



Wisconsin Crop Weather

Compiled by the Wisconsin Field Office of
USDA's National Agricultural Statistics Service

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Annual Crop Weather Issue

REVIEW OF THE 2005 CROP YEAR

2005 - Hot, Dry Summer

Hot, dry weather dominated the 2005 growing season. Crops matured rapidly with growing degree days significantly higher than normal. Temperatures from June to September averaged 68.1 degrees, while the normal average is 64.7 degrees.

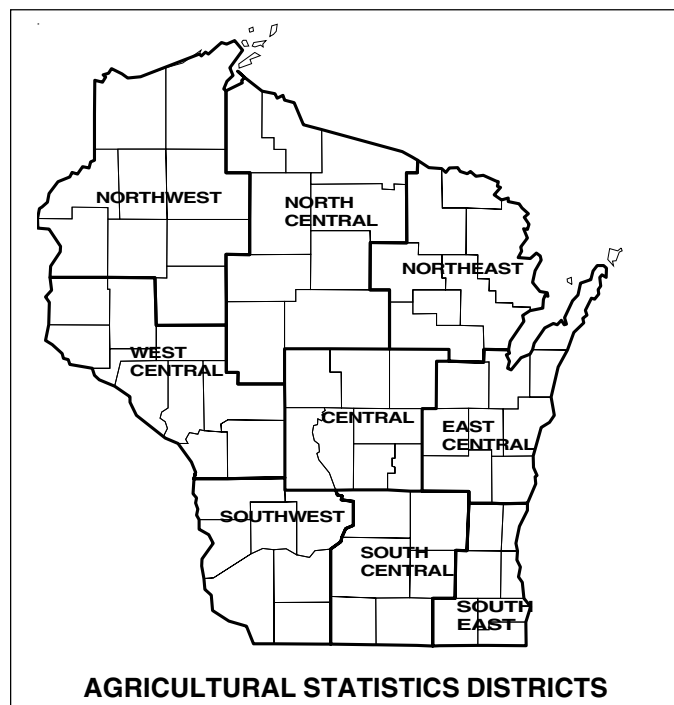
Limited rainfall was a major concern for farmers as crops showed stress over the summer. Total precipitation for April through September was 18.2 inches, compared to a normal total of 22.3. Dry weather was a worry, but sporadic showers came across the state at several critical growing points. Rains during pollination helped turn crop conditions around. Since not all areas received these limited summer rains, crop conditions varied across the state and within counties. However, timely rains and plentiful growing degree days led to many reports of better than anticipated yields.

Fall weather was generally advantageous for harvesting row crops, fruits, and vegetables. A warm September helped crops rapidly mature, and rains only temporarily slowed progress. Rain was a welcomed relief for many as soil moisture, pasture, hay, and wheat conditions improved before winter.

Temperatures in **December** 2004 were 1 to 3 degrees above normal. Precipitation ranged from 0.85 to 2.35 inches. Snowfall was mainly received in the northern areas of the state as rain fell in other areas. Small amounts of snow cover were reported in the state as producers finished harvesting crops. Snow covered most of the state in **January**. Temperatures averaged 1 to 4 degrees above normal and up to 3 inches of precipitation fell in several snow storms. **February's** temperatures averaged 5 to 6 degrees higher than normal. Average high temperatures were in the 30s while average lows were in the upper teens. Light snow cover could be found in northern parts of the state, while warmer temperatures reduced cover elsewhere. The lack of rainfall started early in the year and continued through the growing season. Temperatures were above normal for **March** and precipitation was 0.65 to 0.90 inches below normal. By the end of the month, only trace amounts of snow cover could be found in the state.

April weather was 4.3 degrees warmer than normal with below normal precipitation. Warmer temperatures early in April reduced most frost and allowed for an early start on fieldwork. Temperatures still dipped into the 20s during the month, but reached the 80s by month's end. Much needed rainfall came during the third week of April, just in time for spring planting. At the end of the month, soil moisture conditions were rated as 1 percent very short, 20 percent short, 69 percent adequate, and 10 percent surplus.

Weather in **May** was highlighted by cooler temperatures and the arrival of some rainfall. Temperatures were 4 to 6 degrees below normal during the first week and remained below normal the entire month. Low temperatures were in the 20s and 30s, with only a few locations reaching a high of 80 degrees. While April weather encouraged spring fieldwork, May weather slowed field activity. During the second week of May, between 0.95 and 2.28 inches of rain was received. Rainfall totals ranged from 0.61 to 1.60 in the third week. Monthly rainfall totals remained behind normal, but soil moisture conditions were in good shape. The monthly rainfall for May was 2.59 inches, compared to the normal 3.37. Soil moisture conditions were rated as 2 percent very short, 17 percent short, 75 percent adequate, and 6 percent surplus by May 27.



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June's weather was hotter than normal with below average rainfall. Temperatures during the second week of June were 7 to 12 degrees above normal with highs reaching into the 90s in some locations. This weather helped corn and soybeans grow rapidly. Northern areas of the state received significant rainfall during the second and third weeks of the month. Statewide rain totals for June were at 3.81 inches, compared to a normal 4.02. Crop stress from the lack of rain was becoming apparent by the end of the month. On June 24, soil moisture conditions were rated as 20 percent very short, 36 percent short, 42 percent adequate, and 2 percent surplus.

Temperatures were 1.5 degrees above normal and precipitation was 0.85 inches below average for the month of **July**. The lack of rain impacted crop conditions and decreased soil moisture levels. Soil moisture levels hit the low point of the crop year in mid-July, with the season's largest percentage of soil moisture as short and very short. On July 15, soil moisture conditions were rated at 55 percent very short, 35 percent short, 10 percent adequate, and 0 percent surplus. Rain finally came during the last two weeks of July. Precipitation during the third week ranged from 0.55 to 2.86 inches, and 0.32 to 1.53 inches fell during the fourth week. While soil moisture levels were not fully recharged, the storms brought some relief. On July 29, soil moisture conditions had improved to 15 percent very short, 36 percent short, 48 percent adequate, and 1 percent surplus.

During the first two weeks of **August** limited rain and high temperatures returned. High temperatures hit the mid-90s with lows only in the 50s. This was 1 to 6 degrees above average. Warm weather pushed most crops ahead of schedule as growing degree days were well above normal numbers. South Central Wisconsin was hit hard with tornados, hail, and high winds in mid-August. Some fields in this area were severely damaged or completely leveled. Cooler weather finally arrived towards the end of the month, along with a few showers. The last week saw temperatures 1 to 2 degrees below normal. Most areas received precipitation that provided a much needed boost to crop conditions. Soil moisture levels remained mostly unchanged during August. By August 26 soil moisture conditions were rated as 16 percent very short, 31 percent short, 52 percent adequate, and 1 percent surplus.

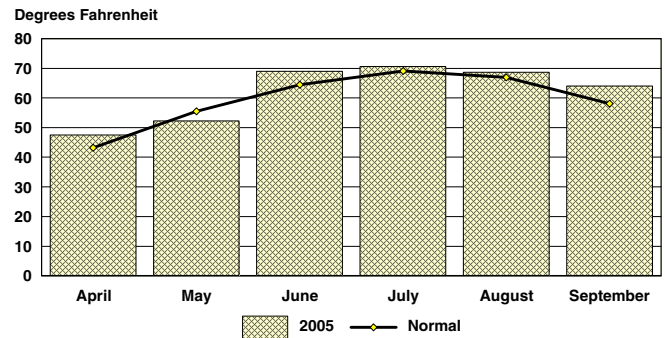
Summer-like temperatures maintained their grip on the state through **September**. The average temperature in September was 64 degrees, 5.9 degrees higher than normal. High temperatures caused summer crops to rapidly mature, and harvest started by mid-month. Harvest was temporarily slowed by several storms at the end of September. Given that most of the state was behind on yearly precipitation, this break in harvest activities was well received. Light frost was seen in the northern districts of the state. However, the frost was light enough to leave little damage to field crops. Rain improved soil moisture conditions during the month. Soil moisture conditions as of September 30 were 3 percent very short, 18 percent short, 74 percent adequate, and 5 percent surplus.

October started with high temperatures and humidity. Most areas saw little rainfall the first week, but the northwestern corner of the state received substantial precipitation. High temperatures were in the 70s with averages 6 to 9 degrees above normal. Light amounts of rain came during the remaining weeks in October, which did little to impede harvest progress. In fact, every week had at least 5 days suitable for fieldwork and near normal

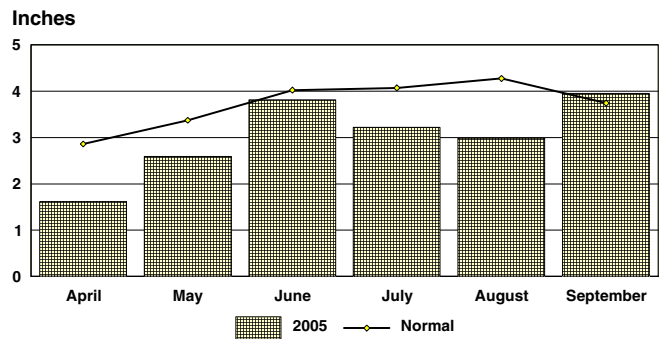
temperatures. The fourth week was the first week since the end of August with below normal temperatures. The fourth week of October also brought the first statewide frost for the year. Soil moisture conditions were rated at 6 percent very short, 34 percent short, 56 percent adequate, and 4 percent surplus at the end of the month.

During the first two weeks of **November**, temperatures ranged from 6 to 11 degrees above normal. Minimal rainfall allowed farmers to continue the final stages of harvest and fall tillage. Snow fell across much of the state in the third week of November, halting most field activities. Soil moisture conditions greatly improved during the fall. By November 18, soil moisture conditions were 1 percent very short, 15 percent short, 74 percent adequate, and 10 percent surplus.

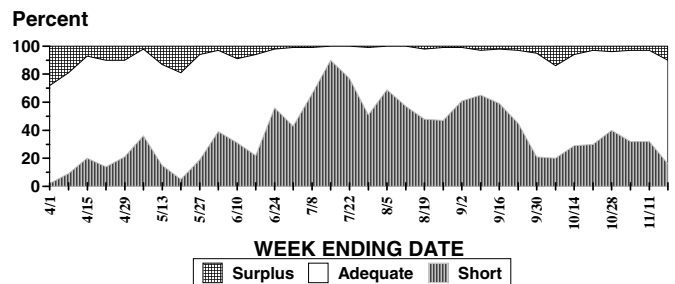
AVERAGE MONTHLY TEMPERATURE WISCONSIN, 2005



AVERAGE MONTHLY RAINFALL, WISCONSIN, 2005



SOIL MOISTURE RATINGS, WISCONSIN, 2005



MONTHLY TEMPERATURES: 2005 GROWING SEASON AND NORMAL *

District	April 1/		May 1/		June 1/		July 1/		August 1/		September 1/	
	2005	Normal	2005	Normal	2005	Normal	2005	Normal	2005	Normal	2005	Normal
	Degrees Fahrenheit											
NW	45.9	41.7	50.7	54.4	66.2	63.1	69.3	68.1	67.2	65.9	62.0	56.6
NC	45.4	40.4	50.2	53.2	67.2	61.8	68.7	66.4	65.8	64.2	61.0	55.3
NE	45.2	41.3	50.8	53.6	67.6	62.5	68.6	67.0	67.6	64.8	62.4	56.0
WC	49.5	45.2	53.7	57.4	70.9	66.4	72.5	70.8	69.6	68.3	64.6	59.3
C	48.8	44.5	53.3	56.7	70.6	65.8	71.5	70.2	69.5	67.7	64.8	59.0
EC	46.4	42.8	52.2	54.6	69.1	64.1	71.2	69.5	70.1	67.9	65.5	59.8
SW	50.6	46.1	54.6	57.9	71.5	67.2	72.4	71.4	70.8	69.0	66.4	60.5
SC	50.2	45.8	54.7	57.8	71.9	67.2	72.3	71.3	71.2	68.9	67.6	60.6
SE	48.3	45.0	53.1	56.3	70.7	66.0	71.5	71.2	72.6	69.4	68.4	61.4
STATE	47.5	43.2	52.2	55.5	69.0	64.5	70.6	69.1	68.7	66.9	64.0	58.1

1/Preliminary estimates, 2005. * Normal is defined as the 30-year average for the years 1971-2000. Source: State Climatologist.

MONTHLY RAINFALL: 2005 GROWING SEASON AND NORMAL *

District	April 1/		May 1/		June 1/		July 1/		August 1/		September 1/	
	2005	Normal	2005	Normal	2005	Normal	2005	Normal	2005	Normal	2005	Normal
	Inches											
NW	1.54	2.39	2.52	3.29	5.37	4.19	1.89	4.29	2.49	4.44	4.33	3.89
NC	1.65	2.40	2.33	3.31	4.53	4.01	2.86	4.06	2.35	4.36	3.78	4.03
NE	1.68	2.65	2.52	3.29	3.38	3.69	2.09	3.70	3.27	3.81	3.39	3.74
WC	2.15	3.05	2.73	3.69	3.79	4.24	4.08	4.45	3.88	4.54	5.53	3.82
C	1.47	3.02	2.47	3.52	2.94	3.88	4.63	4.13	3.06	4.22	4.10	3.72
EC	1.28	2.81	2.25	2.95	2.13	3.51	2.76	3.38	3.46	3.86	3.61	3.42
SW	1.50	3.55	2.94	3.60	4.57	4.35	4.70	4.33	3.59	4.46	2.96	3.42
SC	1.45	3.47	3.18	3.40	2.55	4.19	4.16	4.07	2.54	4.24	3.22	3.51
SE	1.61	3.48	2.74	3.13	1.94	3.76	2.92	3.82	2.67	4.22	3.96	3.48
STATE	1.62	2.86	2.59	3.37	3.81	4.02	3.22	4.07	2.98	4.27	3.95	3.74

1/Preliminary estimates, 2005. * Normal is defined as the 30-year average for the years 1971-2000. Source: State Climatologist.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA

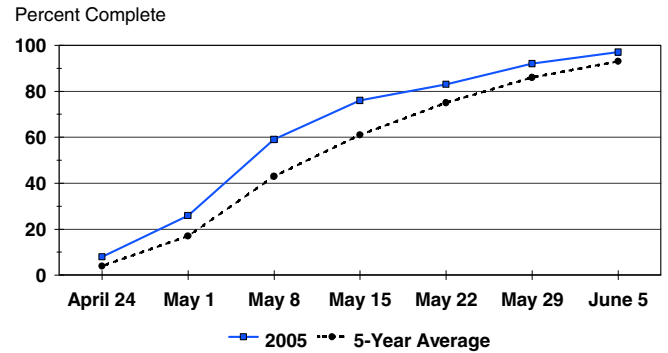
District	Average Temperature						Total Precipitation					
	June - September						April - September					
	Normal*	2001	2002	2003	2004	2005 1/	Normal*	2001	2002	2003	2004	2005 1/
	Degrees Fahrenheit						Inches					
NW	63.4	64.3	65.4	64.1	61.7	66.2	22.5	26.1	28.1	20.2	22.0	18.1
NC	61.9	63.0	64.5	62.9	61.2	65.7	22.2	24.1	28.3	19.6	20.0	17.5
NE	62.6	63.5	65.0	63.2	61.7	66.6	20.9	22.1	25.4	21.3	18.1	16.3
WC	66.2	66.9	68.7	67.1	65.0	69.4	23.8	27.6	27.4	18.4	27.9	22.2
C	65.7	66.3	68.0	66.1	64.4	69.1	22.5	27.0	25.2	19.7	24.6	18.7
EC	65.3	66.1	67.9	65.1	64.0	69.0	19.9	22.7	19.9	19.7	21.9	15.5
SW	67.0	66.7	69.0	67.3	65.5	70.3	23.7	30.4	24.5	19.1	27.7	20.3
SC	67.0	67.5	69.5	67.6	66.0	70.8	22.9	29.0	20.6	19.0	25.2	17.1
SE	67.0	67.4	69.5	66.7	65.5	70.8	21.9	25.8	22.3	16.3	24.0	15.8
STATE	64.7	65.3	67.0	65.2	63.4	68.1	22.3	26.0	25.5	19.5	23.1	18.2

1/Preliminary estimates, 2005. * Normal is defined as the 30-year average for the years 1971-2000. Source: State Climatologist.

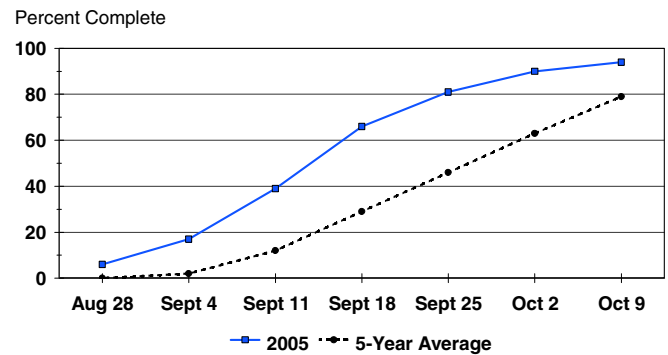
CORN

Corn planting started in mid-April in southern counties. On April 24 corn planting was at 8 percent planted, above the 5-year average of 4 percent. Planting progress advanced rapidly in southern districts, while northern producers were starting on light soils. Soil temperatures were a concern for producers. However, these concerns did not keep planters from racing forward. Corn planted progress reached 59 percent by May 8, higher than the 5-year average of 43 percent. The rapid pace can be attributed to higher temperatures and minimal rainfall. Rain fell during the middle of the month, slowing planting. At the end of May, planting was at 92 percent, compared to the 5-year average of 86 percent. While the corn was in the ground earlier than normal, a cool May impeded emergence and kept it to a near average rate. On May 8, only 3 percent of the crop was emerged, lower than the 5-year average of 5 percent. Soil temperatures continued to be a concern for producers, and the delayed emergence caused some corn to emerge yellow. Rains at the end of May and warmer weather during the first part of June pushed emergence to 94 percent by June 12, ahead of the 5-year average of 86 percent. A warm June bolstered corn growth. By July 3, the average corn height was at 40 inches, 13 inches taller than the 5-year average. Corn started tasseling by early July in southern Wisconsin. By the 24th of July, 46 percent of the corn was silking. At the same time, 29 percent of the crop was rated in very poor to poor condition. Rain received in the second half of July improved corn conditions. The two week period of July 18 to 31 saw between 0.86 to 4.39 inches across the state. While the precipitation may not have filled the soil profiles, it greatly benefited the crop during the critical pollination period. Pollination occurred earlier than normal. By the first week of August, 95 percent of the crop had silked, 19 percent above the 5-year average. Silage choppers were warmed-up by mid-August in southern reaches of the state, an early start compared to most years. Producers in northern counties started opening up fields by the 1st of September. Silage harvest advanced rapidly during the month of September, as farmers stayed ahead of the maturing crop. At the beginning of October, silage harvest was 90 percent complete, in front of the 5-year average of 63 percent. High moisture corn harvest started in central and southern areas of the state by mid-September. Corn for grain harvest progressed slowly during September, due to rain. By October 2, 10 percent of the crop had been harvested. October provided good harvest weather, with above average temperatures and minimal rainfall. Most high moisture corn was harvested by the middle of October. Dry corn harvest moved ahead, although there were reports of farmers letting the crop dry as much as possible in the field to save on drying costs. Corn harvest progress reached 57 percent by the end of the month, higher than last year's 38 percent and the 5-year average of 50 percent. Some areas experienced lodging due to high winds in November. Another issue for growers this fall was finding storage space for the corn crop. Yields were reported to be variable across the state and within counties. However, many stated that despite the dry summer, yields were better than expected. By November 20, corn harvested for grain was at 90 percent, compared to last year's 74 percent and the 5-year average of 86 percent.

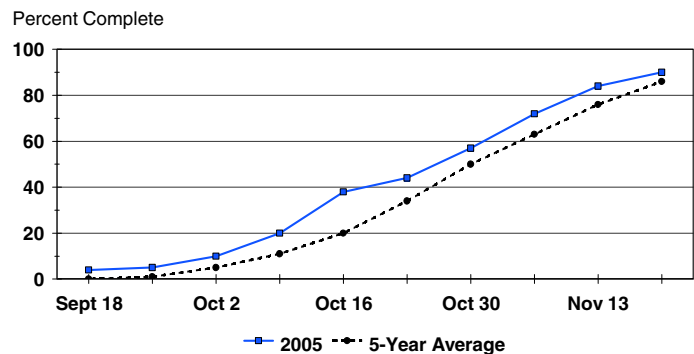
Corn Planted 2005 Wisconsin State Average



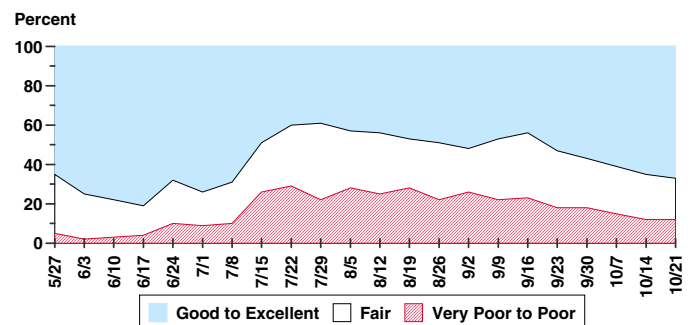
Corn Harvest for Silage 2005 Wisconsin State Average



Corn Harvest for Grain 2005 Wisconsin State Average



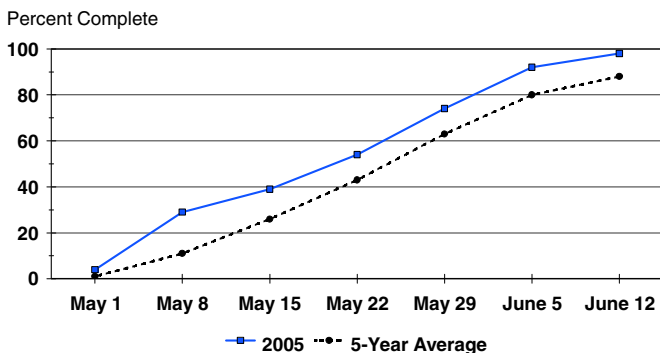
Corn Conditions 2005 Wisconsin State Average



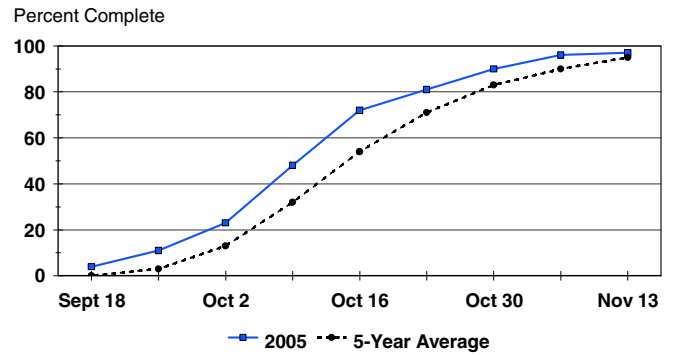
SOYBEANS

Soybean planting got started in late April. Warmer than normal temperatures encouraged farmers to get their planters moving. Soybeans planted on May 8 were at 29 percent, significantly over the 5-year average of 11 percent. Cooler weather in mid-May slowed emergence and put it slightly behind average. On May 22, soybeans emerged were at 11 percent, compared to the 5-year average of 13 percent. Soybean planting finished in the southeast district by the end of May, while other areas finished two weeks later. Most soybeans had emerged by the end of June in good condition. Early planted soybeans were blooming by the first of July, faster than recent history. In fact, on July 3 soybeans bloomed were at 17 percent, compared to none bloomed for the 5-year average. Plant stress started to become evident during the first few weeks of July as crop conditions declined. Aphids also became an issue in some areas. During the second week of July, they appeared in northern counties as other parts of the state began spraying for them. Aphids remained a problem for growers into August. Rain hit the state during the end of July, coming at the critical pollination phase. By July 31, soybeans bloomed reached 85 percent complete, ahead of the 5-year average of 65 percent. Soybeans started setting pods in mid-July, ahead of schedule. Pod development continued until August 28 when 97 percent of the crop had set pods. Pod development fared well in most areas, despite the dry weather. Beans on sandy ground showed the worst pod development, causing concern in these areas. Soybeans leaves began to change color in mid-August. Early planted beans started dropping leaves by the first of September. By September 4, soybeans dropping leaves was at 13 percent complete, higher than the 5-year average of 3 percent. September's warm weather helped the soybean crop mature at a rapid pace. Harvest started in southern districts by mid-September. The warm September left dry pods, but the high humidity and rain in October caused concerns over shatter loss in tough green stems. Harvest progressed through October with many farmers surprised with yields given the summer weather. Soybean harvest was rated at 90 percent complete on October 30, compared to the 5-year average of 83 percent. Harvest was completed by mid-November, as warmer than normal temperatures provided an ideal opportunity to get the last beans in the bin.

**Soybeans Planted
2005 Wisconsin State Average**



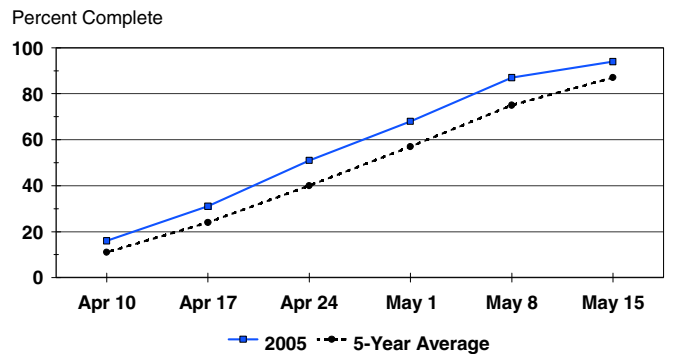
**Soybeans Harvested
2005 Wisconsin State Average**



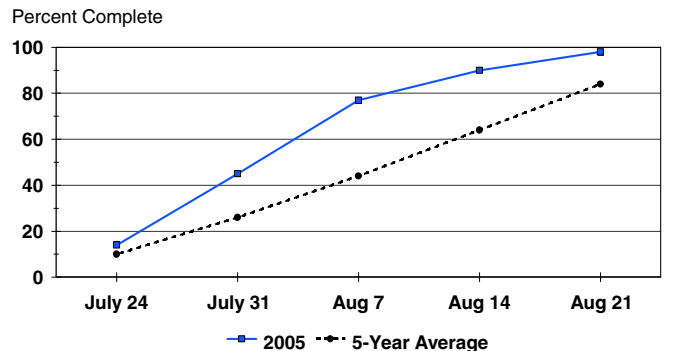
OATS

Oat planting started in early April with slow progress initially. Oats planted were at 31 percent by April 17, behind last year's 37 percent. Most of the opening activity was confined to the southwest district of the state, while only lighter soils could be planted in other areas. Oat planting finished in mid-May, at a near normal pace. Warm April temperatures helped oats get off to a good start with 27 percent emerged by May 1. Comparable to previous years, most oats had emerged by the end of May. Oats began to head during the first week of June. On June 12, oats headed was at 22 percent, above the 5-year average of 11 percent. Oats were completely headed-out by mid-July, and harvesting for grain started. Growers harvested grain at a rapid pace. Harvest was reported at 45 percent, ahead of the 5-year average of 26 percent on July 31. Oat harvest remained ahead of average with most acres cut by the middle of August.

**Oats Planted
2005 Wisconsin State Average**

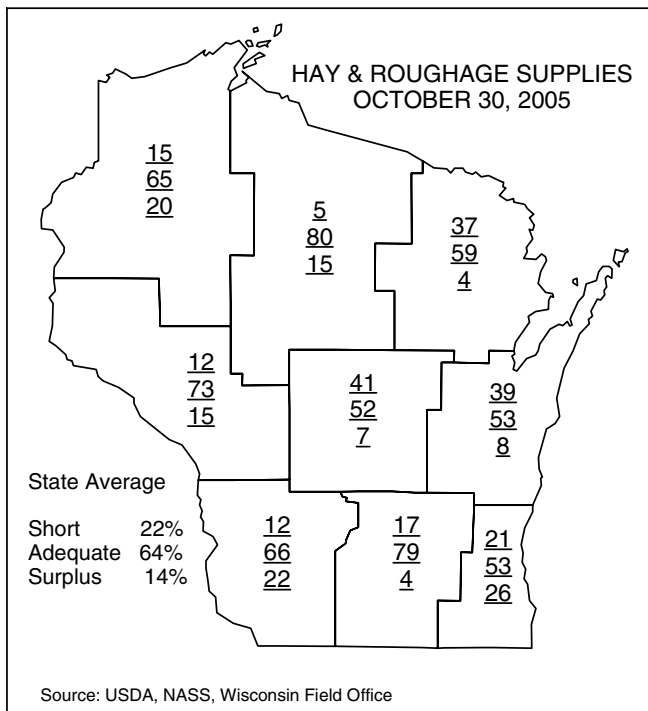


**Oats Harvested
2005 Wisconsin State Average**



HAY

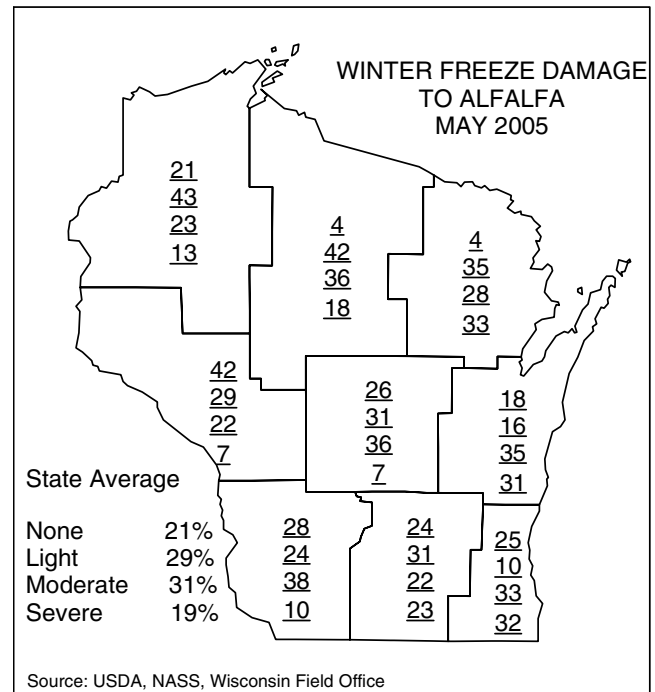
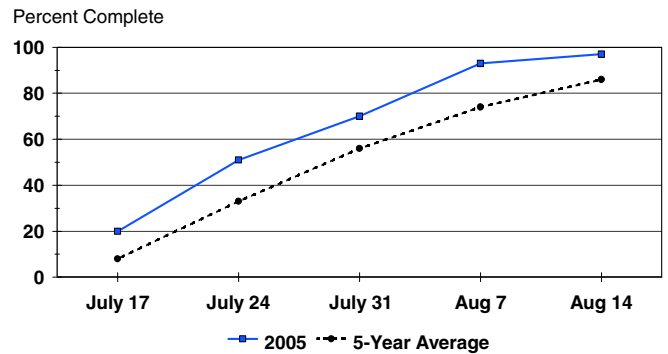
Alfalfa broke winter dormancy in early April with evident winterkill. Damage occurred more frequently in areas where ice formed during winter, in older stands, and in fields that were harvested late the previous fall. Recently established fields and ones without significant ice managed better. Winter damage influenced spring planting decisions for many producers. Producers plowed severely damaged fields to plant other forage crops. Winter freeze damage to alfalfa was rated as 21 percent none, 29 percent light, 31 percent moderate, and 19 percent severe. Freeze damage was more prevalent in the eastern districts. At the end of May, the first cutting of alfalfa was being harvested. Harvest progress was slower than normal, as only 8 percent of the crop had been cut, compared to the 5-year average of 12 percent. Fields that escaped winter damage had good quality, but average yields. By the first of July, most first crop hay had been harvested, and producers with an early harvest were starting on the second cutting. Second crop alfalfa was good quality, but short due to the dry summer. Second cutting hay was 95 percent complete by August 7, compared to the 5-year average of 88 percent. Third crop alfalfa harvest started in late July. Regrowth on the third crop was less than ideal, due to the lack of rain. At that time, leafhoppers and weeds in newer seedings became a problem for many farmers. August rains arrived to help growth on fourth crop alfalfa. Farmers in limited locations were harvesting their fourth cutting of alfalfa by the end of August. Those that caught timely rains were able to harvest a good crop. Temperatures in September were warmer than average allowing for a long harvest window. By October 23, about 80 percent of the fourth crop was harvested, ahead of the 5-year average of 76 percent. Winter freeze damage and dry summer conditions impacted forage production on many farms. Farmers that were fortunate enough to receive timely rains were able to produce adequate forage supplies. At the end of the growing season, hay and roughage supplies were rated at 22 percent short, 64 percent adequate, and 14 percent surplus.



WINTER WHEAT

Winter wheat broke dormancy in early April and got off to a good start with warm temperatures and rain. However, winter wheat was damaged by ice during the winter. Winter freeze damage to winter wheat was rated as 25 percent none, 29 percent light, 36 percent moderate, and 10 percent severe. A warm and dry June pushed the wheat crop ahead of an average growing season. Most of the crop was headed-out by mid-July, with many fields turning color by the first of July. Harvest began in July, and by the end of the month 70 percent was done, well in front of last year's 44 percent and the 5-year average of 56 percent. By mid-August wheat harvest was wrapping up in the state.

**Winter Wheat Harvested
2005 Wisconsin State Average**



VEGETABLES

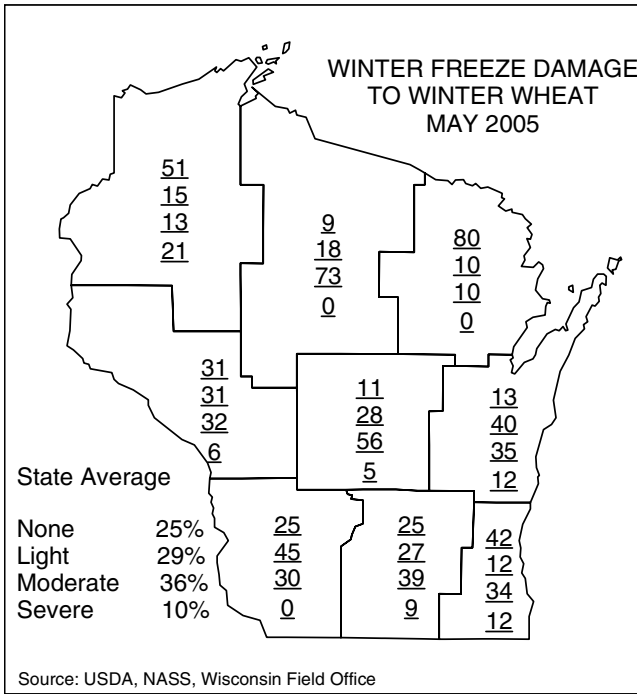
Potatoes were being planted in early April by the few growers in central areas of the state that could find dry fields. At the end of April, central and southern areas were planting potatoes and peas. After conditions warmed in northern counties in early May, producers there began planting potatoes. Early planted potatoes were emerging by the middle of May and looked good. At the same time, snap bean planting started. Snap beans and peas emerged in early June and appeared to be in good shape after the warm spring. In July, non-irrigated vegetables were hurt due to heat stress and the lack of rain. Some growers abandoned fields due to the weather. Sweet corn, snap beans, peas, and cucumbers were being harvested at the end of July. Harvest of these crops was close to completion by the first week of September. Potato harvest started in late August and continued into October.

FRUIT

Fruit trees were being pruned in the southwest corner of the state in early April. At the end of the month, apple, pear, and plum trees began to bloom. Frost hit during the first week of May as low temperatures reached the 20s and 30s. The May frost damaged fruit buds and decreased yield potential. The dry, hot summer may have impacted fruit size. Dry weather reduced disease pressures on the cherry crop. The strawberry season was short due to warm weather. Apple harvest started in early September, with some later maturing varieties not being harvested until November. White cranberries were harvested in mid-September. Above average temperatures in the fall caused some issues with cranberry color. Cranberry harvest was slightly behind normal as progress did not intensify until mid-October. After the first two weeks of November, most areas had completed cranberry harvest.

MAPLE SYRUP

Maple syrup production was impacted by the rapid spring warm-up. Warmer temperatures in western areas reduced yield potential. Weather was more favorable in southern and eastern parts of the state, where yields were reported as average. The syrup season was completed by the first week of April.



PASTURES

Damp spring weather helped pastures have a great start. As of April 22, pasture conditions were rated as 60 percent good to excellent. Periodic rain showers throughout May brought pasture conditions to 55 percent good to excellent by the end of the month. Dry summer weather impacted pastures across the state. With little rain and hot temperatures, pasture conditions took a turn for the worse. By mid-July, only 19 percent of pastures were rated good to excellent. Light rainfall during August and September helped improve pasture conditions to 35 percent good to excellent by September 30. While several rain showers hit the state during the remainder of the fall, pastures did not improve. Pastures were rated 38 percent good to excellent in the first week of November.

**Pasture Conditions
2005 Wisconsin State Average**

