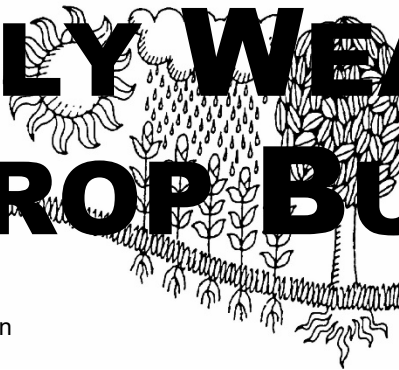
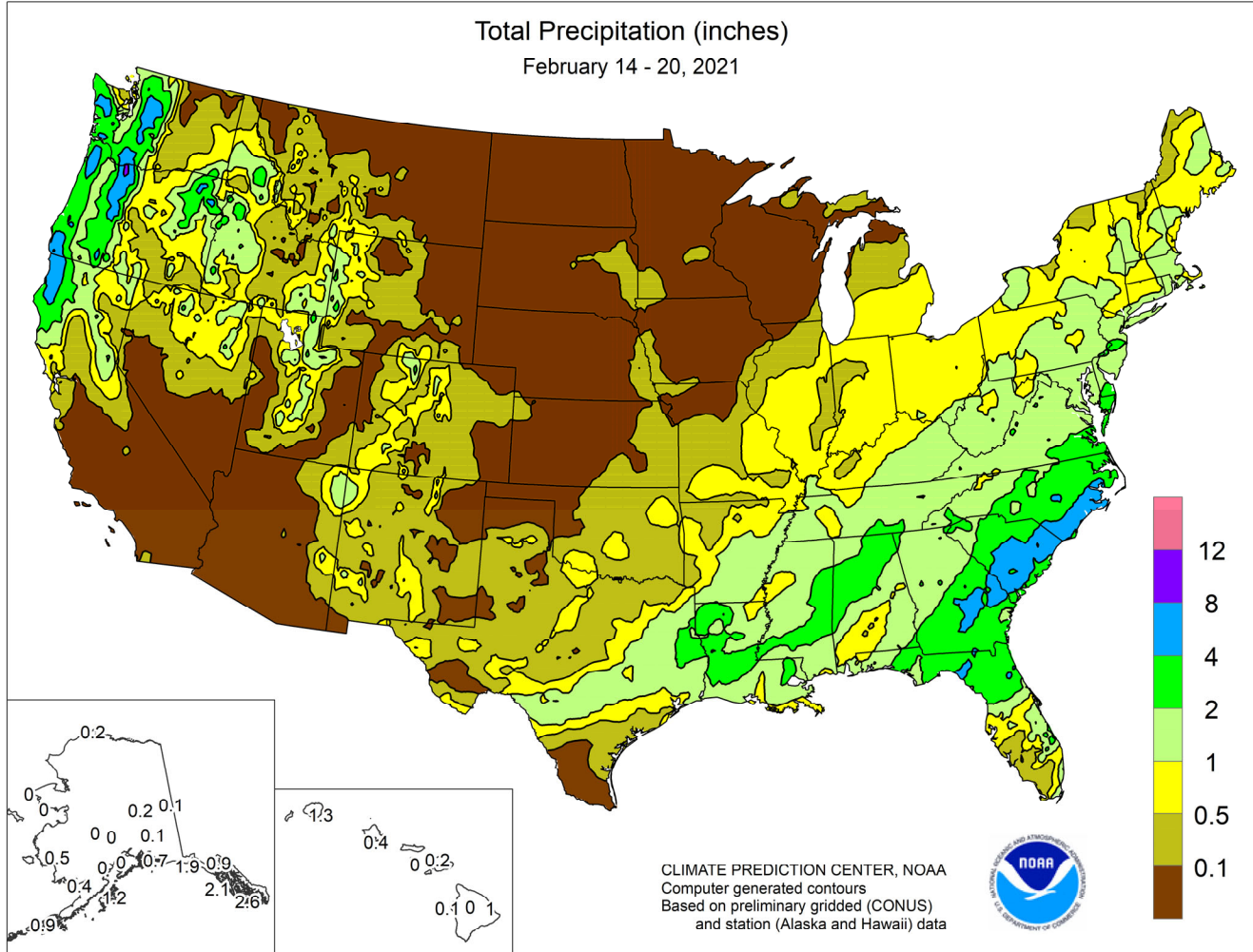


# WEEKLY WEATHER AND CROP BULLETIN



U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
National Weather Service

U.S. DEPARTMENT OF AGRICULTURE  
National Agricultural Statistics Service  
and World Agricultural Outlook Board



## HIGHLIGHTS

**February 14 – 20, 2021**

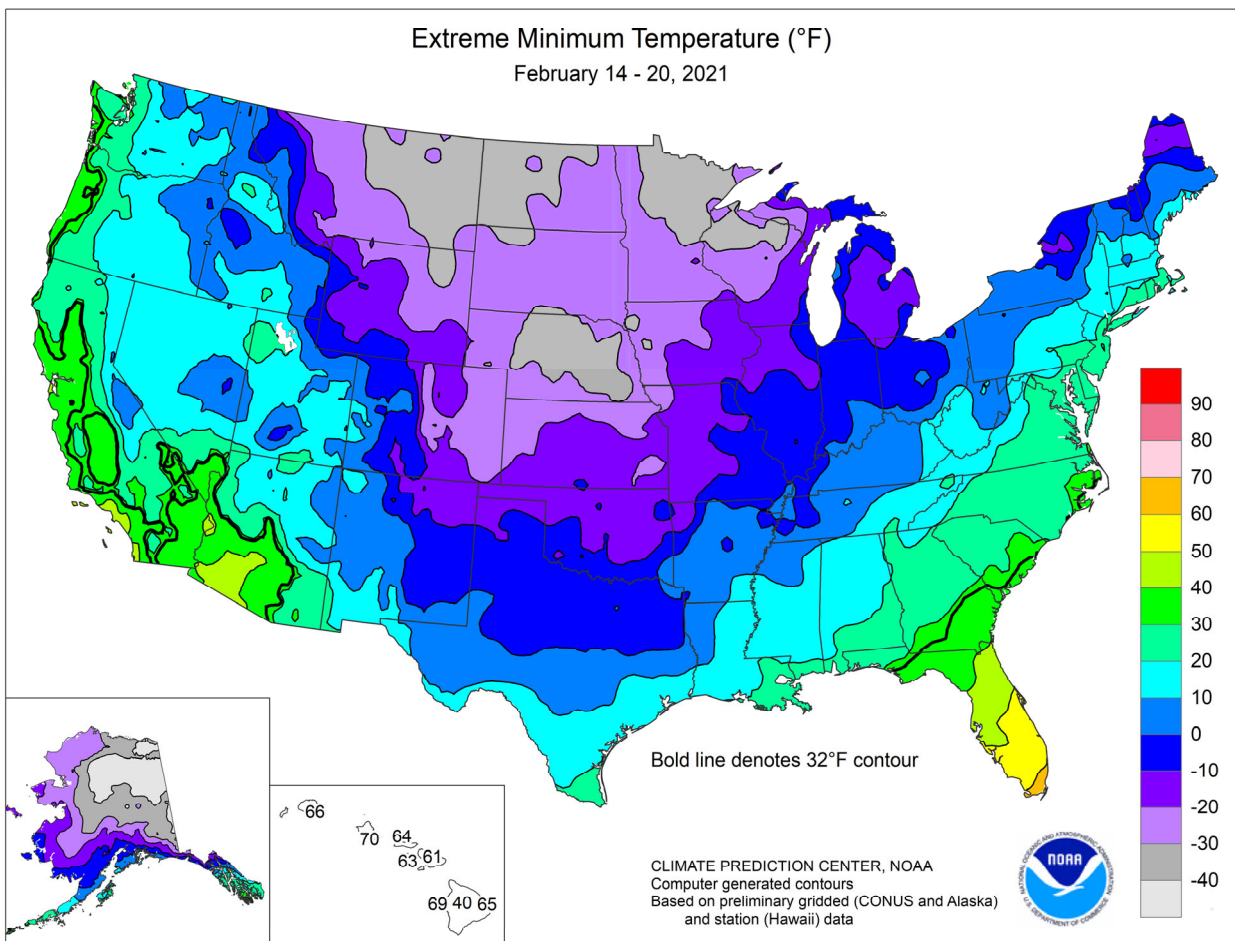
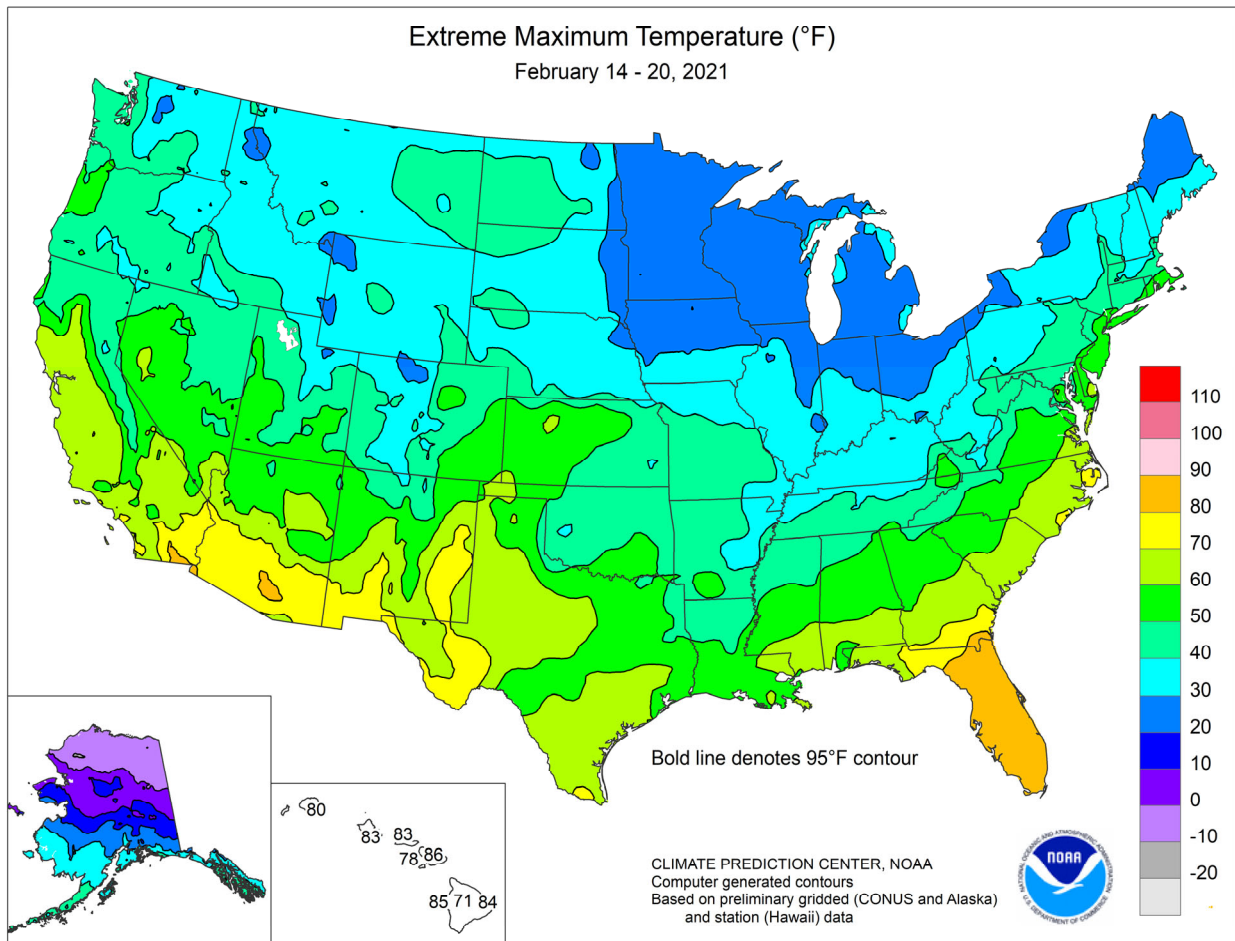
*Highlights provided by USDA/WAOB*

**B**ack-to-back storms interacting with an Arctic blast led to extensive snow and ice accumulations in the **Northwest** and from the **southern Plains into the mid-South and lower Midwest**. Precipitation also fell in the **East**, with snow, sleet, and freezing rain noted in the **middle and northern Atlantic States**. Storm- and cold-related issues, such as power outages and travel disruptions, plagued the **northwestern and south-central U.S.** Cascading impacts later included shortages of potable water, most notably in **Texas**. Cattle producers fought through snow, bitter cold,

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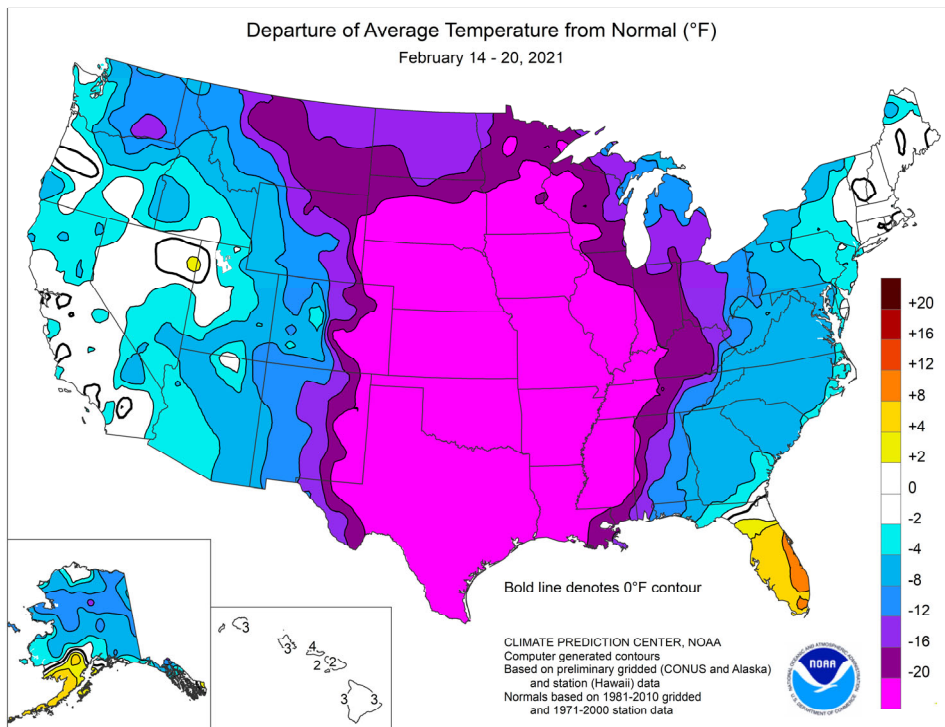


(Continued from front cover)

and feed and water shortages to save animals, while some dairy and poultry operations contended with lack of power and heat. Bitterly cold weather also covered the **northern Plains** and **upper Midwest**, although less snow and more familiarity with harsh conditions led to overall fewer agricultural impacts. However, concerns existed with respect to winter wheat in areas where a protective snow cover was shallow or lacking. Wheat areas exposed to potentially damaging levels of cold weather including portions of the **northern and central Plains**. Elsewhere, producers continued to monitor freeze-affected southern crops, such as citrus and vegetables in **Texas**, as well as sugarcane in **Texas** and **Louisiana**. As the shocking blast of cold air across the **nation's mid-section** persisted through a second week, weekly temperatures averaged at least 20 to 30°F below normal from the **central and southern Plains to the middle and lower Mississippi Valley**. In the **south-central U.S.**, the frigid, stormy weather profoundly affected agricultural interests, with extended power outages, water shortages, and travel difficulties in **Texas** and other parts of the **central U.S.** disrupting supply chains for meat and dairy products. Late-week temperatures began to rebound across the **Plains**, favoring cold-wave recovery efforts such as infrastructural repairs. Only **California** and **Florida's peninsula**, along with the **Great Basin** and **Desert Southwest**, fully escaped the cold weather. Weekly temperatures averaged as much as 5 to 10°F above normal in parts of **southern Florida**.

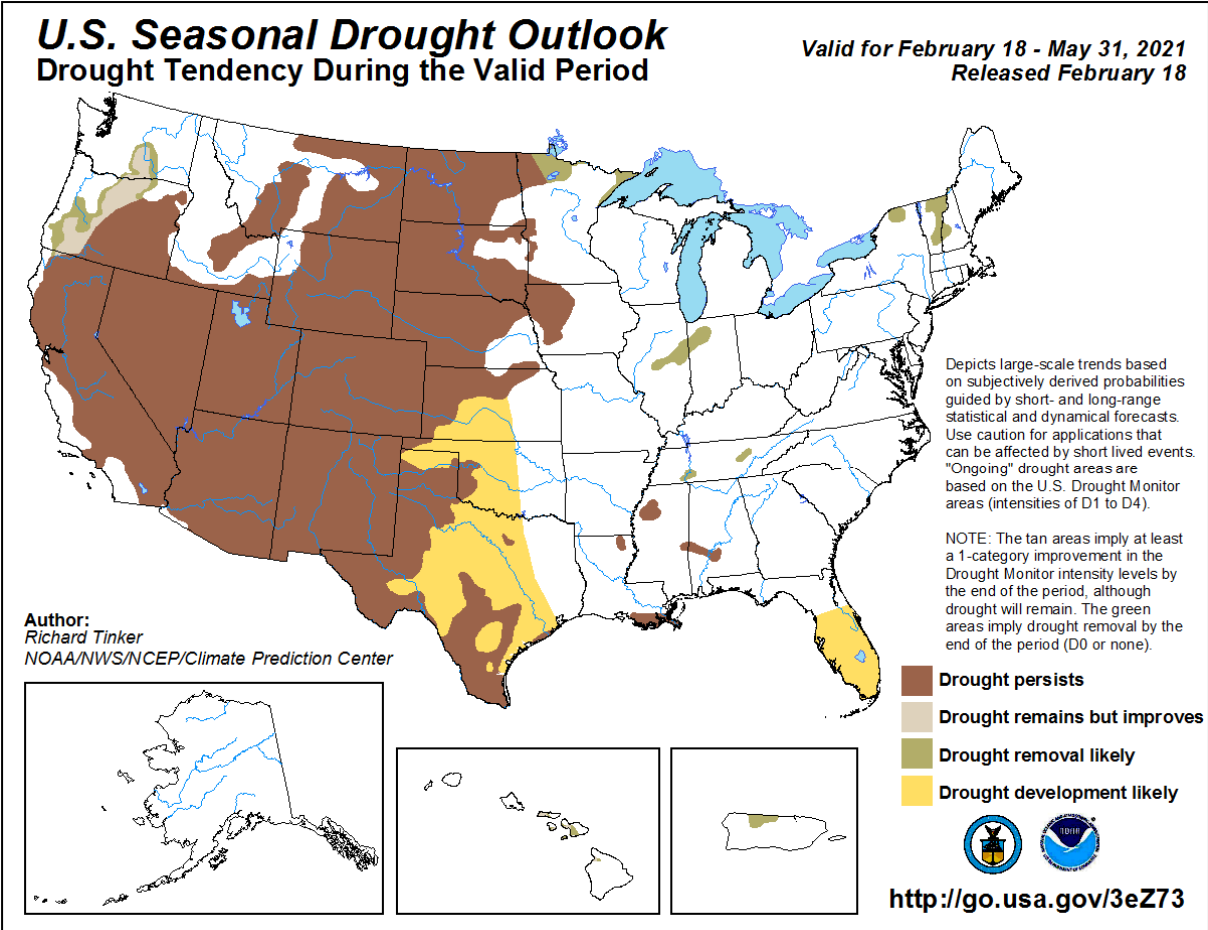
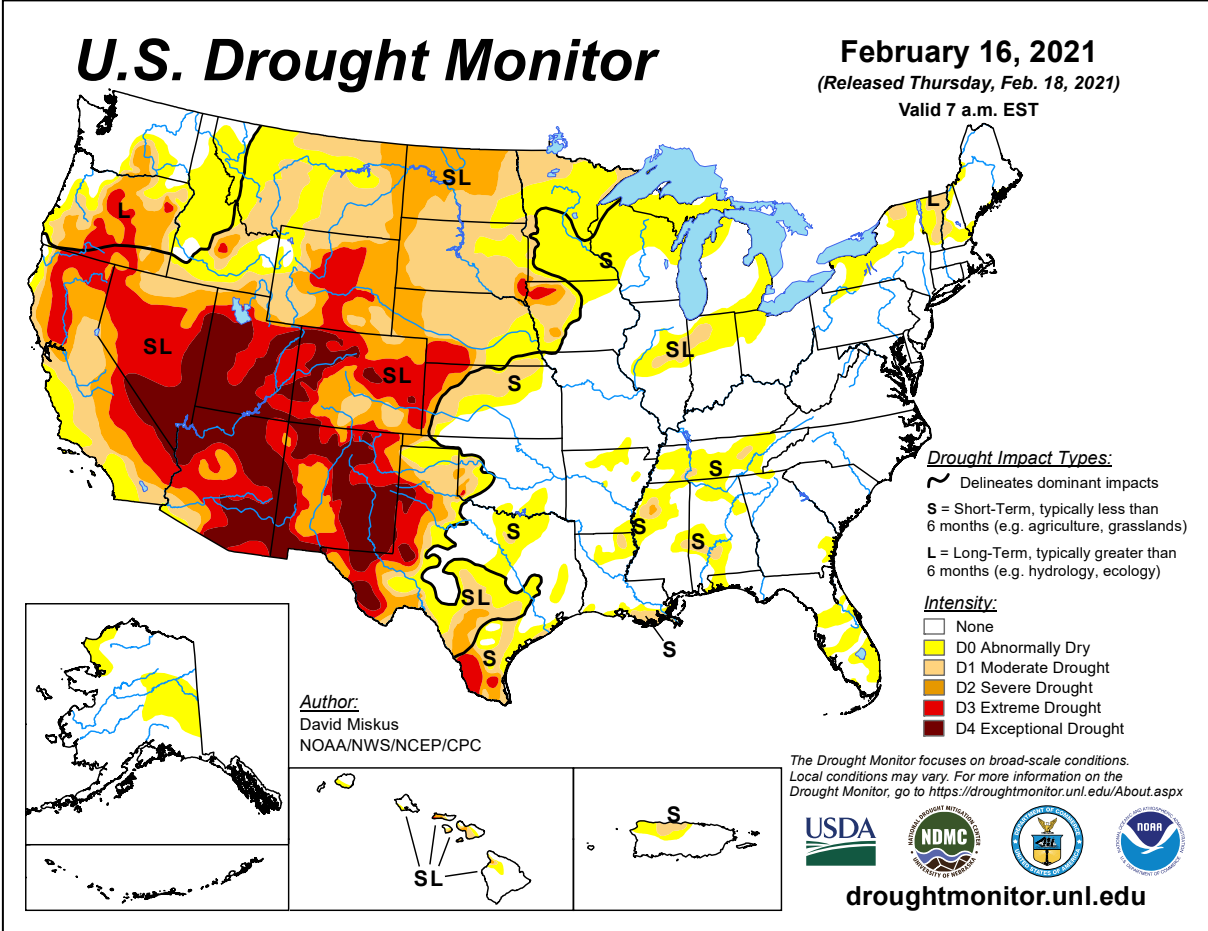
The cold wave peaked on February 15-16 with temperatures plunging below -30°F in parts of **Nebraska** and to -10°F or below as far south as **Oklahoma** and **Texas' northern panhandle**. Meanwhile, damaging freezes reached key winter agricultural production areas of **Deep South Texas**. Damage to **Texas'** most sensitive crops, including citrus, sugarcane, and winter vegetables, was still being assessed. Much of **Louisiana's** sugarcane production area experienced a prolonged period (from February 14-21) with nightly freezes. Across the **Plains** and **mid-South**, several all-time records were established. On February 16, for example, **Hastings, NE**, tied a low-temperature record (-30°F) originally set on January 12, 1912. Elsewhere on the 16th, the lowest-ever temperature occurred in **Lawton, OK** (-12°F), and **Longview, TX** (-5°F). February temperature records were shattered on the 16th in **Lincoln, NE** (-31°F; coldest day since January 12, 1974), and **Chanute, KS** (-22°F; coldest day since January 30, 1949). In **Texas**, February 16 lows of -8°F in **Wichita Falls** and -1°F in **Waco** matched or broke monthly records set on February 2, 1985. A day earlier in **Kansas**, February 15 lows of -24°F in **Goodland** and -21°F in **Hill City** set monthly records. From February 14-16, dozens of communities across the **central and southern Plains** and **mid-South** experienced their coldest weather since the historic cold outbreak of December 22-24, 1989. February 15 lows that matched that criterion (coldest since December 1989) included -33°F in **Valentine, NE**; -18°F in **Russell, KS**; and -7°F in **Borger, TX**. February 16 featured the lowest temperature since December 23, 1989, in locations such as **St. Joseph, MO** (-22°F); **Jonesboro, AR** (-2°F); **Memphis, TN** (1°F); and **Galveston, TX** (20°F). Elsewhere in **Texas**, temperatures during the worst cold outbreak in more than 30 years plunged to -4°F (on February 15 and 16) in **Childress**; -4°F (on February 16) in **Abilene**; -1°F on February 15 and 16) in **San Angelo**; and 0°F (on February 14 and 15) in **Lubbock**. With a low of -2°F on February 16, **Dallas-Fort Worth, TX**, endured its lowest reading since January 31, 1949 (also -2°F). In **Louisiana**, **Shreveport's** low of 1°F on the 16th marked the lowest reading in that city since January 18, 1930. **Oklahoma City, OK**, dipped to -14°F on the 16th, representing that location's coldest day since February 12, 1899 (-17°F). From February 14-20, **Wichita Falls, TX**, logged seven consecutive daily-record lows (5, -6, -8, 6, 3, 2, and 16°F). The temperature in **Abilene, TX**, fell below 32°F early on February 9 and stayed there into the afternoon of February 19—a total of 252 hours—breaking the record of 202 hours set from December 15-26, 1983. In stark contrast, several daily-record highs were set in **Florida**. For example, **Melbourne, FL**, registered consecutive daily-record highs of 89°F on February 14-15.

**Abilene, TX**, set a station record with a 14.8-inch snowfall on February 14. The previous record for any day had been 9.3 inches on April 5, 1996; **Abilene's** snowiest February day had been 8.0 inches on February 12, 1890. Similarly, **San**



**Angelo, TX**, set records for snowiest day and snowiest February day (10.1 inches on February 14; previously, 10.0 inches on January 16, 1919, and 8.0 inches on February 24, 1924). The storm responsible for the first round of **Texas** snow had initially hit the **Northwest** and was closely followed by another system. The 8-day period from February 11-18 featured 1 to 2 feet of snow in locations such as **Little Rock, AR** (20.3 inches); **Pendleton, OR** (19.7 inches); **Flint, MI** (16.5 inches); **Toledo, OH** (16.1 inches); **Salt Lake City, UT** (14.3 inches); **Fort Wayne, IN** (13.2 inches); **Chicago, IL** (12.8 inches); **Seattle, WA** (12.4 inches); and **Amarillo, TX** (12.4 inches). The 17th was the snowiest February day on record in **Salt Lake City**, where 11.7 inches fell (previously, 10.9 inches on February 1, 1989). Meanwhile in **Arkansas**, February 17 featured 11.8 inches of snow in **Little Rock** and 9.1 inches in **Pine Bluff**. On February 15, the earlier storm had dumped at least one-half foot of snow in **Fort Wayne, IN** (10.1 inches); **Toledo, OH** (8.0 inches); and **Detroit, MI** (7.2 inches). In the **mid-South**, two-storm total snowfall included 10.0 inches in **Memphis, TN**; 8.3 inches in **Louisville, KY**; and 6.3 inches in **Shreveport, LA**. In **Texas**, February 11-18 snowfall reached 6.5 inches in **Austin**, 6.2 inches in **San Antonio**, 5.0 inches in **Dallas-Fort Worth**, and 4.6 inches in **Waco**. In **Jackson, MS**, where 1.9 inches of snow fell on February 14-15, a monthly snow-depth record of 2 inches was tied on the 15th and 16th. The last time **Jackson** had a 2-inch depth at daybreak in February was February 13, 2010. According to the National Weather Service, snow covered more than 70 percent of the **Lower 48 States** each morning from February 15-19, with coverage peaking at 73.2 percent on the 16th. Elsewhere, periodic heavy showers (and severe thunderstorms) dotted the **Southeast**. Late on February 15, a deadly tornado swept across **Brunswick County, NC**, killing three people. Daily-record rainfall totals topped 2 inches in several locations, including **Fort Myers, FL** (2.15 inches on February 14); **Meridian, MS** (2.21 inches on February 17); and **Florence, SC** (2.39 inches on February 18).

Weekly temperatures averaged as much as 10°F below normal across the **northern two-thirds of Alaska**, while mild weather continued in the southwestern part of the state. **Kotzebue** remained on track to record a sub-zero minimum temperature each February day for the first time since 1990. In the **Aleutians**, however, **Cold Bay** last reported a high temperature below the freezing mark on January 30—and achieved maxima of 42°F on February 7, 8, 12, 14, and 16. Meanwhile, precipitation returned across **southeastern Alaska** during a transition to warmer weather. From February 16-20, **Juneau** received precipitation totaling 1.88 inches, including 5.3 inches of snow. Farther south, **Hawaii** experienced several days of warm weather, followed by locally heavy showers returning across the western islands. On **Maui, Kahului**, notched a daily-record high of 88°F on February 14. On **Kauai, Lihue** reported measurable rain each day from February 15-20, totaling 1.68 inches. Elsewhere on **Kauai**, famously wet **Mount Waialeale** received 16.01 inches during the last 5 days of the week, including 8.40 inches in a 24-hour period on February 19-20.



## Selected U.S. Cold Wave Highlights

*The following information was compiled by USDA from information provided by the National Weather Service.*

### Lowest Temperature (°F) on Record

<u>Location</u>	<u>Low/Date</u>	<u>Previous Record</u>	<u>Location</u>	<u>Low/Date</u>	<u>Previous Record</u>
Spearfish, SD	-33 on 2/14	-32 on 1/04/1950, et al.	Lawton, OK	-12 on 2/16	-11 on 1/18 & 22/1930
Hastings, NE	-30 on 2/16	-30 on 1/12/1912	Tyler, TX	-6 on 2/16	-3 on 1/18/1930
			Longview, TX	-5 on 2/16	-4 on 1/18/1930

### Lowest February Temperature (°F) on Record

<u>Location</u>	<u>Low/Date</u>	<u>Previous Record</u>	<u>Location</u>	<u>Low/Date</u>	<u>Previous Record</u>
Goodland, KS	-22 on 2/14	-22 on 2/05/1982, et al.	Lincoln, NE	-31 on 2/16	-26 on 2/15/2021, et al.
Hastings, NE	-28 on 2/15	-22 on 2/01/1917	Hastings, NE	-30 on 2/16	-28 on 2/15/2021
Lincoln, NE	-26 on 2/15	-26 on 2/13/1905, et al.	Chanute, KS	-22 on 2/16	-16 on 2/03 & 10/2011
Goodland, KS	-24 on 2/15	-22 on 2/14/2021, et al.	Lawton, OK	-12 on 2/16	-3 on 2/08/1933
Hill City, KS	-21 on 2/15	-19 on 2/01/1951	Wichita Falls, TX	-8 on 2/16	-8 on 2/02/1985
			Waco, TX	-1 on 2/16	4 on 2/02/1985

### Lowest Temperature (°F) Since...

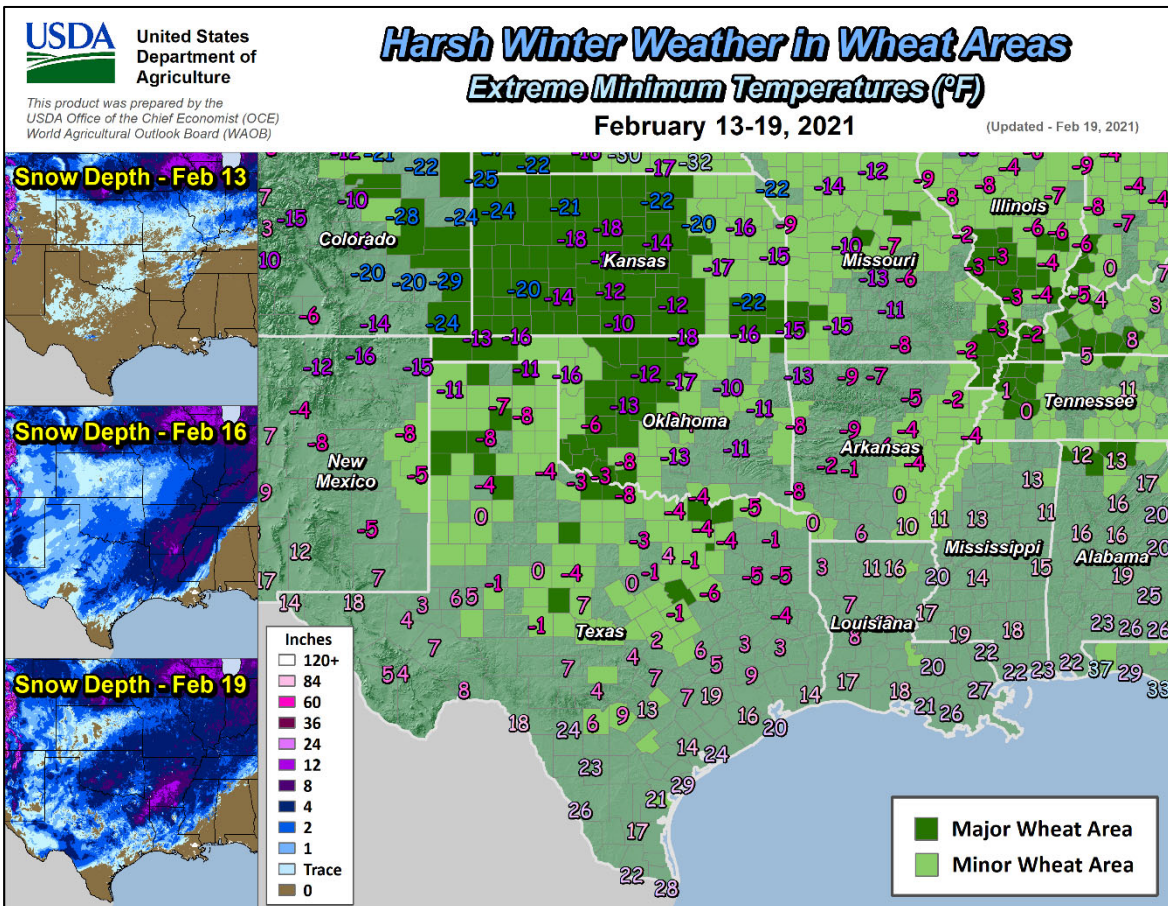
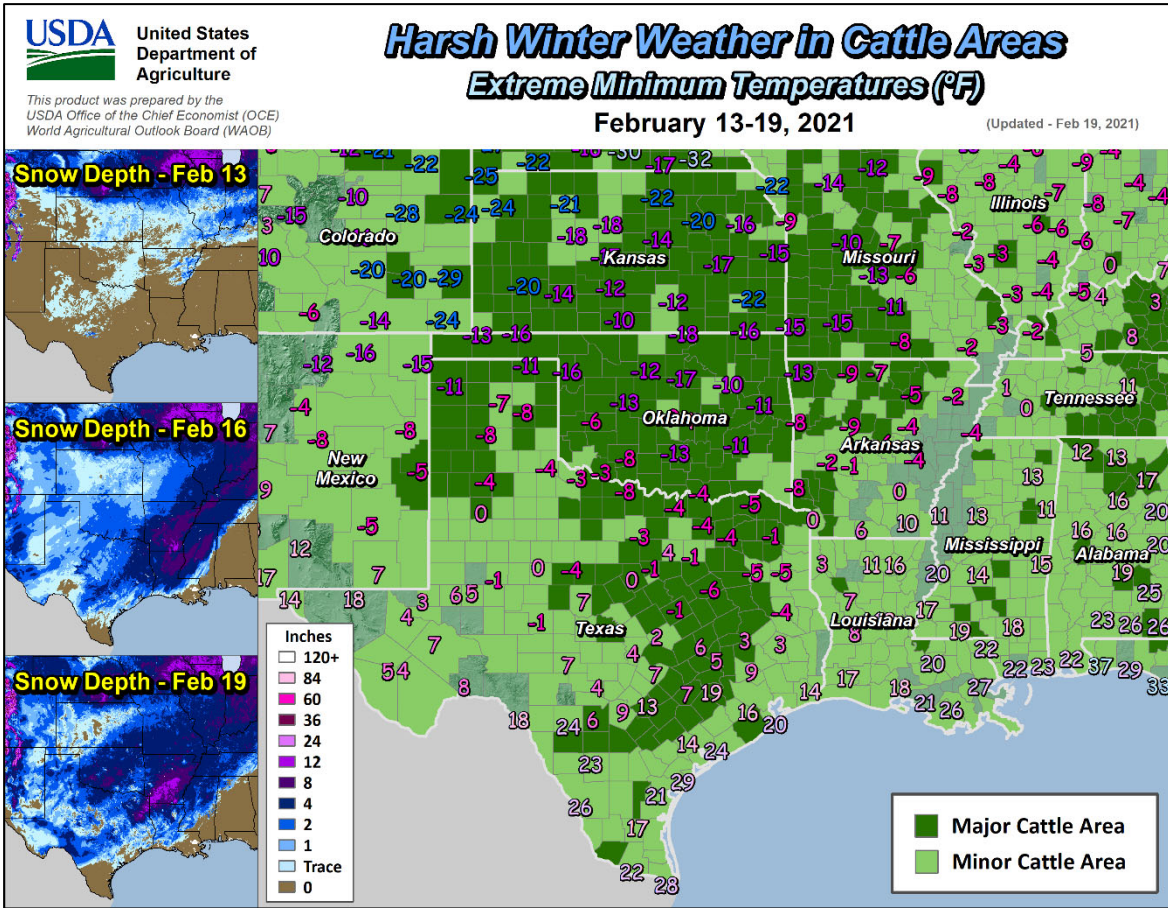
<u>Location</u>	<u>Low/Date</u>	<u>Coldest Since...</u>	<u>Location</u>	<u>Low/Date</u>	<u>Coldest Since...</u>
Valentine, NE	-33 on 2/15	-39 on 12/22/1989	W. Plains, MO	-12 on 2/16, 17	-13 on 12/24/1989
N. Platte, NE	-29 on 2/15	-34 on 12/22/1989	Mt. Ida, AR	-4 on 2/16	-5 on 12/24/1989
Goodland, KS	-24 on 2/15	-27 on 12/22/1989	Houston, TX	13 on 2/16	11 on 12/24/1989
Concordia, KS	-22 on 2/16	-26 on 12/22/1989	BPT, TX	14 on 2/16	13 on 12/24/1989
Russell, KS	-18 on 2/15	-24 on 12/22/1989	Lake Charles, LA	16 on 2/16	12 on 12/24/1989
Borger, TX	-7 on 2/15	-7 on 12/22/1989	Corpus Christi, TX	17 on 2/15	15 on 12/24/1989
McCook, NE	-22 on 2/15	-27 on 12/23/1989	McAllen, TX	22 on 2/15	20 on 12/24/1989
St. Joseph, MO	-22 on 2/16	-24 on 12/23/1989	Brownsville, TX	22 on 2/15	18 on 12/24/1989
Topeka, KS	-21 on 2/16	-26 on 12/23/1989	Amarillo, TX	-11 on 2/15	-12 on 1/31/1986
Springfield, MO	-15 on 2/16	-16 on 12/23/1989	Wichita Falls, TX	-8 on 2/16	-8 on 2/02/1985
Childress, TX	-4 on 2/15, 16	-5 on 12/23/1989	Midland, TX	-2 on 2/15	-11 on 2/02/1985
Abilene, TX	-4 on 2/16	-7 on 12/23/1989	Lincoln, NE	-31 on 2/16	-33 on 1/12/1974
Jonesboro, AR	-2 on 2/16	-5 on 12/23/1989	Pine Bluff, AR	0 on 2/16	-2 on 1/30/1966
San Angelo, TX	-1 on 2/15, 16	-4 on 12/23/1989	Grand Island, NE	-27 on 2/16	-28 on 1/27/1963
Waco, TX	-1 on 2/16	-4 on 12/23/1989	Russellville, AR	-9 on 2/16	-14 on 2/02/1951
Little Rock, AR	-1 on 2/16	-1 on 12/23/1989	De Queen, AR	-8 on 2/16	-14 on 2/02/1951
Lubbock, TX	0 on 2/14, 15	-1 on 12/23/1989	DFW, TX	-2 on 2/16	-2 on 1/31/1949
Memphis, TN	1 on 2/16	-3 on 12/23/1989	Chanute, KS	-22 on 2/16	-23 on 1/30/1949
Austin, TX	9 on 2/15	6 on 12/23/1989	Shreveport, LA	1 on 2/16	-2 on 1/18/1930
San Antonio, TX	9 on 2/15	6 on 12/23/1989	Norfolk, NE	-31 on 2/16	-32 on 1/05/1924
Victoria, TX	14 on 2/15	9 on 12/23/1989	Hastings, NE	-30 on 2/16	-30 on 1/12/1912
Galveston, TX	20 on 2/16	14 on 12/23/1989	Okla. City, OK	-14 on 2/16	-17 on 2/12/1899

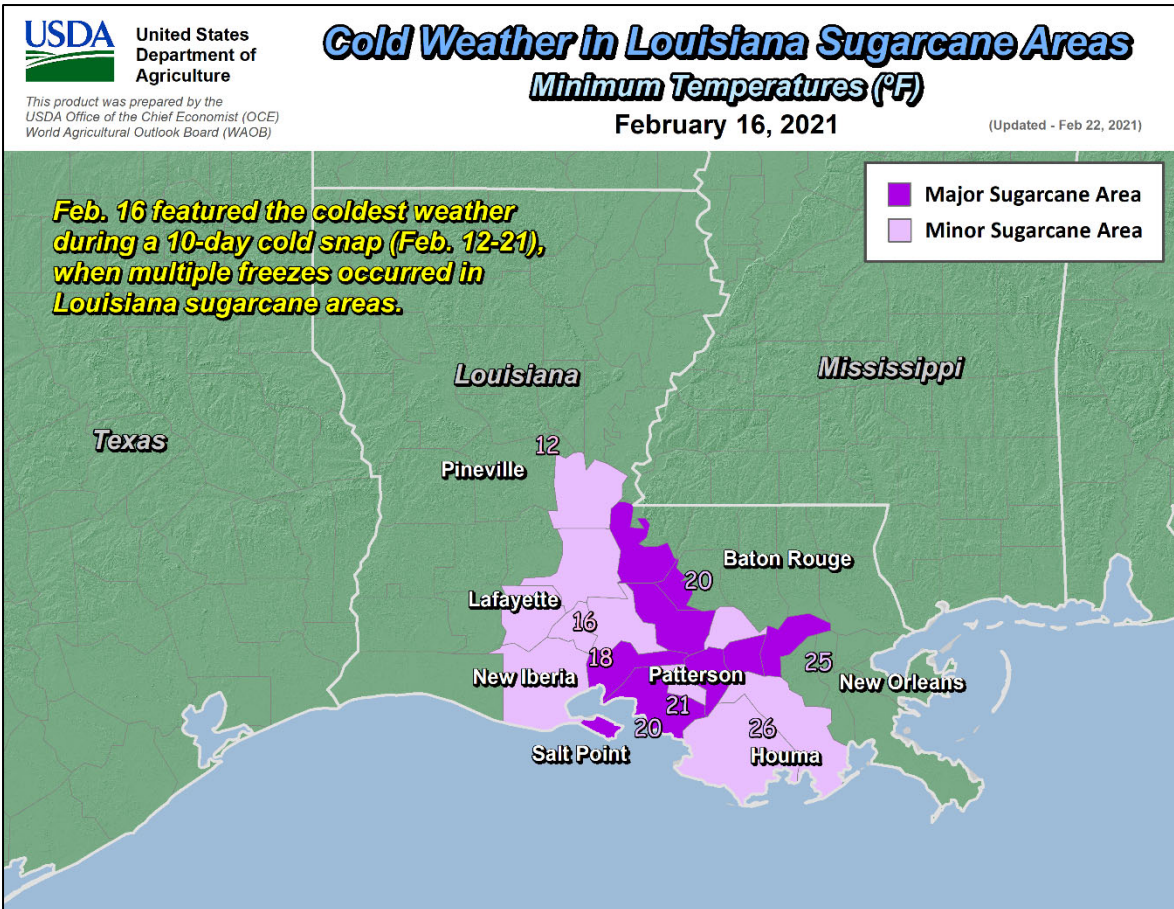
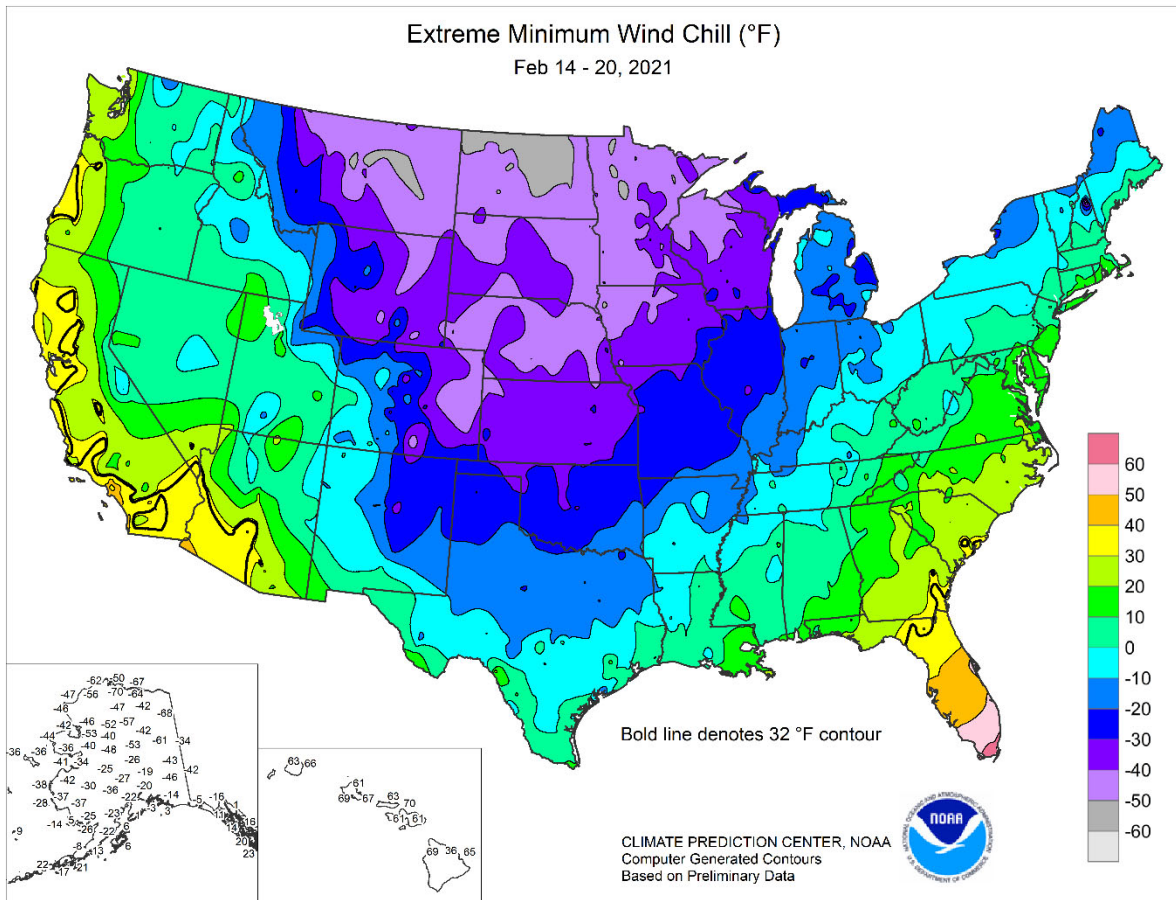
### Two-Storm Total Snowfall (Inches) February 11-18, 2021

<u>Location</u>	<u>Total</u>	<u>Snowiest Day of Spell</u>	<u>Location</u>	<u>Total</u>	<u>Snowiest Day of Spell</u>
Little Rock, AR	20.3	11.8 on February 17	Indianapolis, IN	9.8	6.8 on February 15
Pendleton, OR	19.7	4.5 on February 14	Portland, OR	9.6	6.1 on February 12
Flint, MI	16.5	6.7 on February 16	Peoria, IL	9.4	5.4 on February 15
Toledo, OH	16.1	8.0 on February 15	Lincoln, IL	9.3	5.3 on February 15
Abilene, TX	15.1	14.8 <sup>X,Y</sup> on February 14	Lewiston, ID	9.1	3.7 on February 15
Pine Bluff, AR	15.1	9.1 on February 17	Dayton, OH	9.0	5.9 on February 15
S. L. City, UT	14.3	11.7 <sup>Y</sup> on February 17	Louisville, KY	8.3	4.9 on February 15
Milwaukee, WI	13.6	5.9 on February 16	Springfield, IL	8.0	5.8 on February 15
Detroit, MI	13.4	7.2 on February 15	St. Louis, MO	7.6	5.7 on February 15
Ft. Wayne, IN	13.2	10.1 on February 15	Clayton, NM	7.0	3.3 on February 14
Lansing, MI	12.9	5.5 on February 15	Co. Springs, CO	6.7	3.3 on February 17
Chicago, IL	12.8	6.1 on February 15	Austin, TX	6.5	6.1 on February 15
Seattle, WA	12.4	8.9 on February 13	Shreveport, LA	6.3	4.2 on February 15
Amarillo, TX	12.4	7.4 on February 16	San Antonio, TX	6.2	2.5 on February 15, 18
South Bend, IN	12.3	6.5 on February 15	Lexington, KY	6.2	2.5 on February 16
Boise, ID	11.8	5.5 on February 13	Midland, TX	5.6	5.3 on February 14
Paducah, KY	11.3	9.0 on February 15	Evansville, IN	5.1	3.5 on February 15
Grand Rapids, MI	10.8	3.4 on February 15	DFW, TX	5.0	4.0 on February 14
Okla. City, OK	10.6	6.0 on February 14	Nashville, TN	5.1	2.8 on February 17
San Angelo, TX	10.1	10.1 <sup>X,Y</sup> on February 14	Waco, TX	4.6	2.5 on February 15
Memphis, TN	10.0	4.7 on February 17	Tupelo, MS	3.8	2.0 on February 17
Tulsa, OK	10.0	4.2 on February 14	College Stn., TX	3.0	3.0 on February 15

<sup>X</sup> Highest daily snowfall on record was 9.3" in Abilene on 4/05/1996 and 10.0" in San Angelo on 1/16/1919.

<sup>Y</sup> Highest snowfall on any Feb. day was 8.0" in Abilene on 2/12/1890; 8.0" in San Angelo on 2/24/1924; and 10.9" in SLC on 2/01/1989).





National Weather Data for Selected Cities

Weather Data for the Week Ending February 20, 2021

Data Provided by Climate Prediction Center

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS					
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN. SINCE DEC 1	PCT. NORMAL SINCE DEC 1	TOTAL, IN. SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP	
																		01 INCH OR MORE	.50 INCH OR MORE		
AK ANCHORAGE	24	11	30	-2	18	-3	0.37	0.18	0.21	2.72	112	1.26	97	81	51	0	7	2	0		
AK BARROW	-9	-21	-4	-28	-15	0	0.17	0.12	0.07	1.13	259	0.39	144	79	68	0	7	6	0		
AK FAIRBANKS	4	-18	12	-39	-7	0	0.35	0.24	0.22	1.00	64	0.77	85	83	66	0	7	3	0		
AK JUNEAU	34	22	40	9	28	-2	1.45	0.43	0.60	20.85	147	7.95	95	87	61	0	7	4	2		
AK KODIAK	39	30	42	24	34	3	1.20	-0.25	0.45	28.77	133	15.72	123	84	64	0	5	6	0		
AK NOME	9	-9	26	-23	0	-8	0.00	-0.25	0.00	2.33	84	1.02	61	74	51	0	7	0	0		
AL BIRMINGHAM	45	24	55	16	35	-13	2.38	1.25	0.94	10.47	83	6.68	82	89	54	0	5	3	3		
AL HUNTSVILLE	35	21	48	13	28	-18	2.14	0.91	1.07	10.11	71	5.53	66	96	69	0	7	4	2		
AL MOBILE	49	28	62	19	39	-16	0.72	-0.54	0.68	9.48	66	4.91	52	95	54	0	5	2	1		
AL MONTGOMERY	50	35	59	19	42	-8	0.33	-1.01	0.27	6.94	52	5.06	60	85	52	0	2	2	0		
AR FORT SMITH	28	7	47	-8	17	-27	0.64	-0.05	0.22	6.86	85	3.21	68	88	54	0	7	4	0		
AR LITTLE ROCK	26	11	38	4	19	-27	1.44	0.52	0.69	9.19	83	4.44	73	84	58	0	7	4	2		
AZ FLAGSTAFF	41	18	53	14	30	-3	0.17	-0.39	0.16	4.78	88	4.44	124	78	30	0	7	2	0		
AZ PHOENIX	70	47	79	44	58	-2	0.00	-0.25	0.00	0.89	35	0.44	27	37	13	0	0	0	0		
AZ PRESCOTT	51	26	60	21	39	-3	0.01	-0.37	0.01	1.98	64	1.91	91	71	24	0	7	1	0		
AZ TUCSON	67	41	82	36	54	-1	0.00	-0.23	0.00	0.96	36	0.71	43	42	11	0	0	0	0		
CA BAKERSFIELD	64	42	69	40	53	-1	0.00	-0.32	0.00	1.39	44	1.05	51	74	31	0	0	0	0		
CA EUREKA	51	40	52	33	45	-4	2.06	0.66	0.55	12.79	68	8.99	85	97	84	0	0	6	1		
CA FRESNO	62	43	70	39	53	0	0.00	-0.51	0.00	4.78	87	3.65	99	81	37	0	0	0	0		
CA LOS ANGELES	66	50	68	47	58	1	0.00	-0.89	0.00	3.53	49	1.90	37	81	23	0	0	0	0		
CA REDDING	47	40	48	37	43	-7	0.00	-1.20	0.00	8.46	52	6.11	62	83	60	0	0	0	0		
CA SACRAMENTO	59	42	62	34	51	-1	0.12	-0.74	0.07	4.95	53	3.41	55	87	44	0	0	2	0		
CA SAN DIEGO	65	50	69	46	57	-1	0.05	-0.57	0.05	2.49	48	1.89	52	80	44	0	0	1	0		
CA SAN FRANCISCO	59	49	64	43	54	1	0.23	-0.80	0.14	5.45	48	4.08	57	84	51	0	0	3	0		
CA STOCKTON	62	44	65	34	53	2	0.00	-0.64	0.00	6.70	98	4.91	107	82	43	0	0	0	0		
CO ALAMOSA	32	1	44	-6	17	-7	0.26	0.17	0.22	0.87	94	0.50	97	90	48	0	7	2	0		
CO CO SPRINGS	28	3	47	-16	15	-17	0.50	0.41	0.21	1.67	167	1.15	187	81	50	0	7	3	0		
CO DENVER INTL	32	5	58	-16	19	-14	0.22	0.12	0.12	1.09	97	0.57	79	84	44	0	7	4	0		
CO GRAND JUNCTION	40	20	50	16	30	-5	0.06	-0.07	0.04	0.98	64	0.67	71	81	37	0	7	3	0		
CO PUEBLO	26	0	48	-20	13	-21	0.21	0.12	0.09	1.01	97	0.85	136	87	62	0	7	3	0		
CT BRIDGEPORT	36	27	48	23	31	-1	1.45	0.75	0.97	8.39	101	4.34	87	83	52	0	6	4	1		
CT HARTFORD	33	24	44	20	28	-2	0.95	0.24	0.74	9.81	113	5.03	96	82	52	0	7	4	1		
DC WASHINGTON	38	29	45	25	33	-6	1.45	0.80	0.65	9.61	124	4.89	104	84	52	0	6	4	1		
DE WILMINGTON	37	26	51	23	31	-4	1.48	0.82	0.65	9.67	115	4.51	92	86	53	0	6	4	1		
FL DAYTONA BEACH	78	56	88	48	67	6	1.70	1.02	0.95	4.61	63	4.05	87	90	55	0	0	4	1		
FL JACKSONVILLE	68	46	86	39	57	0	3.03	2.22	1.37	9.36	113	7.82	142	99	67	0	0	3	3		
FL KEY WEST	81	73	83	66	77	6	0.05	-0.30	0.05	2.46	46	1.02	33	87	73	0	0	1	0		
FL MIAMI	83	71	86	62	77	7	1.69	1.13	1.24	4.75	90	3.17	98	92	64	0	0	4	1		
FL ORLANDO	80	60	87	49	70	7	1.38	0.79	0.98	3.87	59	2.83	70	96	52	0	0	4	1		
FL PENSACOLA	57	37	66	27	47	-8	0.17	-1.11	0.09	10.42	81	5.64	68	98	48	0	3	2	0		
FL TALLAHASSEE	63	42	73	33	53	-3	1.57	0.33	0.81	13.22	114	10.09	131	95	64	0	0	4	1		
FL TAMPA	76	59	82	47	68	4	1.19	0.47	0.94	7.16	106	4.49	105	91	63	0	0	5	1		
FL WEST PALM BEACH	85	71	89	59	78	10	1.53	0.85	0.89	5.06	60	2.81	55	90	60	0	0	4	1		
GA ATHENS	50	35	57	26	42	-5	1.24	0.07	0.71	10.05	91	7.03	96	85	56	0	3	3	1		
GA ATLANTA	48	33	54	23	41	-7	1.55	0.35	0.78	9.35	81	7.07	93	89	57	0	3	4	2		
GA AUGUSTA	55	35	63	27	45	-4	3.85	2.82	1.86	14.25	142	11.15	167	93	60	0	3	5	3		
GA COLUMBUS	52	35	59	25	44	-8	1.98	0.82	1.05	11.15	99	8.04	115	91	55	0	3	4	2		
GA MACON	54	35	61	24	45	-6	1.96	0.83	1.09	9.71	85	7.45	100	93	59	0	3	5	1		
GA SAVANNAH	60	41	69	36	51	-3	2.09	1.42	1.07	7.71	90	5.99	106	92	63	0	0	4	1		
HI HILO	82	67	84	65	74	3	1.01	-1.30	0.35	33.63	122	19.34	121	86	59	0	0	7	0		
HI HONOLULU	82	71	83	70	76	3	0.42	-0.11	0.38	4.73	68	4.43	121	86	57	0	0	2	0		
HI KAHULUI	81	66	86	61	74	2	0.22	-0.21	0.15	4.42	58	4.27	101	88	58	0	0	3	0		
HI LIHUE	79	70	80	66	74	3	1.31	0.53	0.50	7.09	63	5.06	85	93	70	0	0	5	0		
IA BURLINGTON	15	-4	34	-11	6	-25	0.01	-0.39	0.01	3.50	79	1.68	73	88	57	0	7	1	0		
IA CEDAR RAPIDS	10	-9	29	-16	1	-24	0.00	-0.31	0.00	1.49	46	0.82	46	86	66	0	7	0	0		
IA DES MOINES	14	-3	34	-17	6	-23	0.02	-0.29	0.02	3.06	93	1.14	60	77	56	0	7	1	0		
IA DUBUQUE	13	-9	25	-17	2	-22	0.00	-0.37	0.00	2.93	73	1.66	77	83	57	0	7	0	0		
IA SIOUX CITY	11	-10	27	-28	1	-25	0.00	-0.16	0.00	1.73	93	1.37	131	84	60	0	7	0	0		
IA WATERLOO	11	-15	25	-19	-2	-26	0.02	-0.23	0.01	2.54	92	1.72	112	82	59	0	7	2	0		
ID BOISE	39	27	43	14	33	-4	0.50	0.26	0.30	3.53	100	2.98	152	95	64	0	6	5	0		
ID LEWISTON	33	23	43	12	28	-10	0.58	0.39	0.41	2.57	96	1.94	116	93	67	0	7	5	0		
ID POCATELLO	32	22	37	11	27	-2	0.92	0.67	0.63	2.31	78	1.91	112	89	70	0	7	6	1		
IL CHICAGO/O_HARE	20	5	29	-5	13	-16	0.27	-0.19	0.18	4.57	88	2.02	69	82	54	0	7	4	0		
IL MOLINE	16	-5	32	-15	6	-22	0.21	-0.20	0.17	5.76	122	3.00	118	79	52	0	7	3	0		
IL PEORIA	17	0	32	-6	8	-22	0.58	0.13	0.46	5.37	99	4.13	138	80	55	0	7	5	0		
IL ROCKFORD	17	-3	28	-12	7	-20	0.14	-0.23	0.08	4.31	100	2.57	111	74	50	0	7	3	0		
IL SPRINGFIELD	17	-1	33	-8	8	-24	0.42	-0.03	0.39	5.04	90	3.98	131	84	63	0	7	3	0		
IN EVANSVILLE	25	6	36	2	16	-21	0.84	0.07	0.66	7.06	77	5.07	94	78	52	0	7	4	1		
IN FORT WAYNE	21	3	26	-6	12	-17	0.91	0.41	0.80	4.30	66	3.05	82	85	63	0	7	3	1		
IN INDIANAPOLIS	22	7	33	2	15	-18	0.69	0.13	0.55	4.83	65	3.41	80	87	61	0	7	3	1		
IN SOUTH BEND	21	5	29	-4	13	-15	0.53	0.04	0.45	5.70	92	3.17	87	83	56	0	7	3	0		
KS CONCORDIA	21	1	52	-22	11	-22	0.08	-0.12	0.08	1.81	89	1.13	99	78	53	0	7	1	0		
KS DODGE CITY	25	1	59	-14	13	-23	0.04	-0.13	0.04	1.42	73	0.37	35	85	55	0	7	1	0		
KS GOODLAND	23	-2	55	-24	11	-22	0.14	0.02	0.14	1.50	121										



Weather Data for the Week Ending February 20, 2021

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS					
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN. SINCE DEC 1	PCT. NORMAL SINCE DEC 1	TOTAL, IN. SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP	
																		01 INCH OR MORE	50 INCH OR MORE		
KY WICHITA	20	0	41	-17	10	-28	0.23	-0.07	0.18	4.52	158	2.87	173	85	61	0	7	4	0		
KY LEXINGTON	26	11	29	2	18	-19	0.95	0.16	0.83	9.62	103	7.05	130	88	74	0	7	4	1		
KY LOUISVILLE	29	15	37	10	22	-18	0.65	-0.14	0.45	8.39	90	5.92	108	88	58	0	7	4	0		
LA PADUCAH	23	5	37	-2	14	-25	0.76	-0.22	0.64	9.21	83	6.68	103	84	56	0	7	3	1		
LA BATON ROUGE	40	26	61	20	33	-24	1.38	0.04	0.89	11.57	82	7.35	76	89	63	0	7	3	1		
LA LAKE CHARLES	43	27	59	16	35	-21	1.28	0.41	0.69	9.17	73	4.80	61	90	54	0	6	3	2		
LA NEW ORLEANS	48	32	58	25	40	-17	1.11	-0.24	0.90	10.63	74	6.61	72	85	60	0	3	3	1		
LA SHREVEPORT	33	16	47	1	25	-26	1.91	0.67	1.32	13.32	107	5.28	68	84	59	0	7	3	1		
MA BOSTON	33	25	40	21	29	-3	1.16	0.35	0.60	8.13	86	4.66	83	88	56	0	7	4	1		
MA WORCESTER	31	22	40	19	26	-1	1.04	0.25	0.72	15.35	161	9.30	162	81	53	0	7	4	1		
MD BALTIMORE	38	27	48	22	33	-4	1.41	0.69	0.57	9.63	114	5.12	101	82	49	0	6	4	2		
ME CARIBOU	22	2	25	-10	12	-3	0.78	0.25	0.67	5.38	71	2.97	69	84	53	0	7	5	1		
ME PORTLAND	30	19	34	15	25	-1	0.66	-0.15	0.59	7.65	79	3.68	65	88	54	0	7	3	1		
MI ALPENA	23	0	31	-5	11	-9	0.13	-0.20	0.12	2.41	56	1.17	45	86	45	0	7	2	0		
MI GRAND RAPIDS	21	3	26	-12	12	-15	0.48	0.03	0.28	4.39	75	2.30	70	91	58	0	7	4	0		
MI HOUGHTON LAKE	20	-3	27	-15	9	-12	0.20	-0.09	0.16	3.46	87	1.70	73	90	49	0	7	3	0		
MI LANSING	21	5	27	-9	13	-14	0.63	0.26	0.38	4.73	104	2.70	102	90	54	0	7	6	0		
MI MUSKEGON	22	6	26	-9	14	-13	0.29	-0.18	0.12	5.17	88	2.78	84	77	47	0	7	4	0		
MI TRAVERSE CITY	23	8	29	-3	15	-8	0.07	-0.29	0.04	1.30	20	0.64	16	87	53	0	7	2	0		
MN DULUTH	11	-14	23	-28	-2	-17	0.04	-0.17	0.03	1.67	61	0.85	56	79	46	0	7	2	0		
MN INT_L FALLS	13	-28	29	-39	-7	-19	0.00	-0.14	0.00	1.48	80	0.63	63	81	38	0	7	0	0		
MN MINNEAPOLIS	11	-7	22	-19	2	-20	0.07	-0.11	0.05	1.91	73	1.16	81	80	53	0	7	2	0		
MN ROCHESTER	8	-12	20	-23	-2	0	0.02	-0.19	0.01	1.43	52	1.30	88	80	59	0	7	2	0		
MN ST. CLOUD	9	-17	22	-28	-4	-22	0.06	-0.08	0.06	1.21	64	0.76	74	84	53	0	7	1	0		
MO COLUMBIA	18	1	41	-8	10	-25	0.39	-0.19	0.20	4.59	77	3.95	114	83	57	0	7	3	0		
MO KANSAS CITY	20	1	43	-13	10	-24	0.26	-0.10	0.14	4.24	116	2.98	142	81	56	0	7	4	0		
MO SAINT LOUIS	20	4	39	-4	12	-24	0.57	0.02	0.52	6.41	94	4.83	121	78	56	0	7	3	1		
MO SPRINGFIELD	19	-1	44	-15	9	-29	0.49	-0.15	0.25	6.24	86	4.76	114	90	63	0	7	4	0		
MS JACKSON	35	21	54	14	28	-22	1.64	0.46	0.93	10.50	77	5.50	65	91	65	0	7	4	2		
MS MERIDIAN	38	22	59	14	30	-19	3.47	2.07	2.20	11.24	78	7.63	83	88	63	0	7	3	2		
MS TUPELO	33	19	48	13	26	-20	1.38	0.09	0.72	11.26	79	6.20	78	85	55	0	7	3	2		
MT BILLINGS	21	4	37	-22	13	-18	0.04	-0.08	0.03	1.46	108	1.11	133	83	62	0	7	2	0		
MT BUTTE	27	9	38	-10	18	-5	0.03	-0.08	0.02	0.88	66	0.77	96	88	55	0	7	2	0		
MT CUT BANK	18	-1	35	-25	8	-16	0.00	-0.07	0.00	0.34	51	0.13	33	85	67	0	7	0	0		
MT GLASGOW	20	-5	41	-28	8	-12	0.00	-0.07	0.00	0.20	19	0.19	31	76	51	0	7	0	0		
MT GREAT FALLS	20	2	38	-25	11	-16	0.13	0.01	0.07	0.91	64	0.81	94	80	62	0	7	3	0		
MT HAVRE	18	-8	38	-34	5	-18	0.10	0.02	0.09	0.59	57	0.51	84	85	67	0	7	2	0		
MT MISSOULA	29	16	39	4	22	-8	0.26	0.09	0.17	1.80	73	1.37	99	98	62	0	7	5	0		
NC ASHEVILLE	42	28	45	20	35	-5	2.02	1.04	1.11	10.36	104	6.36	100	97	68	0	5	4	2		
NC CHARLOTTE	47	32	53	26	40	-5	2.18	1.31	0.84	10.89	122	7.97	140	90	62	0	3	5	2		
NC GREENSBORO	42	29	51	24	36	-7	2.25	1.48	0.97	12.07	150	8.10	160	90	63	0	6	5	2		
NC HATTERAS	51	41	62	36	46	-1	3.36	2.35	1.45	19.97	160	13.30	163	97	77	0	0	5	3		
NC RALEIGH	46	31	60	28	39	-6	2.25	1.44	0.78	15.50	177	9.93	173	92	67	0	5	5	2		
NC WILMINGTON	52	36	70	28	44	-5	2.98	2.06	1.15	12.69	128	9.93	158	95	69	0	2	5	3		
ND BISMARCK	21	-11	46	-28	5	-14	0.06	-0.07	0.03	0.64	49	0.38	48	79	40	0	7	3	0		
ND DICKINSON	18	-7	47	-30	6	-15	0.00	-0.10	0.00	0.00	0	0.00	0	78	48	0	7	0	0		
ND FARGO	8	-11	26	-25	-1	-17	0.02	-0.14	0.01	0.91	46	0.33	30	83	59	0	7	2	0		
ND GRAND FORKS	11	-12	29	-26	-1	-13	0.00	-0.13	0.00	0.71	47	0.30	34	77	52	0	7	0	0		
ND JAMESTOWN	14	-10	41	-26	2	-13	0.00	-0.11	0.00	0.47	39	0.21	28	77	48	0	7	0	0		
NE GRAND ISLAND	14	-8	33	-27	3	-26	0.07	-0.09	0.06	2.41	148	1.57	159	79	57	0	7	2	0		
NE LINCOLN	15	-9	37	-31	3	-26	0.02	-0.17	0.02	2.53	118	1.44	122	80	51	0	7	1	0		
NE NORFOLK	12	-11	30	-31	0	-27	0.01	-0.17	0.01	1.30	69	0.81	72	84	58	0	7	1	0		
NE NORTH PLATTE	17	-13	39	-29	2	-27	0.12	-0.02	0.12	2.54	219	1.82	253	86	61	0	7	1	0		
NE OMAHA	14	-3	33	-23	6	-23	0.01	-0.21	0.01	2.67	112	1.55	118	85	54	0	7	1	0		
NE SCOTTSBLUFF	21	-7	39	-20	7	-24	0.08	-0.07	0.07	1.36	100	0.96	114	83	62	0	7	2	0		
NE VALENTINE	13	-12	27	-33	1	-27	0.00	-0.13	0.00	1.47	141	1.06	170	81	58	0	6	0	0		
NH CONCORD	30	18	36	11	24	-1	1.19	0.54	0.91	7.55	97	3.86	85	87	53	0	7	4	1		
NJ ATLANTIC CITY	40	27	57	23	34	-2	1.76	1.04	0.98	11.96	135	6.91	133	94	63	0	6	4	2		
NJ NEWARK	37	26	51	22	31	-4	1.39	0.69	0.83	9.57	103	5.90	107	86	53	0	7	4	1		
NM ALBUQUERQUE	40	19	65	7	29	-12	0.39	0.26	0.16	0.82	63	0.61	79	83	41	0	7	4	0		
NV ELY	36	15	47	0	26	-4	0.23	0.03	0.09	1.40	76	1.03	84	82	43	0	7	4	0		
NV LAS VEGAS	60	43	63	39	51	-2	0.00	-0.24	0.00	0.13	8	0.09	8	33	14	0	0	0	0		
NV RENO	47	31	58	21	39	-2	0.01	-0.26	0.01	1.67	59	1.39	79	76	33	0	4	1	0		
NV WINNEMUCCA	43	27	51	15	35	-1	0.56	0.39	0.29	2.39	105	2.00	153	87	46	0	5	4	0		
NY ALBANY	27	16	34	13	22	-5	0.92	0.39	0.67	7.29	104	3.60	88	94	60	0	7	3	1		
NY BINGHAMTON	26	15	38	7	21	-4	0.94	0.38	0.33	9.52	139	3.73	93	93	66	0	7	5	0		
NY BUFFALO	26	15	30	6	21	-6	0.63	0.02	0.30	6.44	73	2.70	55	85	61	0	7	5	0		
NY ROCHESTER	28	14	32	3	20	-6	0.89	0.41	0.36	5.12	80	3.25	86	92	63	0	7	5	0		
NY SYRACUSE	29	18	35	7	23	-3	0.83	0.32	0.37	6.70	93	4.09	103	86	57	0	7	6	0		
OH AKRON-CANTON	27	13	30	3	20	-9	0.56	0.00	0.41	5.39	76	2.96	70	86	64	0	7	4	0		
OH CINCINNATI	26	11	33	4	18	-17	0.55	-0.12	0.42	6.49	78	4.74	95	85	59	0	7	4	0		
OH CLEVELAND	25	13	27	1	19	-12	0.56	-0.01	0.37	5.14	69	2.56	59	92	66	0	7	4	0		
OH COLUMBUS	26	14	30	5	20	-14	0.68	0.14	0.54	5.76	79	3.56	82	92	63	0	7	4	1		
OH DAYTON	23	10	28	-1	17	-15	0.60	0.07	0.48	4.56	62	3.67	86	79	57	0	7	3	0		
OH MANSFIELD	24	10	29	0	17	-12	0.84	0.27	0.64	4.85	62	2.96	65	92	67	0	7	3	1		

Based on 1981-2010 normals

\*\*\* Not Available

Weather Data for the Week Ending February 20, 2021

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN. SINCE DEC 1	PCT. NORMAL SINCE DEC 1	TOTAL, IN. SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	PRECIP	
																		01 INCH OR MORE	.50 INCH OR MORE
OK TOLEDO	22	5	26	-10	13	-15	0.83	0.31	0.66	4.23	68	2.97	85	86	61	0	7	3	1
OK YOUNGSTOWN	27	14	30	2	20	-8	0.65	0.13	0.50	6.52	93	2.91	72	85	63	0	7	4	0
OK OKLAHOMA CITY	21	1	42	-14	11	-33	0.43	0.04	0.28	4.81	110	2.11	84	85	63	0	7	3	0
OR TULSA	24	2	48	-13	13	-30	0.50	0.03	0.19	6.28	116	2.96	102	85	58	0	7	4	0
OR ASTORIA	48	39	50	34	44	-1	2.28	0.56	0.70	32.28	127	24.24	157	96	74	0	0	7	2
OR BURNS	38	21	44	16	30	1	0.75	0.50	0.41	3.95	113	3.24	169	91	60	0	7	5	0
OR EUGENE	50	40	52	35	45	2	0.83	-0.53	0.39	15.57	83	9.22	85	93	66	0	0	5	0
OR MEDFORD	50	38	54	31	44	0	0.93	0.41	0.43	6.55	89	3.63	93	89	55	0	1	6	0
OR PENDLETON	34	22	39	10	28	-11	0.75	0.48	0.31	3.83	103	2.86	128	97	72	0	7	5	0
OR PORTLAND	46	35	52	28	40	-3	0.89	0.00	0.30	15.35	118	10.36	138	90	63	0	2	6	0
OR SALEM	49	37	53	31	43	0	1.19	0.07	0.38	18.55	114	12.19	131	92	67	0	1	6	0
PA ALLENTOWN	34	22	43	18	28	-3	1.33	0.67	0.47	9.19	108	5.08	103	84	54	0	7	4	0
PA ERIE	26	17	29	8	22	-7	0.73	0.15	0.32	8.75	105	5.32	116	81	64	0	7	5	0
PA MIDDLETOWN	35	26	45	23	31	-3	1.42	0.84	0.48	8.88	114	4.73	104	77	48	0	6	4	0
PA PHILADELPHIA	36	27	51	24	32	-5	1.43	0.78	0.67	8.78	104	4.46	91	87	53	0	6	4	2
PA PITTSBURGH	29	16	34	8	22	-9	0.80	0.22	0.62	6.92	95	3.11	70	91	65	0	7	4	1
PA WILKES-BARRE	32	21	42	14	27	-2	1.06	0.58	0.43	7.63	117	4.14	108	85	57	0	7	4	0
PA WILLIAMSPORT	32	21	40	15	27	-3	0.89	0.31	0.35	8.84	121	4.22	97	87	56	0	7	5	0
RI PROVIDENCE	37	27	56	24	32	0	0.98	0.18	0.59	11.69	113	4.28	70	86	54	0	7	4	1
SC CHARLESTON	55	38	68	33	46	-6	3.26	2.55	1.30	10.68	120	8.98	155	99	70	0	0	4	4
SC COLUMBIA	51	35	58	28	43	-6	4.19	3.25	1.74	14.36	154	11.50	189	92	63	0	3	5	3
SC FLORENCE	53	36	65	31	44	-5	3.96	3.21	2.42	15.08	183	12.11	230	92	63	0	1	5	2
SC GREENVILLE	46	31	55	25	39	-7	1.35	0.31	0.84	10.31	96	7.58	115	85	55	0	4	3	1
SD ABERDEEN	14	-13	33	-25	1	-18	0.02	-0.12	0.02	0.90	65	0.59	69	76	53	0	7	1	0
SD HURON	13	-11	35	-23	1	-21	0.02	-0.13	0.02	0.94	65	0.63	69	84	55	0	7	1	0
SD RAPID CITY	14	-7	37	-23	4	-24	0.01	-0.11	0.01	0.77	70	0.48	75	83	64	0	7	1	0
SD SIOUX FALLS	10	-11	27	-26	-1	-23	0.02	-0.12	0.02	1.58	96	1.16	122	85	57	0	7	1	0
TN BRISTOL	46	27	57	20	37	-3	1.35	0.49	1.15	10.70	116	7.19	123	93	64	0	4	5	1
TN CHATTANOOGA	44	28	51	21	37	-8	2.13	0.93	0.95	10.98	82	6.53	78	89	56	0	5	3	2
TN KNOXVILLE	42	26	46	20	34	-9	1.35	0.26	0.81	9.40	78	5.80	78	94	64	0	5	3	1
TN MEMPHIS	26	11	42	1	18	-28	0.93	-0.19	0.66	11.35	88	5.27	74	87	65	0	7	3	1
TN NASHVILLE	30	16	42	11	23	-19	1.22	0.23	0.75	7.81	72	4.46	68	86	64	0	7	4	1
TX ABILENE	30	10	64	-4	20	-29	0.31	-0.05	0.24	3.31	102	1.51	75	85	59	0	6	2	0
TX AMARILLO	23	2	56	-11	13	-28	0.37	0.25	0.25	1.20	64	0.96	85	88	64	0	7	2	0
TX AUSTIN	36	18	62	7	27	-29	0.72	0.20	0.52	5.15	85	2.50	68	85	60	0	7	4	1
TX BEAUMONT	41	25	57	14	33	-23	1.36	0.46	0.85	11.25	85	5.54	70	95	60	0	7	3	1
TX BROWNSVILLE	48	33	69	28	40	-24	0.15	-0.11	0.07	2.14	65	1.10	51	89	65	0	2	3	0
TX CORPUS CHRISTI	44	26	65	17	35	-26	0.21	-0.30	0.12	3.44	73	1.73	60	93	63	0	7	4	0
TX DEL RIO	26	17	34	16	21	-36	0.11	0.01	0.11	1.88	100	0.64	52	75	58	0	2	1	0
TX EL PASO	52	25	73	14	38	-12	0.53	0.41	0.51	0.74	46	0.72	90	79	35	0	6	2	1
TX FORT WORTH	30	12	56	-2	21	-29	0.34	-0.33	0.16	4.23	64	1.27	32	87	57	0	7	4	0
TX GALVESTON	46	30	56	20	38	-20	0.60	0.00	0.33	6.15	0	2.17	0	86	62	0	3	3	0
TX HOUSTON	41	24	60	13	33	-24	0.84	0.00	0.52	8.50	90	4.05	71	85	55	0	7	3	1
TX LUBBOCK	30	8	64	0	19	-26	0.24	0.05	0.14	1.32	66	1.24	102	88	58	0	7	3	0
TX MIDLAND	30	10	60	-2	20	-29	0.11	-0.10	0.11	1.02	60	0.51	46	95	68	0	7	1	0
TX SAN ANGELO	35	11	64	-1	23	-28	0.27	-0.10	0.27	2.53	90	1.51	79	88	61	0	7	1	0
TX SAN ANTONIO	38	19	60	9	28	-28	0.33	-0.13	0.12	3.06	61	2.22	73	87	58	0	7	4	0
TX VICTORIA	42	24	63	14	33	-24	0.06	-0.46	0.06	4.04	64	1.49	37	94	61	0	6	1	0
TX WACO	32	14	55	-1	23	-28	0.27	-0.39	0.12	6.96	104	2.53	64	85	57	0	7	4	0
UT WICHITA FALLS	25	3	53	-8	14	-32	0.57	0.09	0.38	2.45	62	1.24	53	88	60	0	7	3	0
UT SALT LAKE CITY	38	26	44	19	32	-2	0.74	0.42	0.42	2.78	79	2.45	116	89	55	0	7	4	0
VA LYNCHBURG	40	28	53	23	34	-4	1.22	0.49	0.72	11.52	137	6.69	128	86	59	0	5	3	1
VA NORFOLK	46	35	69	30	40	-3	2.61	1.83	0.91	13.14	148	8.95	160	88	64	0	1	5	4
VA RICHMOND	40	29	53	24	35	-7	1.77	1.10	0.67	14.11	172	7.44	151	90	64	0	6	5	2
VA ROANOKE	39	27	48	22	33	-7	1.48	0.74	0.85	10.79	136	7.18	144	87	64	0	5	4	2
VA WASH/DULLES	36	27	43	23	31	-5	1.35	0.67	0.67	10.28	135	4.50	97	87	53	0	6	3	2
VT BURLINGTON	28	12	35	9	20	-2	0.64	0.23	0.58	4.19	73	3.01	91	80	53	0	7	3	1
WA OLYMPIA	45	34	49	26	39	-2	1.75	0.51	0.85	24.08	125	16.85	144	97	73	0	3	5	1
WA QUILLAYUTE	46	35	48	31	40	-2	2.30	-0.18	0.76	37.87	108	22.15	100	97	77	0	3	6	2
WA SEATTLE-TACOMA	46	37	50	30	41	-2	0.92	0.11	0.41	18.28	135	11.71	144	93	64	0	1	5	0
WA SPOKANE	28	19	34	12	23	-10	0.42	0.08	0.21	5.56	110	3.28	119	91	70	0	7	5	0
WA YAKIMA	35	17	44	9	26	-10	0.23	0.03	0.13	2.93	88	2.35	134	88	62	0	7	3	0
WI EAU CLAIRE	11	-15	22	-26	-2	-22	0.00	-0.21	0.00	0.60	23	0.42	27	84	50	0	7	0	0
WI GREEN BAY	17	-3	26	-13	7	-14	0.00	-0.28	0.00	1.64	48	1.20	64	75	49	0	7	0	0
WI LA CROSSE	15	-9	26	-21	3	-20	0.00	-0.26	0.00	1.56	48	1.26	68	79	47	0	7	0	0
WI MADISON	15	-6	25	-14	4	-19	0.03	-0.34	0.03	2.82	71	1.70	77	79	50	0	7	1	0
WI MILWAUKEE	19	5	27	-6	12	-14	0.53	0.11	0.29	5.11	104	2.99	103	73	49	0	7	2	0
WI BECKLEY	34	21	41	12	27	-8	1.19	0.50	1.01	19.28	249	6.06	127	96	83	0	7	4	1
WI CHARLESTON	31	21	35	13	26	-12	0.64	-0.15	0.28	7.71	91	4.00	77	98	80	0	7	6	0
WI ELKINS	37	20	49	3	29	-4	0.54	-0.25	0.44	8.31	96	4.60	85	87	65	0	7	4	0
WI HUNTINGTON	29	20	32	12	24	-13	0.00	-0.77	0.00	7.91	94	3.98	78	100	84	0	7	0	0
WY CASPER	27	7	39	-24	17	-10	0.14	0.00	0.05	1.90	134	1.22	133	83	54	0	7	4	0
WY CHEYENNE	27	5	46	-15	16	-13	0.07	-0.05	0.06	0.92	76	0.45	64	88	50	0	7	2	0
WY LANDER	31	4	44	-13	17	-8	0.09	-0.06	0.05	0.83	59	0.24	29	88	43	0	7	2	0
WY SHERIDAN	24	-2	39	-27	11	-15	0.20	0.07	0.11	1.98	131	1.70	181	83	57	0	7	2	0

Based on 1981-2010 normals

\*\*\* Not Available

## February State Agricultural Summaries

*These summaries, issued weekly through the summer growing season, provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Crop Progress and Condition Reports published each Monday by NASS State Statistical Offices in cooperation with the National Weather Service. The crop reports are available on the Internet through the NASS Home Page on the World Wide Web at <http://www.nass.usda.gov>.*

**ALABAMA:** February temperatures were on par with or down as much as 9.3 degrees Fahrenheit below historic averages. Total rainfall for the month ranged from 1.4 inches to 9.4 inches. According to the U.S. Drought Monitor, abnormally dry conditions affected 35 to 41 percent of the State throughout the month. Additionally, moderate drought conditions affected 5 to 8 percent of the State during February. Producers in northern counties struggled with ice and snow that delayed fieldwork and made providing feed and water to livestock difficult. Furthermore, the sale of livestock was delayed as weather conditions temporarily closed auction barns. In southern counties, rain and saturated fields delayed cattle from being released onto winter grazing. However, occasional breaks in the rain permitted fieldwork to progress on schedule. Some producers continued to work on repairing fields and pond dams that were damaged by Hurricane Sally. Throughout the state, winter wheat growth and condition ranged from poor to good, depending on localized weather. Likewise, winter grazing ranged from depleted to adequate. Hay stocks remained adequate, despite hay consumption being greater than normal due to below-average temperatures. Livestock producers continued to provide supplemental feed. Overall, livestock were in fair to good condition.

### ALASKA: DATA NOT AVAILABLE

**ARIZONA:** This report for Arizona is for the entire month of February 2021. By the end of the month, 85 percent of barley has been planted, 70 percent has emerged, and 5 percent has headed, according to the Mountain Regional Field Office of the National Agricultural Statistics Service, USDA. Barley conditions were rated mostly good. Seventy-five percent of Durum wheat has been planted, 60 percent has emerged, and 1 percent has headed. Durum wheat conditions were rated mostly good. Alfalfa conditions were rated mostly excellent to good, depending on location last month with harvesting taking place on more than three-quarters of the alfalfa acreage across the State. For the entire State, pasture and range conditions were rated mostly very poor to poor. Some precipitation was received at the end of the month, but severe to exceptional dryness in the entire State continues to affect pasture and range conditions, forage growth, crop progress, soil moisture, stream water, and stock tanks.

**ARKANSAS:** The month of February had below normal temperatures and slightly below average rainfall. An atypical winter storm brought extreme temperature decrease and heavy snow accumulations the third week of the month. Fieldwork was suspended due to conditions. Wheat and winter pasture fertilization application has been delayed. Some cattle producers reported high mortality rates for newborn calves and mature cattle. The State average rainfall was 2.87 inches for the month of February with an average temperature of about 32 degrees.

**CALIFORNIA:** Topsoil moisture 25% short, 70% adequate and 5% surplus. Subsoil moisture 5% very short, 70% short and 25% adequate. Temperatures for the month averaged

51.2 degrees, 1.0 degree above normal. Statewide average monthly precipitation was 0.82 inch. The last weather system brought mostly trace amounts of rainfall, with no rain forecast for the next week. Light winds are further drying the soil in some areas. Bees are in place and full almond bloom is approaching in the end of February or early March. Dormant spray for Prunes were low. Carrot harvest is in full swing with fields drying for a clean harvest. Fumigation for summer carrots was taking place. Onions are established and herbicides and fertilizer were being applied through sprinklers. Preparation of beds and fumigation in the plant line is continuing for processing Tomatoes. Broccoli for seed is starting to bloom with additional fertilizer applied. Pistachio pruning continued. Wine grape pruning was completed in Central Valley. Transplanting equipment was readied in anticipation of early calls to go to work. Light winds are further drying the soil in some areas. Grain is being irrigated and fertilized. In many places, natural grass has not come up on rangeland yet. Cattle are out grazing with supplement feed. Winter wheat and other small grain fields are growing at a slower pace than usual, due in part to lack of moisture. It will soon be time to top dress with additional nitrogen to help growth.

**COLORADO:** This report for Colorado is for the entire month of February 2021. Topsoil moisture 34% very short, 39% short, 27% adequate. Subsoil moisture 37% very short, 43% short, 20% adequate. Winter wheat condition 15% very poor, 14% poor, 52% fair, 17% good, 2% excellent. Cows calved 8%, 24% 2020. Ewes lambed 11%, 9% 2020. Livestock condition 3% very poor, 8% poor, 41% fair, 42% good, 6% excellent. Pasture and range condition 38% very poor, 29% poor, 24% fair, 9% good. Drought maintained its grip across the State, but seasonal moisture during February brought a little relief to areas and improved soil moisture. In northeastern counties, winter wheat benefitted from snow cover and received moisture was welcome throughout the district. Extreme cold mid-month stressed livestock producers starting to calve. Calves lost due to the cold were reported. In east central counties, wheat producers expect to see winterkill in areas with little cover after extremely cold temperatures. Some moisture was received but moisture content in snow was low. Southwestern counties remained in extreme to exceptional drought, according to the latest U.S. Drought Monitor report, but snowpack was better compared to the prior month. The San Luis Valley received good moisture and better snow cover was reported, but pasture and rangeland grass remained in need of more moisture before spring. Calving and lambing also began. Concerns remained high regarding the area aquifer and water supplies going into spring. In southeastern counties, calving started and increased death loss was reported during extremely cold weather. Feed supplies remained tight. Some localities benefitted from snowfall but fields with minimal snow cover were affected by high winds and erosion was noted. As of February 19, 2021, snowpack in the State was 91 percent measured as percent of median snowfall.

**DELAWARE:** The State experienced excessive precipitation and high moisture conditions. Some areas in fields that were

never flooded were saturated. Fertilizer, manure, or lime applications may be difficult this year as well as early crop planting due to the weather conditions. Wheat condition looked average for the time being. Fieldwork activities were reduced to equipment maintenance.

**FLORIDA:** February temperatures were on average 3 degrees warmer than historical values. Total rainfall for the month ranged from 0.1 inch in Monroe to 11.2 inches in Duval County. According to the U.S. Drought Monitor, 33 percent of the State was in abnormally dry conditions at the end of the month. Pastures conditions declined at the beginning of the month due to frosts and overall cold conditions. As temperatures rose later in the month, conditions improved across the State as pastures started to green back up. Cattle conditions remained mostly good. Sugarcane harvest continued in the southern peninsula with minimal damage reported from frost in the middle of the month. Towards the end of the month, powdery mildew and worm pressure was reported in some crops. Vegetable growers continued planting spring crops but cold temperatures delayed planting early in the month. A wide range of vegetable crops came to market including avocado, green beans, herbs, squash, sweet corn, tomatoes, and zucchini. Citrus fruit harvested for the fresh market included white and red grapefruit, early and midseason oranges, tangerines, and tangelos. At month's end, most plants had finished processing early and mid-season non-Valencia oranges. Citrus grove activities included fertilizing, mowing, hedging, applying herbicides, and minimal spraying.

**GEORGIA:** February temperatures were on average 2 degrees colder than historical values. Total rainfall for the month ranged from 1.8 inches in Walton County to 9.9 inches in Telfair County. According to the U.S. Drought Monitor, only 6 percent of the State was in abnormally dry conditions at the end of the month. Frequent rain events saturated fields, caused runoff, and prevented farmers from getting into their fields across the State for much of the month. Small grains and winter wheat were in need of additional fertilizer but wet conditions prevented farmers from applying it, which led to nutrient deficiencies in many areas. Spring crop planting was also delayed due to the wet and cold conditions. Hay supplies started to run short in some areas due to increased feeding. However, cattle were rated in mostly fair to good condition overall. Pest pressure was limited in the State due to the cold temperatures. Damage from frost and cold temperatures were reported in some winter forages. Onion crop progress was behind the normal pace due to limited sunshine and overcast days during the month. Fruit trees were pruned and pecan trees were planted.

#### **HAWAII: DATA NOT AVAILABLE**

**IDAHO:** The Statewide temperatures in Idaho for the month of January were normal to below average throughout the State. February ended a relatively mild winter in Idaho. Significant snow fell in the mountains, and notably, in the Tetons and the headwater regions of the Snake River. Northern Idaho received significant snowfall. The heavy snowfall provided great moisture for crop fields and abundant snowpack in the mountains. Some concern was expressed in Benewah and Kootenai Counties over the very cold temperatures they experienced prior to the snow event. Calving and lambing both progressed in northern and southwestern Idaho. Three good storms over the last two weeks added much needed moisture in Southwestern Idaho. In south central Idaho, temperatures

cooled to norms that were more seasonal. The region finally received snow in the valley. Cautiously, the upcoming water year started to look better. Given the cooler weather conditions, farm work trended to a more normal schedule. Major activities included hauling manure. The February moisture helped the winter wheat crop come out of dormancy in good condition. In eastern Idaho, Bannock and Bingham Counties received much needed snow. Lemhi, Clark, Fremont, and Teton Counties also received steady snowfall throughout February. Ranchers started calving and the February weather conditions made it more challenging.

**ILLINOIS:** For the week ending on February 21, 2021. Topsoil moisture 1% very short, 8% short, 69% adequate, 22% surplus. Subsoil moisture 2% very short, 15% short, 72% adequate, 11% surplus. Statewide, the average temperature in February was 14.0 degrees, 14.5 degrees below normal. Precipitation averaged 1.12 inches, 0.17 inch below normal.

**INDIANA:** Topsoil moisture for the month of February was 2% very short, 13% short, 61% adequate, and 24% surplus. Subsoil moisture for the month was 6% very short, 19% short, 57% adequate, and 18% surplus. Winter wheat condition was rated 1% very poor, 4% poor, 30% fair, 57% good, and 8% excellent. Statewide temperatures averaged 18.4 degrees, 10.3 degrees below normal for the month of February. Statewide average precipitation was 1.41 inches, 0.16 inch below normal. Most of the State saw significant snowfall over the last month, and the cold temperatures helped to maintain snow cover in most fields. Soil moisture levels increased from the previous month. The unusually cold temperatures raised concerns for the winter wheat crop, but the deep snow cover throughout most of the State helped mitigate potential damage. Winter wheat conditions remained relatively stable from the previous month. The cold temperatures were reported to be negatively affecting livestock in some areas. Hay supplies remained adequate. Other activities for the month included hauling grain, purchasing seed, equipment maintenance, and attending Extension events.

**IOWA:** Although February began with above normal temperatures, unseasonably cold temperatures spread across the State for almost two weeks. Measurable snowfall was recorded the first and third weeks of February across the State. No fieldwork activities were reported for the month. Grain movement continued due to strong prices. The extreme cold temperatures and snow accumulation created challenges for livestock producers. In addition to difficulties keeping water available for some livestock, producers have been using extra feed and bedding due to the low temperatures. Lambing and calving continues with reports of livestock losses at normal levels. Although moisture levels for the 2021 crop year are still a concern for some, most of the State has significant snow cover with widespread depth reports of a foot or more.

**KANSAS:** For the week ending February 21, 2021, topsoil moisture supplies rated 15% very short, 27% short, 51% adequate, 7% surplus. Subsoil moisture supplies rated 15% very short, 29% short, 52% adequate, 4% surplus. Winter wheat condition rated 8% very poor, 18% poor, 34% fair, 37% good, 3% excellent.

**KENTUCKY:** For the month of February, Kentucky saw well below normal temperatures and below normal precipitation. Snow and ice prevailed across the State with cold

temperatures sustaining the accumulation. Temperatures for the period averaged 28 degrees across the State, which was 8 degrees cooler than normal. Precipitation (liq. equ.) for the period totaled 1.99 inches Statewide, which was 0.69 inch below normal and 74% of normal. With the extreme cold and snow, farmers have begun tapping into their hay supplies in order to maintain livestock. For the month of February, hay supplies 2% very short, 12% short, 80% adequate, 6% surplus. Livestock condition declined overall as the cold weather took hold. Livestock conditions 3% very poor, 4% poor, 24% fair, 61% good, 8% excellent. Condition of winter wheat 1% very poor, 3% poor, 24% fair, 65% good, 7% excellent.

**LOUISIANA:** The month of February had below average temperatures and slightly below average rainfall. An atypical winter storm brought rain, snow and freezing temperatures for multiple days to much of the State. Some cattle producers reported high death loss of new calves. Ryegrass pastures were in bad condition. The average temperature for the month was about 46 degrees with an average rainfall of 3.97 inches.

**MARYLAND:** The month of February experienced snow, rain, and icy conditions. This has kept topsoil wet, causing pastures and feeding areas to be chopped up. These weather conditions have prevented spreading manure, lime, or fertilizer applications on some fields. Fieldwork included equipment maintenance, as little can be done in such inclement weather.

**MICHIGAN:** Topsoil moisture 3% short, 90% adequate and 7% surplus. Subsoil moisture 1% very short, 8% short, 85% adequate, and 6% surplus. Winter wheat condition rated 1% very poor, 4% poor, 28% fair, 61% good, and 6% excellent. Precipitation for the month of February averaged 1.12 inches throughout the State, 0.10 inch above normal. Temperature for the month averaged 13.0 degrees, 7.6 degrees below normal. The weather has been a stark contrast when compared to the mild conditions experienced throughout most of January. Temperatures were significantly colder across the State. Cumulative precipitation showed an increase in February as snowfall in most areas rebounded to a much more normal level. The cold conditions have made daily operations much more challenging on most farms. Fruit growers continued to prune trees and maintain orchards despite the frigid temperatures. Weather conditions remained good for winter wheat with 67% of the crop rated in the good to excellent range. Damage remains a concern where there is not sufficient snow cover. Other activities for the month included snow removal, tending to livestock, hauling grain, and preparing equipment for spring.

**MINNESOTA:** February began with normal to above normal temperatures. Colder weather moved in and blanketed the State with below normal temperatures for almost two weeks. Frost depth increased in areas with minimal or no snow cover. Grain movement was widespread. Feedstocks were adequate despite producers' increased use of bedding and feed. Calving and lambing are underway. It was difficult for some producers to keep lambs warm enough at birth. In spite of poor livestock conditions due to the extreme cold, minimal losses were reported. With the recent warmer weather, farmers have begun thinking about planting and locking in seed and fertilizer supplies.

**MISSISSIPPI:** Conditions for the month of February have been cold and wet. Grounds are saturated and little fieldwork has been completed at this time. Atypical winter weather has put a

strain on livestock conditions. The State average temperature was about 37 degrees for the month of February. Rainfall and average temperatures were typical for this time of year in the State until last week when the State saw excess ice, snow, and unusually cold temperatures ranging up to 28 degrees below average for this time of year.

**MISSOURI:** For the week ending February 21, 2021. Topsoil moisture 2% short, 72% adequate, and 26% surplus. Subsoil moisture 8% short, 88% adequate, and 4% surplus. Winter wheat condition 5% poor, 41% fair, 48% good, and 6% excellent. Statewide, precipitation averaged 1.43 inches for the month of February, 0.50 inch below average. Temperatures averaged 17.1 degrees, 15.7 degrees below normal.

**MONTANA:** This report for Montana is for the entire month of February 2021. Topsoil moisture 12% very short, 41% short, 46% adequate, 1% surplus. Subsoil moisture 11% very short, 40% short, 48% adequate, 1% surplus. Winter wheat - condition 2% very poor, 9% poor, 20% fair, 61% good, 8% excellent. Winter wheat - wind damage 57% none, 26% light, 10% moderate, 7% heavy. Winter wheat - freeze and drought damage 71% none, 20% light, 7% moderate, 2% heavy. Winter wheat - protectiveness of snow cover 10% very poor, 9% poor, 24% fair, 46% good, 11% excellent. Pasture and range - condition 21% very poor, 21% poor, 47% fair, 9% good, 2% excellent. Livestock grazing accessibility - 41% open, 24% difficult, 35% closed. Livestock receiving supplemental feed - cattle and calves 97% fed. Livestock receiving supplemental feed - sheep and lambs 97% fed. The month of February produced cooler winter conditions and fluctuating temperatures across the State of Montana, according to the Mountain Regional Field Office of the National Agricultural Statistics Service, USDA. Reporters across the State noted they received a couple of decent storm events in February, which improved the snow cover and provided needed moisture. A cold snap pushed temperatures below historical averages, with temperatures dipping below zero into the third week of the month. Temperatures then began to slowly rise closer to the historical averages towards the end of the month. Low temperatures ranged from the low 40s to -20s. According to the U.S. Drought Monitor, approximately 97 percent of Montana is abnormally dry or in a current state of drought, with about 8 percent of the State in severe or extreme drought.

**NEBRASKA:** For the week ending February 21, 2021, topsoil moisture supplies rated 14% very short, 32% short, 51% adequate, and 3% surplus. Subsoil moisture supplies rated 20% very short, 42% short, 37% adequate, and 1% surplus. Winter wheat condition rated 9% very poor, 13% poor, 44% fair, 33% good, and 1% excellent.

**NEVADA:** Topsoil moisture 50% very short, 25% short, 25% adequate. Subsoil moisture 70% very short, 25% short, 5% adequate. Temperatures for the month averaged 37.8 degrees, 2.5 degrees above normal. Statewide average precipitation was 0.60 inch.

**NEW ENGLAND:** New England states experienced very variable weather - cold days, snow, rain, and no periods of warmth. In Massachusetts, various cranberry growers are ice sanding while others are badge sanding, while cranberry vines are under winter floods to protect against winter injury caused by temperature fluctuations. The vines will be removed in March to enable buds to break from a dormant state, ultimately protecting the young tender buds from winter injury through the

winter floods. According to a New Hampshire reporter, farmers are repairing equipment, buildings, and planning for 2021 growing season, all while attending virtual/zoom/internet meetings. Furthermore, they are in the process of finishing the record keeping for the 2020 growing season. Temperature conditions have remained in the teens and some evenings have been below zero, top soils remain frozen and there is minimal snow cover to insulate from the ground. The water table in this area is still below normal, thus, water supplies on some farms are still inadequate for the daily demands of livestock. Maple sugar operations are tapping out, but the week of February 21 promises to provide some good conditions for sap runs as temperatures moderate throughout the remaining days in the month. In Vermont there is plenty of snow cover in certain areas for the month of February. Such snowfall and steady temperatures helped keep the snow in place. Even though, sugar makers are getting anxious that most are tapped out even with the deep snow in the woods. Lastly, stored hay supplies are short with hay moving out of the county to areas that had low production due to dry weather in summer of 2020.

**NEW JERSEY:** Weather for the month of February was reported as normal. Fruit buds were still holding tight as they have not seen a significant swing with above normal temperatures. Some vegetable farmers have begun seeding in greenhouses.

**NEW MEXICO:** This report for New Mexico is for the month of February 2021 through February 21. Topsoil moisture 60% very short, 26% short, 12% adequate, 2% surplus. Subsoil moisture 67% very short, 29% short, 3% adequate, 1% surplus. Winter wheat condition 28% very poor, 37% poor, 21% fair, 14% good. Cows calved 14%, 19% last year. Cattle receiving supplemental feed 93%, 84% last year. Cattle condition 12% very poor, 13% poor, 39% fair, 31% good, 5% excellent. Ewes lambed 19%, 20% last year. Sheep receiving supplemental feed 87%, 74% last year. Sheep and lambs condition 47% very poor, 18% poor, 21% fair, 14% good. Hay and roughage supplies 40% very short, 39% short, 21% adequate. Stock water supplies 23% very short, 42% short, 34% adequate, 1% surplus. Generally, precipitation received since February 1 has been below average for much of the State, prohibiting any meaningful improvement of soil moisture levels or winter wheat condition, while keeping pressure on ranchers to provide supplemental feedstuffs to livestock at rates distinctly higher than last year. Reports noted extreme cold, with overnight temperatures falling to 20+ degrees below zero in some locations. Much of the snow accumulation associated with the polar vortex was dry, providing limited water content. Statewide, 65 percent of the winter wheat crop was reported in very poor to poor condition, compared with 69 percent at the end of January and 30 percent in February 2020. For the period of February 1 – February 21, converted monthly moisture totals – accounting for any precipitation received as snow – ranged from approximately 3 inches to merely a trace, with dryness across a few pockets within a few northeastern and southeastern counties. According to the United States Drought Monitor for February 16, virtually the entire State continued to suffer from moderate drought or worse. Severe drought (D2) covered 17.7 percent of the State, and extreme drought (D3) remained entrenched across 28.0 percent. Exceptional drought (D4) stabilized somewhat, and now covered 65,944 square miles, or 54.2 percent of the State. Topsoil moisture levels were reported as 86 percent short to

very short, compared with 95 percent at the end of January and 49 percent at the end of February last year. Hay and roughage supplies were reported as 40 percent very short, 39 percent short, and 21 percent adequate, compared with 25 percent very short, 50 percent short, and 25 percent adequate at the end of January. Stock water supplies were reported as 23 percent very short, 42 percent short, 34 percent adequate, and 1 percent surplus, compared with 20 percent very short, 49 percent short, 30 percent adequate, and 1 percent surplus at the end of January.

**NEW YORK:** The State experienced colder, more traditional winter weather in February, with significant snow pack in some areas and frequent light snow showers. Some producers reported an absence of frost on the ground under snow cover and that the snow has been helpful in insulating crops. There have been no reports of any challenges with livestock.

**NORTH CAROLINA:** For the week ending February 21, 2021 - Subsoil moisture 1% short, 28% adequate, 71% surplus. Topsoil moisture 14% adequate and 86% surplus. Barley condition 12% poor, 65% fair, 20% good and 3% excellent. Hay and roughage supplies 6% short, 89% adequate, 5% surplus. Oats condition 2% very poor, 21% poor, 62% fair, and 15% good. Pasture and range condition 1% very poor, 8% poor, 45% fair and 46% good. Winter wheat condition 5% very poor, 19% poor, 44% fair, 28% good, and 4% excellent. Throughout February, fields are extremely wet, and the majority of wheat is showing nutrient deficiency symptoms (yellow, purple, and red coloring) due to the extreme moisture and lack of sun. Little to no winter weed control work is being done. Wheat is dangerously low on mid-winter nutrients and tiller counts are poor. Cold weather, lack of sunshine and rain are leaving pastures in poor condition. Little winter forage growth is happening. Small grain crops are looking very thin right now. Tobacco greenhouses are being seeded this week.

**NORTH DAKOTA:** For the week ending February 21, 2021, topsoil moisture supplies, 29% very short, 43% short, 27% adequate, 1% surplus. Subsoil moisture supplies, 28% very short, 34% short, 37% adequate, 1% surplus. Winter wheat condition, 9% very poor, 24% poor, 51% fair, 15% good, 1% excellent. Cattle and calf conditions, 1% very poor, 6% poor, 31% fair, 49% good, 13% excellent. Cattle and calf death loss, 2% heavy, 42% average, 56% light. Calving progress, 10% complete. Sheep and lamb conditions, 0% very poor, 4% poor, 24% fair, 60% good, 12% excellent. Sheep and lamb death loss, 1% heavy, 44% average, 55% light. Lambing progress, 15% complete. Shearing progress, 25% complete. Hay and roughage supplies, 5% very short, 17% short, 67% adequate, 11% surplus. Stock water supplies, 16% very short, 32% short, 51% adequate, 1% surplus.

**OHIO:** Topsoil moisture for the month was 2% short, 50% adequate, and 48% surplus. Subsoil moisture for the month was 3% short, 65% adequate, and 32% surplus. Winter wheat condition was rated 1% poor, 28% fair, 60% good, and 11% excellent. The Statewide average temperature was 20.8 degrees, 7.5 degrees below normal. Precipitation averaged 1.71 inches Statewide, 0.06 inch above normal for February. Higher than normal precipitation and lower than normal temperatures contributed to 4 inches or more of snow cover in some areas of the State. Recent

snow cover has protected winter wheat from the very cold temperatures, which have reached sub-zero temperatures in some areas of the State. There were no reports of issues with livestock due to inclement weather, but some reporters expressed concerns that the ice and snow, with mud to follow, could add struggles to livestock producers.

**OKLAHOMA:** For the month of February, rainfall totals averaged 0.54 inch throughout the State, with the Southeast district recording the highest precipitation at 1.04 inches and the Panhandle district recording the lowest at 0.17 inch. According to the February 16, US Drought Monitor Report, 27 percent of the State was in the moderate to exceptional drought categories, up 13 points from the previous year. Just 11 percent of the State was in the moderate to exceptional drought categories, compared to 5 percent from the previous year. Statewide temperatures averaged in the mid to high 20's, with the lowest recording of minus 22 degrees at Goodwell and Burbank on Wednesday, February 16th and the highest recording of 80 degrees at Goodwell on Wednesday, February 3rd. Topsoil and subsoil moisture conditions were rated mostly adequate to short.

**OREGON:** Conditions throughout the State in February ranged from 50 degree temperatures to ice storms. Ice storms caused significant damage to forest stands, hazelnut and fruit tree orchards in Clackamas, Multnomah, and Washington Counties. Some areas were still without power due to tree damage along roads and power line corridors. Damage to crops was not readily apparent. Benton and Lincoln Counties reported typical February temperatures; however, freezing rain in Benton County damaged trees and crops when temperatures dropped into the 20's. In Tillamook and Clatsop Counties, rainy conditions persisted on the coast. Grass continued to grow well. Many pastures and grass cover crops planted on corn silage fields looked good. Most dairy herds continued to be confined. There were still beef operations with animals in fields with well-drained soils. Gilliam and Hood River Counties reported significant snowfalls, which brought the current moisture levels up to average; however, they were still behind from last year. The cold weather affected some cattle producers who were calving in mid-February. Baker, Grant, Wheeler, and Malheur Counties received a good amount of snow. Calving was difficult for a few nights with the snow and cold temperatures. In Douglas, Jackson, and Josephine Counties, steady rains made fieldwork messy. Soil moisture recharged. Snow pack was building. Winter pruning of orchards and vineyards neared completion. Plum orchards were about two weeks away from bloom. Cover crops and grain crops made good progress. Grains were about two feet tall. Malheur County producers staged supplies and equipment to start planting onions when field conditions permit.

**PENNSYLVANIA:** February's frequent snowfall and declining temperatures stood in stark contrast to the previous month's reported mild weather. Fields remained covered in snow with soil mostly frozen. Some buildings reported damage due to intense snowfall. Some producers were catching up on paperwork, collecting supplies, and planning for the upcoming 2021 crop year. Field activities focused on manure spreading and feeding livestock.

**SOUTH CAROLINA:** February temperatures were on par with or down as much as 5.5 degrees Fahrenheit below historic averages. Total rainfall during the month ranged from

2.5 inches to 11.7 inches. According to the U.S. Drought Monitor, the State had minimal to no abnormally dry conditions throughout the month. Heavy rain events in many areas began in December and continued throughout February, keeping growers out of fields and forcing livestock producers to manage pasture and feed areas more intensively to reduce mud and increase drainage. Wet conditions delayed small grain and pasture fertilizer topdressing. Wheat growth lagged and was in need of sunshine and warmth to catch up to historic norms. Land preparations for corn planting was delayed. Planting of vegetable greens was also delayed. Fall vegetables that were planted on high ground were holding up well. Many producers reported livestock health problems related to excessive rain and cool temperatures.

**SOUTH DAKOTA:** For the week ending February 21, 2021, topsoil moisture supplies rated 19% very short, 43% short, 38% adequate, 0% surplus. Subsoil moisture supplies rated 17% very short, 45% short, 38% adequate, 0% surplus. Winter wheat condition rated 1% very poor, 15% poor, 43% fair, 41% good, and 0% excellent.

**TENNESSEE:** For the week ending February 21, Days suitable 0.4. Topsoil moisture 1% short, 47% adequate, 52% surplus. Subsoil moisture 1% short, 61% adequate, 38% surplus. Winter wheat condition 5% poor 33% fair, 53% good, 9% excellent. Pasture and Range condition 3% very poor, 32% poor, 39% fair, 23% good, 3% excellent. Cattle condition 7% poor, 36% fair, 50% good, 7% excellent. Hay and roughage supplies 1% very short, 20% short, 70% adequate, 9% surplus. Tennessee experienced increase moisture and decreased temperatures. Freezing rain, ice and two snow events have impacted the State. The conditions caused an increase in feeding cattle. Some reports indicate calf loss and other livestock stress due to cold temperatures. Hay and roughage supplies are mostly adequate. Winter wheat condition reported mostly good. Cattle condition is currently reported mostly good.

**TEXAS:** Precipitation mostly ranged from 0.25 inch to upwards of 2.0 inches. Isolated areas in the Upper Coast and East Texas received from 2.0 inches to upwards of 4.0 inches. Small grains progressed due to increased moisture but development varied across the State. Meanwhile, row crop producers in the Lower Valley, the Upper Coast, South Central Texas, and South Texas began early planting. Livestock condition continued poor to fair. Supplemental feeding increased Statewide. Producers are waiting to fully assess the damage that extreme temperatures brought across the State.

**UTAH:** This report for Utah is for the entire month of February, 2021. Topsoil moisture 16% very short, 32% short, 50% adequate, 2% surplus. Subsoil moisture 29% very short, 37% short, 32% adequate, 2% surplus. Pasture and range condition 28% very poor, 38% poor, 28% fair, 5% good, 1% surplus. Winter wheat condition 5% very poor, 16% poor, 55% fair, 21% good, 3% excellent. Hay and roughage supplies 6% very short, 37% short, 53% adequate, 4% surplus. Stock water supplies 23% very short, 24% short, 52% adequate, 1% surplus. Cattle and calves condition 1% very poor, 7% poor, 30% fair, 59% good, 3% excellent. Sheep and lambs condition 4% poor, 40% fair, 53% good, 3% excellent. Livestock receiving supplemental feed for cattle 84%. Livestock receiving supplemental feed for

sheep 64%. Cows calved 15%. Ewes lambed-farm flock 13%. Ewes lambed-range flock 5%. Colder temperatures along with snow storms occurred throughout the State for the month of February. Box Elder, Garfield, and Kane Counties report livestock producers are busy with calving. Beaver County reports livestock producers are having calving issues due to recent snow storms. As of February 21, 2021, snowpack in Utah was 79 percent measured as percent of median snowfall.

**VIRGINIA:** For the week ending February 21, 2021, Topsoil moisture is 45% adequate and 55% surplus. Subsoil moisture is 57% adequate and 43% surplus. Winter wheat condition 2% very poor, 32% poor, 40% fair, 24% good, 2% excellent. Barley condition 1% very poor, 17% poor, 50% fair, 29% good, 3% excellent. Livestock condition 7% poor, 35% fair, 50% good, 8% excellent. Pasture and Range condition 11% very poor, 28% poor, 41% fair, 19% good, 1% excellent. Hay and roughage supplies 2% very short, 13% short, 81% adequate, 4% surplus. Percent of feed obtained from pastures 8%. Virginia experienced normal temperatures and above normal precipitation in February. Winter storms have caused many problems for farmers; many areas were without power for up to 10 days. Many fields are over saturated and muddy. Pasture conditions have declined due to these conditions and farmers are having a difficult time with livestock even with adequate hay supplies. Primary activities for the month include equipment maintenance, repairs to fences and machinery. Farmers are waiting for dryer weather so they can begin top dressing.

**WASHINGTON:** The Statewide temperatures in Washington for the month of February were below normal throughout the State. In western Washington, crops were doing well. In Jefferson County, most areas received eight or more inches of snow. The snow was gone within a week which caused no harm to grass, winter wheat, and cover crops. In San Juan County, pasture lands and seasonal streams were flowing at the maximum. Snow levels ranged from five to twelve inches based on location in the islands. There was little field work activity such as pruning that was done. Livestock producers struggled due to excess mud, snow, and ice in a below freezing storm that occurred. Some CSA farms saved their high-tunnels from collapse and continued to harvest cold weather cole crops that kept local consumers ecstatic. In central Washington, small amounts of snow covered winter wheat for a relatively short period of time. Calving went well even with the snow and cold. Northeast Washington had below normal amounts of snowfall. High winds and very cold conditions resulted in negative degree wind chills along the Okanogan River Valley. Orchards were running smudge pots and other techniques to combat the cold and wind in cherry blocks. In east central Washington, snow and cold weather occurred while crop conditions were normal. Sporadic warm spells took place and with limited snow cover, winter wheat conditions remained normal. In Southeast Washington, moisture was great and temperatures were on the rise. Winter was mild and soil moisture remained stationery with no outstanding situations to report.

**WEST VIRGINIA:** For the week ending February 21, Topsoil moisture 5% short, 57% adequate, and 38% surplus. Subsoil moisture 4% short, 77% adequate, and 19% surplus. Hay and

roughage supplies 2% very short, 10% short, 82% adequate, and 6% surplus. Feed grain supplies 5% short, 93% adequate, and 2% surplus. Winter wheat condition 48% fair, 51% good, and 1% excellent. Cattle and calves condition 1% very poor, 3% poor, 32% fair, 59% good, and 5% excellent. Calving was 22% complete. Sheep and lambs condition 1% poor, 12% fair, 84% good, and 3% excellent. Lambing was 24% complete. Weather conditions for the month were mostly cold with periods of rain, sleet and snow. Farming activities for the month included planning for the next growing season, monitoring hay supplies, calving and lambing.

**WISCONSIN:** February temperatures at the five major weather stations were all below normal. They ranged from -10.9 degrees below normal in Milwaukee to -16.3 degrees below normal in Madison. Average highs ranged from 12.4 degrees in Eau Claire to 20.8 degrees in Milwaukee, while average lows ranged from -7.2 degrees in Eau Claire to 7.4 degrees in Milwaukee. Precipitation totals ranged from 0.45 inch in Eau Claire to 1.18 inches in Milwaukee. Milwaukee received the most snowfall out of the major cities with 23.9 inches. Eau Claire received the least, with 8.2 inches of snow for the month. Several consecutive days of extremely cold temperatures made livestock chores difficult but kept much of the snow base insulating dormant alfalfa and winter wheat crops intact. Cattle feeding and manure hauling were the major activities with a little snow removal in early February. Many are looking forward to a warmer weather pattern forecasted for the end of the month.

**WYOMING:** This report for Wyoming is for the entire month of February 2021. Topsoil moisture 48% very short, 39% short, 13% adequate. Subsoil moisture 45% very short, 39% short, 16% adequate. Winter wheat condition 4% very poor, 16% poor, 76% fair, 4% good. Calving progress 6% cows calved. Sheep and lamb progress 5% ewes lambed, 2% sheep shorn. Hay and roughage supplies 21% very short, 26% short, 51% adequate, 2% surplus. Livestock condition 8% poor, 32% fair, 59% good, 1% excellent. Stock water supplies 21% very short, 22% short, 57% adequate. Pasture and range condition 29% very poor, 30% poor, 31% fair, 10% good. February brought snow and cold temperatures to Wyoming. Reports from Lincoln and Converse Counties noted that snow pack in the mountains improved during the month, while reports from Goshen and Big Horn Counties indicated little change in the cold, dry conditions and continued concern of worsening drought conditions. Temperatures for the month were slightly below average following a period of arctic air that brought extremely cold, below average temperatures to the majority of the State. Reports out of Goshen County noted calving had started early; however, there were reports of death-loss due to the below average temperatures. Reports from Converse County indicated livestock were on full-feed rations. According to the United States Drought Monitor for February 18, 2021, the amount of land rated as abnormally dry was 6.5 percent, down from 6.9 percent last month. Moderate drought was present across 27.7 percent of the State, a decrease from 34.5 percent last month. Severe drought covered 38.8 percent of the State, compared to 28.6 percent last month, and extreme drought conditions covered 24.8 percent of the State, compared to 25.4 percent last month. Exceptional drought conditions decreased from 0.4 percent last month to zero percent of the State this month.



## International Weather and Crop Summary

February 14-20, 2021

International Weather and Crop Highlights and Summaries provided by USDA/WAOB

### HIGHLIGHTS

**EUROPE:** Drier, warmer weather overspread much of the continent, though rain and snow lingered in western- and northern-most portions of the region.

**MIDDLE EAST:** Rain and snow across much of the region benefited dormant to vegetive winter grains.

**NORTHWESTERN AFRICA:** Increasing short-term dryness raised concerns over a return to drought, though subsoil moisture remained overall favorable.

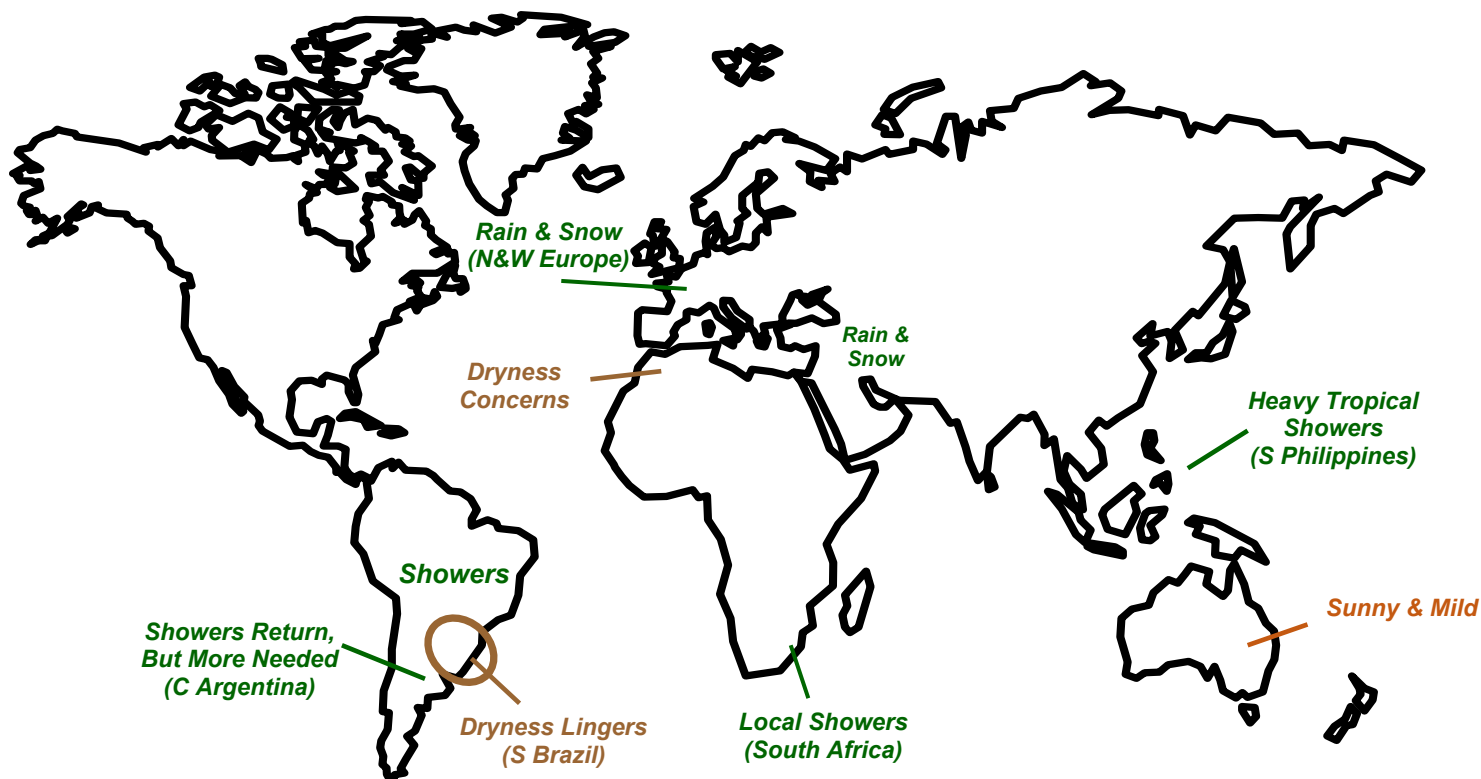
**SOUTHEAST ASIA:** An early year tropical cyclone was bringing heavy showers to the southern Philippines.

**AUSTRALIA:** Sunny, somewhat cooler-than-normal weather favored summer crop development.

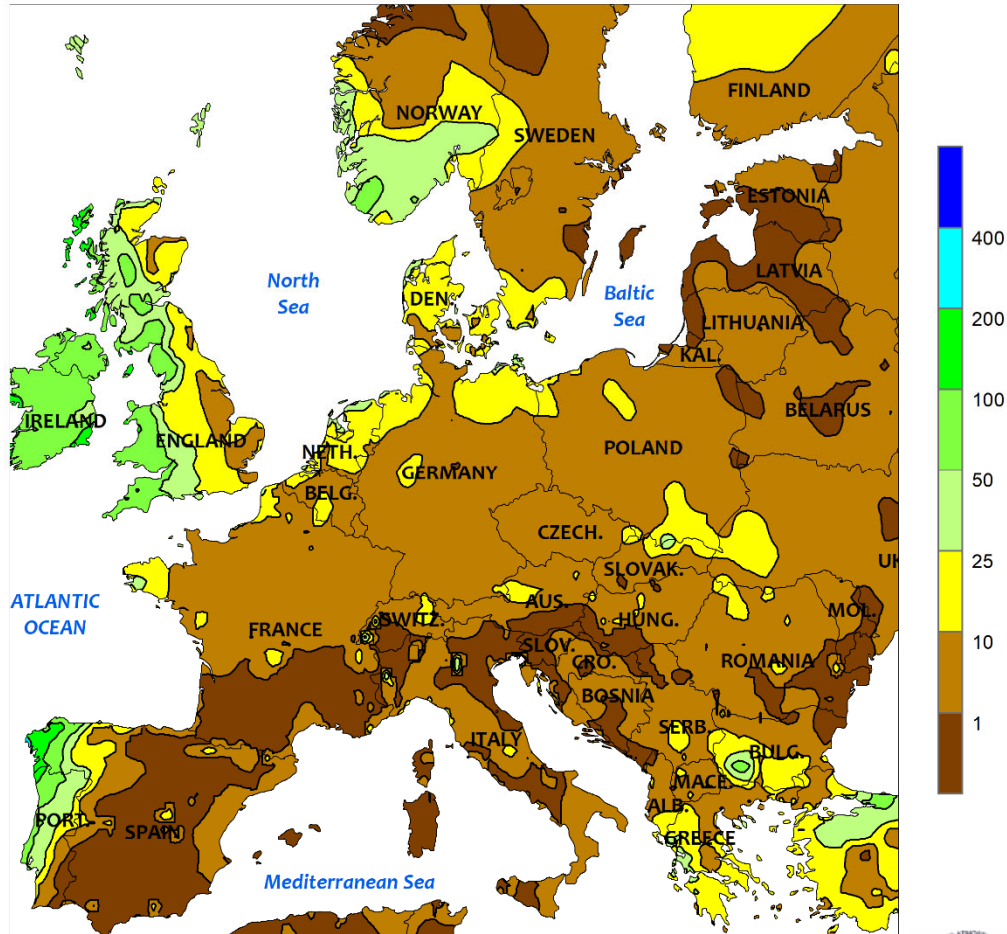
**SOUTH AFRICA:** Locally heavy showers returned to eastern farmlands, but warm, sunny weather continued in western sections of the corn belt.

**ARGENTINA:** Showers returned to much of central and northwestern Argentina, but pockets of dryness lingered in key corn and soybean delegations.

**BRAZIL:** Showers benefited second-crop corn and cotton in northern production areas, but dryness persisted in southern farming areas.



EUROPE  
Total Precipitation (mm)  
February 14 - 20, 2021



CLIMATE PREDICTION CENTER, NOAA  
Computer generated contours  
Based on preliminary gridded data

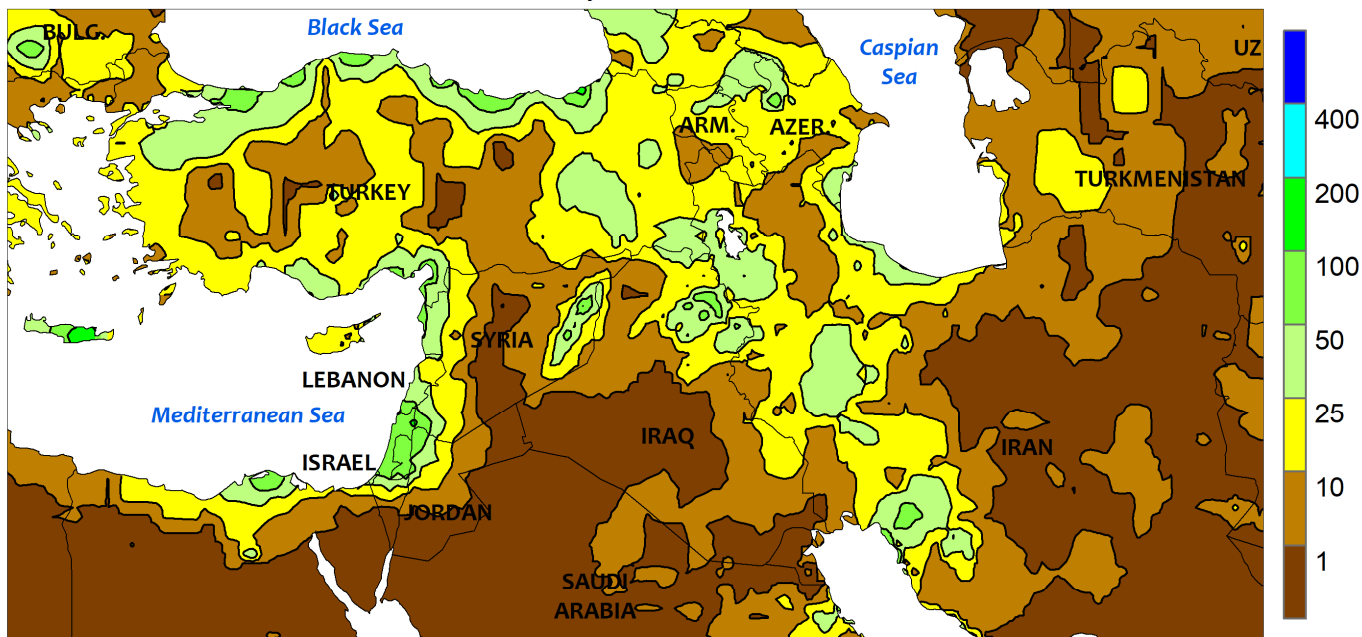


**EUROPE**

Warm, drier conditions settled over much of the continent, though rain and snow persisted in western- and northern-most portions of the region. After last week's cold snap, temperatures averaged 2 to 6°C above normal across the western half of Europe, while cold weather (2-6°C below normal) lingered from the Baltic States southward into Greece. The warmth melted much of the region's snowpack save for a

lingering shallow to moderate snow cover (2-20 cm) in northeastern Europe. The weather was generally dry (5 mm or less), though moderate to heavy rain and snow (10-90 mm, liquid equivalent) was reported along the western and northern perimeter of the continent. Moisture supplies remained adequate to abundant for spring growth due to a wet fall and winter, and current winter crop prospects remained favorable.

MIDDLE EAST  
 Total Precipitation (mm)  
 February 14 - 20, 2021



CLIMATE PREDICTION CENTER, NOAA  
 Computer generated contours  
 Based on preliminary gridded data

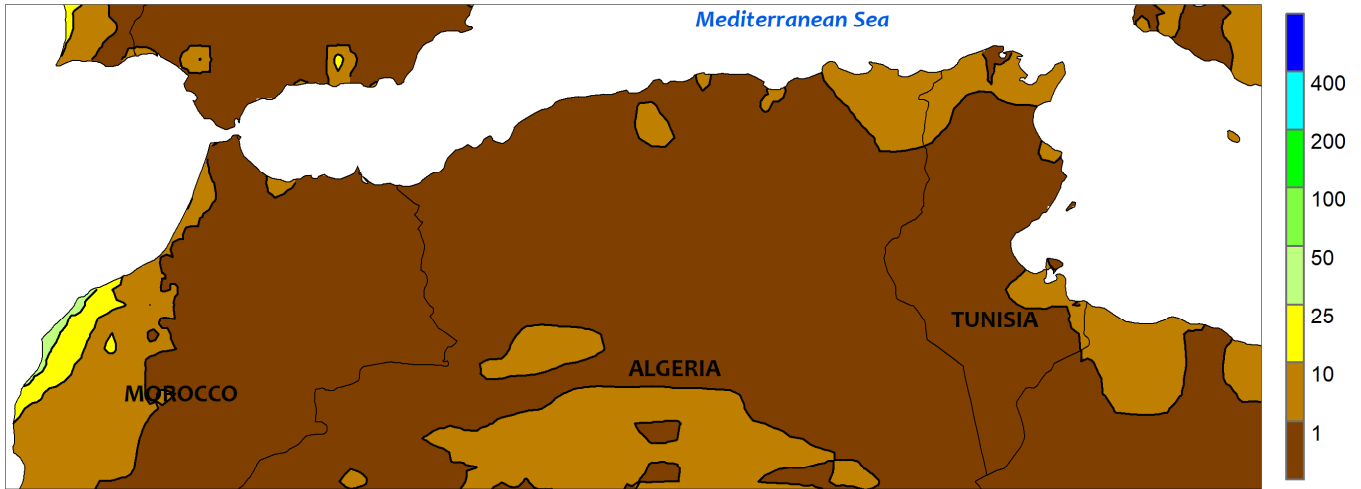


MIDDLE EAST

Rain and snow overspread the region, accompanied by the coldest weather of the season in Turkey. A strong storm system and its attendant cold front produced 20 to 80 mm of rain along the eastern Mediterranean Coast and environs. Another swath of similarly heavy rain and snow extended from northern Turkey southeastward into western Iran. Consequently, moisture supplies remained adequate to abundant for dormant (north) to vegetative (south) winter grains in these same croplands. Precipitation (mostly snow) was lighter on central Turkey's Anatolian Plateau (5-20 mm, liquid equivalent) but still

beneficial as this locale continued to recover from severe autumn drought. The snow (2-10 cm) in central Turkey also provided timely insulation against the coldest air of the season (up to 7°C below normal), with wheat and barley protected from potential burnback or winterkill despite minimum temperatures as low as -17°C. In contrast, acute short-term dryness over northeastern Iran (Khorasan) further reduced soil moisture reserves for spring growth; precipitation in this region has averaged less than 20 percent of normal since the end of December, following a favorably wet autumn.

NORTHWESTERN AFRICA  
Total Precipitation (mm)  
February 14 - 20, 2021



CLIMATE PREDICTION CENTER, NOAA  
Computer generated contours  
Based on preliminary gridded data

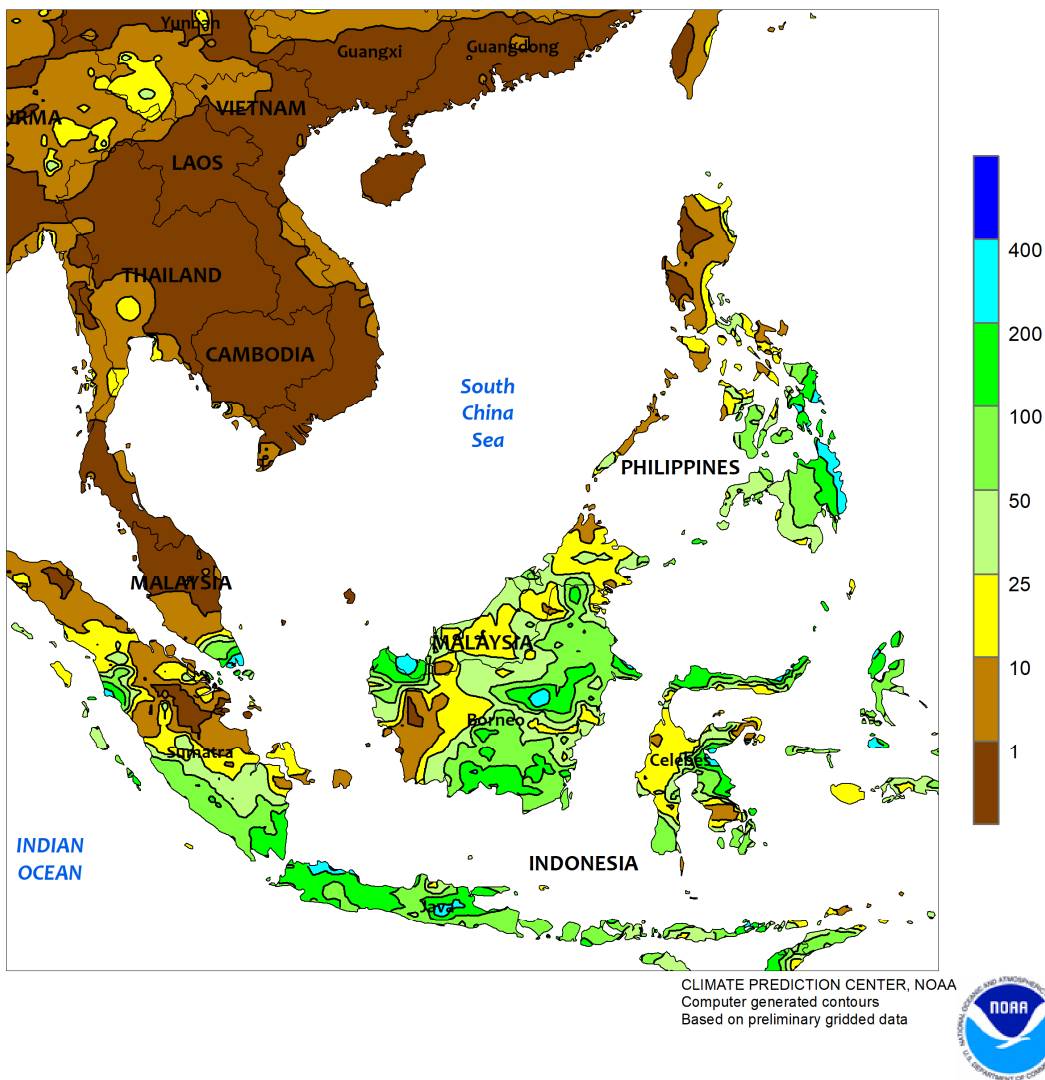


**NORTHWESTERN AFRICA**

Sunny skies and above-normal temperatures promoted winter grain development but increased concerns over redeveloping drought. After beneficial early winter rain eased the severe autumn dryness which impacted the western half of the region, a dearth of rainfall since mid-January has renewed concerns over a return to drought. Precipitation over the past 30 days has averaged less than 50 percent of normal across much of Morocco and a paltry

25 percent of normal or less in Algeria. Furthermore, temperatures up to 5°C above normal accelerated wheat and barley toward reproduction at a rapid pace. Dryness concerns also have expanded into the inland Steppe Region of Tunisia, while areas closer to the coast in Tunisia have fared better. Winter grains are currently on target to enter reproduction in March (first in Morocco), and timely rain will be needed soon to maintain current yield prospects.

SOUTHEAST ASIA  
 Total Precipitation (mm)  
 February 14 - 20, 2021

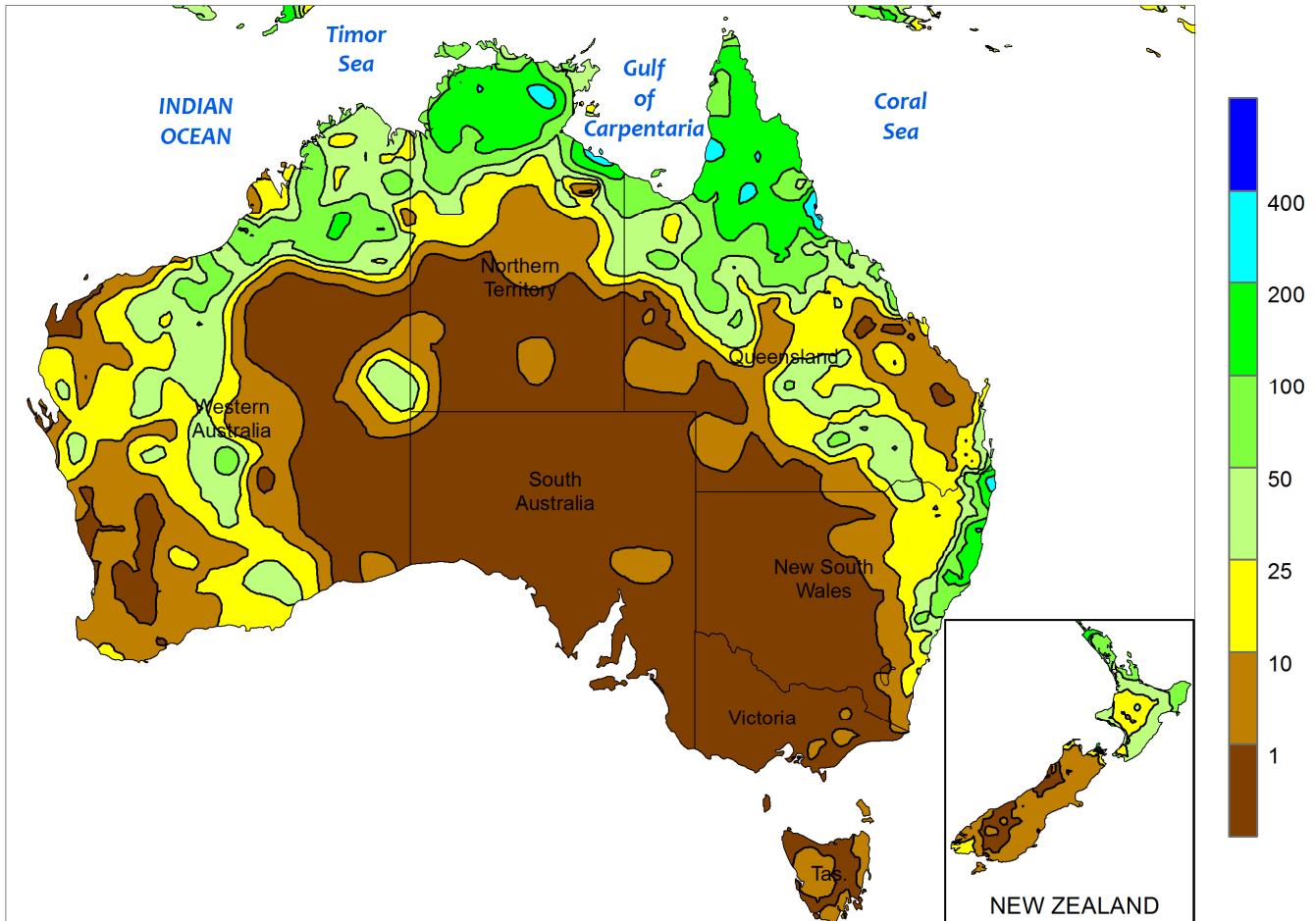


**SOUTHEAST ASIA**

A weak tropical cyclone (Dujaun) approached the southeastern Philippines by the end of the period, producing heavy showers (50-100 mm or more) in the Visayas and Mindanao. The rainfall benefited rice and corn in some of the relatively minor-producing areas. Elsewhere, heavy showers (50-150 mm) in southern

Indonesia (Java) sustained abundant moisture supplies for wet-season rice as well as ample water reserves for the upcoming dry-season crop. In contrast, drier weather occurred in most oil palm areas of Indonesia and Malaysia, but despite some short-term dryness, 90-day rainfall totals remained near to above normal.

AUSTRALIA  
Total Precipitation (mm)  
February 14 - 20, 2021



Gridded data from the Australian Bureau of Meteorology: [www.bom.gov.au/](http://www.bom.gov.au/)  
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CLIMATE PREDICTION CENTER, NOAA  
Computer generated contours  
Based on preliminary gridded data

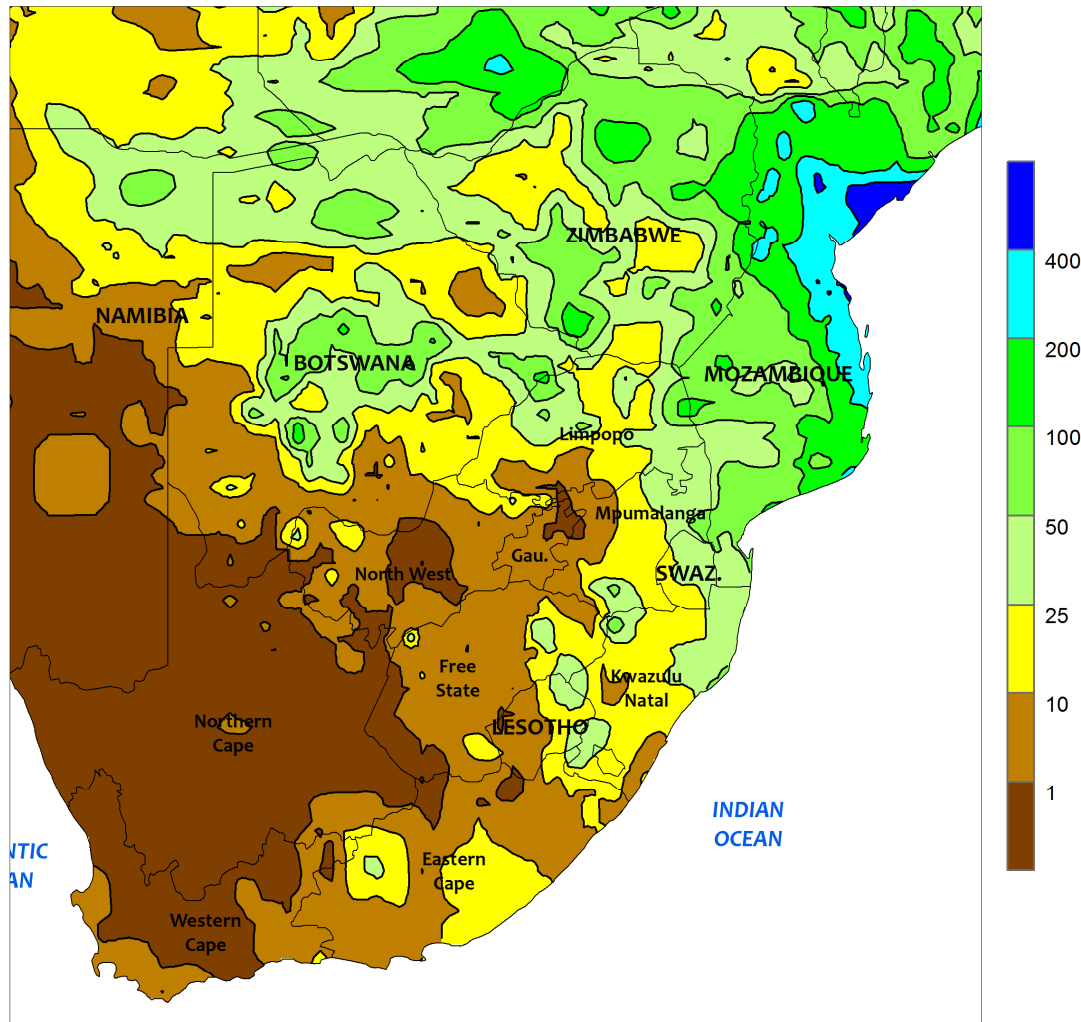


**AUSTRALIA**

Aside from a few isolated showers (generally less than 5 mm), dry weather dominated major summer crop producing areas in southern Queensland and New South Wales. The mostly sunny skies promoted growth of immature cotton and sorghum

and aided maturation of varieties sown early in the growing season. Temperatures averaged somewhat below normal for the week (1-2°C below normal), with maximum temperatures in the upper 20s and lower 30s (degrees C) in most areas.

SOUTH AFRICA  
 Total Precipitation (mm)  
 February 14 - 20, 2021



CLIMATE PREDICTION CENTER, NOAA  
 Computer generated contours  
 Based on preliminary gridded data

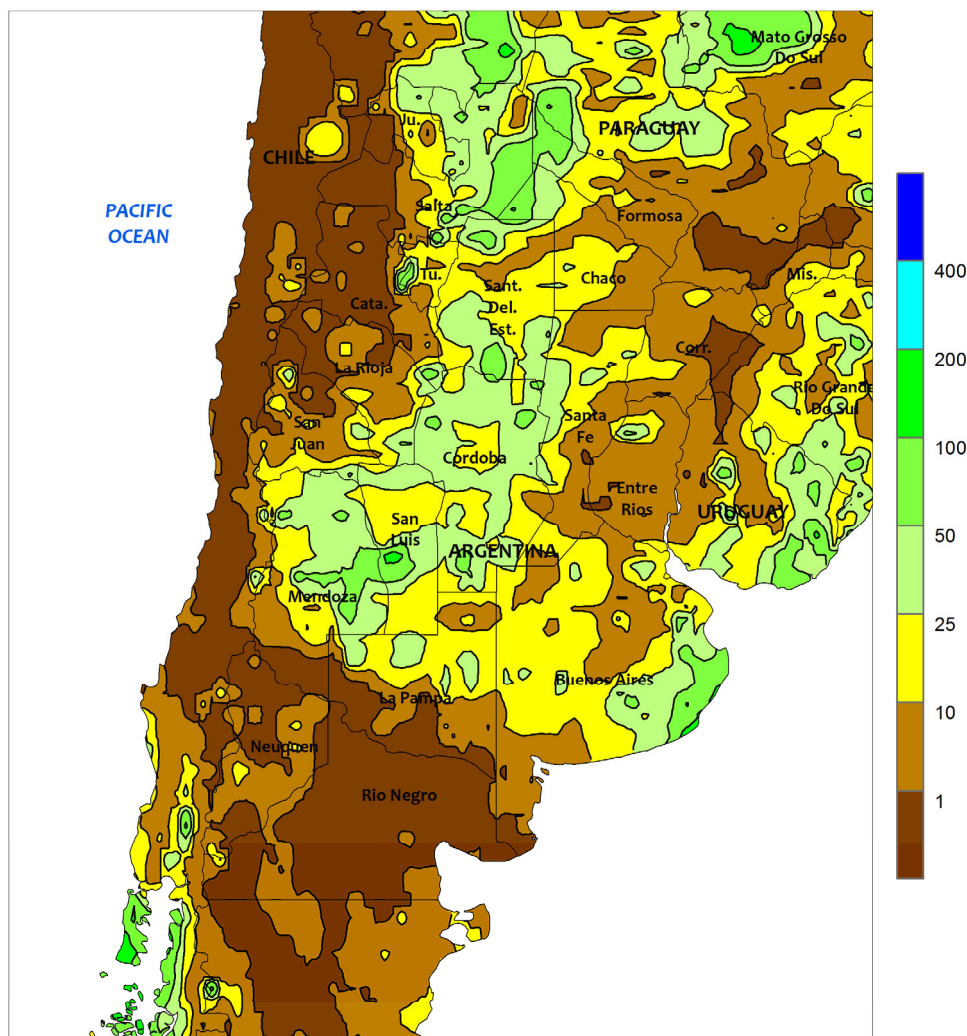


**SOUTH AFRICA**

Showers continued in eastern sections of the country, as drier conditions prevailed for a second week across much of the corn belt. Locally heavy rain (25-100 mm) fell in northern Limpopo and from eastern Limpopo southward through northern KwaZulu-Natal, improving irrigation reserves for sugarcane and other summer crops. The moisture was associated with Tropical Cyclone Guambe, which generated heavy showers over southern Mozambique as the week began. Elsewhere, more moderate showers (5-25 mm, locally reaching 50 mm) occurred from western Mpumalanga southwestward through Eastern Cape, while mostly dry conditions dominated

central and western sections of the corn belt (western Mpumalanga to North West and central Free State). Although consecutive weeks of dryness would normally raise concern for corn at this time of year, abundant rainfall thus far in the season has resulted in favorable soil moisture reserves. Weekly average temperatures were mostly within 1°C of normal in the aforementioned regions, with daytime highs reaching the middle 30s (degrees C) in traditionally warmer northern and western farming areas (notably Limpopo and North West). Meanwhile, sunny skies promoted rapid development of irrigated crops in Western and Northern Cape.

ARGENTINA  
Total Precipitation (mm)  
February 14 - 20, 2021



CLIMATE PREDICTION CENTER, NOAA  
Computer generated contours  
Based on preliminary gridded data



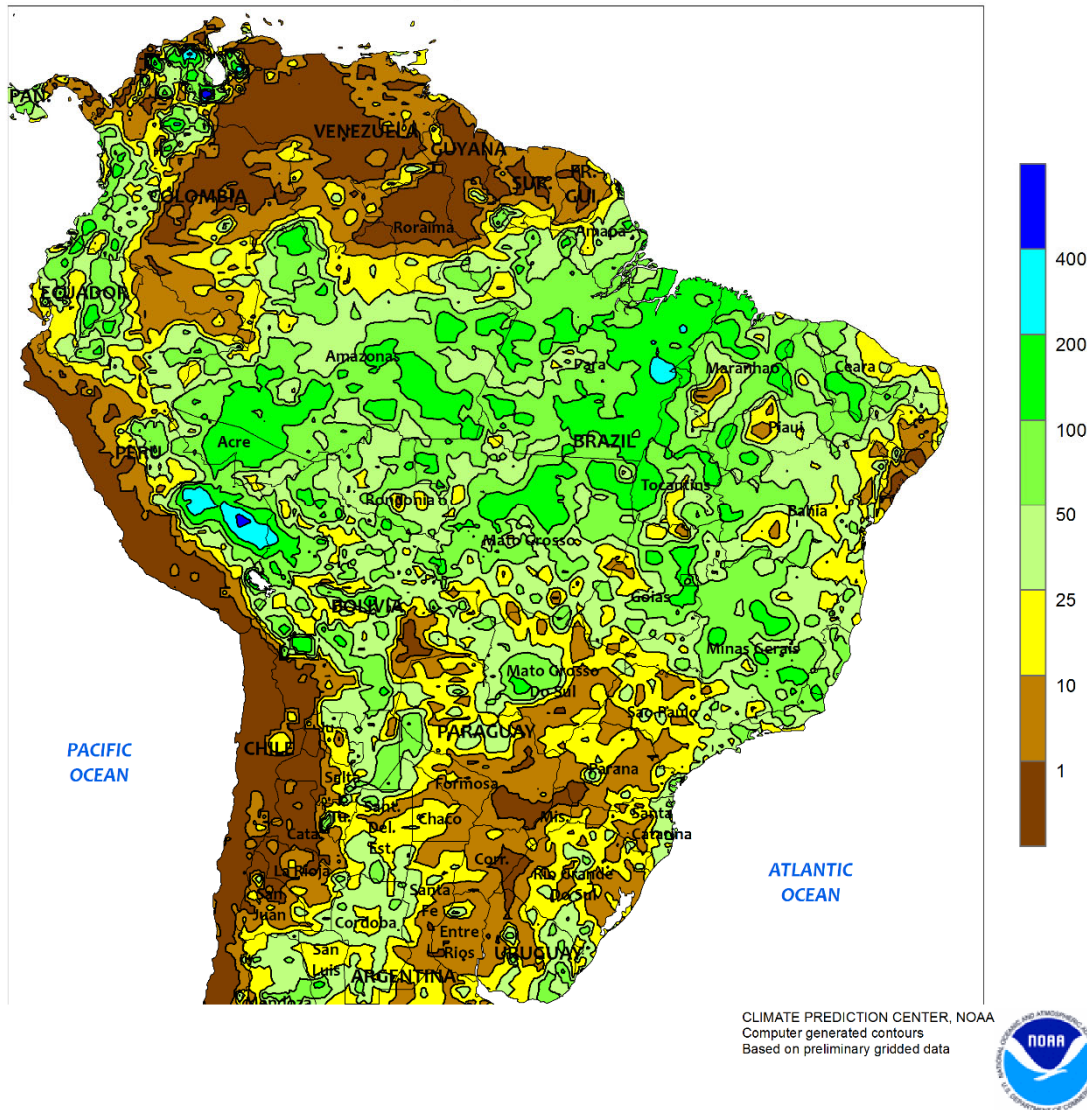
**ARGENTINA**

Early week showers increased moisture for summer crops across much of central Argentina, although a few notable pockets of dryness persisted. The heaviest rain (25-50 mm, with isolated reports near 100 mm) was concentrated from northern La Pampa northward through Salta and along the southeastern coast of Buenos Aires. In contrast, many other locations recorded less than 10 mm, including much of Entre Rios and neighboring portions of Santa Fe; these more easterly farming areas have trended dry for extended periods throughout the season, and a return to seasonal rainfall is needed to sustain current yield prospects. Although daytime

highs reached the lower and middle 30s (degrees C) on multiple days, weekly temperatures averaged 1 to 2°C below normal throughout major agricultural areas of central and northern Argentina. Despite the erratic nature of this season’s summer rainfall, the lack of stressful heat has helped to mitigate the impacts of the extended periods of dryness. According to the government of Argentina, sunflower harvesting was 26 percent complete (versus 36 percent last year) as of February 18, led by earlier-planted northern farming areas. Additionally, the bulk of corn and soybeans were immature and can still benefit from additional rainfall.



BRAZIL  
Total Precipitation (mm)  
February 14 - 20, 2021



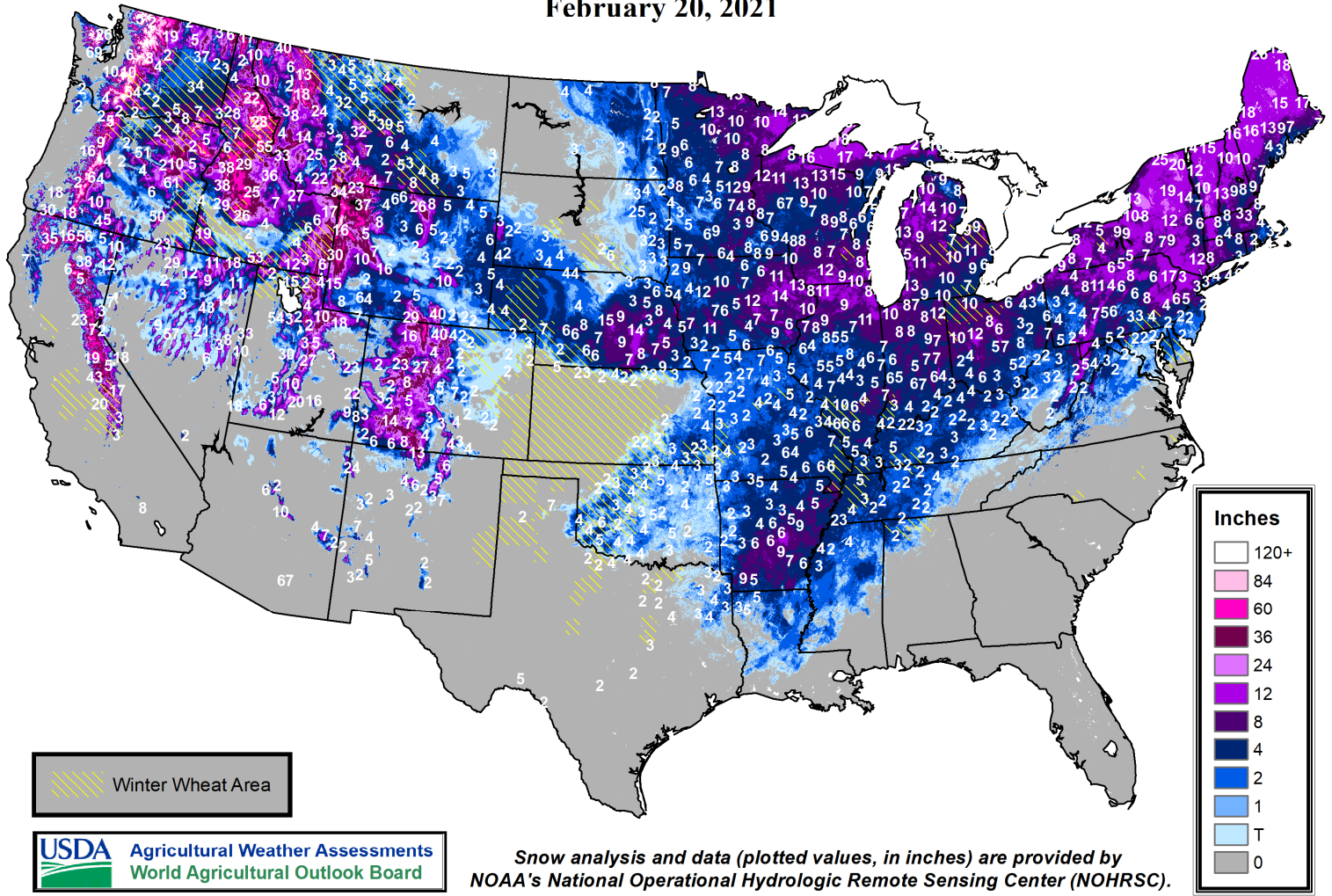
**BRAZIL**

In a repeat of last week’s pattern of rainfall, widespread showers benefited emerging second-season row crops in northern production areas as unseasonably dry weather dominated much of the south. Amounts totaled 25 to 100 mm in farmlands stretching eastward from Mato Grosso, reaching as far south as Minas Gerais. While coming too late for maturing soybeans, the moisture was especially timely for second-season corn and cotton, as well as coffee and other crops dependent upon adequate summer rainfall. According to the government of Mato Grosso, soybeans were 34 percent harvested as of February 19, lagging the 5-year average pace by 23 points; consequently, corn and cotton were 36 and 95 percent planted, respectively, also behind the average pace for both. In contrast, drier

weather (rainfall totaling below 10 mm) extended from Mato Grosso and Sao Paulo to northern Rio Grande do Sul; while favoring fieldwork, many locations can ill afford extended periods of dryness at this time of year. Sao Paulo – a leading producer of sugarcane – has been particularly dry this year, having received below-normal rainfall since November. According to the government of Rio Grande do Sul, soybeans were 86 percent reproductive to filling on February 11 while the earlier-planted corn crop was 42 percent harvested. In Parana, first plantings of soybeans and corn were 94 and 95 percent, respectively, in filling to maturing stages of development as of February 15, with some harvesting already noted; second-crop corn was 8 percent planted.

# Snow Depth

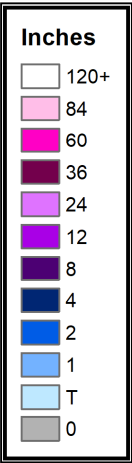
February 20, 2021



Winter Wheat Area

USDA Agricultural Weather Assessments  
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Snow analysis and data (plotted values, in inches) are provided by NOAA's National Operational Hydrologic Remote Sensing Center (NOHRSC).



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