



Wisconsin Crop Weather

Compiled by the Wisconsin Agricultural Statistics Service

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Annual Crop Weather Issue

REVIEW OF THE 2000 CROP YEAR

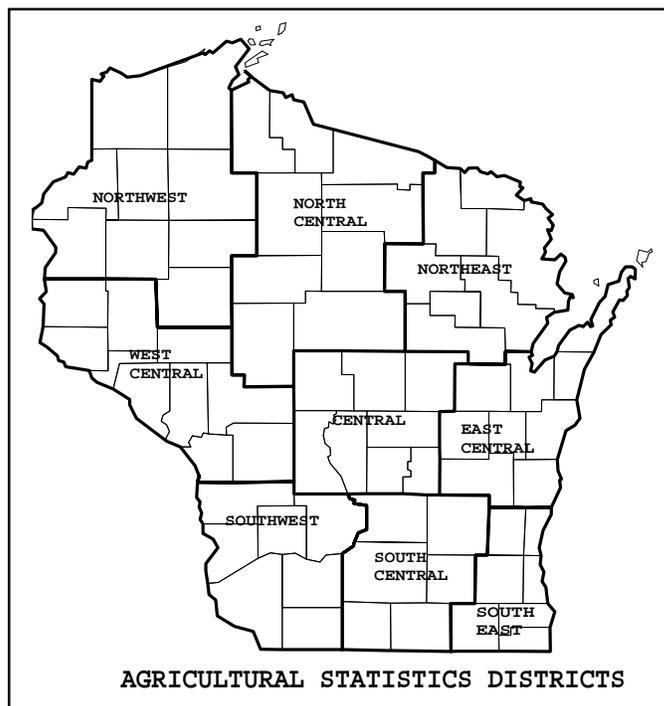
2000 - "Too Dry, Too Wet, and Dry Again"

Wisconsin farmers began the 2000 crop year hoping for rain, but later wished the rains would taper off when fields flooded in late spring. The sporadic rainfall allowed planting to progress at a record pace; and later rainshowers provided ample moisture for crop growth. Crop seasons ended with drier weather that created excellent harvest conditions for the summer and fall crops. Small grain yields reached new record highs, but corn and soybean yields fell below yields of the last few years.

February brought an early taste of spring with record highs in the 60s, as lakes lost their ice cover earlier than usual. Record heat continued into early March with highs in the mid 70s to low 80s. April started with relatively dry conditions across the state. The need for rain was caused by below normal snowfall during the winter and dry conditions during March. At the beginning of April, spring tillage was ahead of the 5-year average. Planting of crops began earlier than normal for the third year in a row. Frost was reported as mostly out of the ground, except in shady areas in the north. A southern snowfall in early April gave much-needed moisture. Windy weather that followed helped to dry the soil out again. Many growers welcomed the rainfall in late April; yet soil moisture remained short through most of Wisconsin.

May started out being a busy month with ideal working conditions. Planting progressed at a record pace for oats, corn, and soybeans. The warm and dry weather pattern early in the month changed to a cool, wet pattern for the remainder of May and into early June. Mid-May brought a hailstorm with the most damage in central Wisconsin where hailstones reached up to 4 inches in diameter. Crops needed heat units and drier ground. The weather conditions resulted in yellow corn and soybeans, along with thinner stands. Most of the rainfall came during the later half of the month and kept farmers from spraying to control insect and weed infestations. Greater than normal rainfall occurred in the southern two-thirds of the state, although the northern part of the state was still in need of additional rainfall.

June arrived with more storms in Wisconsin. These storms brought tornadoes, hail, and flooding rains. Heat and sunshine during the second week in June soaked up some of the surplus moisture. Corn and soybeans were recovering from flooding in southern Wisconsin. The following week brought a return of cool temperatures and rain. Fields again became soggy. Northern districts that earlier needed rain, saw the soil moisture levels improve. In late June, temperatures were slightly above normal in many areas, but frequent rains continued to slow hay harvest and delay herbicide applications. Small grains did well in the cool, wet weather of late May and June.



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MONTHLY RAINFALL: 2000 GROWING SEASON AND NORMAL

| District | April 1/ | | May 1/ | | June 1/ | | July 1/ | | August 1/ | | September 1/ | |
|----------|----------|--------|--------|--------|---------|--------|---------|--------|-----------|--------|--------------|--------|
| | 2000 | Normal | 2000 | Normal | 2000 | Normal | 2000 | Normal | 2000 | Normal | 2000 | Normal |
| | Inches | | | | | | | | | | | |
| NW | 1.88 | 2.43 | 2.94 | 3.43 | 5.00 | 4.05 | 6.46 | 3.92 | 5.48 | 4.33 | 2.22 | 4.01 |
| NC | 2.17 | 2.40 | 2.63 | 3.41 | 6.34 | 3.91 | 4.96 | 3.77 | 4.19 | 4.32 | 4.99 | 4.17 |
| NE | 2.54 | 2.60 | 3.06 | 3.41 | 5.38 | 3.71 | 5.70 | 3.38 | 2.78 | 3.74 | 5.73 | 3.95 |
| WC | 2.06 | 2.89 | 4.18 | 3.68 | 8.37 | 4.10 | 3.99 | 4.15 | 3.68 | 4.17 | 3.34 | 4.07 |
| C | 2.81 | 2.79 | 4.51 | 3.60 | 7.95 | 3.69 | 3.24 | 3.73 | 4.56 | 3.89 | 4.24 | 4.12 |
| EC | 2.40 | 2.70 | 4.41 | 3.03 | 4.03 | 3.38 | 3.86 | 3.14 | 4.27 | 3.63 | 5.30 | 3.75 |
| SW | 2.56 | 3.09 | 6.53 | 3.40 | 9.73 | 3.84 | 4.07 | 3.86 | 4.54 | 4.07 | 2.88 | 3.93 |
| SC | 3.31 | 3.07 | 7.51 | 3.15 | 7.76 | 3.77 | 3.44 | 3.73 | 4.00 | 3.89 | 4.45 | 3.92 |
| SE | 3.65 | 3.21 | 7.96 | 2.93 | 5.18 | 3.48 | 4.70 | 3.72 | 3.89 | 3.80 | 5.87 | 3.78 |
| STATE | 2.44 | 2.72 | 4.32 | 3.39 | 6.62 | 3.83 | 4.69 | 3.75 | 4.24 | 4.05 | 4.13 | 4.00 |

1/Preliminary estimates, 2000. * Normal is defined as the 30-year average for the years 1961-90. Source: State Climatologist.

MONTHLY TEMPERATURES: 2000 GROWING SEASON AND NORMAL

| District | April 1/ | | May 1/ | | June 1/ | | July 1/ | | August 1/ | | September 1/ | |
|----------|--------------------|--------|--------|--------|---------|--------|---------|--------|-----------|--------|--------------|--------|
| | 2000 | Normal | 2000 | Normal | 2000 | Normal | 2000 | Normal | 2000 | Normal | 2000 | Normal |
| | Degrees Fahrenheit | | | | | | | | | | | |
| NW | 40.7 | 41.8 | 55.5 | 53.7 | 60.3 | 62.8 | 65.8 | 68.5 | 65.8 | 65.7 | 55.1 | 56.4 |
| NC | 39.9 | 40.7 | 54.7 | 53.0 | 59.9 | 61.7 | 65.1 | 66.9 | 64.7 | 64.1 | 55.2 | 55.3 |
| NE | 40.9 | 41.4 | 54.9 | 53.4 | 61.1 | 62.3 | 64.9 | 67.5 | 65.0 | 64.7 | 55.5 | 56.0 |
| WC | 45.3 | 45.3 | 58.6 | 57.2 | 64.7 | 66.4 | 69.0 | 71.2 | 68.2 | 68.3 | 58.0 | 59.2 |
| C | 44.3 | 44.5 | 58.2 | 56.2 | 64.2 | 65.4 | 68.0 | 70.2 | 68.2 | 67.3 | 58.4 | 58.7 |
| EC | 42.5 | 42.9 | 56.1 | 54.3 | 63.7 | 63.9 | 67.4 | 69.7 | 67.9 | 67.7 | 58.7 | 59.7 |
| SW | 45.9 | 46.4 | 59.1 | 58.0 | 64.8 | 67.2 | 69.2 | 71.8 | 69.4 | 69.1 | 60.3 | 60.6 |
| SC | 45.6 | 46.2 | 59.4 | 57.7 | 65.7 | 67.1 | 69.2 | 71.5 | 69.8 | 68.8 | 61.2 | 60.7 |
| SE | 44.8 | 45.1 | 58.1 | 56.1 | 65.5 | 65.9 | 68.6 | 71.2 | 69.8 | 69.3 | 61.7 | 61.5 |
| STATE | 42.8 | 43.3 | 56.8 | 55.2 | 62.7 | 64.3 | 67.1 | 69.4 | 67.1 | 66.7 | 57.5 | 58.0 |

1/Preliminary estimates, 2000. * Normal is defined as the 30-year average for the years 1961-90. Source: State Climatologist.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA

| District | Average Temperature | | | | | | Total Precipitation | | | | | |
|----------|---------------------|------|------|------|------|---------|---------------------|------|------|------|------|---------|
| | June - September | | | | | | April - September | | | | | |
| | Normal | 1996 | 1997 | 1998 | 1999 | 2000 1/ | Normal | 1996 | 1997 | 1998 | 1999 | 2000 1/ |
| | Degrees Fahrenheit | | | | | | Inches | | | | | |
| NW | 63.6 | 63.2 | 63.2 | 65.0 | 64.0 | 61.6 | 22.4 | 22.6 | 21.9 | 17.7 | 35.2 | 25.1 |
| NC | 62.5 | 61.8 | 61.9 | 63.5 | 61.5 | 61.3 | 22.1 | 21.1 | 23.1 | 16.3 | 26.0 | 26.3 |
| NE | 63.1 | 62.5 | 62.5 | 64.3 | 64.1 | 61.6 | 21.0 | 21.9 | 20.9 | 16.1 | 24.3 | 24.8 |
| WC | 66.6 | 66.2 | 67.1 | 67.7 | 67.2 | 64.9 | 22.9 | 17.6 | 24.0 | 23.6 | 28.9 | 24.9 |
| C | 66.0 | 65.7 | 65.7 | 67.1 | 66.3 | 64.7 | 21.5 | 19.1 | 21.2 | 21.3 | 25.4 | 26.6 |
| EC | 66.0 | 65.3 | 65.1 | 67.3 | 66.6 | 64.7 | 19.7 | 18.2 | 20.8 | 19.2 | 23.6 | 25.2 |
| SW | 67.6 | 66.4 | 66.7 | 67.9 | 67.7 | 66.0 | 22.2 | 19.5 | 23.3 | 27.9 | 30.3 | 30.2 |
| SC | 67.7 | 66.5 | 66.5 | 68.7 | 68.2 | 66.5 | 21.6 | 21.6 | 20.4 | 25.5 | 29.1 | 29.4 |
| SE | 67.6 | 66.8 | 66.5 | 68.7 | 68.6 | 66.6 | 21.1 | 21.5 | 20.6 | 21.3 | 28.2 | 31.3 |
| STATE | 65.1 | 64.4 | 64.6 | 66.2 | 65.6 | 63.6 | 21.8 | 20.5 | 22.1 | 20.3 | 28.3 | 26.6 |

1/Preliminary estimates, 2000. * Normal is defined as the 30-year average for the years 1961-90. Source: State Climatologist.

In early July, small grain stands were green and healthy. Early July storms caused damage in the southern districts of Wisconsin. A few replantings were washed out after heavy rains hit with hail. Seven tornadoes touched down in Wisconsin during the month. Conditions remained too wet for haying or spraying, and temperatures were below normal keeping corn progress behind normal. Drier weather returned, and at the end of July, southern Wisconsin soil was dry and crops needed more rain. Some fields in central Wisconsin had gone two weeks without rain. In some areas, crops were showing signs of stress due to lack of moisture. The dry weather allowed oats and winter wheat harvest to move along.

The second week of August brought high winds to the south and hail to the north. Extensive crop and building damage was reported in some southern Wisconsin locations. Fields were reported washed out from excessive rain after extreme dryness. Temperatures alternated between cool and warm for the rest of the month.

September opened with hot and muggy weather during the first week. After a transition back to cool and wet weather, storms pushed through the state with high winds and localized damage from hail. As the cooler weather entered the state, northern growers became worried that the corn crop would not reach maturity before the first killing frost. Mid-September brought additional rainfall and strong winds, causing corn fields to be flattened in localized areas. September ended with favorable drying conditions for corn and soybeans and a killing frost in northern Wisconsin.

October's warm, dry weather was ideal for harvest conditions. Reports showed at least five suitable days for fieldwork per week during October. This helped the harvest progress smoothly. Most of central and southern Wisconsin had a killing frost in early October. As harvest reached completion in November, farmers spent time on hauling manure, spreading lime, fall tilling, and stalk chopping. Harvest activities were nearly ended by the time the first snow fell in November.

CORN

Early April started with growers getting ready to plant in southern areas. Corn planters were ready, and anhydrous ammonia was being applied. By the end of April, 18% of the corn was planted, which was ahead of 1999's 8% and the 5-year average of 7%. The first week of May's sunshine and warm temperatures pushed the corn-planted level to 62% complete. Due to moisture and increased soil temperatures, early-planted corn germinated quickly and emerged. Mid-May was characterized by cool weather and excessive rain. The rain caused leaching of nitrogen from the soil, resulting in some fields turning yellow. Heat was

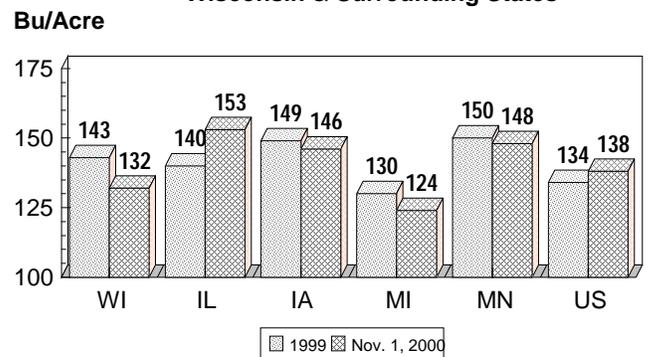
being requested around the state to get the crops growing. Warmer weather returned in late May and aided emergence and corn hit by frost earlier in the month.

Cool and wet weather in early June slowed corn progress. Corn growth was characterized as sluggish and was behind 1999 in plant height. Cultivation and spraying for weed and corn borer control were put on hold for most of the state due to the rain. Low-lying corn fields again began to turn yellow from the excessive moisture and loss of nutrients.

Spraying and cultivation were behind normal for corn at the beginning of July. Because of wet weather, growers were never able to keep up. In mid-July corn height was behind the previous year's average, due to fewer growing degree days, but equal to the 5-year average height. Although the corn growth was considered slow, two-thirds of the corn silked in July, less than a week behind the 5-year average. Most of the early-planted corn had tasseled by the end of July. By late July, corn on sandy soils or hills showed signs of stress due to lack of moisture.

Corn began to enter the dough stage in early August, and the majority of the crop was rated good-to-excellent. By mid-August corn started to dent, but was behind the 5-year average. The end of August brought a lot of talk about more heat units needed for corn to reach maturity before frost.

Corn for Grain Yields 1999 and November 1, 2000 Forecast Wisconsin & Surrounding States



In early September, very little corn was mature to the point of being free from frost damage. Warm weather helped push corn further into dent stage. Corn silage harvest started in mid-September as the days shortened and the nights became cool. Plant moisture varied across the state. By September 24, the corn was 90% in dent or beyond and 48% mature.

October was warm and dry allowing the corn to dry down and grain harvest to begin. By mid-October, silage was winding down as grain harvest was gearing up. Silage quality reports ranged from good quality in the north, to being too dry for good silage in the central region, to varying quality, but good quantity in the south. At the end of October, 64% of the grain harvest was completed.

November brought scattered rain that slowed the harvest of grain. By mid-November, the end of harvest was in sight.

SOYBEANS

Soybean planting started in early May and moved at a record pace, well surpassing 1999 and the 5-year average. The rainfall in mid-May aided soybean emergence. Soybean planting then slowed as the storms hit Wisconsin in late May. Some soybean fields were replanted because rain-compacted soils affected emergence.

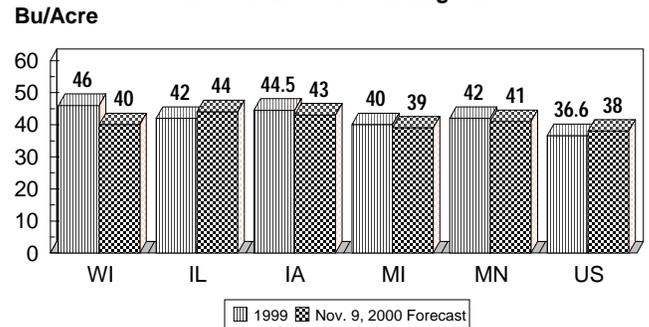
Soybean planting remained stalled in early June due to the wet weather. The rain during this time was a mixed blessing, causing flood damage in some locations, but spurring growth in other areas. Mid-June saw warmer weather which aided plant growth. By mid-June, most soybean fields showed signs of emergence. Herbicide applications were hard to complete, due to the wet soil conditions. As soon as a field would dry out, more rain would enter the state.

In early July, soybeans started to bloom. By mid-July, the majority of soybeans were rated good-to-excellent. By the end of July, soybeans were setting pods at a rate equal to 1999. Late-planted soybeans were short and needed rain. Reporters in the southeast district noted aphid infestations in some fields.

In August, some southeast growers sprayed for aphids in late-planted soybeans. In mid-August, early soybeans started turning leaf color. At the end of August, the soybean crop was rated 80% good-to-excellent.

Soybean harvest started during the third week of September; by October 1, soybeans were 16% harvested. Frost was welcomed this fall to kill the weeds that plagued many soybean fields. By mid-October, dry weather pushed plant moisture below optimum levels in certain areas. These growers were harvesting early or late in the day to increase moisture levels and decrease split seeds. Due to dry weather, soybean harvest was completed by early November.

Soybean Yields
1999 and November 1, 2000 Forecast
Wisconsin & Surrounding States



OATS

With warm and dry spring conditions, oat planting progressed rapidly. By the end of April, 80% of the oats were planted, the highest percentage ever, and about a week ahead of average. By mid-May planting was finished, and 94% of the oats had emerged. Rainfall in early June promoted good growth to the emerged stand. By mid-July, all the oats had headed and harvest began on early maturities. Dry weather in July and early August provided excellent harvest conditions. Wisconsin's oat yield averaged 68 bushels per acre, a record high. The majority of the oat crop was rated good-to-excellent throughout the season and progressed faster than 1999's crop.

WINTER WHEAT

Winter wheat greened up in mid-April, yet needed warm weather and more moisture to promote growth. Wheat survived the winter well. Overall, 76% of the acreage had no winter damage, and 24% had light damage. Warmer weather at the end of April encouraged rapid vegetative growth. The majority of the winter wheat acreage was rated good-to-excellent for the growing season. Winter wheat handled the cool and wet weather well in late May and June. Storm damage at the end of May caused the crop condition to decrease for a short time. By the end of June, the crop was starting to head and standing well. Harvest began in mid-July with the crop rated 93% good-to-excellent. Wheat had high straw yields but low quality, due to earlier wet conditions. Mid-August marked the end of harvest. By early October, fields were being planted with winter wheat. Wheat continued to do well through October, even though dry weather slowed emergence of later-planted fields. Winter wheat and rye looked good going into winter.

HAY

Warm weather in late April encouraged alfalfa to green up, but dry soils limited growth. Alfalfa survived the winter in good shape. In early May, reporters rated 73% of the alfalfa acreage with no damage, 22% had light damage, and 5% had moderate damage. Alfalfa fields quickly greened up with showers and increased temperatures, allowing first cuttings to begin during the third week of May. First crop cutting was stalled for several days in early June, due to heavy rains that also caused some cut hay to spoil in the fields. First crop hay was difficult to harvest, due to the wet fields and poor drying weather.

As first crop was winding down in late June, second crop hay started with reports of high yields, but also leafhopper problems. The first half of July remained wet, and rain fell on a regular basis. Drier and somewhat warmer weather in late July through August accelerated the second and third crop harvest with the pace ahead of 1999 and the 5-year average. Weather was very cooperative for dry hay harvest during this time. In September, many farmers reported having an ample supply of hay as they harvested the third and fourth cuttings of hay. By mid-October, fourth crop hay cutting came to an end. In late October, reporters rated hay and roughage supplies as 48% adequate and 51% surplus.

PASTURES

May started out with an increase in temperature which helped to improve pasture conditions. By the end of May, pastures around the state averaged 75% good-to-excellent after benefitting from mid-May rainfall. Pasture conditions stayed above 80% good-to-excellent for June and the first part of July. By the end of July, pasture conditions started a decline which continued into fall as soil moisture became short. During September and October, pastures maintained a fair-to-good rating. Fields were reported green and looking good in November until snow fell in the middle of the month.

VEGETABLES

Potato planting was underway in the Central Sands in mid-April, and by the end of April, northern growers were starting to plant. The potato crop was reported as good in mid-June with early-planted fields in full bloom. By the end of August, growers began killing vines and started early potato harvest. Early September's heat caused vines to dry down quickly, and harvest to make good progress. By mid-October, harvest was ending in the Central Sands.

Peas, snap beans, and sweet corn planting progressed well in early May. Peas were at maturity and being harvested in

late June. By the middle of September, growers were finishing up the harvest of snap beans, sweet corn, and cucumbers.

FRUITS

Fruit trees and strawberries suffered from poor weather in 2000. Scattered frosts in central and northern Wisconsin in May hurt the fruit and strawberry crops. Some strawberry producers reported heavy losses this season, due to a late frost and heavy rains. Fruit crops in some areas of the state had hail damage, excessive rain storms, and cold weather at critical times of pollination and fruit development.

