

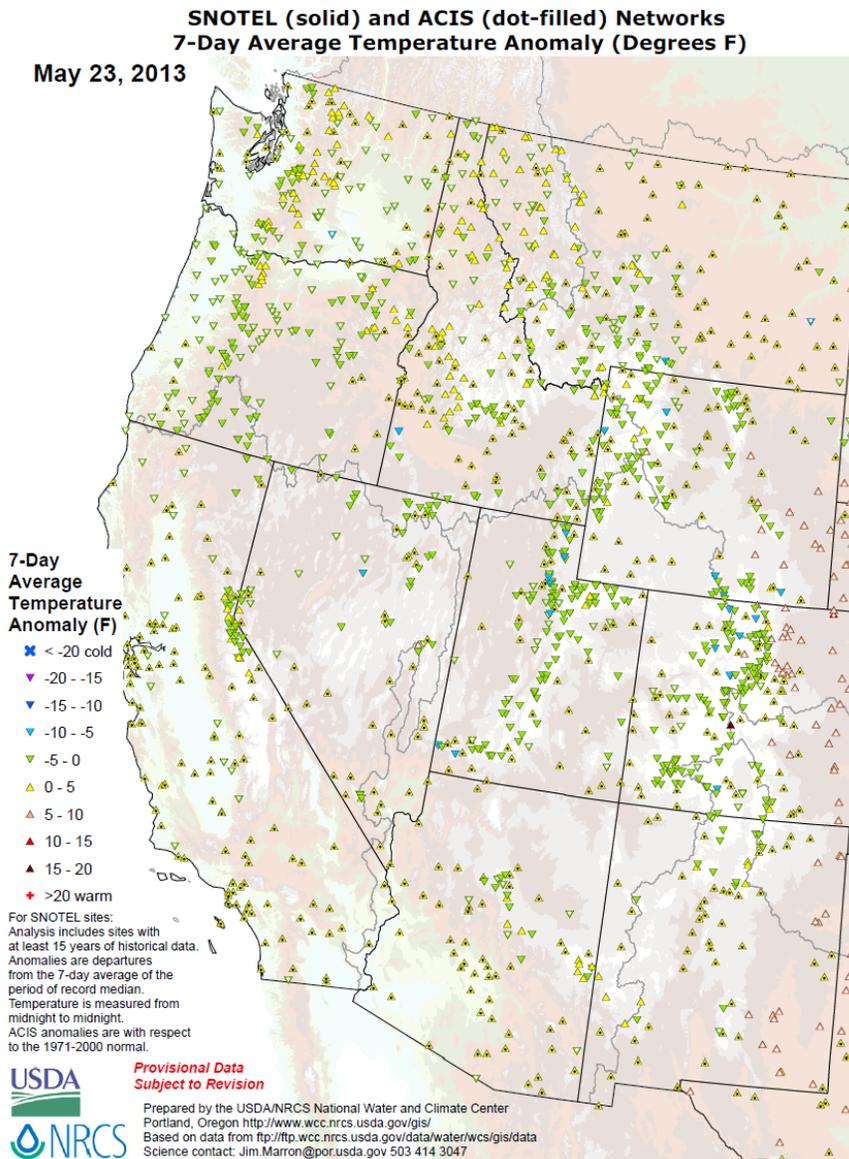


Natural Resources Conservation Service  
P.O. Box 2890  
Washington, D.C. 20013

Weekly Snowpack / Drought Monitor Update, 23 May 2013

**SNOTEL SNOWPACK AND PRECIPITATION SUMMARY**  
(Most figures are clickable to enlarge and update)

Temperature



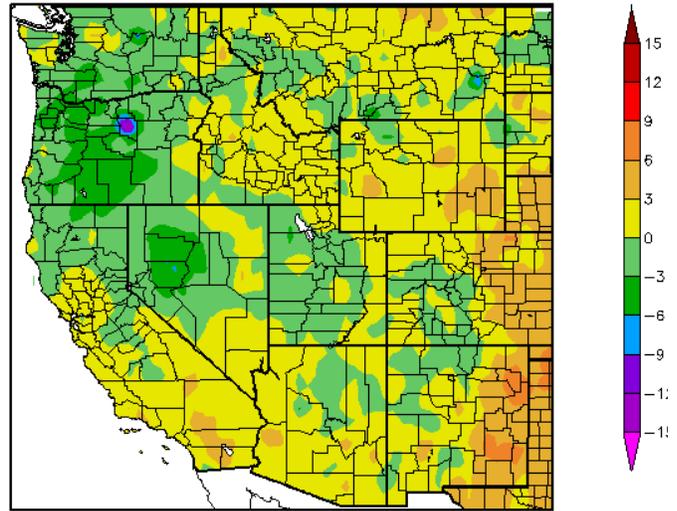
[SNOTEL](#) and ACIS 7-day temperature anomaly ending today reveals temperatures within  $\pm 5^{\circ}$  across much of the West. Warmer departures were experienced across the high plains.

## Weekly Snowpack and Drought Monitor Update Report

[ACIS 7-day](#) average temperature anomalies show the greatest positive temperature departures over the eastern plains of New Mexico (>+6°F). The greatest negative departures occur over isolated areas in the Great Basin and north-central Oregon (<-6°F). This map currently does not use SNOTEL data, but is expected to later this summer.

For more figures, see the Western Water Assessment's Intermountain West Climate [Dashboard](#). See the [Westwide Drought Tracker](#) for more related maps.

Departure from Normal Temperature (F)  
5/16/2013 – 5/22/2013



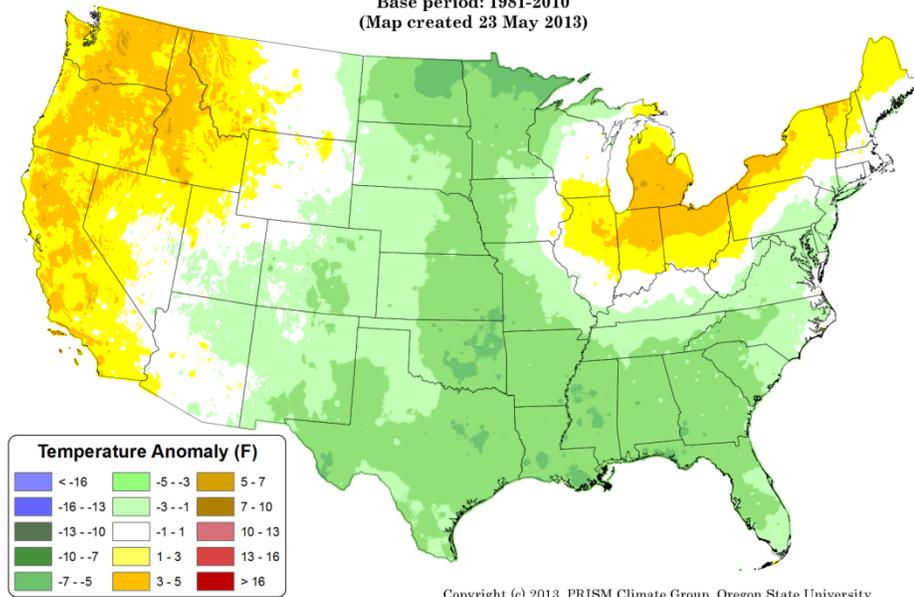
Generated 5/23/2013 at HPRCC using provisional data.

Regional Climate Center

This new, preliminary [PRISM](#) temperature map, updated daily, will be readily available to the public at no cost by early fall. It contains all available network data, including SNOTEL data, and will be updated periodically as additional data become available and are quality controlled.

In this current map, the Pacific Northwest and California are experiencing a very warm May (as are the Great Lakes States and northern New England), whereas the eastern Rockies and Great Plains are seeing cooler than normal temperatures.

Daily Mean Temperature Anomaly: 01 May 2013 - 22 May 2013  
Period ending 7 AM EST 22 May 2013  
Base period: 1981-2010  
(Map created 23 May 2013)



Copyright (c) 2013, PRISM Climate Group, Oregon State University

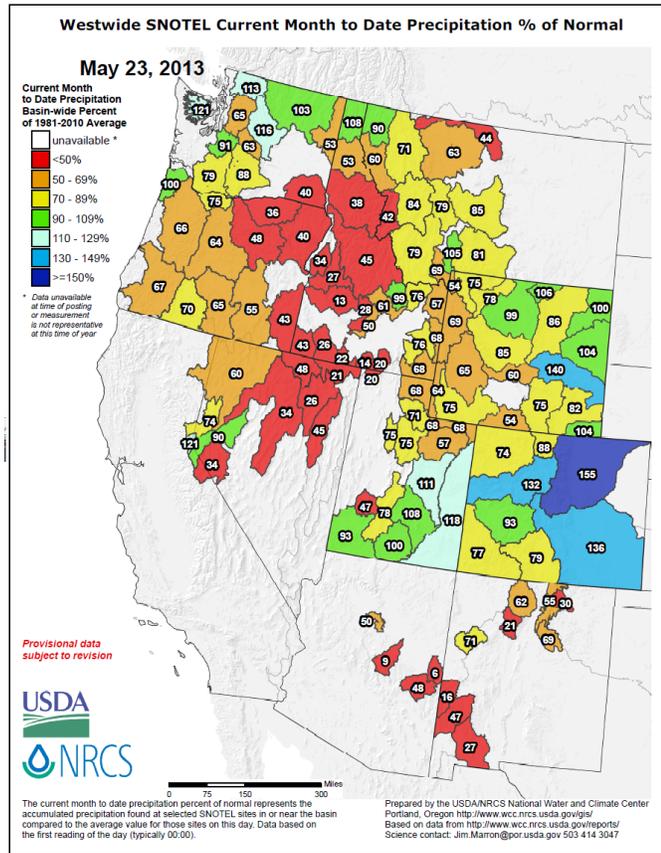
Temperatures in the central region of the country have modified significantly during the past week.

# Weekly Snowpack and Drought Monitor Update Report

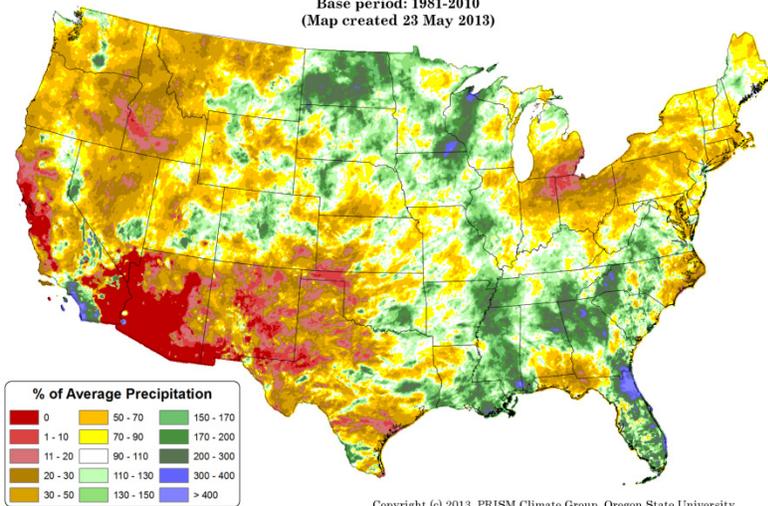
## Precipitation

SNOTEL [month to date](#) precipitation percent of normal pattern shows significant precipitation across parts of the northern Cascades and northern Sierra Nevada, the southeastern half of Utah, and much of central and eastern Colorado.

With the exception of near normal values over the northernmost Rockies, parts of northeastern Wyoming, and southwestern Utah, the remainder of the West is experiencing a dry month with large deficits.



**Total Precipitation Anomaly: 01 May 2013 - 22 May 2013**  
 Period ending 7 AM EST 22 May 2013  
 Base period: 1981-2010  
 (Map created 23 May 2013)



This new, preliminary [PRISM](#) precipitation map, updated daily, will be available to the public by early fall.

It contains all available network data, including SNOTEL data, and will be updated periodically as additional data become available and are quality controlled.

In this current map, higher than normal amounts of precipitation have occurred from southern California northeastward through Utah and Colorado.

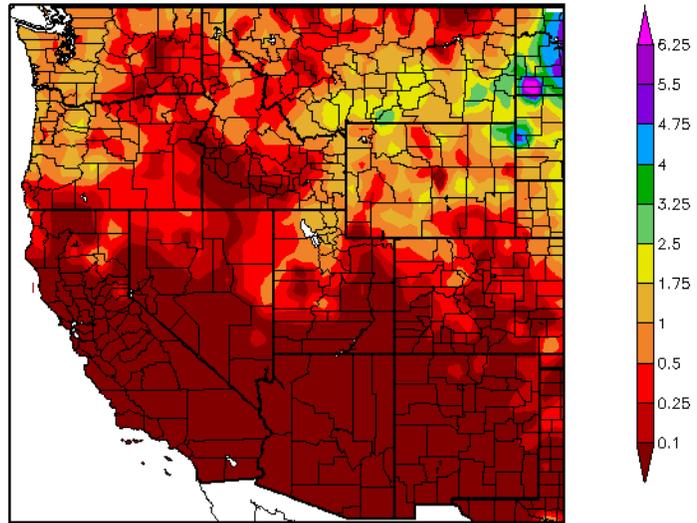
Thus far for May, the lack of moisture is apparent over the Pacific Northwest through Montana and southwest to Arizona and New Mexico. The unusual occurrence of light precipitation over southern California reflects the statistical anomaly shown (blue).

## Weekly Snowpack and Drought Monitor Update Report

[ACIS](#) 7-day average precipitation amounts for the period ending May 22 show the heaviest precipitation across the northern tier states of the West; especially over eastern Montana and northeast Wyoming. The southern tier saw little rainfall.

This map currently does not use SNOTEL data, but is expected to later this summer.

Precipitation (in)  
5/16/2013 – 5/22/2013



Generated 5/23/2013 at HPRCC using provisional data.

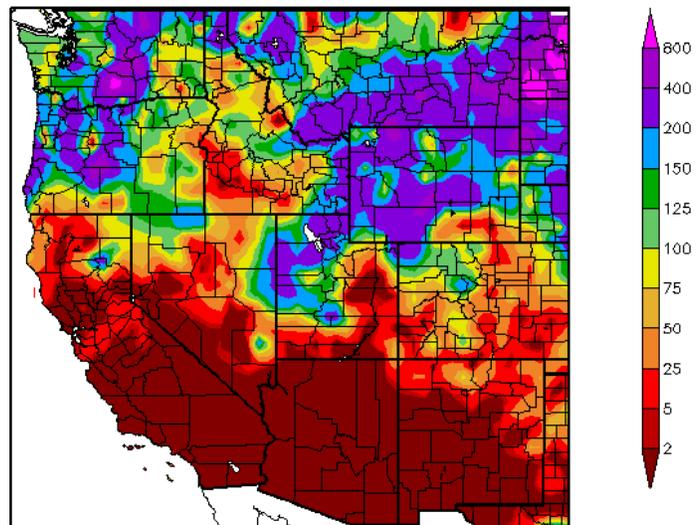
Regional Climate Center

In this map, moisture is reflected in terms of very high percent of normal values over all but the southern tier states.

Note the gap in rainfall over the Snake River in the southwest region of Idaho.

This map currently does not use SNOTEL data, but is expected to later this summer.

Percent of Normal Precipitation (%)  
5/16/2013 – 5/22/2013



Generated 5/23/2013 at HPRCC using provisional data.

Regional Climate Center

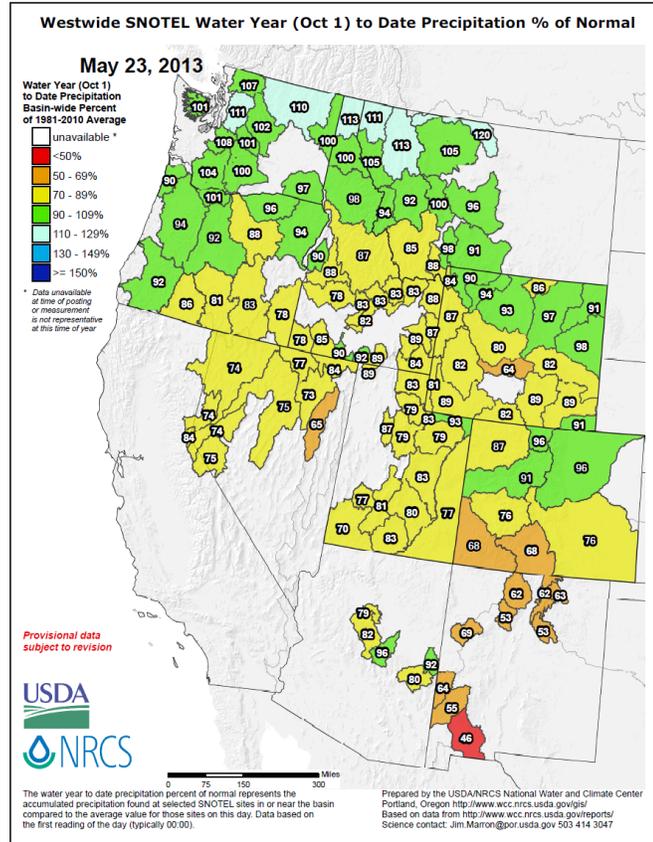
# Weekly Snowpack and Drought Monitor Update Report

For the [2013 Water Year](#) that began on 1 October 2012, the pattern continues to resemble La Niña (e.g., wetter northern tier).

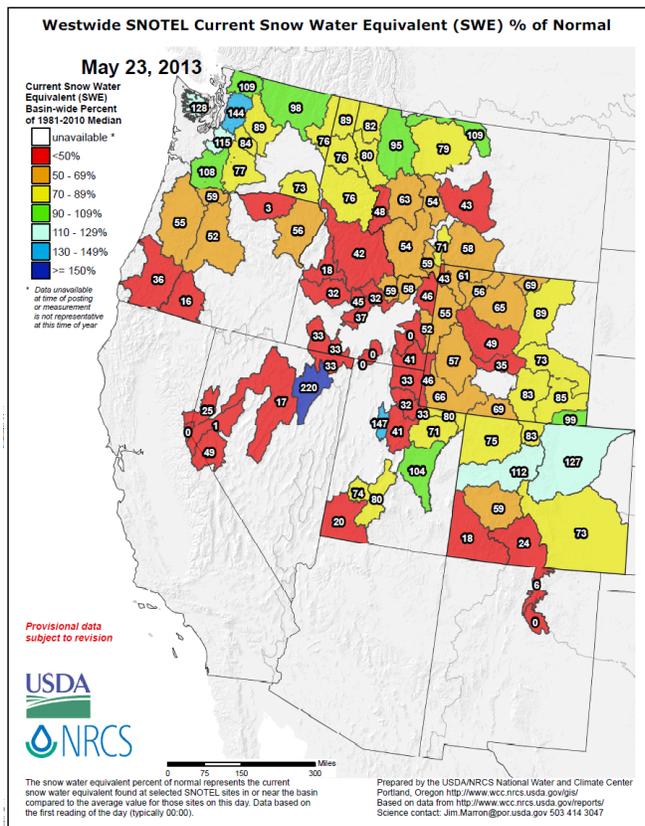
Parts of Arizona are still the exception for the southern tier with near normal amounts. Southeastern Oregon and northern Nevada have bucked this tendency over the northern tier states with lesser precipitation. Southwestern Colorado and all of New Mexico are experiencing considerable deficits.

In New Mexico, the past two years are the driest on record (e.g., since 1895).

For additional information, daily reports by SNOTEL sites are available [here](#).



## Snow



**Snow-Water Equivalent (SWE):** Today's map shows high values holding in parts of Washington and northern Colorado.

Caution should be exercised when using SWE values this late into the season. Actual small values of snow can mislead statistics when there is usually no measurable snow cover.

A useful basin-by-basin assessment of SWE to date can be viewed by state [here](#) and [here](#).

## Weekly Snowpack and Drought Monitor Update Report

### WEATHER AND DROUGHT SUMMARY

The following **Weather and Drought Summary** is provided by this week's NDMC Author: [Brad Rippey, U.S. Department of Agriculture](#)

**Weather Summary:** “For several days in mid-May, corn planting and other Midwestern fieldwork accelerated in advance of a developing storm. Producers planted 43% of the U.S. corn crop during the week ending May 19, tying a weekly record set from May 4-10, 1992. However, heavy rain eventually overspread the northern Plains and Midwest, halting planting progress but providing further drought relief or eradication. The same storm responsible for the rain in the north-central U.S. contributed to a multi-day severe weather outbreak. Iowa's longest stretch without a tornado (359 days from May 25, 2012, to May 18, 2013) ended when several twisters were spotted on May 19. Previously, Iowa's longest spell of tornado-free weather lasted 355 days in 1955-56. One day after Iowa's tornadoes, tragedy struck Moore, Oklahoma, on May 20 in the form of a devastating EF-5 twister—the nation's first category five event since a similarly powerful tornado struck El Reno, Oklahoma, on May 24, 2011.

Several days of warmth preceded the storm across the western and central U.S. On May 14, a phenomenal surge of heat reached the central Plains and western Corn Belt, resulting in several monthly record highs and widespread readings above 100°F. Later, triple-digit heat developed and persisted in the south-central U.S. In addition, rainfall largely bypassed the southern High Plains, resulting in further deterioration in the condition of rangeland, pastures, and winter wheat. Hot, mostly dry weather also prevailed from California into the Southwest. Farther north, however, scattered showers provided beneficial moisture for crops and pastures in the Northwest. More significant precipitation dampened the northern Intermountain West, particularly across portions of Wyoming and southern Montana.

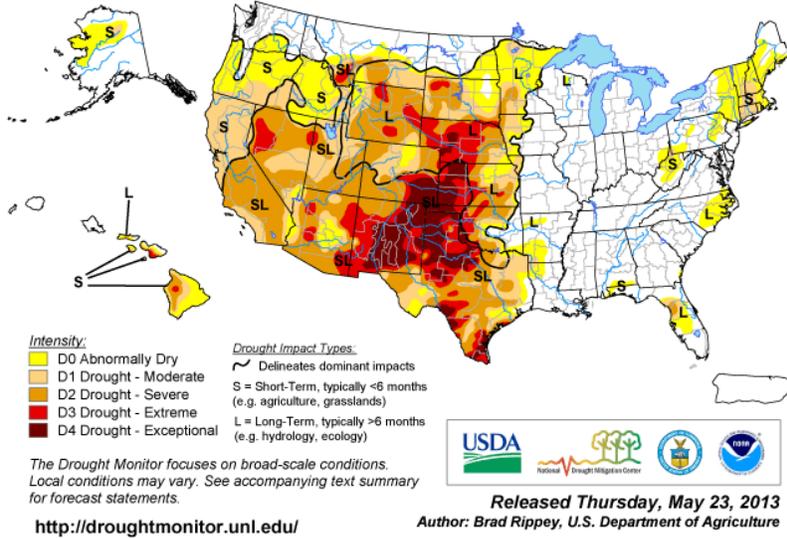
**The West:** Substantial precipitation fell during the monitoring period across the northern Intermountain West. Widespread totals in excess of 2 inches were noted in Wyoming and southern Montana, while 1- to 2-inch totals were reported in parts of northern Utah and eastern Idaho. As a result, there were reductions in the intensity of moderate to extreme drought (D1 to D3) in some of the wettest areas. However, the storm responsible for the heavy precipitation did not appreciably change spring and summer runoff forecasts, leaving varying degrees of long-term drought largely intact. Farther south, dry weather led to little or no change in the drought depiction. On May 19, USDA reported that at least 40% of the rangeland and pastures were rated very poor to poor in seven of the eleven Western States. New Mexico topped the list, with 98% of its rangeland and pastures rated very poor to poor, followed by Nevada (69%), Arizona (63%), Colorado (48%), Montana (47%), Wyoming (46%), and California (40%). In addition, below-average statewide reservoir storage affected five Western States: Arizona, Colorado, Nevada, New Mexico, and Oregon. Near-average overall storage should serve as a buffer against drought in the other Western States (California, Idaho, Montana, Utah, and Wyoming), except Washington, where reservoir storage was above average and there was no drought.”

*A comprehensive narrative describing drought conditions for the nation can be found toward the end of this document.* For drought impacts definitions for the figures below, click [here](#).

# Weekly Snowpack and Drought Monitor Update Report

## U.S. Drought Monitor

May 21, 2013  
Valid 7 a.m. EDT



Current [Drought Monitor](#) weekly summary. The exceptional D4 levels of drought are scattered across the western Corn Belt of the Plains into southeastern Colorado and much of New Mexico. For more drought news, see [Drought Impact Reporter](#).

The latest [drought indicator blend and component percentiles](#) spreadsheet is a great resource for climate division drought statistics. This link is for the latest [Drought Outlook](#) (forecast).

May 15, **U.S.** Last year's drought and the cool, wet spring are putting the pinch on grain buyers. Just 28% of the corn crop had been planted as of May 13 and will likely mean a later harvest, drawing corn inventories down during the third quarter to very low levels. In the meantime, more acreage has been devoted to corn than ever before, leading to predictions of a record crop.

May 15, **U.S.** Hay stocks nationwide on May 1 were 150,000 tons, less than half of the 327,000 tons on hand one year ago. Hay stocks were at historic lows in New York, Connecticut, Illinois, Michigan, Minnesota, Ohio, Vermont, and Wisconsin as drought limited hay production in 2012 and reduced available forage, leading farmers to feed more hay than usual throughout the year.

See:  
 Drought Monitor for the [Western States](#)  
 Drought Impact Reporter for [New Mexico](#)

May 14, **Oregon.** Oregon has experienced 104 wildfires that burned 307 acres of land protected by the Oregon Department of Forestry since the start of 2013 as low precipitation and warm temperatures have increased the fire danger. Some farmers in eastern Oregon began irrigating early or chose not to plant for lack of water.

May 15, **New Mexico.** Burn bans will take effect in large swaths of New Mexico in the next few days as various entities implement their own fire restrictions, but a statewide burn ban was enacted on May 8. [More Ore. irrigators could face restrictions](#)  
[Fierce fire season predicted for West](#)  
[CLIMAS SW Climate Assessment](#) for May 2013

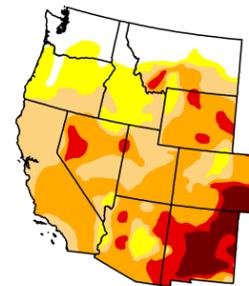
## U.S. Drought Monitor

West

May 21, 2013  
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D1	D1-D2	D2-D3	D3-D4	D4
Current	13.30	86.70	71.40	47.04	15.04	5.99
Last Week (05/14/2013 map)	13.09	86.91	71.39	46.93	15.33	5.91
3 Months Ago (02/19/2013 map)	23.76	76.24	64.34	41.81	15.89	3.15
Start of Calendar Year (01/01/2013 map)	24.39	75.61	69.31	45.04	18.01	2.15
Start of Water Year (09/01/2012 map)	15.12	84.88	77.15	43.65	16.85	1.77
One Year Ago (05/15/2012 map)	31.27	68.73	50.07	27.34	4.02	0.07

**Intensity:**  
 D0 Abnormally Dry  
 D1 Drought - Moderate  
 D2 Drought - Severe  
 D3 Drought - Extreme  
 D4 Drought - Exceptional



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://droughtmonitor.unl.edu>

Released Thursday, May 23, 2013  
 Brad Rippey, U.S. Department of Agriculture

Conditions remain essentially unchanged from last week.

# Weekly Snowpack and Drought Monitor Update Report

## U.S. Drought Monitor

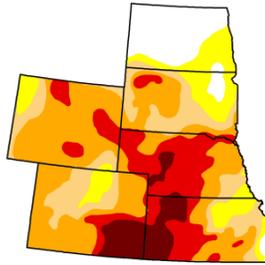
May 21, 2013  
Valid 7 a.m. EST

### High Plains

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	11.10	88.90	76.75	80.09	25.05	7.62
Last Week (05/14/2013 map)	7.52	92.48	80.56	85.20	29.25	7.88
3 Months Ago (02/19/2013 map)	5.01	94.99	91.35	92.51	57.67	29.11
Start of Calendar Year (01/01/2013 map)	1.54	98.46	93.01	86.20	50.25	26.99
Start of Water Year (09/25/2012 map)	0.00	100.00	98.91	83.80	61.28	24.35
One Year Ago (05/15/2012 map)	49.95	50.05	18.61	6.22	0.00	0.00

**Intensity:**

D0 Abnormally Dry      D3 Drought - Extreme  
D1 Drought - Moderate      D4 Drought - Exceptional  
D2 Drought - Severe



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://droughtmonitor.unl.edu>



Released Thursday, May 23, 2013  
Brad Rippey, U.S. Department of Agriculture

**Conditions improved in all but D-4 this past week.**

Drought Monitor for the [High Plains](#) with statistics over various time periods. Note improvement in all categories but D4 this week. See [Kansas Drought Update](#).

10 May - NASS forecasted a **Kansas** hard red winter wheat harvest of 299.7 million bushels, 22 percent lower than in 2012 when 382.2 million bushels were produced. This estimate is lower than the one put forth by the participants of the Kansas wheat tour who predicted a harvest of 313 million bushels.

May 13, **Nebraska**. The National Agricultural Statistics Service expects Nebraska's wheat harvest to be 42.9 million bushels or 20 percent smaller than the 2012 wheat crop as drought continues to hamper plant growth. The crop is rated as 16 percent very poor, 33 percent poor, 39 percent fair, and 12 percent good with none of the crop in the excellent category. Given the state of the wheat in Nebraska and western Kansas, wheat prices may spike this year. This is Nebraska's smallest crop of wheat since 1944.

## U.S. Drought Monitor

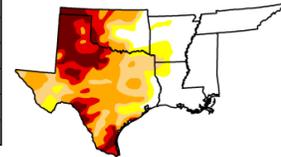
May 21, 2013  
Valid 7 a.m. EST

### South

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	37.32	62.68	54.02	40.67	21.43	10.51
Last Week (05/14/2013 map)	36.15	63.85	55.58	41.73	22.57	7.35
3 Months Ago (02/19/2013 map)	36.26	63.74	53.89	39.86	24.59	9.53
Start of Calendar Year (01/01/2013 map)	21.18	78.82	63.89	50.50	32.80	10.98
Start of Water Year (09/25/2012 map)	24.13	75.87	66.81	51.50	29.86	9.11
One Year Ago (05/15/2012 map)	45.42	54.58	32.31	18.21	7.31	0.71

**Intensity:**

D0 Abnormally Dry      D3 Drought - Extreme  
D1 Drought - Moderate      D4 Drought - Exceptional  
D2 Drought - Severe



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://droughtmonitor.unl.edu>



Released Thursday, May 23, 2013  
Brad Rippey, U.S. Department of Agriculture

**Conditions worsened >3% in D-4 last week.**

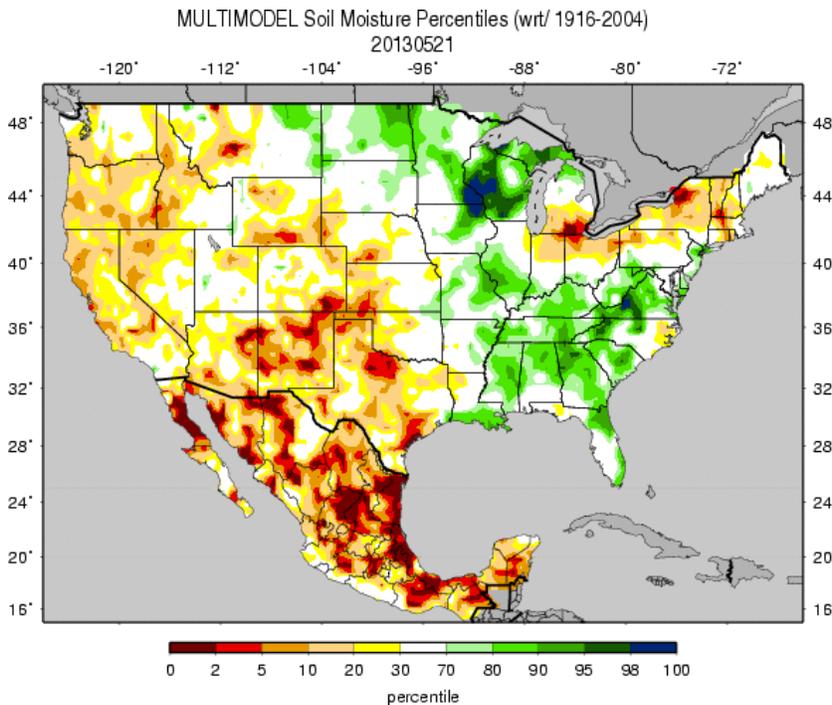
Drought Monitor for the [South-Central Region](#) with statistics over various time periods. Note some deterioration in the higher categories this week.

Check out the Texas Drought [Website](#). See [Texas Reservoirs](#).

10 May - **Texas'** winter wheat is in particularly bad shape with a forecast for just 54 million bushels, in comparison with the 96 million bushels produced during 2012, despite drought. Texas was the country's second largest wheat producer in 2010, behind Kansas.

# Weekly Snowpack and Drought Monitor Update Report

## Soil Moisture

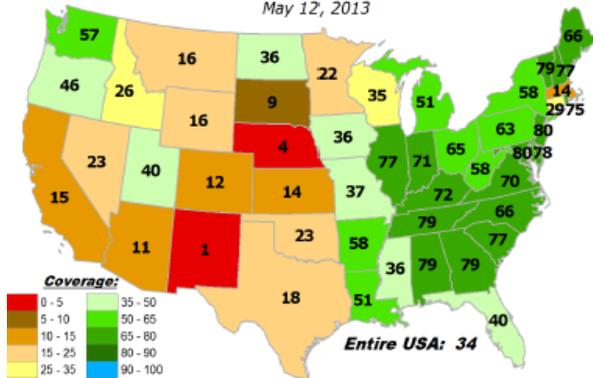


Soil moisture ranking in [percentile](#) as of 21 May shows significant dryness over the southwestern and southern high plains, and lesser dryness across the Rockies, western Great Basin, California and the Northeast.

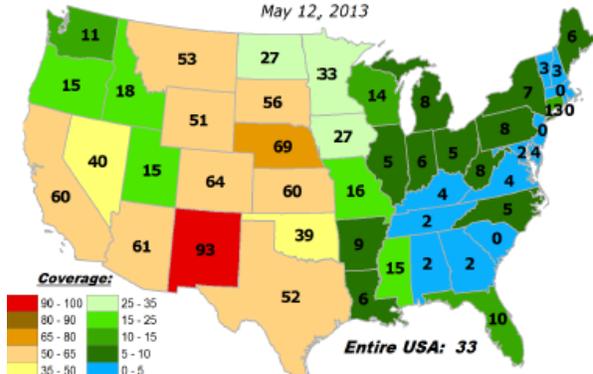
Note abundant moisture over Wisconsin and moisture over the Tennessee and lower Mississippi River Valleys.

Useful Hydrological Links: [Crop Moisture Index](#); [Palmer Drought Severity Index](#); [Standardized Precipitation Index](#); [Surface Water Supply Index](#); [Weekly supplemental maps](#), [Minnesota Climate Working Group](#).

Percent of Pasture & Range Land in "Good" or "Excellent" Condition  
May 12, 2013



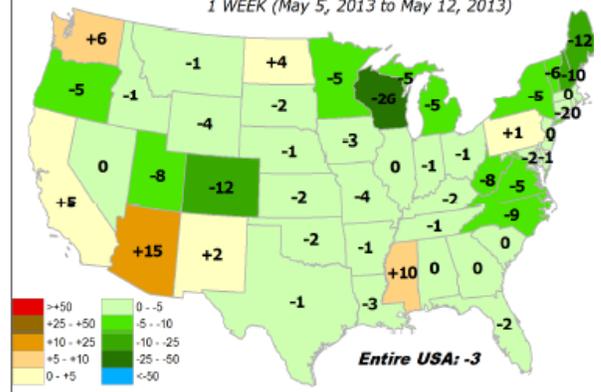
Percent of Pasture & Range Land in "Poor" or "Very Poor" Condition  
May 12, 2013



The Pasture & Range Land Conditions [maps](#) for the season show that New Mexico has the worst conditions by far in the U.S (lower panel).

Generally, much of the Western States (with the exception of Washington) has 50% of its lands with less than ideal conditions. However, the Pacific Northwest and Utah have minimal severe conditions.

CHANGE in % of Pasture and Range Lands in "Poor" or "Very Poor" Cond  
1 WEEK (May 5, 2013 to May 12, 2013)

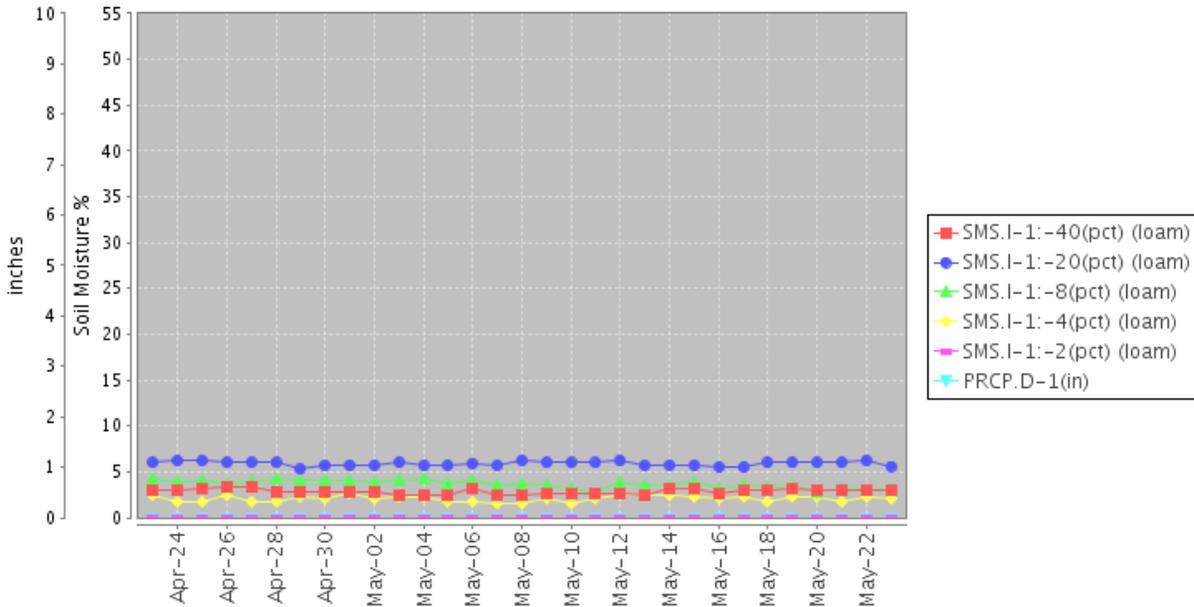


During the week ending 12 May, Colorado had the greatest improvement (-12) and Arizona had the greatest deterioration (+15) for the Western States.

# Weekly Snowpack and Drought Monitor Update Report

## Soil Climate Analysis Network (SCAN)

Station (2185) MONTH=2013-04-23 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision as of Thu May 23 09:37:30 CDT 2013



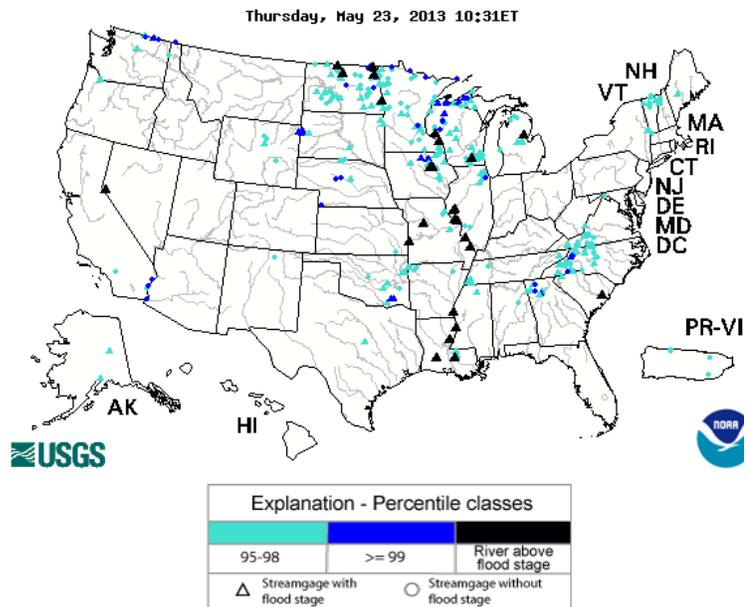
This NRCS resource shows a site over southeastern California with very dry soils at all levels.

Useful Agriculture Links: [Vegetation Drought Response Index](#); [Evaporative Stress Index](#); [Vegetation Health Index](#); [NDVI Greenness Map](#); [GRACE-Based Surface Soil Moisture](#); [North American Soil Moisture Network](#); [Monthly Wild Fire Forecast Report](#).

## U.S. Historical Streamflow

Map of current flood and high flow conditions shows much of the Mississippi River and Red River (North Dakota) at or above flood stage.

See the USGS [National Water Information System Mapper](#).



## Weekly Snowpack and Drought Monitor Update Report

### National Drought Summary -- May 21, 2013

*The discussion in the Looking Ahead section is simply a description of what the official national guidance from the National Weather Service (NWS) National Centers for Environmental Prediction is depicting for current areas of dryness and drought. The NWS forecast products utilized include the HPC 5-day QPF and 5-day Mean Temperature progs, the 6-10 Day Outlooks of Temperature and Precipitation Probability, and the 8-14 Day Outlooks of Temperature and Precipitation Probability, valid as of late Wednesday afternoon of the USDM release week. The NWS forecast web page used for this section is: <http://www.cpc.ncep.noaa.gov/products/forecasts/>.*

**Weather Summary:** “For several days in mid-May, corn planting and other Midwestern fieldwork accelerated in advance of a developing storm. Producers planted 43% of the U.S. corn crop during the week ending May 19, tying a weekly record set from May 4-10, 1992. However, heavy rain eventually overspread the northern Plains and Midwest, halting planting progress but providing further drought relief or eradication. The same storm responsible for the rain in the north-central U.S. contributed to a multi-day severe weather outbreak. Iowa’s longest stretch without a tornado (359 days from May 25, 2012, to May 18, 2013) ended when several twisters were spotted on May 19. Previously, Iowa’s longest spell of tornado-free weather lasted 355 days in 1955-56. One day after Iowa’s tornadoes, tragedy struck Moore, Oklahoma, on May 20 in the form of a devastating EF-5 twister—the nation’s first category five event since a similarly powerful tornado struck El Reno, Oklahoma, on May 24, 2011.

Several days of warmth preceded the storm across the western and central U.S. On May 14, a phenomenal surge of heat reached the central Plains and western Corn Belt, resulting in several monthly record highs and widespread readings above 100°F. Later, triple-digit heat developed and persisted in the south-central U.S. In addition, rainfall largely bypassed the southern High Plains, resulting in further deterioration in the condition of rangeland, pastures, and winter wheat. Hot, mostly dry weather also prevailed from California into the Southwest. Farther north, however, scattered showers provided beneficial moisture for crops and pastures in the Northwest. More significant precipitation dampened the northern Intermountain West, particularly across portions of Wyoming and southern Montana.

**The East:** Varying amounts of rain fell across the East during the drought-monitoring period. Little or no rain fell in the Northeastern areas of dryness (D0) and moderate drought (D1), except in northern New England. As a result, previously existing areas of dryness were bridged across Pennsylvania and New York. In New England, March 1 – May 21 precipitation totaled less than 6 inches in locations such as Portland, Maine (5.85 inches, or 52% of normal), and Providence, Rhode Island (5.83 inches, or 50 percent). Farther south, scattered showers and thunderstorms brought localized relief from dryness to the central Appalachians and the eastern Carolinas. Meanwhile, short-term rainfall deficits allowed for some development of abnormal dryness in southern Alabama and western Florida. In Dothan, Alabama, March 1 – May 21 rainfall totaled just 5.56 inches (49 percent of normal).

**The Upper Midwest:** Prior to the arrival of wet weather, sharp temperature fluctuations were noted in the upper Midwest. Following a late-season freeze on May 12, temperatures briefly soared. Tekamah, Nebraska, experienced a high of 108°F on May 14, eclipsing its monthly record of 105°F originally set on May 31, 1934. A monthly record from the Dust Bowl era (105°F on May 30, 1934) was also broken in Sioux City, Iowa, where the May 14 high soared to 106°F. In fact, there had never been a reading of 105°F or greater in Iowa before May 29; Sac City had achieved a high of 108°F on May 29, 1934. In Nebraska, records for the earliest triple-digit heat were set on May 14 in locations such as Grand Island (102°F), Omaha (101°F), and Lincoln (100°F); Grand Island’s record had stood since May 20, 1925. Several days later, showers and thunderstorms engulfed the upper Midwest, leading to significant reductions in the coverage and intensity of any lingering drought. Some of the heaviest rain fell in Minnesota, as well as neighboring areas in northern Iowa and northwestern Wisconsin. Rochester, Minnesota, in a part of the state no longer categorized as abnormally dry, set records for May (8.55 inches) and March-May precipitation (18.19 inches). Rochester’s previous records had been 8.41 inches in 1982 and 15.87 inches in 2001, respectively. With a total of 2.43 inches of rain on May 17, Rochester experienced its third-wettest day in May, behind 4.02 inches on May 17, 2000, and 2.97 inches on May 20, 1912.

**The Great Plains:** The gradient between improving conditions and worsening drought continued to sharpen. A winter-like storm delivered widespread, heavy precipitation (locally 4 inches or more) to the north-central U.S., including the Dakotas and parts of Montana and Nebraska. Significant rain also fell across the southeastern Plains, including central and eastern Oklahoma and northeastern Texas. In contrast, little or no precipitation fell across the southern High Plains. As a result, there were major reductions in drought coverage and intensity on the northern and southeastern Plains, but an increase in the areal coverage of exceptional drought (D4) and other drought categories on the southern High Plains. In Texas, the portion of the winter wheat rated very poor to poor increased from 44 to 76% between March 17 and May 19, according to USDA. Although some of the winter wheat deterioration was due to drought, a series of spring freezes also harmed the crop. Meanwhile, at least one-third of the rangeland and pastures were rated very poor to poor by May 19 in every Plains State except North Dakota. Lingering dismal pasture conditions in states such as Nebraska (69% very poor to poor) and South Dakota (51%) are due to the harm

## Weekly Snowpack and Drought Monitor Update Report

inflicted by the historic 2012 drought, in combination with a cool spring that delayed greening of grasses.

**The West:** Substantial precipitation fell during the monitoring period across the northern Intermountain West. Widespread totals in excess of 2 inches were noted in Wyoming and southern Montana, while 1- to 2-inch totals were reported in parts of northern Utah and eastern Idaho. As a result, there were reductions in the intensity of moderate to extreme drought (D1 to D3) in some of the wettest areas. However, the storm responsible for the heavy precipitation did not appreciably change spring and summer runoff forecasts, leaving varying degrees of long-term drought largely intact. Farther south, dry weather led to little or no change in the drought depiction. On May 19, USDA reported that at least 40% of the rangeland and pastures were rated very poor to poor in seven of the eleven Western States. New Mexico topped the list, with 98% of its rangeland and pastures rated very poor to poor, followed by Nevada (69%), Arizona (63%), Colorado (48%), Montana (47%), Wyoming (46%), and California (40%). In addition, below-average statewide reservoir storage affected five Western States: Arizona, Colorado, Nevada, New Mexico, and Oregon. Near-average overall storage should serve as a buffer against drought in the other Western States (California, Idaho, Montana, Utah, and Wyoming), except Washington, where reservoir storage was above average and there was no drought.

**Hawaii, Alaska and Puerto Rico:** There were no changes to the depictions for Hawaii, Alaska, and Puerto Rico. Hawaii's western islands (Oahu westward) remain free of dryness and drought. However, islands from Maui eastward are still experiencing significant drought in leeward areas. USDA reported that recent rainfall in windward and mountain sections of Maui allowed for "improvement of pasture conditions in most areas." The same report indicated that southern sections of Maui and Molokai had received some recent rain, but that those areas had previously dried out, "with no green forage for several months." Meanwhile, Alaska was locked into an unusually cold weather pattern, with little precipitation reported in existing areas of abnormal dryness (D0) and moderate drought (D1). And, like last week, there was no drought (or dryness) in depicted in Puerto Rico.

**Looking Ahead:** During the next 5 days (May 23-27), the slow-moving storm system that has been affecting the Midwest—and was responsible for the tragic tornado in Moore, Oklahoma—will drift eastward. The system will reach the Atlantic Seaboard by May 24. Additional rainfall totals—in the form of locally severe thunderstorms—could reach 1 to 3 inches in the Northeast, and cool air will trail the storm into the Midwest and East. Meanwhile, an early-season heat wave will develop on the High Plains. During the Memorial Day weekend (May 25-27), temperatures will approach or reach 100°F as far north as the central High Plains. Elsewhere, cool, showery weather will persist in the Northwest, while thundershowers will return to the Plains. More substantial rain (possibly 1 to 3 inches) may develop during the Memorial Day weekend in the western Corn Belt, including parts of Iowa and eastern Nebraska.

The NWS 6- to 10-day outlook for May 28 – June 1 calls for above-normal temperatures from the Plains to the East Coast, while cooler-than-normal conditions will prevail in the West. Meanwhile, below-normal rainfall across most of the southern half of the U.S. will contrast with wetter-than-normal weather across the nation's northern tier from the Pacific Northwest to the Great Lakes region."

### State Activities

State government drought activities can be tracked at the following URL:

<http://drought.unl.edu/mitigate/mitigate.htm>. NRCS Snow Survey and Water Supply Forecasting (SSWSF) Program State Office personnel are participating in state drought committee meetings and providing the committees and media with appropriate SSWSF information - <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>. Additional information describing the products available from the Drought Monitor can be found at the following URLs: <http://drought.unl.edu/dm/> and <http://www.drought.gov>.

### For More Information

The National Water and Climate Center (NWCC) Homepage provides the latest available snowpack and water supply information. Please visit us at <http://www.wcc.nrcs.usda.gov>. This document is available from the following location on the NWCC homepage - <http://www.wcc.nrcs.usda.gov/water/drought/wdr.pl>. Reports from 2007 are available online. Reports from 2001-2006 are available on request.

This report uses data and products provided by the Interagency Drought Monitor Consortium members and the National Interagency Fire Center.

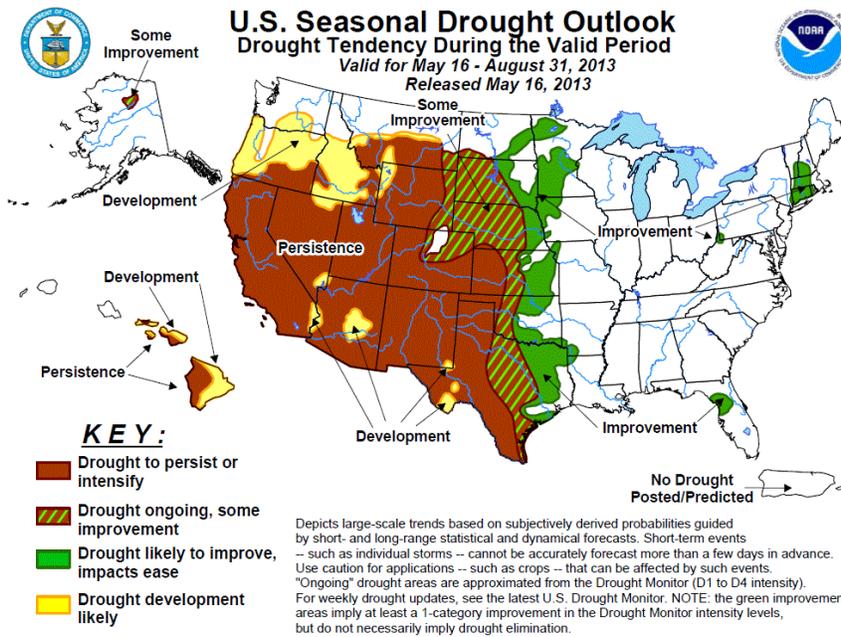
/s/

Micheal L. Golden  
Deputy Chief, Soil Science and Resource Assessment

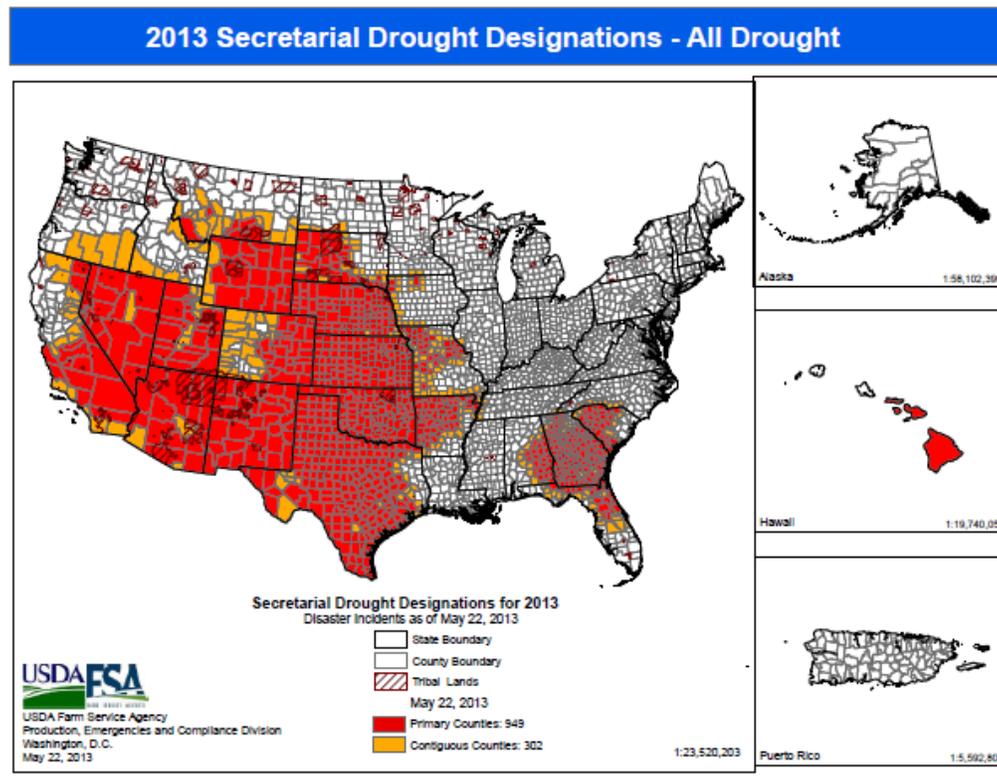
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# Weekly Snowpack and Drought Monitor Update Report

## Drought Outlook (Forecast)



U.S. Seasonal [Drought Outlook](#) as of 16 May. Note that there are no significant changes since the last update two weeks ago. See the latest NOAA CPC [seasonal forecast](#) released today. It depicts a warmer than average West with drier conditions over the Pacific Northwest and eastern New Mexico.



Refer to USDA Drought Assistance [website](#) and [National Sustainable Agriculture Information Service](#).

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### Supplemental Information

Following provided by: Brad Rippey, USDA Meteorologist, Office of the Chief Economist, World Agricultural Outlook Board, Washington, D.C.

The "Ag in Drought" file that had been previously posted each week by NDMC's Brian Fuchs is now available at:

<http://www.usda.gov/oce/weather/Drought/AgInDrought.pdf>

Highlights for the drought-monitoring period ending 7 am EDT on May 14 include:

- Overall U.S. drought coverage decreased slightly (0.40%) from the previous week to 47.66%. Drought coverage is down 13.43 percentage points since the beginning of 2013 and down 17.79 points from the record high of 65.45% on September 25, 2012. Rain showers across the central and southern Plains and upper Midwest largely accounted for the decrease in drought coverage. However, generally dry weather prevailed in drought-affected areas stretching from southern Oregon and California into the Southwest.

- The portion of the contiguous U.S. in the worst category – D4, or exceptional drought – increased very slightly (0.02%) to 4.40%. Exceptional drought coverage has increased in recent weeks in parts of the Southwest, particularly in New Mexico. Nearly half (44%) of New Mexico is currently categorized as being in D4.

- More than half (52%) of the U.S. winter wheat remains in a drought area, down one percentage point from last week. Cattle in drought also fell one percentage point to 52%, while hay in drought was unchanged at 41%. Corn (34% in drought) and soybeans (25%) had slight declines from the previous week. At the height of the drought, in the summer of 2012, peak coverage included 76% of cattle in drought, 69% of hay, 89% of corn, and 88% of soybeans.

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Following provided by: Kelly Helm Smith, Communication & Planning Specialist, National Drought Mitigation Center, University of Nebraska-Lincoln

#### Drought recedes incrementally but still covers nearly half the country

Lincoln, Neb. -- Minor adjustments to the map of drought in the United States for the week that ended May 14 resulted in a slightly smaller but more intense area in drought compared with a week earlier.

The total area of the 48 contiguous states in moderate drought or worse on the U.S. Drought Monitor map declined to 47.66 percent from 48.06 percent, but the total area in exceptional drought increased, to 4.4 percent from 4.38 percent. Drought coverage is down 13.43 percentage points since the beginning of 2013 and down 17.79 points from the record high of 65.45 percent on September 25, 2012.

More than half (52 percent) of the U.S. winter wheat remains in a drought area, down one percentage point from last week, said Brad Rippey, a meteorologist in the U.S. Department of Agriculture's Office of the Chief Economist. Cattle in drought also fell one percentage point to 52 percent, while hay in drought was unchanged at 41 percent. Corn, at 34 percent in drought, and soybeans, 25 percent, had slight declines from the previous week. At the height of the drought, in the summer of 2012, peak coverage included 76 percent of cattle in drought, 69 percent of hay, 89 percent of corn, and 88 percent of soybeans.

The 40 impacts currently in the [Drought Impact Reporter](#) for May 9-15 reflect the effects of drought that is entering a third year in some areas. Impacts include preparations for what's shaping up to be an active western wildfire season, reduced winter wheat crop estimates for the nation, challenges in feeding livestock, and blowing sand in New Mexico. The list also includes water quality and supply issues, such as reduced hydroelectric power generation in Nebraska, lack of water for irrigating chili peppers in New Mexico, concerns about irrigation in Oregon, voluntary municipal water restrictions in El Paso, Texas, and

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less water for boating near Bowie, Texas. Oklahoma interfaith leaders have suggested statewide days of prayer for rain and water stewardship.

U.S. Drought Monitor authors synthesize many drought indicators into a single map that identifies areas of the country that are abnormally dry (D0), in moderate drought (D1), in severe drought (D2), extreme drought (D3) and exceptional drought (D4).

The U.S. Drought Monitor map is jointly produced by the National Drought Mitigation Center at the University of Nebraska-Lincoln, the National Oceanic and Atmospheric Administration, the U.S. Department of Agriculture, and about 350 drought observers across the country. This week's author was Rich Tinker, with NOAA's Climate Prediction Center.

The map is released each Thursday based on data through the previous Tuesday morning.

Statistics for the percent area in each category of drought are automatically added to the U.S. Drought Monitor website each week for the entire country and Puerto Rico, for the 48 contiguous states, for each climate region, and for individual states. U.S. Drought Monitor data online goes back to January 2000.

<http://drought.unl.edu/MonitoringTools/USDroughtMonitor/DroughtMonitorTips.aspx>

U.S. Drought Monitor map, statistics and narrative summary: <http://droughtmonitor.unl.edu>

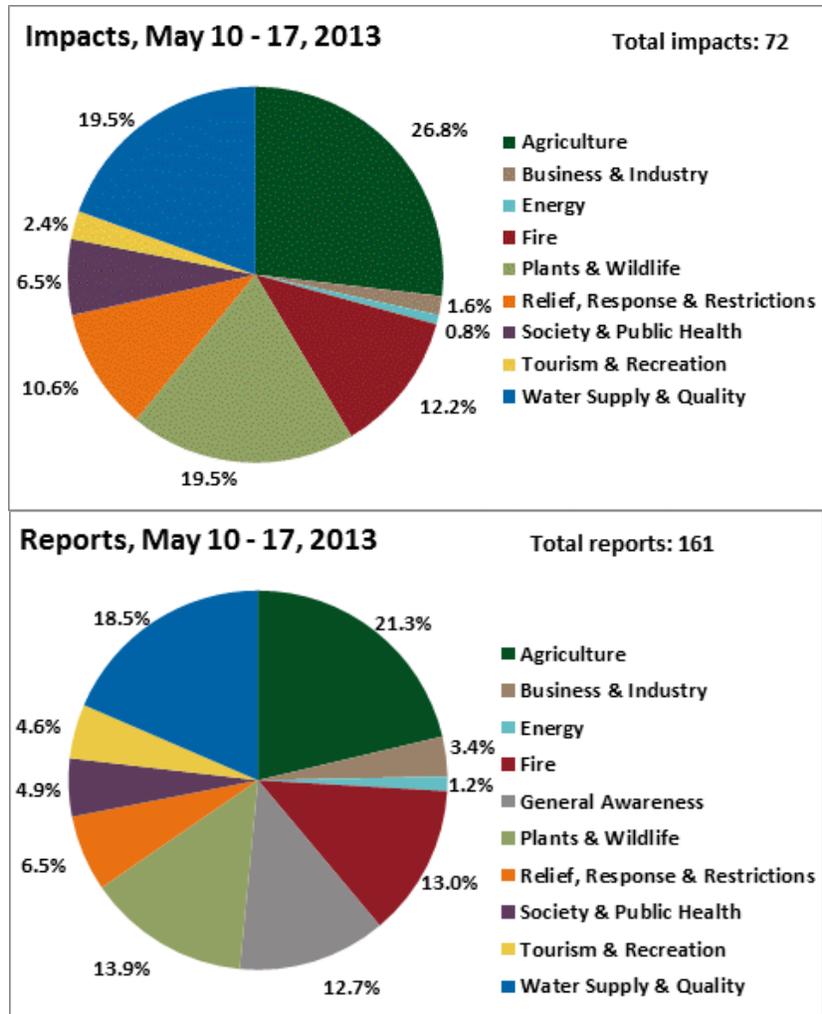
Drought Impact Reporter: <http://droughtreporter.unl.edu>

USDA's weekly "Agriculture in Drought" analysis:  
<http://www.usda.gov/oce/weather/Drought/AgInDrought.pdf>

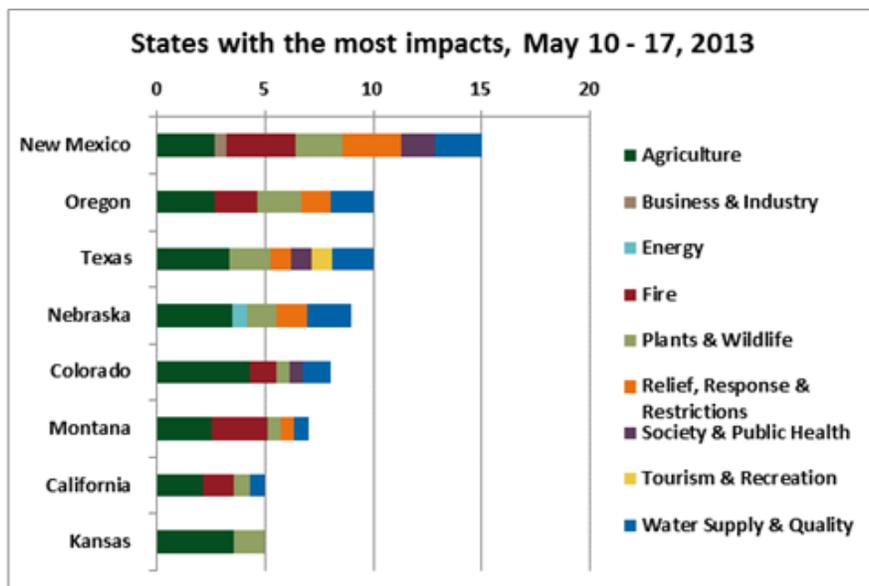
National Climatic Data Center's State of the Climate Drought Summary:  
<http://www.ncdc.noaa.gov/sotc/drought/>

Seasonal Drought Outlook:  
[http://www.cpc.ncep.noaa.gov/products/expert\\_assessment/seasonal\\_drought.html](http://www.cpc.ncep.noaa.gov/products/expert_assessment/seasonal_drought.html)

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Number of entries to the Drought Impact Reporter, May 10 – 17, 2013



Because impacts may have more than one category, the category color is shown in proportion to the total number of categories selected overall for all of the impacts.