

**2011 CROP WEATHER SUMMARY**

**January:** The month of January began warmer than normal across New England with weekly average high temperatures ranging from the low 50s in the southern States to the mid-40s in the northern States. Temperatures fell below normal across the region as the month progressed. Average daytime temperatures for the week ending January 16 ranged from the low 30s in the southern States to the low 20s in the northern States. Temperatures continued to fall and by the end of the following week, average nighttime temperatures ranged from 6 below zero in Maine to only 16 degrees in Massachusetts. For the month, average daytime temperatures were average to below average in the southern States and mostly average in the northern States. A series of snow storms passed through New England during January with the heaviest precipitation recorded during the middle two weeks of the month. Precipitation totals during the month ranged from 1.24 inches in Maine to 3.82 inches in Connecticut. Farmers were busy tending livestock and moving apples and potatoes out of storage.

**February:** New England experienced fluctuating temperatures during February. Average temperatures in the first and second weeks of the month, with highs in the 20s and 30s, rose into the mid and upper 40s during the third week. Temperatures dropped again during the fourth week, with high temperatures again ranging mostly in the 20s and 30s. The month's average lows ranged from -2 to 25 degrees. Significant snow accumulated during the first and second days of the month, with measurements reaching over 10 inches in some areas. Wind swept into the region during the second week with some wind gusts in the 40 to 50 mile per hour range. More pleasant, sunny conditions existed during February 14 through February 18 giving some snow an opportunity to melt. The swift wind returned the weekend of February 19. The end of the month brought rain to the southern New England States and a large accumulation of snow in the north. Farmers kept busy during February tending livestock, working in greenhouses, moving potatoes and apples out of storage, and preparing for the spring planting season.

**March:** The first week was typical with temperatures hovering around the mid-30s and 40s for the most part with some wind. The first weekend brought mild temperatures in the 40s, 50s, and some temperatures creeping into the 60s in southern States. Rain and snow fluctuated back and forth during the next week with daytime temperatures staying above freezing. The highlight of March was the 17<sup>th</sup> and 18<sup>th</sup> with sunny, warm conditions in the 60s and some 70s in southern States. Even northern States were able to enjoy temperatures ranging from upper 40s through 60s. The chill returned during the fourth week of March with the week's average high temperatures in the 30s and 40s and nighttime lows in the 20s and 30s. Some maple producers admitted that they were behind on tapping because of the lingering

snow on the ground, but they were also reaping the benefits of the temperature fluctuations which helped the trees to produce sap. Farm activities included nursery/greenhouse work, tending livestock, and preparing for the spring planting season.

**April:** New England's temperatures during April 2011 averaged 42 degrees. This was 0.5 degrees above normal and 5 degrees cooler than April 2010. April was another wet month in New England, the third in a row. The average precipitation total for the region was 5.27 inches. This was 146% of normal and 2.59 inches greater than the amount that fell in 2010. It was the wettest April since 2007 and the 13<sup>th</sup> wettest in 117 years. A major snowstorm, dubbed the April Fool's Day storm, produced several inches of new snow in New Hampshire on the 1st, causing power outages. As snow melted and rain fell later in April, flooding became a big concern in Vermont and northern New Hampshire.

Apples and other fruit made it through the winter well, and by the end of the month fruit tree buds were appearing. Strawberry beds were being planted. Cranberries wintered well, with significant sanding and good snow cover keeping injury to a minimum. Early varieties of cranberries were greening up rapidly, but later varieties were still dormant red with very little growth so far. In southern New England States farmers were beginning to plant potatoes. In Maine, potato producers had to continue waiting for fields to dry in order to plant. Hay fields were greening up nicely, but many farmers were not able to spread manure or till because of moist conditions. Corn planting was delayed due to wet soil conditions. Flooding was present along the Connecticut River Valley and major tributaries. Some small grains were planted in Maine.

**May:** Daytime temperatures in May were mostly average ranging from mid-60s to low 70s. The month's low temperatures were above average in the mid-40s to low 50s. May was a very wet month across New England. In the north, rainfall was significantly above average, especially in Burlington, Vermont, coming in at 9.41 inches for the month. For most, the rain subsided during the last week of May so that substantial fieldwork could be completed.

Mummyberry cups were present on some Maine wild blueberries on the mid-coast until the end of May. Because much of the month experienced rainfall, orchardists were concerned about pollination. Some vegetables were started under cover. All crops ran slightly to extremely behind schedule for planting from south to north, respectively. Because of cool, damp conditions, potatoes in Maine were 55 percent planted by month's end when the State was usually 85 percent complete at that time. Field corn was also difficult to get into the ground. Many farmers got to the point that they planted around the pools of water in their fields.

**June:** Deadly tornadoes tore across western Massachusetts on June 1. The tornadoes struck Worcester and Hampden counties, with at least two separate tornadoes striking Springfield and surrounding towns. Farm buildings and fences were damaged. There were livestock losses reported, but no large crop losses. After the storms, temperatures were slightly cooler than normal, in the 60s and 70s. Scattered showers persisted off and on throughout the rest of the month delaying fieldwork. Temperatures began to warm into the 70s and 80s by June 15 and remained above normal throughout the week in spite of more rain. A week later, temperatures turned cooler again, in the mid-50s to mid-70s. More light to heavy rain was scattered across New England until June 25. For most, the rest of the month was warm, in the 70s and 80s, with partly cloudy skies.

The first "Pick Your Own" strawberry operations were open and underway during the first week of June, a week earlier than normal in some locations. Wild blueberries showed evidence of mummyberry disease from earlier infections that did not receive fungicide protection. Fruit began to develop on trees during the second full week in June. Vegetable producers reported increased pressure from insects and disease because of wet conditions. The first sweet corn appeared at farmers markets during the third week. Crops continued to be planted and side dressed when weather conditions allowed for field entry. Some field corn seed rotted in the ground from long periods of saturated soil and fields were replanted. Dry hay harvesting was difficult due to the frequent rain showers.

**July:** Most of the first week in July had ideal conditions for fieldwork and Independence Day festivities. Skies were partly cloudy with temperatures ranging from the upper 70s to low 90s. Some brief thunderstorms were reported the evening of July 6, in Vermont, Maine, and New Hampshire. Several counties in Maine experienced power outages and some crop damage. A storm front moved through New England, July 6, bringing varying amounts of precipitation to most areas. After the system passed, cooler temperatures prevailed across the region with high temperatures in the low 70s to the low 80s. Temperatures increased significantly during the third week. Temperatures on July 22 reached the mid-90s to low 100s with record high temperatures in some locations. Nighttime temperatures brought little relief with lows in the 70s and 80s for many. Temperatures cooled over the weekend and on July 25, high temperatures were down to the mid-70s. That same week, isolated rain showers were observed in the region which left most farmers hoping for more rain.

During the beginning of the month, highbush blueberry harvesting commenced while strawberry harvesting was drawing to a close. Late fall crops, such as acorn squash,

collards, and cabbage were planted. First cut hay quality was lower than average in some areas as wet spring conditions prevented producers from harvesting at the most favorable stage of development. Some reported that second cut hay yields were low due to hard soils and less rainfall. Some potato fields in central Aroostook County, Maine experienced damage from hail and heavy rain on July 6. A variety of vegetables were available at farms stands across New England. Sweet corn was harvested in Connecticut, Massachusetts, and Rhode Island during the second week of July. Field corn stands varied greatly from field to field depending on the planting date and soil type. Some cranberry producers reported that temperatures in bogs exceeded 100 degrees for several days during the third week. Irrigation in the early morning hours was important to keep the uprights and attached fruit from desiccating. Sweet corn growth flourished in the warm, sunny conditions. Throughout the later part of the month, vegetable growers were irrigating where available. In southern Maine, some potatoes blossomed. Apple and peach harvest activities began during the last week in a few locations.

**August:** Most of the first week was cloudy with spotty showers and temperatures in the mid-70s to high 80s. Hail storms hit western Massachusetts and Connecticut on August 1. There was heavy rain and downpours producing from 0.39 to 1.42 inches of rain in Rhode Island, Connecticut, and Massachusetts on August 7. The second week began with clouds, fog, showers, and some thunderstorms. The rest of the week was mostly mild with temperatures in the 70s and 80s and a few showers. Nighttime temperatures declined to the 50s and 60s. August 15 and 16 conditions were cloudy with rain, heavy at times, and temperatures in the upper 60s to upper 70s. The third week was clear and warmer in the upper 70s to mid-80s until week's end when conditions turned cloudy with a few showers. Isolated thunderstorms with wind swept across the region August 21. The fourth week of August started with partly cloudy skies and some wind with temperatures in the mid-70s to mid-80s. Heavy rain and wind was observed on August 25 with one tornado reported in Central New Hampshire. Tropical Storm Irene arrived early on August 28, with high wind gusts and flooding rains. The rest of the month was sunny with temperatures in the mid-70s to low 80s.

Wild blueberry harvesting began in the early part of the month. The crop at that time was rated in fair to good condition due to inadequate precipitation in both June and July. Wild blueberry conditions improved throughout the month due to the additional rainfall. Blueberry and raspberry pick-your-own operations were open all month long. Apple and pear picking began early in August for some southern States and peach harvesting was well under-way across the region. While there were reports of downed trees and bruised fruit from Tropical Storm Irene,

orchards generally fared well. Some Massachusetts cranberries had a heavy fruit set which was contributing to slow fruit growth. Some vegetable fields got to the point that they suffered from too much moisture and this increased concern for disease. Farmers markets were busy with plenty of produce and most vegetable crops were reported in good condition all month. There were reports of sweet corn losses due to wind damage from Tropical Storm Irene as well as from severe thunderstorms in western New Hampshire on August 21. Along the coast, some vegetables were damaged by saltwater spray during the storm. Third cuts of hay began in the beginning of August. Field corn was curling initially, but some was able to recover with the reoccurring showers that came during the month. Late in August, many fields along waterways were left with mud and silt deposits as a result of Tropical Storm Irene. Some farmers were unable to harvest crops as fields were too moist to enter. Maine potato farmers were spraying to avoid late blight and some proceeded to kill vines to prepare for harvest.

**September:** The month began with remnants of Tropical Storm Lee passing over most of New England bringing periods of heavy rain through September 8. Southern New England was hit hardest. The rest of the week was partly sunny with variable daytime temperatures ranging from the mid-60s to mid-80s. Despite dry weather in the second half of the week, major rivers in western Connecticut remained above flood stage at week's end. Total rainfall for the first week in September ranged from 0.54 to 6.90 inches across the region. The second week began partly sunny with above average temperatures in the 70s and 80s through mid-week. A cold front passed over New England September 15, bringing light to moderate precipitation and unseasonably cold air throughout the region. Nighttime temperatures were particularly cool in northern States and dipped below the freezing point in several locations. The third week started with partly cloudy to sunny skies and temperatures in the mid-60s. Mid-week had light showers and scattered rain that was heavy at times and temperatures were in the mid-60s to mid-70s. Nighttime lows were well above average in the mid-50s and 60s. The weekend was cloudy and muggy with above average daytime temperatures. The last week of the month continued on the warm side with temperatures in the low 70s to low 80s. Rain began Wednesday, September 28, and some heavy thunderstorms swept across the region on Thursday. Rain continued into the weekend, delaying harvesting activities.

Apple and pear harvesting began to pick up with most of the fruits reported in good condition. Farmstands were full of fall raspberries, peaches, plums, pears, and apples. Early in the month, grapes in Connecticut were damaged by downy mildew and flooding rains. Mid-month, some vineyards in New England were dealing with damage caused by the Spotted Wing Drosophila (SWD), a type of Asian fruit fly. SWD was also affecting some late blueberries and raspberries. The cranberry crop reservoirs were replenished by the remnants of Tropical Storm Lee.

Cranberry conditions were rated as excellent to good. There was standing water several inches deep on many vegetable fields in southern New England. While some farmers markets began to close due to a lack of produce from vendors, others flourished with fall vegetables such as cabbage, kale, Brussels sprouts, winter squash, and pumpkins. A large portion of corn silage fields throughout the region were very muddy which delayed harvesting. Crop conditions varied with low-lying areas faring poorly. Hay and haylage production during the beginning of the month was able to progress in higher elevations that dried more quickly. Later in the month, hay was cut between showers. The harvest of potatoes and small grains in Maine was able to continue throughout most of the month as the region did not experience crippling precipitation from Tropical Storm Lee or much of the showers experienced elsewhere in New England.

**October:** The month began with rain and heavy thunderstorms across the region. Temperatures were above average with highs in the mid-60s to mid-70s and nighttime lows in the 50s and 60s. The first weekend was a wash-out for some. Heavy rain was reported in parts of Connecticut, New Hampshire, and Vermont. More heavy rain was seen during the early part of the next week, but the later part of the week and into Columbus Day weekend was mild with clear skies and temperatures in the mid-70s to mid-80s. The second week of October began warmer than average. Daytime temperatures ranged from the high 60s to the mid-80s. The daytime temperatures fell to more normal levels as the week progressed, however, nighttime temperatures continued warmer than normal. Most areas received some precipitation from October 12 through October 14. Average temperatures for the week were 10 degrees above normal across all New England States. The third week started out mild with partly cloudy skies and temperatures in the mid-50s to upper 60s. Storms crossed the region mid-week bringing heavy rainfall to the southern States and lesser amounts to the north. Windy conditions followed with mostly cloudy skies over the weekend and temperatures in the mid-50s to low 60s. The last week of October brought more rain showers, some heavy at times. A major snow event traveled across New England, the evening of October 29, leaving 30 or more inches of snow at many locations. Nighttime lows were in the mid-20s to low 30s.

Excellent weather over Columbus Day weekend left PYO operations and farmstands booming with activity. Apple operations were wrapping up McIntosh, Macoun, and Cortland picking. Orchards that were not hit by heavy wind and hail previously this season were reported in good condition. The cranberry harvest continued at a rapid pace in Massachusetts. Warmer than normal temperatures slowed cranberry coloring in some areas and growers welcomed the lack of frosts at night. Insects continued to be a problem in many vineyards, while some pumpkin fields were negatively affected by too much moisture. Growers were also having a difficult time harvesting vegetables in some areas due to saturated fields. Some

vegetable farmers were able to harvest cool weather crops and prepare fields for winter. Some areas had their first hard freeze during the first week while others didn't have a frost until late in the month. Fields dried out early in the month which allowed farmers to cut hay and haylage. Some corn silage fields were completely harvested early in October, while other fields still needed to dry out. Also early in the month, farmers were digging potatoes early and late in the day to get the crop into storage while they had beautiful weather. Some potato farmers were able to complete harvesting during the first week. Growers took advantage of the damp conditions to take tobacco leaves down to be sorted and bundled. Farmers were liming, spreading manure, and seeding winter rye. Several farmers were still cleaning-up debris and reshaping fields in parts of Vermont that were hit hard by Tropical Storm Irene back in August.

**November:** November became the 8<sup>th</sup> consecutive month that the temperature averaged warmer than normal in New England. It was also the 4<sup>th</sup> warmest November since 1895. New England's average temperature was 40.9 degrees, and that was 4.6 degrees above normal and 4.4 degrees warmer than November 2010. Each of the States in the region was warmer than normal for the 5<sup>th</sup> month in a row. For the first time since July 2011, New England's precipitation total was below normal. This month's total of 2.95 inches was 70 percent of normal and it was the driest November since 2001. Vermont (50 percent of normal) and Maine (66 percent of normal) were the driest States and Rhode Island (104 percent) was the only State with above normal precipitation. New Hampshire, Connecticut and Massachusetts had monthly totals that were 81 percent, 83 percent and 84 percent of normal, respectively. Pinkham Notch, NH had the highest precipitation total in November, 5.43 inches. The only

significant snow event of the month occurred on the 23<sup>rd</sup> when 8 to 12 inches of snow fell over central Vermont, New Hampshire, and Maine. Farmers cleaned fields and equipment, applied manure, soil tested fields, planted cover crops, and made other preparations for winter.

**December:** The month of December became one of the mildest on record with temperatures ranging from 4.0 to 8.5 degrees above normal in almost all of New England. Measurable snowfall was nonexistent in southern New England and minimal elsewhere. An exception was northernmost latitudes of Maine reporting up to 17 inches, a below-average measurement for December. Total precipitation for the month ranged from as low as 1.53 inches in northern elevations in New Hampshire to as great as 5.16 inches in central Massachusetts.

The first week began with average to above average daytime temperatures ranging from the low 30s to mid-50s. Constant showers during the second week brought over 2 inches of rainfall throughout most of New England. Temperatures were unseasonably warm during this period with highs and lows reaching the mid-60s and low 50s, respectively, as far north as New Hampshire. In contrast, northern Maine was cool enough to receive up to 9 inches of snow during the week. Warm temperatures in the 50s made a comeback during the middle of the relatively dry third week. The fourth week continued the trend of average temperatures with a warm spell. However, there were several nights with subzero temperatures in the northernmost latitudes of Maine and New Hampshire during the week. Light snow was reported throughout northern New England on December 23. Rain showers, gusty winds, and abnormally high temperatures in the 50s were reported in every New England State during the last week of the month.