



Maine Tree Fruit Newsletter

Thursday, September 3, 2020 Vol 27:13

Maturity Report

Fruit maturity at Highmoor Farm on Thursday September 3

PLUMS

Japanese plums: Shiro is past peak maturity, Vanier is just beginning to ripen.

American plums: Superior, is at peak ripeness and has far less rain cracking than normal. Toka, or Bubblegum is beginning to ripen and has its usual fabulous flavor.

European plums: Oullins is at peak ripeness. Castleton is not yet ready to pick despite showing full purple color. Rosy Gage and Long John will be next week or after.



Superior plum.
Photo: Renae Moran

PEACHES – Highmoor Farm does not have late-ripening peaches this year.

Gordon Kenyon, whose peach orchard in Albion is one of who has one of the largest peach plantings in Maine, provided the following observations about peach harvest this year as of Sunday, August 30. The maturity dates for different cultivars shown are 10-14 days earlier than normal.

Harvest start dates (with completion in about 1 week)

- 7/31 - Harrow Diamond
- 8/5 - Saturn
- 8/6 - Rising star (end 8/16)
- 8/10 - 8 Ball
- 8/22 - Red Haven, Redstar
- 9/2 - Canadian Harmony

Yet to go:

Contender, PF24c, Summer Pearl, etc.

PEARS

Purple pears seem ready to pick for storage, or may be past ready based on flavor. Initial starch tests on pears this year shows starch breakdown in the purple pear. The unknown green variety has no starch breakdown and unripe flavor.

ASIAN PEARS

Chojuro is almost ready to pick but still has too much astringency. The unknown Asian pear is ready to eat, and has a very mild, but very sweet flavor.

APPLES

The Apple Starch Index is on a scale of 1 to 8. Starch breakdown values are expected to be off from normal because of the extended dry weather.

	Starch index on Sept. 3	Comments
Sunrise (a summer apple)	6.3	This variety is fully ripe.
McIntosh (spur type)	3.8	Starch breakdown is advanced this year, but does not indicate that it is time to harvest these apples. This is a baseline measure.
McIntosh (standard strain)	2.6	
Honeycrisp	1.4	
Gala	1.1	
Cortland	1.0	No starch breakdown, yet.
Macoun	1.0	
Snowsweet	4.7	This orchard is located in very dry soil, so starch breakdown does not indicate maturity in this cultivar this year.

The Delta absorbance meter is a relatively new tool for measuring maturity in fruits that show chlorophyll breakdown with ripening. McIntosh does not do this. The IAD values for McIntosh are shown to illustrate this.

The IAD values have been useful in Honeycrisp when starch index does not follow normal patterns. The values listed below for Honeycrisp are based on two years of research in Maine. Standards for when to harvest are specific to each variety and are not fully developed for most.

A high degree of variability in stage of ripening occurs with Honeycrisp among different plantings, so check each one rather than relying on observations in only one block.

	DA meter index on Sept. 3	Value associated with harvest date
Sunrise (a summer apple)	0.61	Unknown
McIntosh (spur type)	2.02	Unknown
McIntosh (standard strain)	2.03	Unknown
Honeycrisp	1.32	First pick 0.8 to 1.0 Midharvest 0.5 to 0.7 End of harvest 0.3 to 0.4 (short-term storage)
Gala	0.87	0.4 to 0.8, but not tested in Maine
Snowsweet	1.01	Unknown
Cortland	2.15	Unknown
Macoun	2.03	Unknown

The recent rain should help ReTain effectiveness. It's 2 to 3 weeks ahead of McIntosh first pick, so now would be the time to apply the first shot of ReTain if you have not yet done so.

Insect Pest Damage Survey

Every orchard is different, and every year is different, but these results from an apple maggot research plot in the central Maine apple growing region align with insect damage types and percentages typically seen in previous years. Data were collected by Dr. Jaime Pinero, University of Massachusetts. Total sample size across all four sub-plots was 960 apples.

Attract -and-kill block - PERIMETER (320 fruit inspected)

Plum curculio = 1.6%

Early season Hemiptera (Tarnished plant bug) = 3.1%

Apple maggot (suspected injury, lab validation pending) = 0.3%

Attract -and-kill block - INTERIOR (160 fruit inspected)

Plum curculio = 0%

Early season Hemiptera (TPB) = 0%

Apple maggot = 0%

GROWER CONTROL block - PERIMETER (320 fruit inspected)

Plum curculio = 3.3%

Early season Hemiptera (TPB) = 3.4%

Apple maggot (suspected injury, lab validation pending) = 0.9%

GROWER CONTROL block - INTERIOR (160 fruit inspected)

Plum curculio = 1.2%

Early season Hemiptera (TPB) = 1.2%

Apple maggot = 0%

Marketing

Thirteen Maine orchards responded to a recent pricing survey.

Average prices were:

PYO

\$1.40 / lb. for Macs

\$2.10 / lb. for Honeycrisp or other premium variety

At the farmstand

\$1.60 for Macs

\$2.15 / lb. for Honeycrisp or other premium

A retail-only grower in southern Maine provided these comments about how the marketing season is going so far. Southern Maine pricing does not necessarily apply for other areas of the state.

“After a week of u-pick operations here, I thought I'd pass on some info. We're selling by volume, \$16/peck & \$32/half-bushel. There are some surprised customers, but most are taking it in stride.

There's more pushback on buying berry boxes ahead of entering the fall raspberry fields. We're charging \$7/quart. We are not limiting purchases to numbers of customers (i.e., 1 peck bag purchase allows 4 people to enter the field, or all entering the raspberries must buy a box) because we have no good way of enforcing that.

We're an "open border" orchard, especially during the week. We are encouraging reservations on weekends. Thought about doing that just for the busiest weekends, but realized we'd probably just confuse our regular customers. I don't think we'll reach capacity, especially this year with fewer folks traveling. We've got a 25 car per half-hour limit for those coming to pick. Folks have always driven into the fields here to pick...That's where we have the most parking!

The hardest thing for us is the farm store, where only 5 (or so) folks can enter at a time. That means we have to have a door monitor. Even with tickets, people walk right by them. The idea of a tent was floated, but we have no good space for one and we would be forced to haul everything out in the morning and back in again at night.

We have an on-line store set up for the first time and people are beginning to buy u-pick bags and berry boxes ahead of their visit. We have a pick-up window (door, actually) in the barn for CSA and on-line store pick-up, so folks don't have to come inside.

There's probably more... WiFi in both fields to run i-pads. Cash in both fields to sell bags. The list goes on...”

Maine Apple Sunday, Sept. 13

Maine Apple Sunday will be held September 13. Orchard locations and contact information is available at the Maine State Pomological Society website at <https://www.maineapples.org/>

Bailey's Orchard in Whitefield – Free apple squares and several apple prize drawings.

Boothby's Orchard in Livermore – Open 10 to 5 for Maine Apple Sunday with apple picking, samples of apple wine, and donuts. Music by Lindsey Montana, free wagon rides, orchard and winery tours, sweet cider and cheese samples.

Hansel's Orchard in North Yarmouth – Raffle for a peck of apples, offer free samples of our favorite apple recipes, and give out an orchard magnet to the first 50 customers.

Kents Hill Orchard in Mount Vernon – Demonstrations on how to use apples, such as apple sauce and cider making.

Libby and Sons U-Picks in Limerick – Free Live Music, Balloon Characters, Magic Tricks and Face Painting(\$ as well as Free samples of Apple Jam, Apple Salsa and Apple Pie Smoothie (while supplies last).

Maine-ly Apples in Dixmont – Free hayrides, BBQ lunch prepared by the Dixmont Rescue Squad, free samples and apple picking.

McDougal Orchards in Springvale – Open 9 AM to 5 PM and will host a "Pick for the Pantry" event. Each u-pick customer will be given a bag to fill for donation to a local food pantry. No charge for the bag. In addition, we will roll out our Orchard Scavenger Hunt, a fun way for kids and adults to learn more about how we grow our fruit. Raffle tickets will be distributed to each paying customer, with drawings at the end of the day for numerous apple related items.

McElwain's Strawberry Farm in Caribou – Hayrides through our orchard to the u-pick pumpkin field, apple tasting, a kid's straw bale climbing pyramid and Cinderella's Pumpkin Coach.

North Star Orchard in Madison – Sample ice cream with our own special apple pie topping.

Pietree Orchard in Sweden – Apple samples, wagon rides, PYO, hay maze and more.

Ricker Hill in Turner – Live music and food truck, U Pick apples and farm activities, bounce houses, corn maze and a special on carbonated sweet cider.

Romac/Lakeview Orchard in Acton

Snell Family Farm in Buxton

Sandy River Apples in Mercer – Free Tote Bags to the first 50 families and an “apple sundae” to each customer on Apple Sunday.

Spiller Farm in Wells – Hayrides, games, and animals to view. The Abenaki Draft Horse club will be doing horse drawn wagon rides to benefit their club. The hours are not decided but the info will be at www.spillerfarm.com We will have U PICK apples, peaches, raspberries, flowers, tomatoes and many veggies. We have a free picnic/play area with a real farm tractor for kids, a corn stalk teepee, goats and geese and I will show our 18 cow herd.

Sweetser’s Apple Barrel in Cumberland – Free apple crisp samples, heirloom apples on display. Sweetser's Apple Barrel offers an escape to a traditional Maine farm stand filled with heirloom apple varieties, fresh baked goods, fresh corn, and an extensive outdoor display of colorful pumpkins and gourds.

The Apple Farm in Fairfield – Apple picking, wagon rides (limited to socially distance), refreshments, and samples of our jams, jellies and other goodies.

Thompson’s Orchard in New Gloucester

Trewoigy Orchards in Levant – Free hay rides. Our corn maze, petting zoo, pumpkin patch, café and gift shop will be open. Pick-your-own apples, pumpkins, and flowers.

Wallingford’s Fruit House in Auburn – Hard cider/ wine tasting, U pick apples, corn maze, donuts and baked goods available with a special on sparkling sweet cider.

Vista of Maine in Greene - Craft fair with over 26 crafters, a food truck, U Pick apples and farm activities and a special on carbonated sweet cider as well as tours of the wedding barn/event center.

Junk Email Problem (solved?)

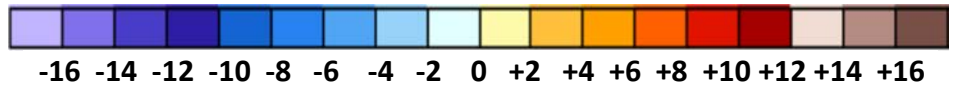
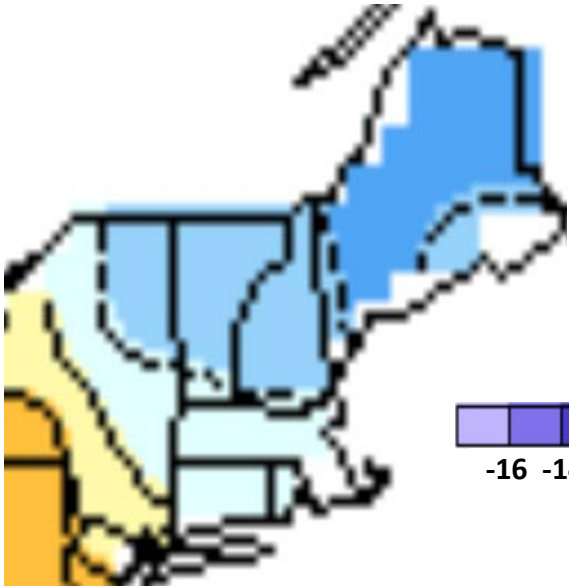
Several people reported getting junk emails that cited glen.koehler@maine.edu as the originating email address. Those emails were not actually sent from the UMaine email system, the messages just say that. The cause for this has not been fully diagnosed yet. The UMaine IT support folks directed me to remove a browser add-on that recently appeared on my computer which might be grabbing email addresses from my contact list to send junk mail from another system. Removing that software might solve the problem, but it was just removed today so it is too early to know

Do not click on links in any message that appears suspicious, as doing so could download malware onto your computer. If you receive any junk mail that cites my email address as the source, please forward the message to the UMaine IT staff at phish@maine.edu.

Recent Weather Summary

TEMPERATURE

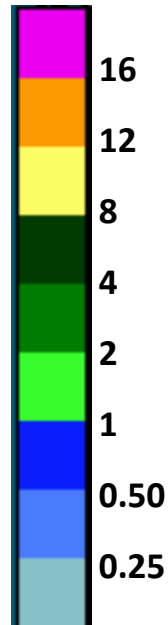
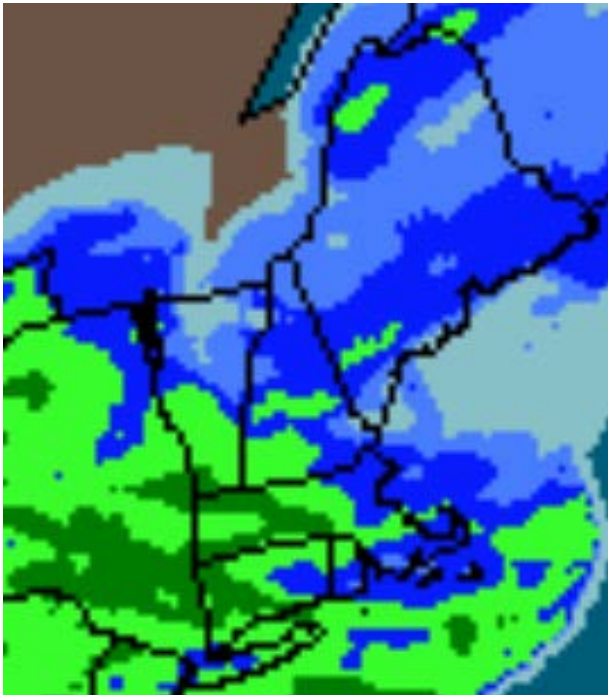
Average temperature anomaly for past 7-days Aug 27 – Sep 2, 2020



https://www.cpc.ncep.noaa.gov/products/tanal/temp_analyses.php

PRECIPITATION

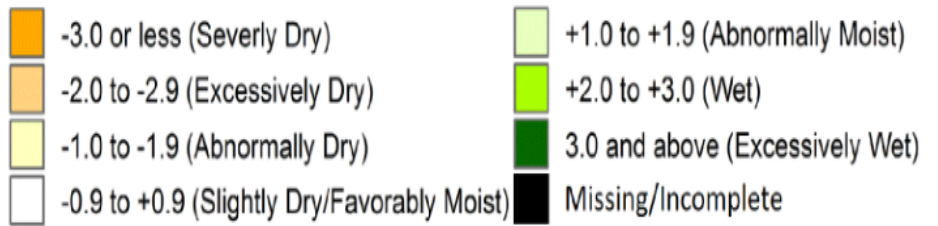
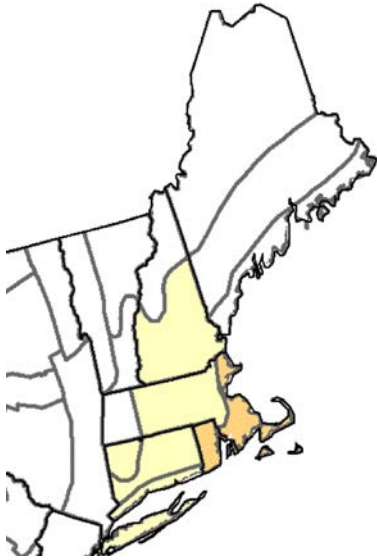
Inches Precipitation in past 7-days
8am Aug 27 – 8am Sep 3, 2020



<https://www.wunderground.com/maps/precipitation/weekly/usa>

SOIL MOISTURE

Crop Moisture Index (CMI) by Climate Division: Value for Period ending Aug 29, 2020



The CMI shows short-term (up to 4 weeks) abnormal dryness or wetness affecting warm season crops and field operations. The CMI responds quickly to changing conditions and can vary from week to week. It may not apply to germinating seeds and shallow-rooted crops that are unable to extract deep soil moisture, or to cool season crops when temperatures average below 55F.

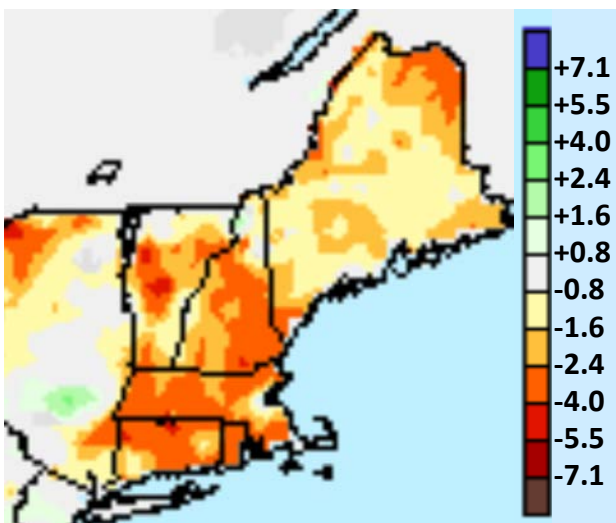
https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/regional_monitoring/cmi.gif

-1 to -1.9 = Moderate drought.

Crop prospects threatened with further drying.

-2 to -2.9. Severe drought. Excessively dry.

Yield prospects for shallow rooted crops reduced.

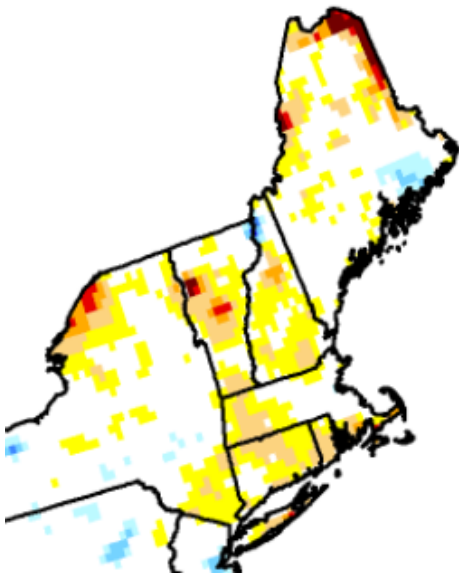


North American Ensemble Soil Moisture Anomaly

August 23 - 30, 2020.

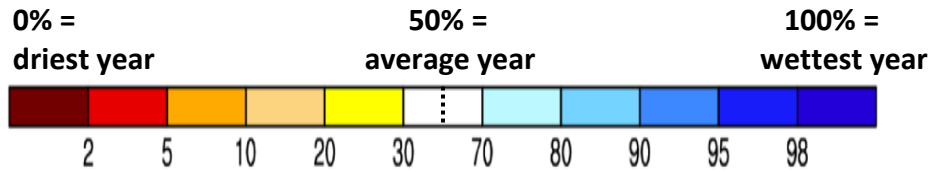
Inches above or below 1979 – 2010 avg.

<https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/weekly-total-SM-anom.shtml>

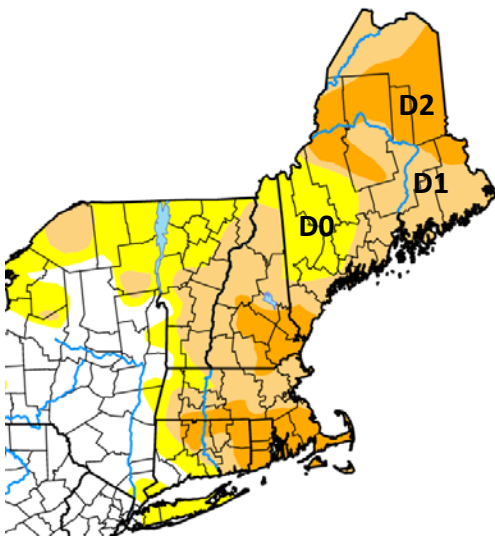


GRACE Root Zone Soil Moisture Drought Indicator

= top meter of soil moisture percentile vs. 1948 – 2012



<https://nasagrace.unl.edu/>



The Palmer Drought Severity Index (PDSI) tracks moisture deficit

over multiple months to years. It provides long-term perspective useful for reservoirs, ground water, forests etc. It is not as sensitive to recent conditions as the Crop Moisture Index. Data for September 1, 2020.

Intensity:

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data

<https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?ME>

D0 Abnormally dry. 21-30th percentile Expected frequency is once every 3-5 years.

Slower plant growth. Lawns brown early, gardens begin to wilt. Surface water levels fall.

D1 Moderate drought. 11-20th percentile. Expected frequency is once every 5-10 years. Possible crop damage. Hay and grain yields reduced. Trees, landscaping, and fish are stressed. Honey production declines. Irrigation use increases. Wildfires increase. Lower stream and pond levels. Water shortages expected. Voluntary water use restrictions.

D2 Severe drought. 6-10th percentile Expected frequency is once every 10-20 years. Significant chance of damage to crops or pastures. Fruit crop size and yield reduced. Hay prices increase. Fish kills occur, wildlife comes to farms for water. Irrigation ponds depleted. Outdoor water use restrictions enacted.

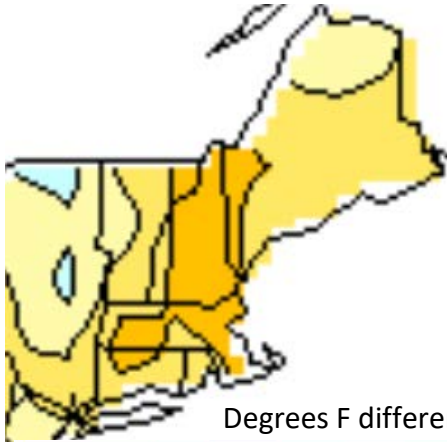
D3 Extreme drought. 3-5th percentile Expected frequency is once in 20-50 years. Widespread crop and pasture losses. Water shortages and restrictions widespread. Dug wells run dry. River flow much reduced and water temperature warmed, some streams run dry. Wildlife disease increases.

D4 Exceptional drought. 0-2nd percentile Expected frequency is less than once in 50 years. Water shortages at emergency levels. Low, empty, or depleting streams, ponds, reservoirs, and aquifers. Maine has little or no experience with D4 drought so observed impacts have not been recorded.

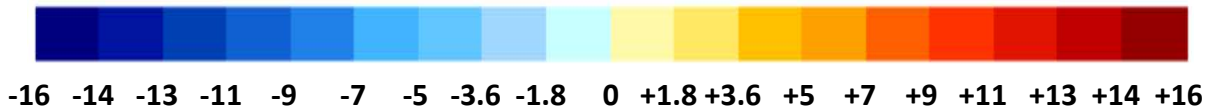
Weather Outlooks

TEMPERATURE

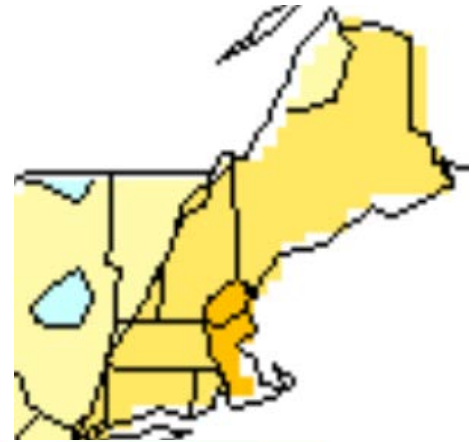
Week 1 Temperature anomaly
Sep 3 to 10



Degrees F difference from 1981-2010 average



Week 2 Temperature anomaly
Sept 10 to 16



https://www.cpc.ncep.noaa.gov/products/Soilmst_Monitoring/US/Outlook/GFS/temp.shtml#

8-14 Day Temperature: Sept 11 - 17





33% 40% 50% 60% 70% 80% 90% Chance of ABOVE normal

15-28 Day Temperature: Sept 12 - 25



EC = Equal chance
of Above or Below normal

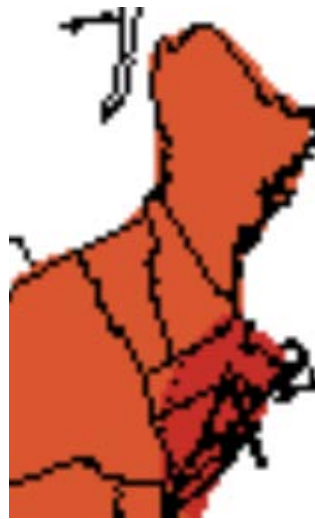
 >50% chance
ABOVE normal
White = near normal
 >50% chance
BELOW normal

90% 80% 70% 60% 50% 40% 33% Chance of BELOW normal

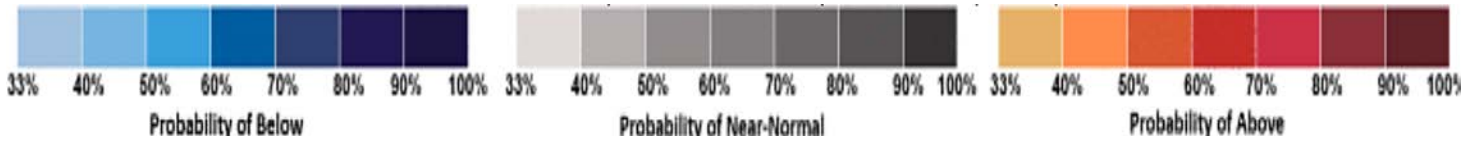
<https://www.cpc.ncep.noaa.gov/products/predictions/814day/814temp.new.gif>
<https://www.cpc.ncep.noaa.gov/products/predictions/WK34/gifs/WK34temp.gif>

**Full Month Temperature Outlook:
for September (as of August 31)**

**3 month Temperature Outlook: Sept-Oct-Nov
(as of August 20)**



White and EC = Equal chance of Above or Below normal



https://www.cpc.ncep.noaa.gov/products/predictions/30day/off14_temp.gif
https://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1



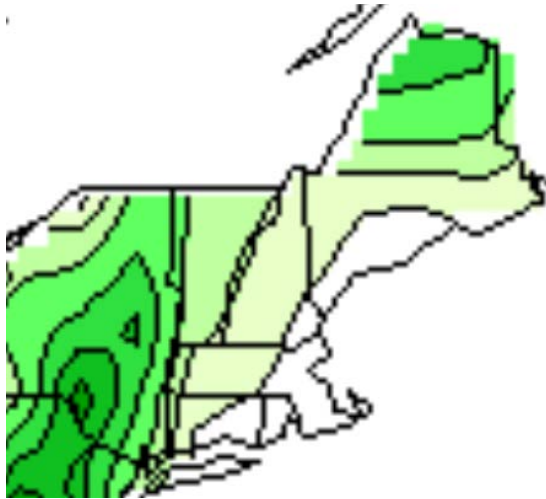
Temperature Outlook for Sep-Oct-Nov			
	Degrees F 1981-2010 Average	Outlook	vs. Avg.
1. northern ME, NH, VT	43.3	44.1 +/- 2.0	+0.8
2. southern ME, NH	47.4	48.2 +/- 1.9	+0.8
3. Champlain Valley, north NY	47.1	47.9 +/- 2.1	+0.8
4. MA, CT, RI, Hudson Valley	51.4	52.3 +/- 1.9	+0.9

Outlook +/- range is 90% confidence interval

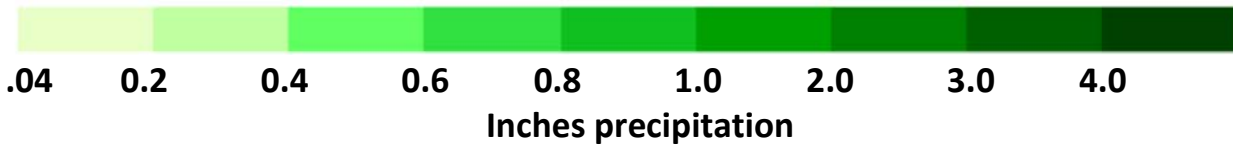
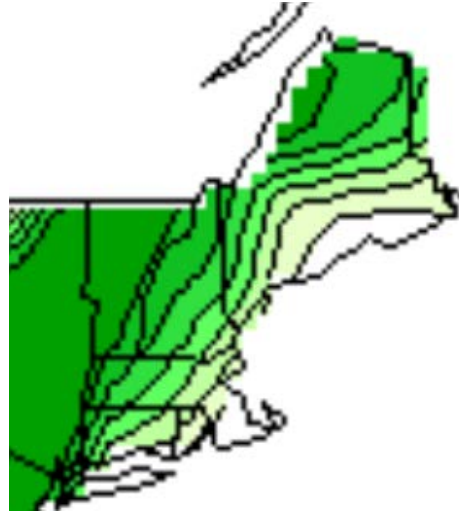
https://www.cpc.ncep.noaa.gov/products/predictions/long_range/poe_index.php?lead=1&var=t

PRECIPITATION Precipitation forecast range is much shorter than for temperature. Precipitation outlooks beyond about 1 month have limited skill.

Cumulative Precipitation Sept. 2 - 8



Cumulative Precipitation Sept. 9 - 15



https://www.cpc.ncep.noaa.gov/products/Soilmst_Monitoring/US/Outlook/GFS/precip.shtml

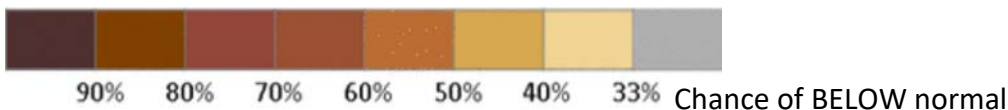
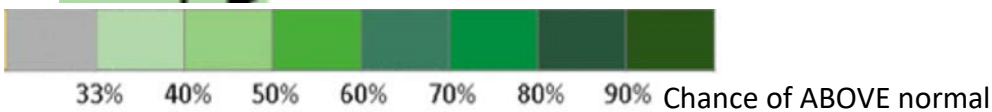
8-14 Day Precipitation: Sept 11 - 17



15-28 Day Precipitation: Sept. 12 - 25



EC = Equal chance of Above or Below normal
 >50% chance ABOVE normal
 White = Near normal
 >50% chance BELOW normal



<https://www.cpc.ncep.noaa.gov/products/predictions/814day/814prcp.new.gif>
<https://www.cpc.ncep.noaa.gov/products/predictions/WK34/gifs/WK34prcp.gif>

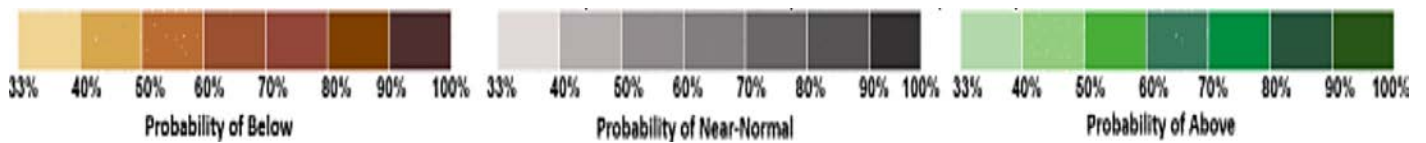
**1 Month Precipitation Outlook:
September**
(as of August 31)



**3 month Precipitation Outlook:
September-October-November**
(as of August 20)



White and EC = Equal chance of Above or Below



https://www.cpc.ncep.noaa.gov/products/predictions/30day/off15_prpcp.gif



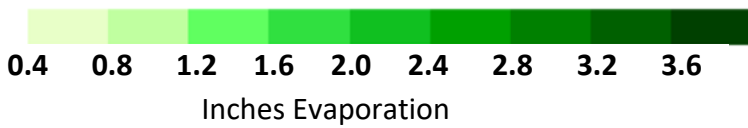
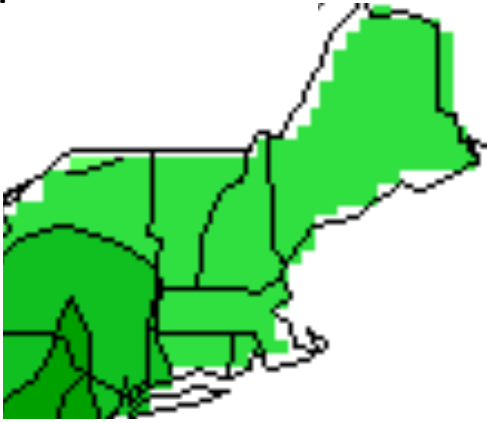
Precipitation Outlook for Sep-Oct-Nov			
	1981-2010 Average Inches	Outlook	vs. Avg.
1. northern ME, NH, VT	11.1	11.1 +/- 5.4	0
2. southern ME, NH	12.3	12.3 +/- 6.3	0
3. Champlain Valley, north NY	11.7	11.7 +/- 4.5	0
4. MA, CT, RI, Hudson Valley NY	12.1	12.1 +/- 5.8	0

Outlook range is 90% confidence interval

https://www.cpc.ncep.noaa.gov/products/predictions/long_range/poe_index.php?lead=1&var=p

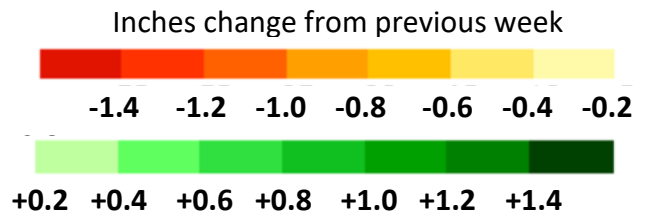
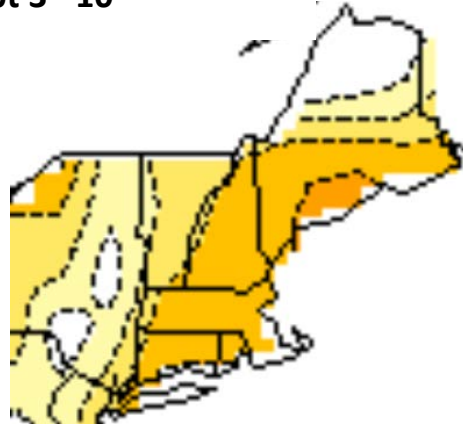
SOIL MOISTURE

7-day Evaporation
Sept 3 - 10



https://www.cpc.ncep.noaa.gov/soilmst/mrf_evap.shtml

7-day Soil Moisture anomaly change
Sept 3 - 10

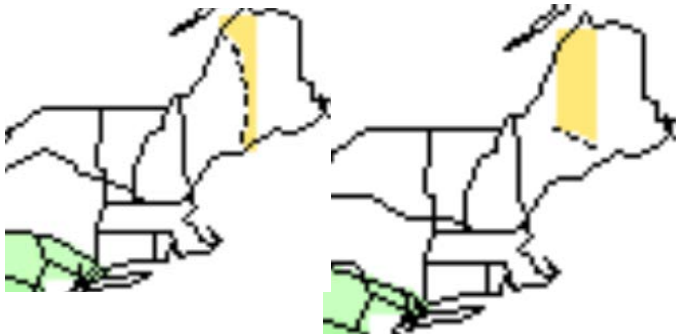


https://www.cpc.ncep.noaa.gov/soilmst/mrf_diff.shtml

Soil Moisture Anomaly Outlook
for end of Sep & Oct 2020

SEPTEMBER

OCTOBER



Inches below or above 1916-2004 average

https://www.cpc.ncep.noaa.gov/products/Soilmst_Monitoring/US/Outlook/CAS/SM.shtml

https://www.cpc.ncep.noaa.gov/products/expert_assessment/season_drought.png

PDSI Drought Outlook
for Aug 20 – Nov 30



- Drought persists
- Drought remains but improves by at least one category, e.g. D2 → D1
- Drought removal likely
- Drought development likely

Ratings may not be suitable for applications affected by short lived events (like crops).

Closing Words

"I had hoped to be three weeks ahead of where I am now a month ago"
- Colleague on phone who chose to remain anonymous

"When a job is once begun, do not leave it til it's done.
Be the labor great or small, do it well or not at all."
- Karl W. Koehler

[Glen W. Koehler](#)

Associate Scientist IPM

Email: glen.koehler@maine.edu

Voice: 207-581-3882 (within Maine: 800-287-0279)

Pest Management Office, 491 College Avenue

Orono, ME 04473-1295

<http://pmo.umext.maine.edu/apple/>



Putting Knowledge to Work with the People of Maine. Where brand names for chemicals are mentioned, no endorsement is implied nor is discrimination intended against products with similar ingredients. Consult pesticide product labels for rates, application instructions, and safety precautions. The label is the law. Disregard any statements in this publication if they appear to contradict label instructions. Users of pesticide products assume all associated risks. The University of Maine is an EEO/AA employer, and does not discriminate on the grounds of race, color, religion, sex, sexual orientation, transgender status, gender

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[Dr. Renae Moran](#)

Extension Tree Fruit Specialist

Email: rmoran@maine.edu

Voice: 207-933-2100 ext. 105

Highmoor Farm Ag. Exp. Station, P.O. Box 179

Monmouth ME 04259-0179

<http://extension.umaine.edu/fruit/>