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Early morning in Lincoln, NE - Photo by Ken Dewey  
<http://www.nebraskaweatherphotos.org>

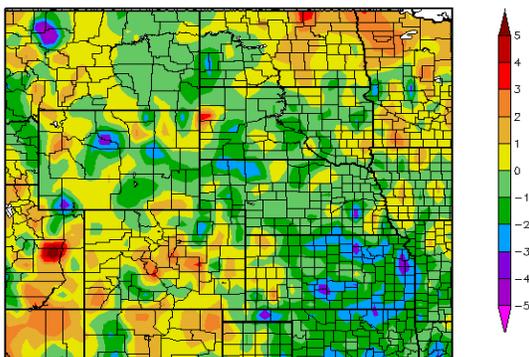
# October 2008 Climate Summary

## Region Breakdown

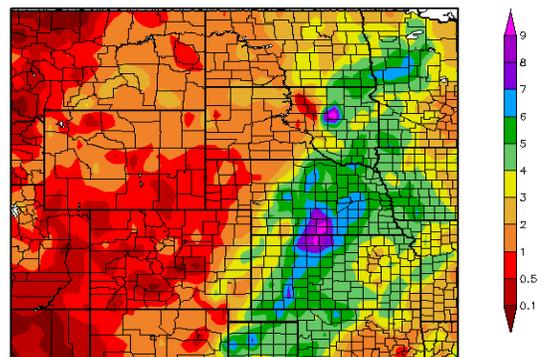
Temperatures were cooler than normal across the region for much of October 2008. Highlighted locations include Manhattan Municipal Airport, Kansas and Hutchinson, KS. Manhattan Municipal Airport recorded their 3rd lowest average monthly temperature for October with 55.4°F. Hutchinson, Kansas recorded its 4th lowest average monthly temperature for October at 56.7°F and also its 3rd wettest October with 4.32" of precipitation. A large swath of Kansas, Nebraska, South Dakota, and North Dakota reported precipitation totals which were over 200% of normal precipitation with portions of Kansas and Nebraska exceeding 400% of normal. Many daily and monthly precipitation records were broken and this excessive precipitation also prompted flood warnings in many counties.

Interestingly, this wet and cool month ended dry and warm across the high plains region which allowed fall harvesting to increase in intensity. This is a notable difference from earlier weeks where widespread precipitation and late maturing crops slowed harvest progress.

Departure from Normal Temperature (F)  
10/1/2008 - 10/31/2008



Precipitation (in)  
10/1/2008 - 10/31/2008



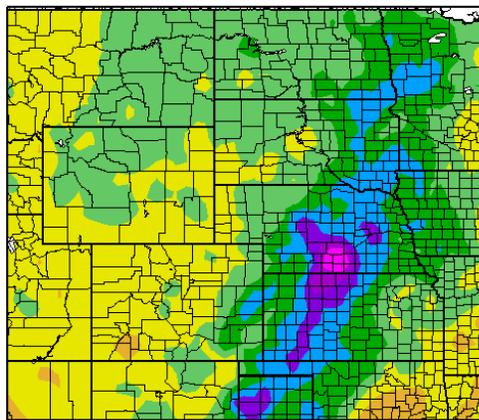
Departure from 1971-2000 Normal Mean Average Temperature (left) and Total Precipitation (right) for October 2008 in the High Plains Region. Map by High Plains Regional Climate Center. Available at: <http://hprcc.unl.edu/maps/current>

# Precipitation Summary

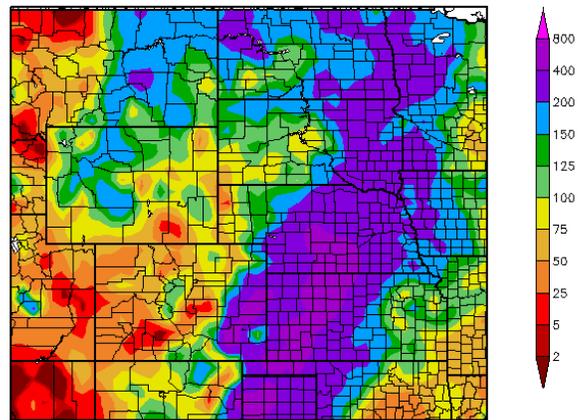
With the only exceptions being portions of Wyoming and Colorado, October 2008 was wet with most of the region receiving ample precipitation. This precipitation was welcome as it helped alleviate drought conditions in a number of locations. According to the Drought Monitor, drought conditions have improved in South Dakota, western North Dakota, and across the Colorado-Kansas border.

Extremes in monthly precipitation across the region include La Junta Municipal Airport in Colorado which received 3.38 inches (85.9 mm) of precipitation or 537% of normal, Lenora, KS which received 7.67 inches (194.8 mm) of precipitation or 619% of normal, and Minden, NE which received 11.64 inches (295.7 mm) of precipitation or 761% of normal. This was the wettest October on record for Minden whose previous October total precipitation record of 7.34 inches (186.4 mm) was set back in 1897. Another wet location was Kearney, NE which also recorded its all-time wettest October on record with 9.36 inches (237.7 mm). The total precipitation for the year for Kearney is currently 35.63 inches (905.0 mm) and this already ranks as the 4th wettest year ever recorded, even with two months remaining in the year.

Departure from Normal Precipitation (in)  
10/1/2008 - 10/31/2008



Percent of Normal Precipitation (%)  
10/1/2008 - 10/31/2008



Above (left): Departure from Normal Precipitation (using 1971-2000 Normals) for October 2008 in the High Plains Region.

Above (right): Percent of Normal Precipitation (using 1971-2000 Normals) for October 2008 in the High Plains Region.

These maps are produced by HPRCC and can be found on the Current Climate Summary Map page at: <http://hprcc.unl.edu/maps/current>.

## Highlights of Monthly Precipitation Records Broken during October 2008\*

Precipitation Amounts in Inches

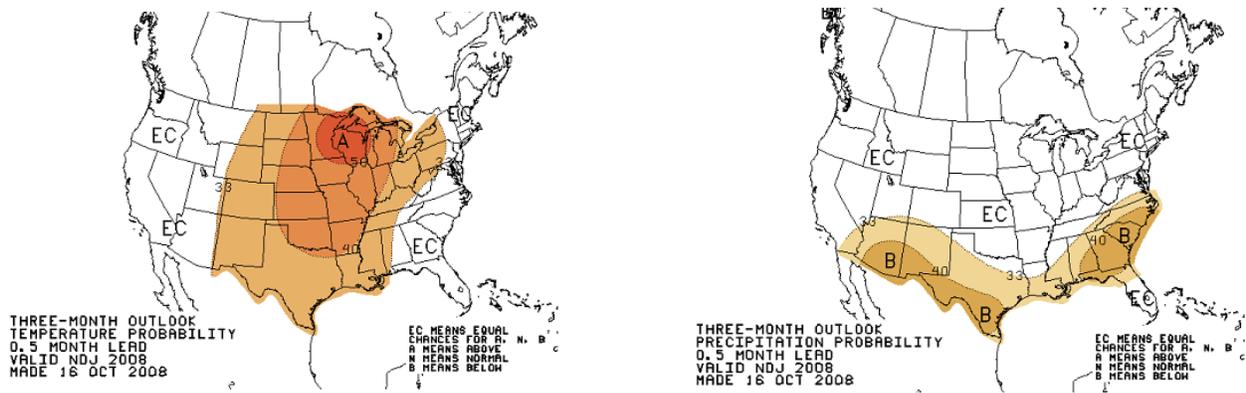
Location	Old Record	Year	New Record
Minden, NE	7.34	1897	11.64
Kearney, NE	6.30	1946	9.36
Franklin, NE	5.42	2002	8.42
Smith Center, KS	5.54	1959	7.92
York, NE	6.02	1928	7.31
Alton, KS	4.26	1986	7.05
Plainville, KS	4.26	1969	6.41

\*Records are preliminary, and are taken from local National Weather Service Office Record Event Reporter summaries. For records information updated on a daily basis from the National Weather Service, please see: <http://www.weather.gov/climate>

\*Some records may be missing from this report

# Climate Outlook

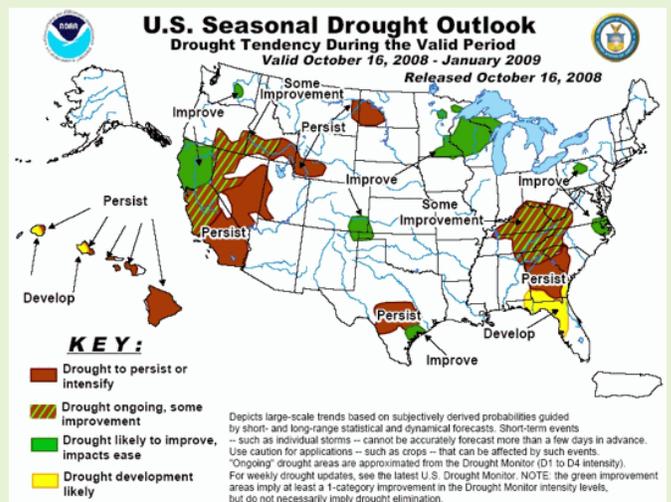
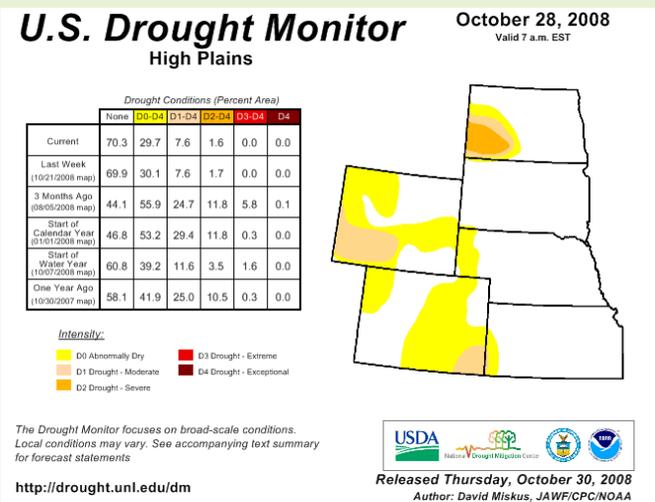
ENSO conditions remain neutral and are expected to persist into early 2009. NOAA forecasters are predicting chances of above normal temperatures for the entire High Plains region during the months of November – January. Equal chances of above, near, or below normal precipitation conditions exist for all but a portion of extreme southern Colorado where there are chances for below normal precipitation. This outlook is produced by scientists at the NOAA Climate Prediction Center. More information can be found here: <http://www.cpc.ncep.noaa.gov/>.



Above: 3-Month Outlook Maps Courtesy the NOAA Climate Prediction Center - <http://www.cpc.ncep.noaa.gov>  
 (left) The Three-Month Temperature Probability Outlook showing a higher probability of above normal temperatures for the entire High Plains region.  
 (right) The Three-Month Precipitation Probability Outlook showing equal chances of above, near, or below normal precipitation for most of the High Plains region except for extreme southern Colorado where a higher probability of below normal precipitation exists.

## Drought Watch

Drought conditions have improved across South Dakota due to copious amounts of precipitation this month. Drought conditions have also improved across western North Dakota where areas of extreme drought (D3) have been downgraded to severe drought (D2). Areas across the Colorado-Kansas border have been downgraded to moderate drought (D1). According to the U.S. Seasonal Drought Outlook, this area is forecast to improve; however, drought will persist across southwest Wyoming and western North Dakota.



The U.S. Drought Monitor is produced as a joint effort of the U.S. Department of Agriculture (USDA), National Drought Mitigation Center, U.S. Department of Commerce and the National Oceanic and Atmospheric Administration (NOAA). Real-time data provided through ACIS from the NOAA Regional Climate Centers is often used by the agencies involved in the U.S. Drought Monitor when determining the area and intensity of drought conditions, although the product itself is not produced by HPRCC. For current Drought Monitor information, please see: <http://www.ndmc.unl.edu/dm/monitor.html>  
 Portions of this Drought Watch are courtesy the Drought Monitor Text Discussion found on the Drought Monitor webpage.

## State Summaries

Colorado	Temperatures (degrees F)								Precipitation (inches)		
	Averages				Extremes				Totals		
	Max	Min	Mean	Depart	High	Date	Low	Date	Obs	Depart	% Norm
Alamosa San Luis Airport	63.7	24.0	43.8	1.0	75	10/01	4	10/23	0.85	0.18	127
Akron Washington County Airport	65.5	38.0	51.8	0.8	81	10/02	22	10/27	1.02	0.12	113
Colorado Springs Municipal Airport	65.5	36.2	50.9	2.0	78	10/03+	22	10/27	0.14	-0.72	16
Grand Junction Walker Field Airport	68.3	38.9	53.3	0.6	86	10/01	23	10/23	0.11	-0.89	11
Pueblo Memorial Airport	70.7	34.1	52.4	0.0	84	10/03	18	10/23	0.66	0.02	103

Kansas	Temperatures (degrees F)								Precipitation (inches)		
	Averages				Extremes				Totals		
	Max	Min	Mean	Depart	High	Date	Low	Date	Obs	Depart	% Norm
Concordia Municipal Airport	66.9	42.9	54.9	-1.1	82	10/04	22	10/28	3.68	1.84	200
Dodge City Regional Airport	69.5	44.8	57.1	0.0	92	10/04	28	10/27	5.00	3.55	345
Goodland Renner Field	66.0	38.3	52.2	0.4	82	10/04	23	10/27	4.28	3.23	408
Topeka Municipal Airport	68.5	44.4	56.4	-0.2	82	10/05	25	10/28	3.99	1.00	133
Wichita Mid-Continent Airport	69.4	45.9	57.6	-1.0	83	10/05+	26	10/28	4.03	1.58	164

Nebraska	Temperatures (degrees F)								Precipitation (inches)		
	Averages				Extremes				Totals		
	Max	Min	Mean	Depart	High	Date	Low	Date	Obs	Depart	% Norm
Chadron Municipal Airport	63.9	32.1	48.0	-0.9	82	10-18	13	10/27	1.05	0.00	100
Grand Island Airport	64.3	40.1	52.2	0.2	78	10/05+	24	10/28+	5.99	4.48	397
Lincoln Municipal Airport	66.9	42.0	54.4	0.9	84	10/05	22	10/28	4.79	2.85	247
Omaha Eppley International Airport	65.1	44.2	54.6	1.5	84	10/05	26	10/28	4.55	2.34	206
Norfolk Karl Stefan Airport	62.9	39.3	51.1	0.1	80	10/05	21	10/28	5.14	3.42	299
North Platte Regional Airport	63.8	34.3	49.0	-0.6	81	10/19	16	10/27	4.78	3.54	385
Valentine Miller Field	62.3	35.7	49.0	0.7	81	10/18	17	10/27	1.98	0.76	162

North Dakota	Temperatures (degrees F)								Precipitation (inches)		
	Averages				Extremes				Totals		
	Max	Min	Mean	Depart	High	Date	Low	Date	Obs	Depart	% Norm
Bismark Municipal Airport	58.6	32.8	45.7	0.5	76	10/02	19	10/28+	1.73	0.45	135
Dickinson Municipal Airport	57.6	31.3	44.4	-0.9	78	10/29+	11	10/27	1.27	-0.07	95
Fargo International Airport	56.1	37.2	46.7	1.4	74	10/02	24	10/28	4.46	2.49	226
Grand Forks International Airport	56.0	35.4	45.7	1.4	72	10/30	22	10/28+	4.20	2.50	247
Williston International Airport	56.7	30.4	43.6	0.0	79	10/04+	15	10/27	1.89	1.02	217

All Data are Preliminary and Subject to Change.

Source: National Weather Service Cooperative Observation Network Data

Data are retrieved through the Applied Climate Information System (ACIS).

These data are available for the entire period of record through the CLIMOD system. For more information please see <http://hprcc.unl.edu/services>.

# October 2008 Climate Summary

South Dakota	Temperatures (degrees F)								Precipitation (inches)		
	Averages				Extremes				Totals		
	Max	Min	Mean	Depart	High	Date	Low	Date	Obs	Depart	% Norm
Aberdeen Regional Airport	57.3	34.6	46.0	-0.9	76	10/02	18	10/28	4.75	3.12	291
Huron Regional Airport	--	--	--	--	--	--	--	--	--	--	--
Rapid City Regional Airport	60.8	32.9	46.9	-1.3	80	10/18	16	10/27	1.47	0.10	107
Sioux Falls Joe Foss Field Airport	60.8	38.1	49.5	1.5	76	10/10	22	10/28	5.43	3.50	281

Wyoming	Temperatures (degrees F)								Precipitation (inches)		
	Averages				Extremes				Totals		
	Max	Min	Mean	Depart	High	Date	Low	Date	Obs	Depart	% Norm
Casper Natrona County International AP	59.8	29.9	44.8	-0.9	80	10/02+	17	10/27+	1.58	0.44	139
Cheyenne Airport	60.0	33.6	46.8	1.4	75	10/02	20	10/27	0.57	-0.18	76
Lander Hunt Field Airport	56.7	32.4	44.5	-1.8	80	10/01	11	10/13	2.21	0.84	161
Laramie Regional Airport	58.5	27.1	42.8	0.9	74	10/01	4	10/23	0.18	-0.62	22
Rawlins Municipal Airport	--	--	--	--	--	--	--	--	--	--	--
Sheridan County Airport	61.0	30.3	45.6	0.5	82	10/02+	14	10/27	1.53	0.12	109

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## Update to High Plains Regional Climate Center Website Upcoming Events Page

The High Plains Regional Climate Center has recently added a new page to their website. This new Upcoming Events page can be found on our homepage and lists weather and climate events across the region, many of which are free and open to the public. Check the Upcoming Events page regularly as it is updated on a weekly basis.

If you are organizing an event that you would like to see featured on our Upcoming Events page, please feel free to contact us with your information.

Contact information:

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<http://hprcc.unl.edu/events.php>

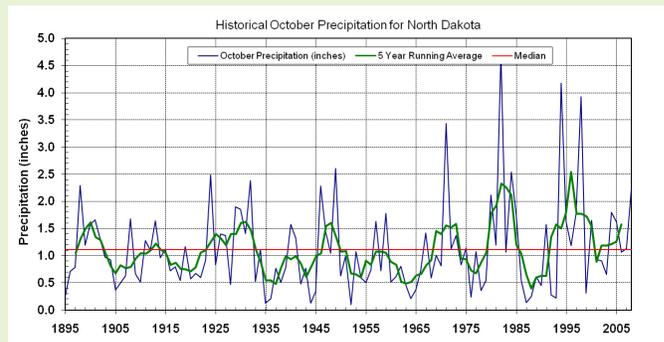
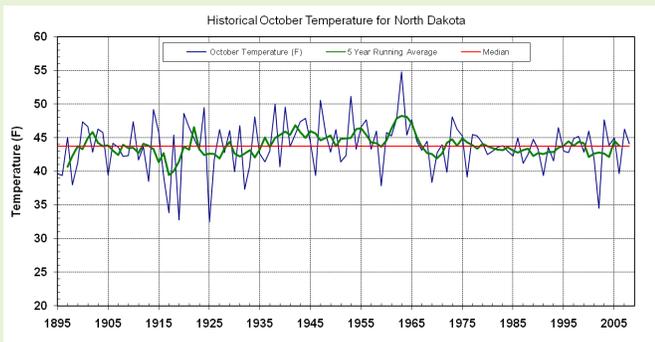
# State Spotlight - North Dakota



**Barb Mullins**  
 North Dakota State Climate Office, North Dakota State University

The North Dakota (ND) state average precipitation was 2.24 inches which was above to the 1971-2000 normal state average of 1.41 inches. October 2008 state average precipitation ranked the 11th wettest in the past 114 years with a maximum of 4.71 inches in 1982 and a minimum of 0.10 inches in 1952. The October precipitation percent of normal was normal to above normal with a general range of around 100% to 200% for the western half of ND. The precipitation percent of normal was above normal in the eastern half of the state with a general range of 150% to 300%. The south east corner of the state had the greatest amount of rainfall with greater than 300% of normal precipitation. The highest rainfall event was on the 10th in which the top four daily rainfall totals were reported from the North Dakota Agricultural Weather Network (NDAWN). The totals were 2.28" at Wyndmere, 2.17" at Wahpeton, 2.01" at Oakes, and 1.83" at Ekre, all of which are located in the south east corner of the state. The precipitation event from the 10th through the 13th included snowfall in the western third of the state. National Weather Service (NWS) reported that Williston had a record snowfall of 7 inches on the 12th which broke the previous record of 0.5 inches set in 1899.

The state average air temperature was 44.1 °F which is slightly above the 1971-2000 normal of 43.6°F. October 2008 state average air temperature ranked the 60th coolest in the past 114 years with a maximum of 54.8°F in 1963 and a minimum of 32.5°F in 1925. The October departure from normal temperatures ranged from around -1°F below normal in the south west corner to about 3°F above normal in the north east. The northern third of the state had October average temperatures in the low 40's. The lower two-thirds of the state had average October temperatures in the mid40's. By mid October most of the state had experienced a killing frost. All areas received a killing frost on the 27th when minimum air temperatures ranged from 11°F in the west to 27°F in the east.



# About the High Plains Regional Climate Center

The High Plains Regional Climate Center (HPRCC) operates out of the University of Nebraska - Lincoln (UNL) in Lincoln, Nebraska. As one of 6 regional climate centers operated under the National Oceanic and Atmospheric Administration (NOAA), HPRCC works closely with other organizations such as the National Climatic Data Center (NCDC), Local and Regional National Weather Service (NWS) Offices, and other climate services organizations such as the National Drought Mitigation Center (also located at UNL) to provide climate data services and specialized climate products.

## For More Information Online

High Plains Regional Climate Center: <http://hprcc.unl.edu>

High Plains Regional Climate Services: <http://hprcc.unl.edu/services>

CLIMOD: <http://climod.unl.edu>

NOAA Regional Climate Centers and ACIS: <http://www.rcc-acis.org>

National Weather Service: <http://www.weather.gov>

National Climatic Data Center: <http://ncdc.noaa.gov>

University of Nebraska - Lincoln: <http://www.unl.edu>

National Drought Mitigation Center: <http://drought.unl.edu>

Climate Prediction Center: <http://www.cpc.noaa.gov>

NOAA Storm Prediction Center: <http://www.spc.noaa.gov>



Photo of the Nebraska Sandhills by Bill Sorensen - Senior Programmer - HPRCC

## Author Information

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