



Wisconsin Crop Weather

Compiled by the Wisconsin Agricultural Statistics Service

December 7, 2001

Annual Crop Weather Issue

REVIEW OF THE 2001 CROP YEAR

2001 - Delayed Planting Year

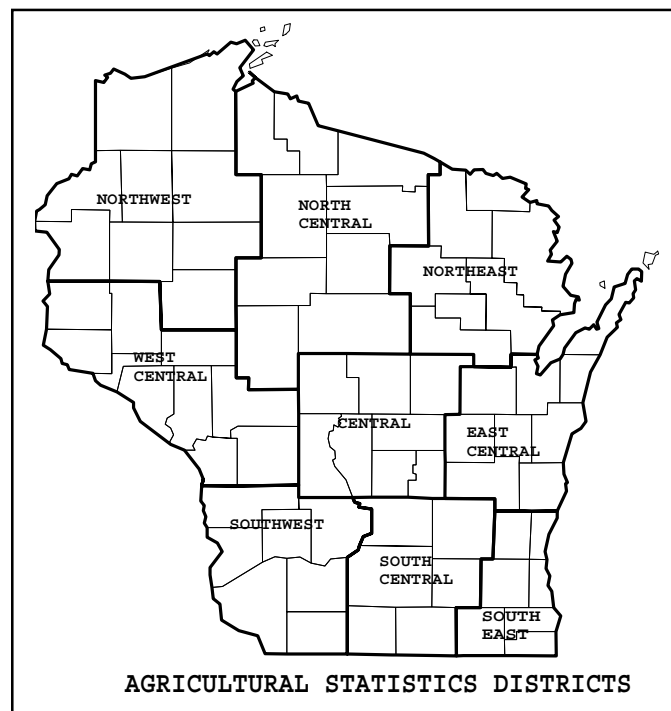
Late planting became the major story of the 2001 growing season. Heavy April and May precipitation delayed planting progress to the slowest pace since 1996. Crops then spent the rest of the year trying to catch up. Mother Nature brought different challenges each month from winter to harvest.

December 2000 was the most memorable month during the past winter season, with record snowfall in southern Wisconsin and above normal snow accumulation for the rest of the state. The rest of the winter was mild in comparison, with below normal snowfall and relatively mild temperatures. **January** was characterized with normal to above normal temperatures and very little snow accumulation. Outdoor farm activity was made easier during January, due to the decreasing snow depth by the end of the month. Early **February** saw normal temperatures and scattered snow accumulation. By the end of February, snow continued to decrease as a result of periods of warm weather and rain. **March** also had normal temperatures and scattered snow and rainfall. By the end of March, much of Wisconsin remained snow covered. However, field activities, such as manure spreading, tillage, and fertilizer applications, were ongoing as the snow melted and soaked into the ground. Farmers looked forward to warmer temperatures and rain to get the growing season started.

April started the growing season with "too much rain, not enough sun, and little field activity" according to many Wisconsin farmers. During the month, soil moisture conditions were 98-100% in the adequate to surplus range. With northern Wisconsin still covered in snow, the main field activity in early April was tapping maple trees and spreading manure. Snow melted in southern Wisconsin and most of the frost was out of the ground in early April. This allowed manure spreading, tillage, and nitrogen application activities in that part of the state. Tile lines were running well as warmer weather melted the snow. Weekly rainfall combined with melting snow during mid-April raised concerns of spring flooding along the Mississippi and St. Croix rivers. Wet field conditions continued to keep field activities to a minimum in northern Wisconsin for most of the month. Throughout the state most field activity was limited to high or sandy ground. Planting started in late April, only to be shut down by more rain. By this time farmers were anxious to get into fields to plant potatoes, oats, and corn. By the end of April field activity was concentrated in the southern districts, and all activity fell behind 2000 and the 5-year average. Days

suitable for field work in April increased steadily from 1.8 days for the first week to 4.7 days during the last week.

May started out with above normal temperatures. Soil moisture levels were rated at least 97% adequate to surplus for the month as farmers were caught in a cycle of rain. Northern Wisconsin experienced cool, wet soil conditions, delaying field activities and crop emergence. Corn and oat planting and emergence were behind 2000 and the 5-year average at the beginning of May. Southern and some central Wisconsin farmers spent long hours in the field planting, when conditions allowed. Low-lying fields throughout the state remained wet, with continual rainfall adding moisture. Rain and warm temperatures improved pasture



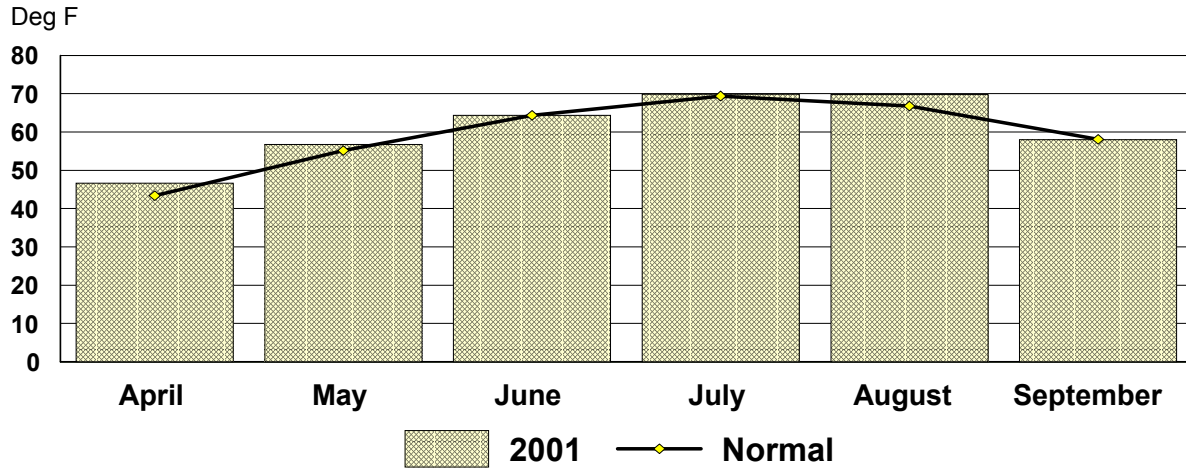
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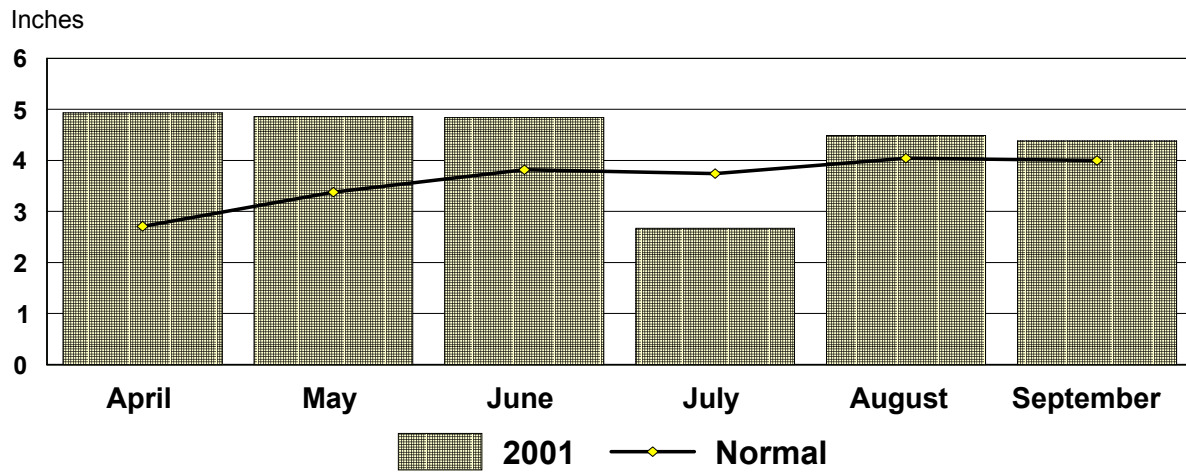
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This report has been made possible through the cooperative efforts of the U.S. Department of Agriculture, and The Wisconsin Department of Agriculture, Trade and Consumer Protection and the National Weather Service.

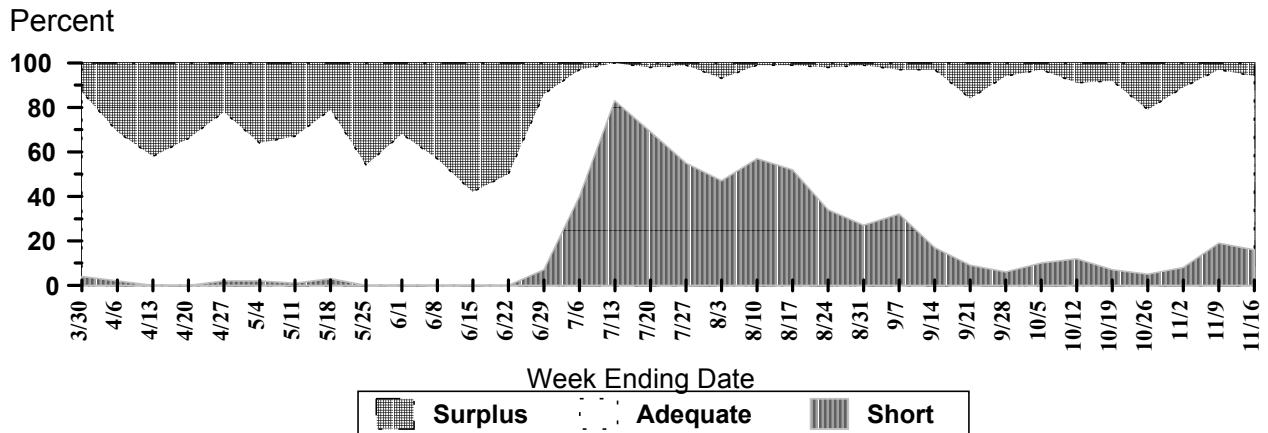
AVERAGE MONTHLY TEMPERATURE, WISCONSIN, 2001



AVERAGE MONTHLY RAINFALL, WISCONSIN, 2001



SOIL MOISTURE RATINGS, WISCONSIN, 2001



MONTHLY TEMPERATURES: 2001 GROWING SEASON AND NORMAL*

District	April 1/		May 1/		June 1/		July 1/		August 1/		September 1/	
	2001	Normal	2001	Normal	2001	Normal	2001	Normal	2001	Normal	2001	Normal
	Degrees Fahrenheit											
NW	43.4	41.8	55.5	53.7	63.5	62.8	68.6	68.5	68.9	65.7	57.1	56.4
NC	43.4	40.7	54.7	53.0	62.6	61.7	66.8	66.9	67.3	64.1	55.6	55.3
NE	44.9	41.4	55.4	53.4	62.8	62.3	67.1	67.5	68.2	64.7	56.2	56.0
WC	48.4	45.3	58.1	57.2	66.3	66.4	72.0	71.2	71.1	68.3	58.2	59.2
C	48.7	44.5	57.8	56.2	65.0	65.4	71.4	70.2	71.0	67.3	58.3	58.7
EC	46.9	42.9	56.1	54.3	64.0	63.9	70.5	69.7	71.1	67.7	59.8	59.7
SW	50.1	46.4	58.9	58.0	65.5	67.2	72.1	71.8	70.9	69.1	59.5	60.6
SC	50.9	46.2	59.7	57.7	66.1	67.1	72.8	71.5	71.6	68.8	60.5	60.7
SE	49.5	45.1	57.6	56.1	65.1	65.9	72.6	71.2	71.9	69.3	61.4	61.5
STATE	46.6	43.4	56.7	55.2	64.3	64.3	69.9	69.4	69.8	66.8	58.0	58.1

1/Preliminary estimates, 2001. * Normal is defined as the 30-year average for the years 1961-90. Source: State Climatologist.

MONTHLY RAINFALL: 2001 GROWING SEASON AND NORMAL*

District	April 1/		May 1/		June 1/		July 1/		August 1/		September 1/	
	2001	Normal	2001	Normal	2001	Normal	2001	Normal	2001	Normal	2001	Normal
	Inches											
NW	7.69	2.43	4.03	3.43	4.59	4.05	3.45	3.92	4.07	4.33	2.79	4.01
NC	5.33	2.40	4.27	3.41	4.01	3.91	3.35	3.77	3.35	4.32	3.96	4.17
NE	3.27	2.60	4.59	3.41	3.90	3.71	2.65	3.38	4.07	3.74	3.55	3.95
WC	5.23	2.89	5.25	3.68	5.54	4.10	2.76	4.15	4.34	4.17	4.87	4.07
C	4.02	2.79	5.92	3.60	6.28	3.69	2.36	3.73	4.02	3.89	4.63	4.12
EC	3.74	2.70	4.81	3.03	4.37	3.38	1.47	3.14	5.02	3.63	3.45	3.75
SW	4.52	3.09	6.07	3.40	5.17	3.84	1.97	3.86	6.59	4.07	6.12	3.93
SC	3.61	3.07	4.97	3.15	5.84	3.77	2.11	3.73	5.95	3.89	6.41	3.92
SE	3.67	3.21	4.84	2.93	4.66	3.48	2.32	3.72	4.61	3.80	6.24	3.78
STATE	4.93	2.71	4.86	3.38	4.84	3.82	2.67	3.74	4.49	4.04	4.38	4.00

1/Preliminary estimates, 2001. * 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*	1997	1998	1999	2000	2001 1/	Normal*	1997	1998	1999	2000	2001 1/
	Degrees Fahrenheit						Inches					
NW	63.6	63.2	65.0	64.0	61.6	64.6	22.2	18.1	17.6	29.2	21.5	26.6
NC	62.5	61.9	63.5	61.5	61.3	63.5	22.0	19.8	16.3	25.6	24.1	24.3
NE	63.2	62.5	64.3	64.1	61.6	63.7	20.8	18.7	16.1	22.8	23.0	22.0
WC	66.6	67.1	67.7	67.2	64.9	67.1	23.1	22.4	23.1	27.5	25.4	28.0
C	66.0	65.7	67.1	66.3	64.7	66.6	21.8	20.2	21.7	25.7	27.1	27.2
EC	66.0	65.1	67.3	66.6	64.7	66.7	19.6	18.5	18.7	22.4	24.5	22.9
SW	67.6	66.7	67.9	67.7	66.0	67.3	22.2	21.5	27.7	30.3	30.6	30.4
SC	67.8	66.5	68.7	68.2	66.5	67.8	21.5	21.5	25.8	28.1	30.6	28.9
SE	67.6	66.5	68.7	68.6	66.6	68.0	20.9	21.7	20.9	27.4	31.8	26.3
STATE	65.1	64.6	66.2	65.6	63.6	65.7	21.7	20.3	20.5	26.7	25.6	26.2

1/Preliminary estimates, 2001. * Normal is defined as the 30-year average for the years 1961-90. Source: State Climatologist

conditions by the end of the month, but also increased weed populations. Spring delays caused timing of herbicide applications to be difficult throughout the year. The end of May saw farmers trying to plant corn and harvest hay at the same time. Flooding continued to be a problem along major rivers. Tillage activities lagged behind 2000 and the 5-year average throughout the month. In late May, some farmers were working fields that may have been too wet, in an effort to dry them out.

In addition to the above normal precipitation, a period of below normal temperatures in late May into early **June** caused plant emergence to stall. Planting continued around the clock during dry periods. With all the rain, weeds took hold in many fields, making planting difficult. By mid-June farmers were battling planting, pesticide spraying, and alfalfa harvest, all at the same time. Growing conditions were less than ideal for corn and soybeans; however, alfalfa, winter wheat, and oats thrived under the cool, wet conditions. During June the growing season stalled with cool temperatures and regular rainfalls; additional heat units were needed to encourage plant growth and improve plant health. Days suitable for fieldwork ranged between 2.4 and 4.2 days per week during June. Soil moisture conditions were rated 100% adequate-to-surplus the entire month. Accumulated growing degree days for the state were above normal by the end of June. Statewide, farmers found the time to plant or replant was ending, as wet field conditions continued. Some fields in East Central Wisconsin were left unplanted, due to the wet weather cycle. By the end of the month, crops were in need of heat units and a reprieve from the rain.

July started with a period of dry weather, after a rainy planting season. Wisconsin soils were now going from too wet to too dry, as soil moisture conditions went from surplus to short during the month. Dry conditions aided weed control which was delayed by spring rains. There was a brief period during this transition when soil moisture and temperatures were defined as ideal. Mid-July was the first time during the growing season when surplus moisture was not reported at the state level. Farms with irrigation were watering crops. A positive side to the dry conditions was the good hay harvesting weather with at least 5.6 days suitable for fieldwork per week. Scattered rainfall throughout the month provided some temporary relief. By the end of July, fields were looking for rainfall, as crops on lighter soils turned brown, corn and soybeans began pollinating, and alfalfa fields struggled to regrow. Crops remained variable in stand and condition within fields and across the state. The La Crosse area was significantly below normal for precipitation by the end of July, compared to the rest of the state.

August started with significant rainfall in scattered locations. The rainfall came at a critical time, with farmers commenting on the stress fields were under. In early August, Wisconsin saw temperatures 5-8 degrees above normal with high humidity. Those conditions gave way to cooler, less humid temperatures by mid-August. Locations that received rain early in the month were reporting fields in fair to good condition. The rest of the state reported crops and livestock as stressed. Moisture levels ranged from very short to surplus. Statewide soaking rains in the last half of August left many wondering if the moisture came in time to help the crops. Reports of crop progress and condition varied widely at this point; both were related to location, planting date, weather cycle, soil type, and management decisions. In early August corn progress varied from a few feet

tall to kernel formation. Farmers began to comment that the date of the first frost would be crucial. The state's livestock were under less stress in late August due to cooler temperatures. August days suitable for field work ranged from 5.0 to 6.5 days per week.

How will crops yield this growing season? Farmers had this question on their minds due to the variation in weather conditions. **September** agricultural activity turned to machinery maintenance, with fall harvest around the corner. Statewide, soil moisture was mainly considered adequate. In September soybeans fields turned more noticeably yellow, corn was in several growth stages, and vegetable harvest was underway. By the end of September it was a race for crops to reach maturity before the first frost of the season. Scattered northern Wisconsin locations had already reported a killing frost by the end of the month. September ended with harvesting of corn silage half done and soybean harvest starting. Days suitable for fieldwork ranged from 4 to 5 days per week for the month.

During the first week in **October**, most of the state saw at least one night with temperatures in the high 20's, ending the growing season. Snow fell in northern Wisconsin during the first week in October. Varied planting dates and weather conditions throughout the growing season resulted in mixed crop conditions and harvest dates. Harvest and fall tillage progressed slowly, as weather permitted, for most of October. Periods of rain kept plant moisture high, slowing the already weather delayed fall harvest. Harvest concerns included low test weights and high drying costs. Days suitable for fieldwork ranged from 3.9 to 6.3 days suitable per week for the month. During October soil moisture levels ranged from 88-95% adequate to surplus.

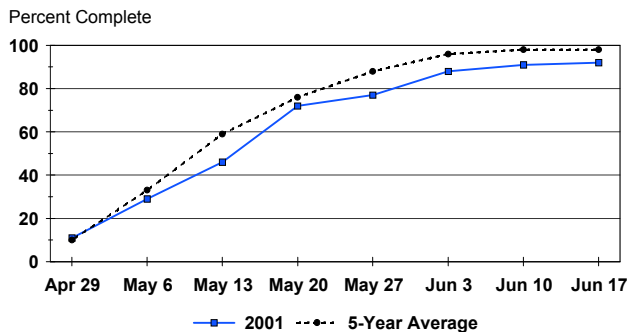
November temperatures averaged well above normal and light scattered rainfall occurred as harvest neared completion. The warm and relatively dry weather allowed for harvest, tillage, and manure spreading to continue with little delay throughout the state. Yields were variable, depending on soil type, field location, and management practices. Soil moisture conditions were mainly rated adequate to surplus at the state level. Since September, northern Wisconsin was below normal for precipitation. November's mild weather, allowed farmers to complete fieldwork that would have otherwise waited for spring. Although state soil moisture levels were adequate to surplus, many farmers commented on the need for additional moisture before the ground froze. By the end of the season, some farmers were pleasantly surprised by the corn yields, considering the challenges they faced during the growing season. One farmer summed up fall harvest by saying "corn yielded better than it looked, and soybeans looked better than they yielded."

CORN

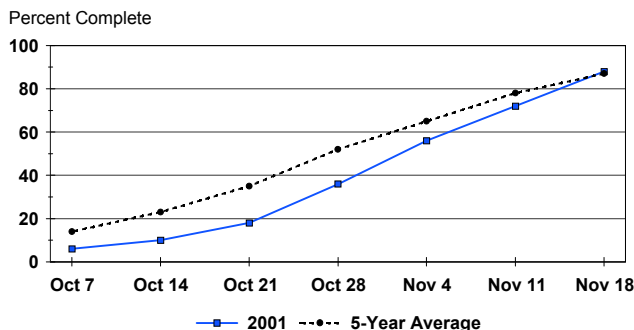
Corn planting started in earnest in late April, after spring rain delayed earlier attempts. This was behind 2000, but slightly ahead of the 5-year average. By May, the southern tier of districts were reporting corn acres planted comparable to last year and the 5-year average. Planting progress in the central and northern districts remained behind schedule. By the middle of May, corn rows were visible throughout the state, as corn started to emerge after a period of cool weather in April. At the end of May and the beginning of June, some emerged corn fields had

shades of yellow, showing stress from the excess moisture experienced thus far. Corn planting, emergence, and height were all behind last year and the 5-year average in early June. Increased temperatures were needed for corn plants to grow and return to healthy green foliage. By the end of June, time to plant or replant was ending, as wet field conditions continued. By the first week in July, farmers in East Central Wisconsin were faced with the reality that some fields would remain unplanted. Reporters throughout the state commented on uneven corn stands across fields. Corn started to pollinate during mid-July's dry spell. By the end of July, rolled leaves were a common sight, even though the state received scattered rainfall. Corn reached silk stage in late July, much behind both the 5-year average and 2000. Farmers reported more herbicide injury than previous years, possibly due to the fluctuations in temperature during herbicide applications. At the end of July fields were variable in stand and progress across the state. In early August some corn reached dough stage. Mid-August brought comments of corn borer problems in southeastern Wisconsin. By the end of August, corn reaching dent stage was well behind both 2000 and the 5-year average. September started with silage harvest in East Central and southern Wisconsin. Corn crop conditions were rated at least 57% good-to-excellent during September. October saw the start of high moisture corn harvest. Some farmers reported fields with better grain yields than they expected; however, the majority of reports indicated harvest yields were variable. Statewide, farmers waited until moisture levels dropped even though grain harvest lagged behind 2000 and the 5-year average. The late fall moisture levels were great for ensiling high moisture corn, but poor for grain harvest. Standability was a concern, as corn was left in the field longer than desired. Some fields throughout the state were showing signs of lodging. As November progressed, potential mold and storage problems were concerns as grain harvest continued.

**Corn Planted
2001 Wisconsin State Average**



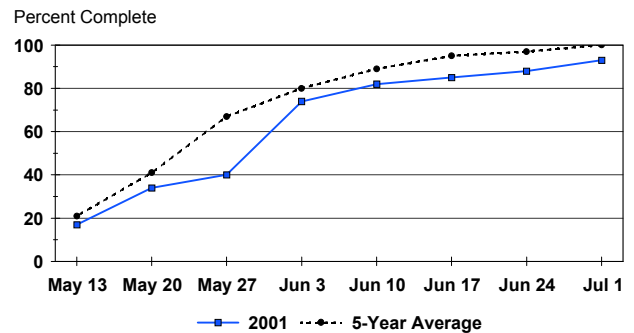
**Corn Harvest
2001 Wisconsin State Average**



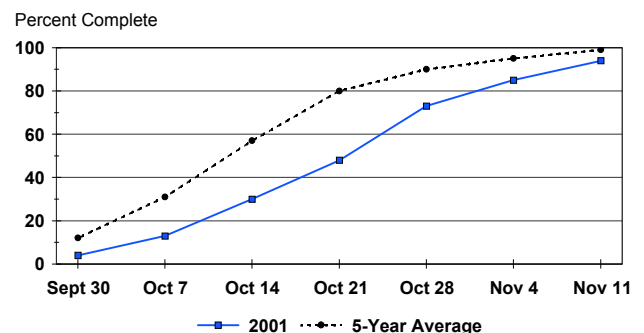
SOYBEANS

Soybean planting started in Wisconsin by the middle of May, well behind 2000, yet close to the 5-year average. As the wet spring continued, many farmers changed planting intentions from corn to soybeans. Soybean progress in the southern districts was comparable to 2000 and the 5-year average. Progress in the northern districts, delayed by the weather, fell behind last year and the 5-year average. Soybean emergence was delayed due to cool temperatures. By mid-June, soybeans in southern Wisconsin were reported in the unifoliate to trifoliate leaf stage, regardless of planting date. By mid-July blossoms could be found in Wisconsin soybean fields, considerably later than last year and the 5-year average. Soybean plants set pods from late July into August. Reporters in the South Central district noticed several fields with soybean aphids by the first part of August. By the end of August, farmers reported soybeans not setting pods well, with fewer pods per node compared to recent years, and early-planted fields with pods that were still flat. Disease was now a concern after a stress-filled growing season. Soybean leaves began turning yellow in early September, slightly later than normal. Farmers commented on the need for more heat units and time for pods to fill. Harvest began in mid-September, but progressed slowly. Soybeans were confronted with heavy morning dew and scattered rain during plant dry down. Combining neared completion in mid-November with average to below average soybean yields. Farmers around the state were able to bale soybean straw for bedding with November's dry conditions.

**Soybean Planted
2001 Wisconsin State Average**



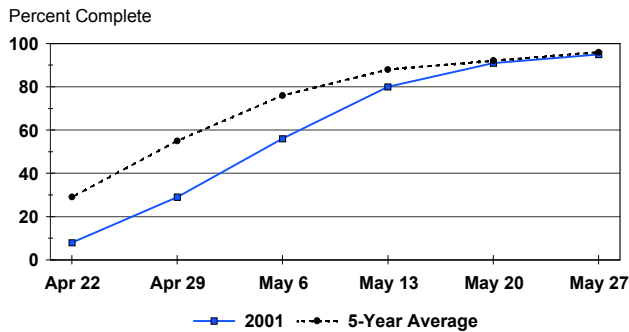
**Soybean Harvested
2001 Wisconsin State Average**



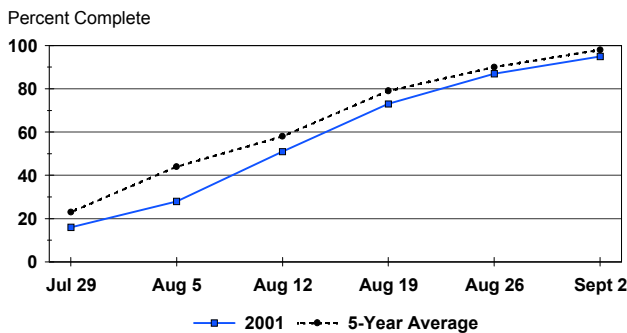
OATS

Southeastern Wisconsin started the planting season with a few acres of oats planted in early April. Northern farmers commented on how unusual it was not to have oats planted during April. By the end of April, oat planting and emergence lagged well behind 2000 and the 5-year average. High moisture levels and cool temperatures caused small grains to be in good condition, statewide. By mid-June the southern two-thirds of the state were on track when compared to the 5-year average for oats headed. Oatlage harvest started in northern Wisconsin in early July. Grain harvest was underway statewide by late July. Yields and test weights ranged from average to above average for the state. Harvest neared completion by the beginning of September

Oats Planted
2001 Wisconsin State Average

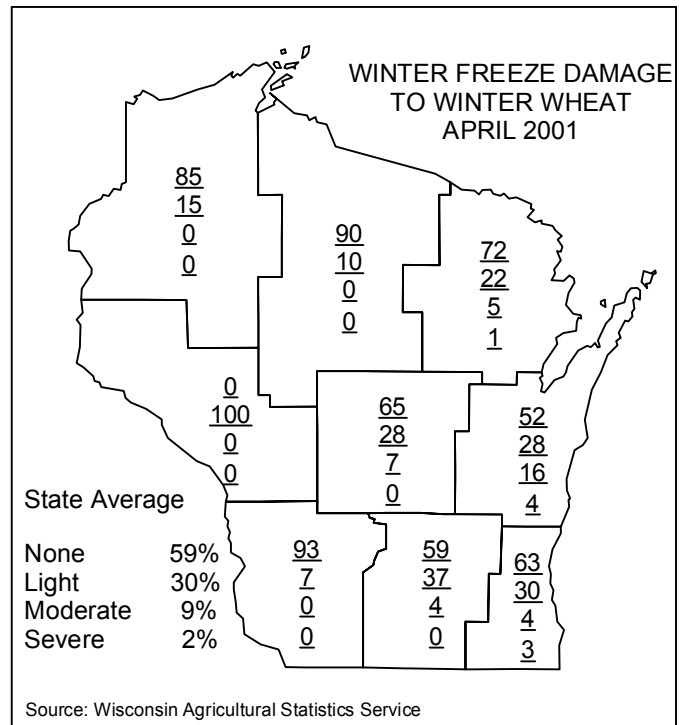


Oats Harvested
2001 Wisconsin State Average



WINTER WHEAT

Winter dormancy ended in early April, when fields started greening. Winter freeze damage to the crop was rated 59% none, 30% light, 9% moderate, and 2% severe in Wisconsin at the end of April. Winter wheat benefitted from the wet spring weather and was rated 90% good-to-excellent by mid-May. Winter wheat grew fast with the continual wet, cool weather, and headed out by mid-June in southern Wisconsin. The winter wheat crop was rated in good to excellent condition throughout the season. By mid-July, winter wheat began reaching maturity, and harvest started by the end of the month, behind 2000 and the 5-year average. Harvest was approximately half complete by the end of July and reached completion in mid-August. Statewide, a record high yield was reached this year. Sowing of winter wheat started in northern Wisconsin in mid-September. This fall's mild temperatures and regular rain enabled many winter wheat fields to be well established, covering the ground with a green blanket before snowfall. Central Wisconsin reported some winter wheat fields showing signs of disease by mid-November.

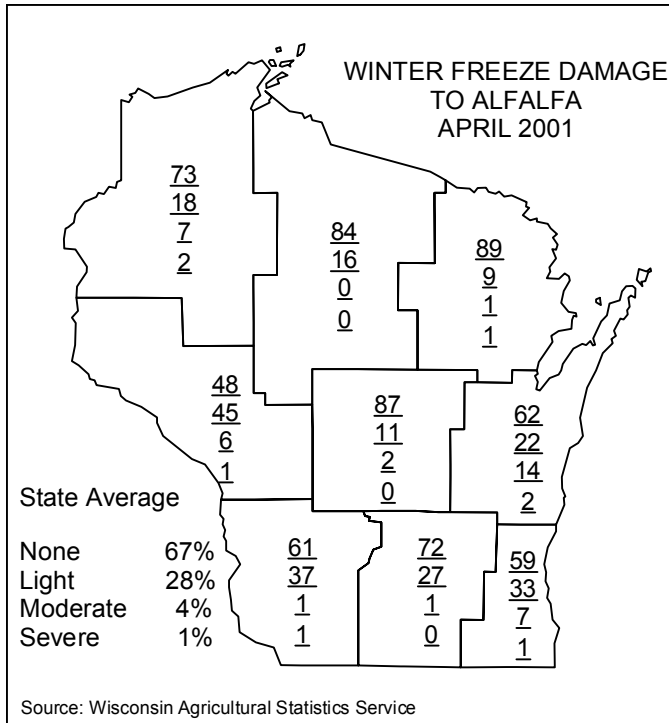


HAY

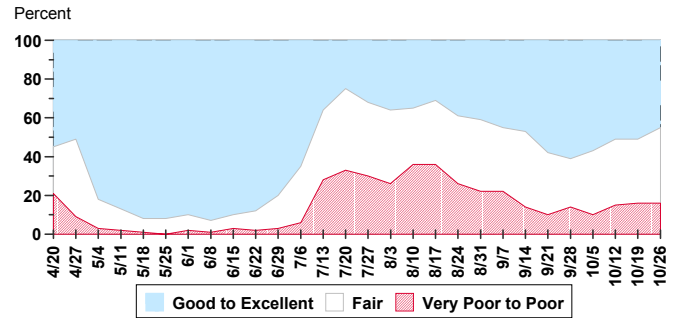
Alfalfa fields in southern Wisconsin ended dormancy and were reported looking good by late April. Winter freeze damage was rated 67% none, 28% light, 4% moderate, and 1% severe in Wisconsin at the end of April. Alfalfa and grass mixes grew slower as a result of the cool early spring temperatures. Warm weather in May created ideal growing conditions, maintaining a good crop condition rating. Southern Wisconsin started the first cutting by the end of May. During this time, farmers had to decide between planting row crops and harvesting hay. The first crop was harvested under less than ideal conditions. A week of intermittent rain left fields saturated, made equipment hard to maneuver, and left many windrows laying for a week or more. As farmers waited for conditions to improve, many commented on the decreased relative feed value. Cool weather during first harvest delayed bloom in several areas, prolonging acceptable relative feed values. By the end of June, some farmers were still harvesting first crop, while others began their second crop. First crop hay was described as below average quality and above average quantity. Delays in first crop hay harvest resulted in a large variation in regrowth for second crop. Second crop hay was described as low quantity and good quality. Although the dry July conditions were ideal for second crop harvest, regrowth was slowed. Third crop hay harvest started in early August. Early August rainfall allowed fields to regrow quickly. Statewide, farmers noted fields with leafhoppers above threshold levels after each cutting. Farmers continued harvest of second, third, and fourth crop during late August and began fall seeding activities. Farmers cutting fourth crop hay in early September reported quality and quantity better than third crop. This season's hay and roughage supplies were rated 6% short, 78% adequate, and 16% surplus at the end of October. Although supplies were rated only 6% short, farmers commented on a shortage of quality hay.

PASTURES

Pastures greened up slowly in April. Conditions improved greatly with the warm weather and regular rainfall during May and June. Pastures were rated 80% good-to-excellent at the end of June, but went downhill during July's dry conditions. At the end of July, pasture conditions were rated 32% good-to-excellent, 38% fair, and 30% very poor-to-poor. After scattered rain showers in early August, pastures became green and lush again and continued to improve with regular rainfall during the rest of the season. Pasture grasses continued growing in November, providing extended pasture time this year.

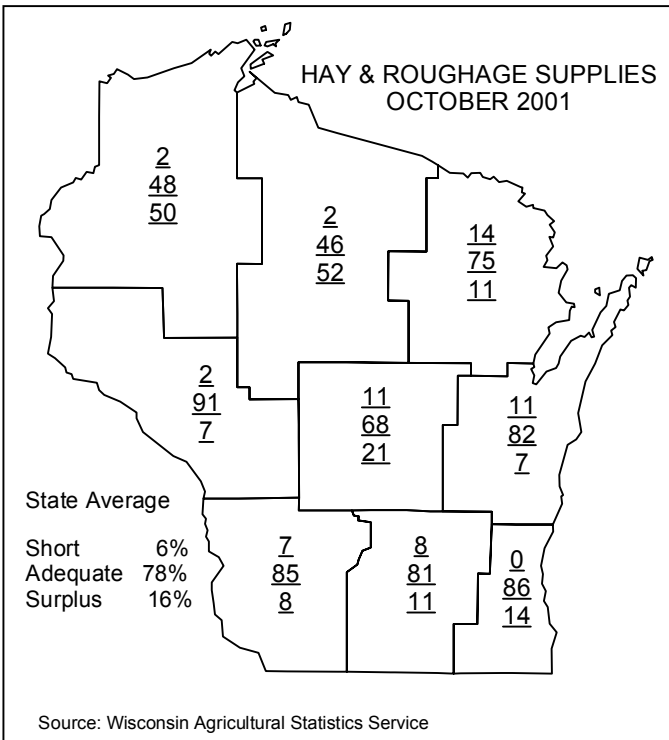


**Pasture Conditions
2001 Wisconsin State Average**



VEGETABLES

Potato planters were ready to go by mid-April, although field conditions needed to improve before planting could begin. Potato and pea planting got under way in mid-April, only to be shut down by rain. By late April, farmers were focusing on potato planting, while pea planting was coming to an end. Early June brought reports from the Central Sands of potatoes with wonderful growth and peas in early bloom. Vegetable crops were looking good in July with tomatoes, potatoes, and cucumbers in bloom. Sweet corn was tasseling and looking good in early July. Late July potato harvest in the Central Sands was reported fair-to-good. Southeastern Wisconsin producers harvested sweet corn in mid-August. Central Wisconsin reported an excellent pepper crop and average tomato and cucumber crops in early-September. Carrot, snap bean, and sweet corn harvest was going strong by early September. Southeastern Wisconsin reported red beet tonnage down from last year. Pumpkin and squash harvest started in central Wisconsin in late September. Potato yields were reported good with some varieties smaller than normal.



FRUIT

Cranberry beds appeared to have wintered well and were in full bloom by early June. Cranberry harvest progressed without many delays, quality was good, while quantity was intentionally reduced, as low prices led to market restrictions. The strawberry harvest brought mixed reports on quality. Fruit trees started to bloom throughout the state in early May and Door County cherry harvest was underway in early August. Northern Wisconsin reported the apple crop was in very good condition, with fruit starting to turn color by late August. A month later, apple harvest started throughout the state.

MAPLE SYRUP

The season started out with snow covering the ground, making collection difficult. Reports of good sap flow, resulting from warm days and cool nights in early March, did not last long. By early April sap flow had slowed considerably from preliminary reports. By the end of April the season was ending with most taps sealing over.

CHRISTMAS TREES

Christmas tree harvest was in full swing by mid-November. The trees were reported in good condition, but didn't have the internal moisture of previous years due to the dryer fall.