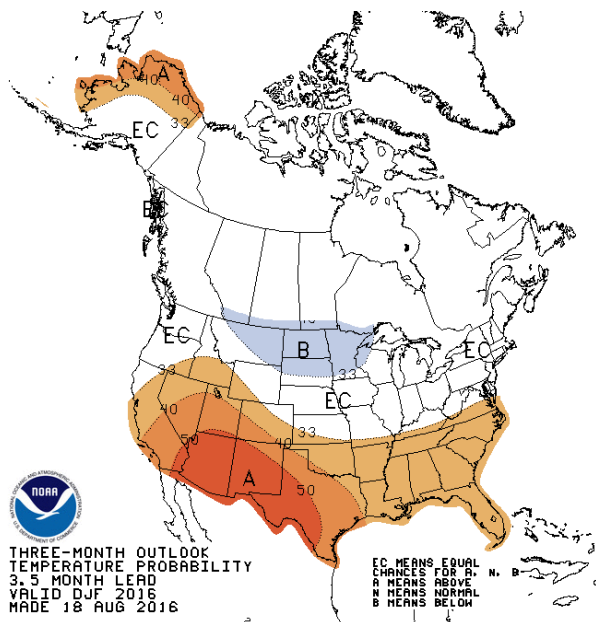
- September-October-November 2016 weather is predicted to be warmer than average with average precipitation. See 2 maps below. Warm temperatures are forecast for the entire contiguous US and Alaska. In the Northeast, the probability of warm weather over this time frame is greater than 50%. Precipitation in the Northeast is predicted as a tossup, or equal chances, of above and below average climate norms. Warm weather this fall will mean good opportunity for strong fall seeding and cover crop establishment and growth, however, in fields where soil moisture is already severely limited, warm temperatures alone may not guarantee success. We need a lot of precipitation to recharge dry soils.



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- December-January-February weather is forecast to be about normal for the Northeast US. See maps below from NOAA. Both temperature and precipitation are given equal chances of being above, equal to or below normal climate averages.



- NNY Weather Summary for Sept 11, 2016

All weather stations included in the table below are 0.6 to 5.4” of precipitation below normal for the season. Complicating the lack of moisture across these NNY locations is the warmer weather also experienced. Plants need extra water to compensate for higher evaporation losses during hot weather, making drought stress more severe. All stations listed accumulated more GDD than a typical season – 4 to 29% more GDD than normal.

**-- Accumulations from April 1 to Sept 11, 2016 --**

	Precipitation, inches			GDD Base 50 °F		GDD Base 40 °F
	Total	DFN <sup>1</sup>	Days <sup>2</sup>	Total	DFN <sup>1</sup>	Total
Highmarket	21.59	-3.07	60	1638	+73	2973
Lowville	13.10	-5.39	51	1988	+220	3362
Watertown Int'l Airport	12.86	-2.68	53	2251	+418	3639
Fort Drum	14.39	-4.44	62	2392	+337	3796
Massena	14.99	-2.39	57	2278	+314	3655
Malone	15.14	-4.71	58	2001	+398	3342
Plattsburgh Int'l Airport	13.29	-4.39	57	2258	+293	3642
Tupper Lake	20.15	-1.07	64	1777	+403	3104
Newcomb	19.89	-0.57	66	1682	+343	2996

<sup>1</sup> DFN = difference from normal; <sup>2</sup> precipitation days = number of days with ≥ 0.01” precipitation.

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Additional resources:

1. [Weekly Crop Progress & Condition Report. 2016. 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>

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