

Community Collaborative Rain, Hail & Snow Network



Maine



**NWS Gray and
Matt Spies**

September 2016

Hello Observers! This is the first edition of a newsletter that we will be sending out to our current CoCoRaHS observers. It will cover items of interest to you, the observer!

We here at the office can't believe that it's fall already. When fall arrives in New England, many people think of cooler weather, apple cider, and the beautiful colors deciduous tree leaves change to: red, yellow, purple, brown. Because New England has some of the most **vibrant fall color** in the world, thousands of sightseers visit every year. This year, we are concerned the foliage season could be cut short due to the drought we are currently experiencing.

But what causes the leaves to change color? Leaves get their green color from an abundance of chlorophyll. Chlorophyll captures sunlight and converts it to energy most of the time, but during the fall it stops being replenished. Since the chlorophyll's green pigment is weakened by this action, the other pigments in the leaves that have been present all along, like orange and red, become visible.

Someone trying to predict the days or weeks of the best fall foliage would need to take the following into account: the amount of rain that has fallen recently, high and low temperatures, the number of daylight hours, and the amount of sugar in the leaves. In addition, peak foliage season begins in the higher elevations and latitudes and works southward with time.

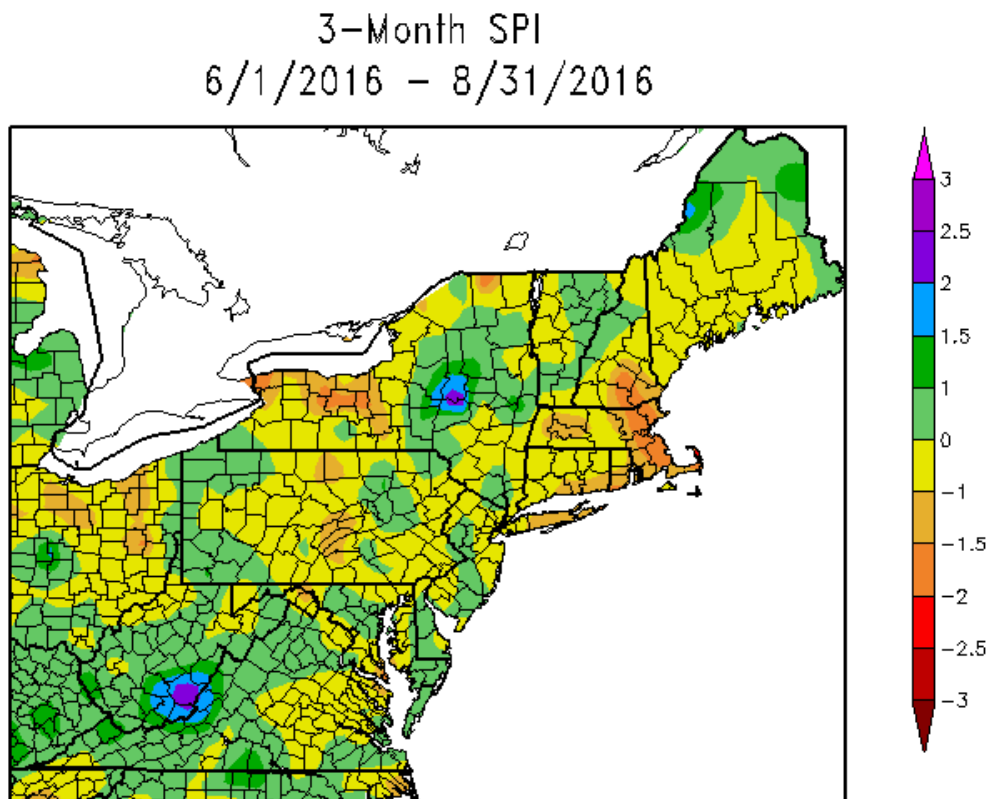
Even so, there are microclimates in valleys, near lakes, and in varied terrain that produce pockets of fall color according to a more localized time table. The current drought may shorten or dull the fall foliage season. This year it is likely we will see some spots that are not as vibrant as other years. However, there will still be patches of color where the drought has been less severe. For more info:

In Maine: http://www.maine.gov/dacf/mfs/projects/fall_foliage/index.shtml

In New Hampshire: <http://www.visitnh.gov/4-seasons/fall-harvest/foliage/foliage-tracker.aspx>

Did You Know? We use your zero reports!!

Another day without precipitation...so you don't need to enter anything in CoCoRaHS, right? Wrong!



Generated 9/11/2016 at HPRCC using provisional data.

Regional Climate Centers

The Standardized Precipitation Index (SPI) measures moisture supply. The SPI map shown here depicts the spatial extent of the dry period between February and April. Much of New Hampshire and Maine were 1.30 inches or more below normal for this period.

Lots of entities use that information, whether it is to determine whether to plant crops, how to control black flies, or whether water rationing needs to begin. Zeros are important, and also the most common report made in New England.

It may be obvious to you that no precipitation occurred at your station, but this way, it is recorded in the record books and lets everyone know as well! As scientists we cannot assume you had no rain or no snow, we have to have that confirmed by, you guessed it, YOU! The more complete your station data is, the more valuable it becomes. Be a hero. Please report your zeros!

The good news is there is a quick and easy way to fill in those missing zeroes.

When you login to your CoCoRaHS account, on the left side, click on “Monthly Zeros”. A monthly calendar appears. You can scroll back in time to see previous months. Your missing daily reports appear with a small box. Click on the small box to insert a zero for that day, and click submit.

CoCoRaHS COMMUNITY COLLABORATIVE RAIN, HAIL & SNOW NETWORK
"Because every drop counts"

Home | Countries | States | View Data | Maps | My Data | My Account | Admin | Logout

Data Entry : Monthly Zeros Form

Enter New Reports

- [Daily Precipitation](#)
- [Multi-Day Accumulation](#)
- [Hail](#)
- [Significant Weather](#)
- [Monthly Zeros](#)
- [Drought Impact Report](#)

FRONT Reports

- [Optics](#)
- [Frost](#)
- [Snowflake](#)
- [Thunder](#)

List/Edit Reports

- [Daily Precipitation](#)
- [Multi-Day Accumulation](#)
- [Hail](#)

Monthly Zeros Submit Reset

Station Number : Station Name

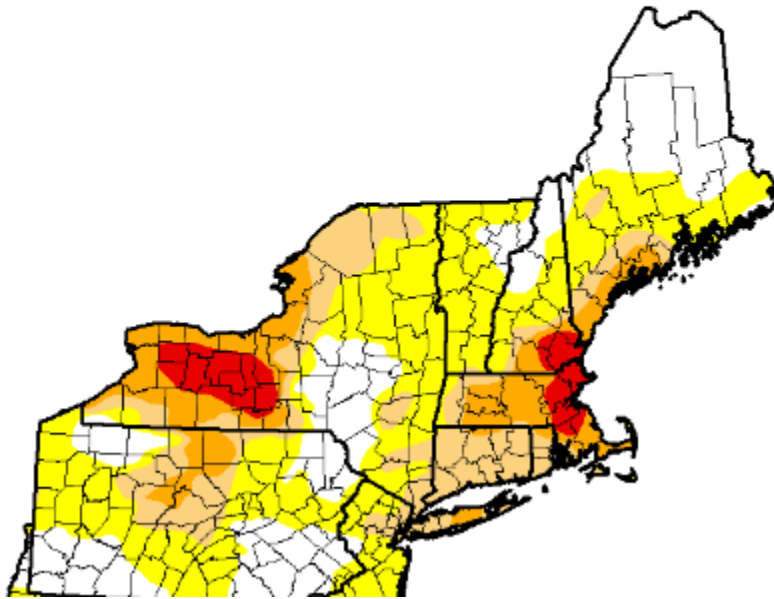
July 2016

	Mon	Tue	Wed	Thu	Fri	Sat
26	27	28	29	30	1	2
		<input type="checkbox"/> 0.0 Precip	Precip: 0.13	Precip: 0	Precip: 0	Precip: 0.03
3	4	5	6	7	8	9
Precip: 0	Precip: 0				Precip: 0	Precip: 0
10	11	12	13	14	15	16
Precip: 0.16	Precip: 0.06	Precip: 0	Precip: 0	<input type="checkbox"/> 0.0 Precip	Precip: 1.21	Precip: 0
17	18	19	20	21	22	23
Precip: 0	<input type="checkbox"/> 0.0 Precip	Precip: 0.02				
24	25	26	27	28	29	30
31	1	2	3	4	5	6

- 1- Click on My Data.
- 2- Click on Monthly Zeros.
- 3- Click on the check boxes to assign a zero
- 4- Click on Submit.

U.S. Drought Monitor

Northeast



For the drought through Sept 6, 2016.

Estimated Population in Drought Areas: 32,974,354.

The Drought Monitor focuses on large scale conditions.

For more info: www.drought.gov

Well how hot was it?

Portland

In Portland...the summer began with cool and wet weather, but in the end summer 2016 went down as the warmest on record and the driest in more than a decade. Rain was observed on 9 straight days from June 3 through June 11. The heaviest rain fell on the 5th when more than 2 inches was measured. Drier air soon followed as cool, dry continental air spilled out of Canada into New England. The next several weeks followed a similar pattern: just as soon as the heat would begin to build a cold front would bring in cooler, drier air. In mid-July there was a period of cool, damp, onshore winds which led to one of the coolest July days on record when the temperature did not rise above 59 degrees on July 9. This cool down was only temporary as a broader shift toward warmer weather was about to begin. The hottest part of the summer was from July 15 through August 15. During this time there were 24 days above 80 degrees and 7 days above 90. The hottest day of the year was August 12 when the temperature reached 99 degrees. This was the hottest temperature observed at Portland in more than 5 years and the 4th hottest temperature on record for the month of August. Although the extreme heat did not return, warm weather continued through the rest of August leading to the warmest August on record.

The average temperature for the summer was 68.9 degrees in Portland, which was 2 degrees above normal and the warmest on record. Until this year, the warmest summer was 68.7 degrees in 2010 and 1988. The following table lists the warmest summers at Portland.

Warmest Average Summer Temperature (Portland)

Rank	Temp	Year
1	68.9	2016
2	68.7	2010, 1988
3	68.6	1999
*since 1940		

Concord

On June 5, 0.95 inches of rain fell at Concord. This ended up being the heaviest rain all summer as drought conditions developed and intensified as the summer went on. This began to change in mid-July when easterly winds brought cool, wet weather to the area. The high temperature on July 9 was only 63 degrees, the coolest July day since 2009. This cool weather was only temporary as a shift toward warmer weather began soon afterwards, lasting through much of August. From July 22 thru July 28 the temperature topped 90 degrees on 6 out of 7 days. The hot weather returned in August when the temperature reached 98 degrees on August 11 and 99 on August 12. Although warm weather continued through the rest of August, the brutally hot weather did not return. Overall it was the 4th warmest and 9th driest summer on record at Concord.

The average temperature for the summer was 70.5 degrees which was 2.7 degrees above normal and the 4th warmest on record. The warmest summer was in 1872 when the average temperature was 72.3 degrees. The coolest was 1903 at only 62.6 degrees. The following table lists the warmest summers at Concord.

Warmest Average Summer Temperature (Concord)

Rank	Temp	Year
1	72.3	1872
2	72.1	1876
3	71.7	1870

***since 1868**

Gauge Cleaning

Does your inner cylinder look a little dirty? Is there layer of dirt in the bottom of the inner cylinder? Have birds used your gauge?

You can clean your gauge with a little bleach and a soft bottle brush. You can also use a bird feeder brush or a rolled up newspaper. Whatever cleaning technique you use, make sure it involves nothing metal or abrasive.

The technique pictured below illustrates using a small sponge, cut long ways in half, a wooden pasta spoon, and liquid soap.



**BIRD FEEDER
BRUSH**



**WOODEN PASTA SPOON AND SOAP.
TWIST THE SPONGE IN A CIRCLE,
CLEANING THE BOTTOM OF THE
CYLINDER.**



**WHILE THE SOAP,
WATER AND SPONGE
ARE IN USE, CLEAN
THE FUNNEL AND
OUTER CYLINDER.**

Station Precip Summary

This inquiry tool lets you look at your station and two others. It will show missing reports, multi-day reports and it will total your precipitation.

View Data : Station Report Summary US Units ▼

Station Report Summary

Station 1 : Example: CO-LR-273

Station 2 :

Station 3 : DC-DC-19

Start Date: 7/1/2016 End Date: 7/19/2016

Take the default date range or select your own date range.

Stations:		
		DC-DC-19 The White House Lat: 38.895768 Lon: -77.036975

* indicates Multi-Day Accumulation Report

Station DC-DC-19

Date	Precip in.	Precip in.	Precip in.
07/01/2016	0.00	0.00	0.00
07/02/2016	0.14	0.26	0.32
07/03/2016	0.00	0.00	0.05
07/04/2016	0.00	0.00	0.02
07/05/2016	0.00	0.22	0.64
07/06/2016	--	0.00	0.00
07/07/2016	0.00	0.00	0.00
07/08/2016	--	0.03	0.00
07/09/2016	--	0.03	0.11
07/10/2016	0.75	**	0.00
07/11/2016	0.05	**	0.00
07/12/2016	0.00	**	0.00
07/13/2016	0.00	**	0.00
07/14/2016	T	**	0.10
07/15/2016	0.07	**	0.00
07/16/2016	**	**	0.00
07/17/2016	**	0.20 *	0.37
07/18/2016	0.03 *	0.00	0.00
07/19/2016	0.05	T	0.57
Totals :	1.09 in.	0.80 in.	2.18 in.

-- means a missing report

** means a Multi-Day Report

By the numbers.

- 1- View Data.
- 2- Station Precip Summary.
- 3- Enter 1, 2 or 3 stations. DC-DC-19 is the White House.
- 4- Click on Get Summary

Who looks at CoCoRaHS data? You should!

- [Water Year Summary](#)
- [Station Precip Summary](#)
- [Station Snow Summary](#)
- [Rainy Days Report](#)
- [Total Precip Summary](#)

From the website select “Station Snow Summary”

View Data : Station Snow Report Summary US Units ▼

Station Report Summary	
Station 1 :	<input type="text"/> Example: CO-LR-273
Station 2 :	<input type="text"/>
Station 3 :	<input type="text"/>
Start Date:	<input type="text" value="2/1/2016"/>
End Date:	<input type="text" value="2/25/2016"/>
<input type="button" value="Get Summary"/>	

Date	Precip in.	Snowfall in.	Core Precip in.	Total Snow Depth in.	Total SWE in.
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When you start getting a year or two of history at your station, you will be amazed at the numbers! Data is incredibly interesting, and as scientists we are excited to get your data every day and include it in our reports.

Comments

For your daily report, the precipitation value is the most visible part. But that's not all you can do. You can provide more details in the text box, the observer notes, and the comments section

Comments are a way to journal your observations. In the month of October, all reporting stations will have their own water year summary. Within those water year summaries are all of your reported values of precipitation, snow fall, snow depth AND comments along with them. You may have experienced and observed a precipitation event, you reported the measurement of the precipitation, but without a comment, you may not remember any other details of the precipitation event as you look back at your water year summary.

- Comments are included in your water year summary. They are an opportunity to create your own weather and precipitation journal and can serve to recall what occurred during the year.
- General rule of thumb: If you have a non-zero precipitation value to report, make a comment if you can- anything that describes the precipitation event. We have more than 1000 non-zero reports each month, but not more than 1000 comments in a month.
-

0.00 in.

*Rain and Melted Snow to the nearest hundredth inch that has fallen in the gauge during the past 24 hours, or **T** for trace, or **NA** for unknown. ?

Observation Notes: (This will be available to the public) ?



WEBSITE FORM

**THANK YOU FOR BEING A COCORAHHS
OBSERVER!!!**