The 2018 crop season was a challenging one for farmers in Wisconsin, with a variety of severe weather events impacting crop progress and condition. April opened with below-normal temperatures and frequent snow, including the record-breaking blizzard of April 12-15. This storm was the second largest snowstorm ever recorded at the National Weather Service station in Green Bay, more than doubling the previous records for largest April snowstorm and snowiest April. Deep snow and cold soils delayed the start of the 2018 planting season significantly. Then, above-normal temperatures in May helped spring fieldwork catch up to the five-year average by the beginning of June. During May, frequent rains kept fields wet and planting progress slow in southern Wisconsin, but soils in the northern portions of the state became dry. Severe thunderstorms lashed the state in mid-June, missing some areas, bringing much-needed rain to others, and causing localized flood damage. Warm weather in late June and early July pushed overall crop progress ahead of the five-year average. But ongoing spotty rains left parts of northern Wisconsin unfavorably dry during the critical period for crop pollination. From mid-August through September, a series of severe storms damaged crops in multiple areas of the state with extreme heavy rain, flooding, flash flooding, hail, wind and tornadoes. Emergencies were declared in 18 counties across southern and central Wisconsin during this period. Some of the floodwaters took weeks to recede due to repeated weekly rain storms. Crops along affected waterways were damaged or lost, while road and bridge washouts disrupted rural transportation. This massive influx of moisture set the state up for a difficult harvest season. Continuing wet weather kept soil moisture high for the rest of the year. Summer-like days in the 80s and 90s persisted through September, helping crops to mature. Temperatures then nosedived, with widespread frost and light snow reported during the week ending October 14. Farmers struggled with frequent precipitation, deep mud and the emergence of damp-driven molds and diseases throughout October and November. Below-normal temperatures in mid-November then froze the ground, finally allowing access to unharvested fields but halting tillage. On November 25, fall tillage reached 68 percent complete, 1 day ahead of the previous year but 4 days behind average.

Temperatures in April of 2018 averaged 10.5 degrees below normal, while May averaged 6.7 degrees above normal. The remainder of the growing season months ranged from 0.8 to 2.6 degrees above normal, before temperatures fell to 2.9 degrees below normal in October. The average temperature for June through September was 66.6 degrees, compared with 65.2 degrees in 2017 and a normal of 64.9 degrees.

The statewide precipitation total for April through September was 27.35 inches, compared to 25.93 inches the previous year and a normal of 22.43 inches. The 2018 season showed a strong regional variation in precipitation; April through September precipitation averaged 0.96 inch above normal for the three northern districts, 6.00 inches above normal for the three central districts and 11.58 inches above normal for the three southern districts. It was also the snowiest April on record for the state, with a statewide average of 17.9 inches more snow than normal. April snow totals ranged from 9.4 inches for the Southeast District to 33.3 inches for the Northeast District.
Snow and cold soils delayed the beginning of corn planting in 2018. By April 29, 3 percent of corn was planted, 5 days behind the five-year average. Planting caught up to the average by late May with favorable weather, and progress remained ahead of average through the rest of the year. Corn condition averaged 79 percent good to excellent for the season, compared with 69 percent good to excellent in the previous year. But, corn condition peaked at 91 percent good to excellent in early June before declining slowly throughout the summer and fall. Dry conditions during pollination meant some northern Wisconsin corn fields were underdeveloped, while very wet conditions drove an outbreak of tar spot disease in southern Wisconsin. Silage chopping and grain harvest both started about a week early as producers worked to get damaged corn out of fields. Corn harvest remained ahead of normal through the fall, but rain and snow delays meant fieldwork progressed in fits and starts. On November 25, 88 percent of corn for grain was harvested, 2 days ahead of the five-year average.

Favorable weather in May allowed soybean planting to start in line with the 5-year average and wrap up about a week ahead. Warm temperatures and sufficient rain kept progress just ahead of average throughout the growing season. As with corn, soybean condition peaked in early June and then declined slowly through the summer and fall. Overall, soybeans averaged 78 percent in good to excellent condition for June through mid-October, compared to 74 percent the previous year. Soybean harvest started a week ahead of average, with 1 percent harvested by September 16. However, wet and stormy conditions immediately stalled progress, delaying soybean combining for weeks. One-quarter of the soybean crop was harvested during the week ending October 28, helping to edge progress toward average. Soybeans reached 94 percent harvested on November 25. A few reporters in northern Wisconsin noted soybeans would have to be left in fields due to early snow cover.

A very snowy April kept pastures buried until late in the month. On April 29, only 29 percent of pastures were in good to excellent condition, compared with 68 percent the previous year. As with other crop conditions, pasture condition peaked in early June before declining slowly for the rest of the year. On average, 69 percent of pastures were in good to excellent condition from May through October, compared to 72 percent in 2017.
Oats planting lagged behind the 5-year average due to a lack of days suitable for fieldwork in April, with variations in planting dates similar to other crops. However, by mid-summer oat maturity was often ahead of average. Oat condition averaged 88 percent good to excellent from May through mid-August, compared with 77 percent the previous year. Oats reached 97 percent harvested on September 16.

Heavy snow cover during April helped keep alfalfa and other hay stands well insulated. As of May 20, winter freeze damage to alfalfa was rated 2 percent severe, 4 percent moderate and 12 percent light. There were reportedly no damages to the remaining 82 percent of alfalfa, up from 59 percent undamaged the previous year. The first, second and third cuttings of hay progressed inline with the 5-year average. Dry conditions in northern Wisconsin helped producers there bale lots of dry hay, while wet fields in southern Wisconsin made haying more difficult. Very wet conditions then dragged progress down during the fall. Some producers reported taking a fourth crop of hay while waiting to access their soybean fields, while others said hay stands were too muddy for a fourth crop. Some reporters commented that late haying and cold fall temperatures may affect hay fields’ ability to overwinter. All hay condition was 80 percent good to excellent on average for May through mid-September, compared with 77 percent good to excellent in 2017.

Winter wheat started this season with 46 percent of the crop in good to excellent condition, compared with 54 percent the previous year. Condition didn’t change much as plants weathered April’s snow storms but it improved rapidly with warmer weather in May. Wheat condition then remained above 80 percent good to excellent through the end of July. Winter wheat maturity trended slightly behind average for much of the season, but harvest activity ran about a week ahead thanks to favorable weather.

Winter wheat planting started off slightly ahead of average but progress was slowed by delays to the soybean harvest. Emergence also got off to a quick start but slowed due to cold, wet weather in November. Winter wheat condition averaged 78 percent good to excellent from mid-October through the end of November, compared with 84 percent good to excellent in 2017.
Potato planting was significantly delayed by snow in April. On April 29, only 3 percent of the potato crop was planted compared with 26 percent the previous year. Planting progressed about two weeks behind the previous year and average, not wrapping up until early June. Potato condition averaged 83 percent good to excellent for the season, compared with 78 percent good to excellent in 2017. The potato harvest was about one week behind both the previous year and average throughout late summer and early fall. Reporters commented a portion of this year’s potato crop had to be abandoned because fields were too wet to harvest before they froze.

### MONTHLY TEMPERATURES: 2018 GROWING SEASON AND NORMAL, WISCONSIN DISTRICTS AND STATE AVERAGE

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1 Normal is defined as the 30-year average for the years 1981-2010.
Source: WI State Climatologist http://www.aos.wisc.edu/~sco/climwatch/index.html

### MONTHLY RAINFALL: 2018 GROWING SEASON AND NORMAL, WISCONSIN DISTRICTS AND STATE AVERAGE

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1 Normal is defined as the 30-year average for the years 1981-2010.
Source: WI State Climatologist http://www.aos.wisc.edu/~sco/climwatch/index.html

### COMPARATIVE TEMPERATURE AND PRECIPITATION DATA, WISCONSIN DISTRICTS AND STATE AVERAGE

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1 Normal is defined as the 30-year average for the years 1981-2010.
Source: WI State Climatologist http://www.aos.wisc.edu/~sco/climwatch/index.html