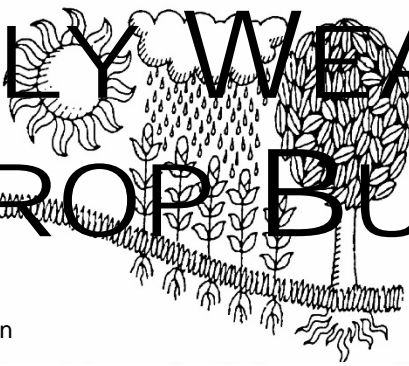
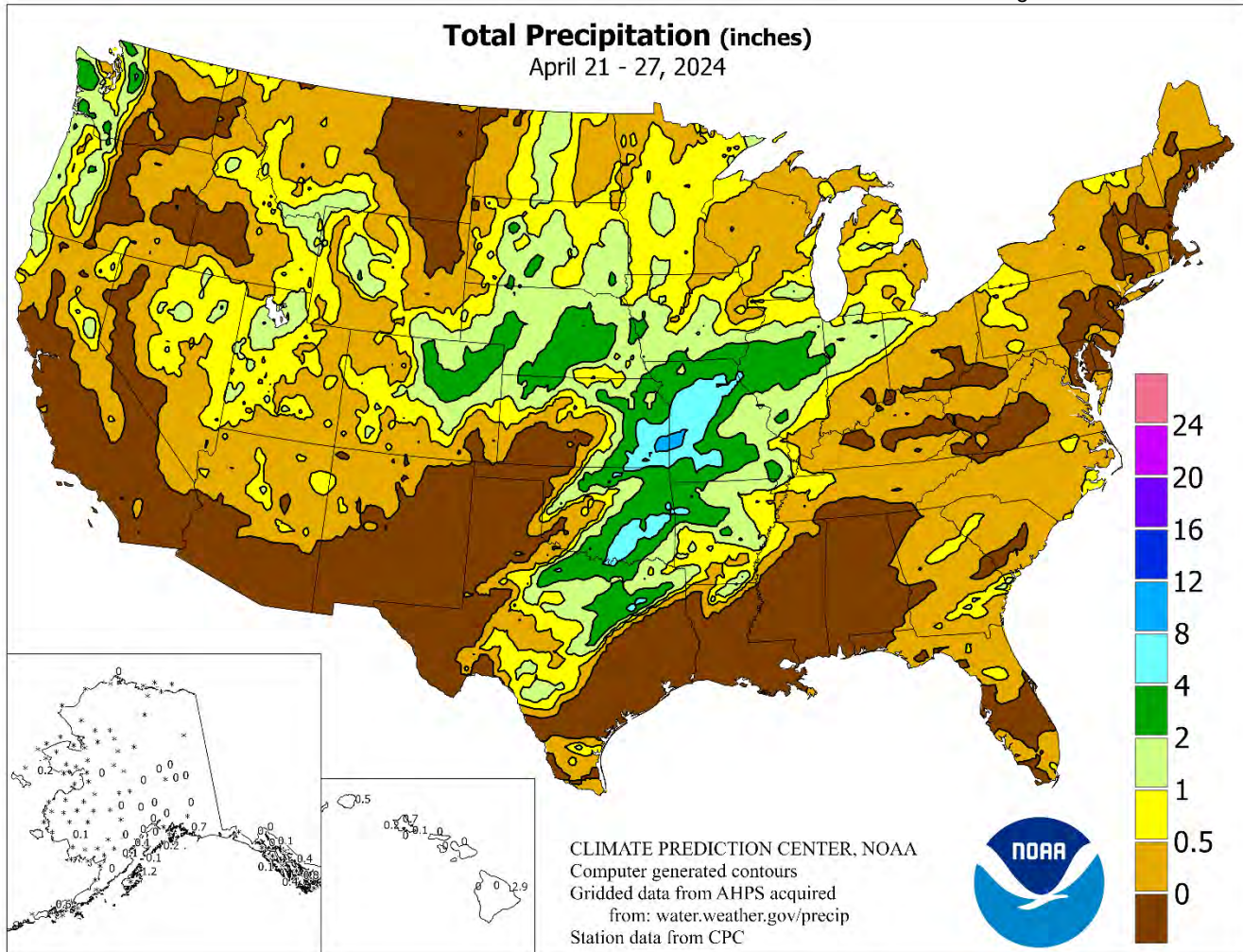


# WEEKLY WEATHER AND CROP BULLETIN



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

**April 21 – 27, 2024**

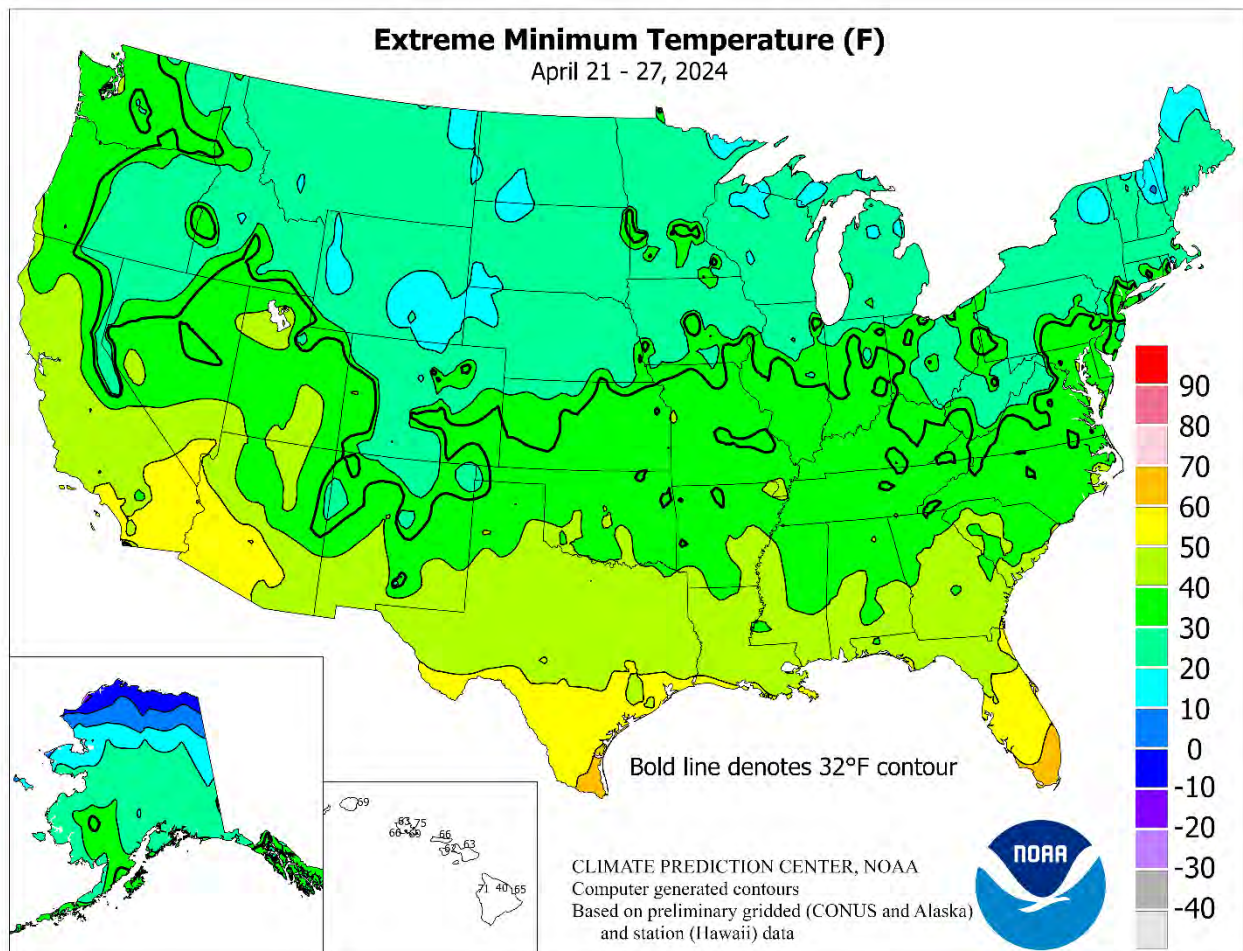
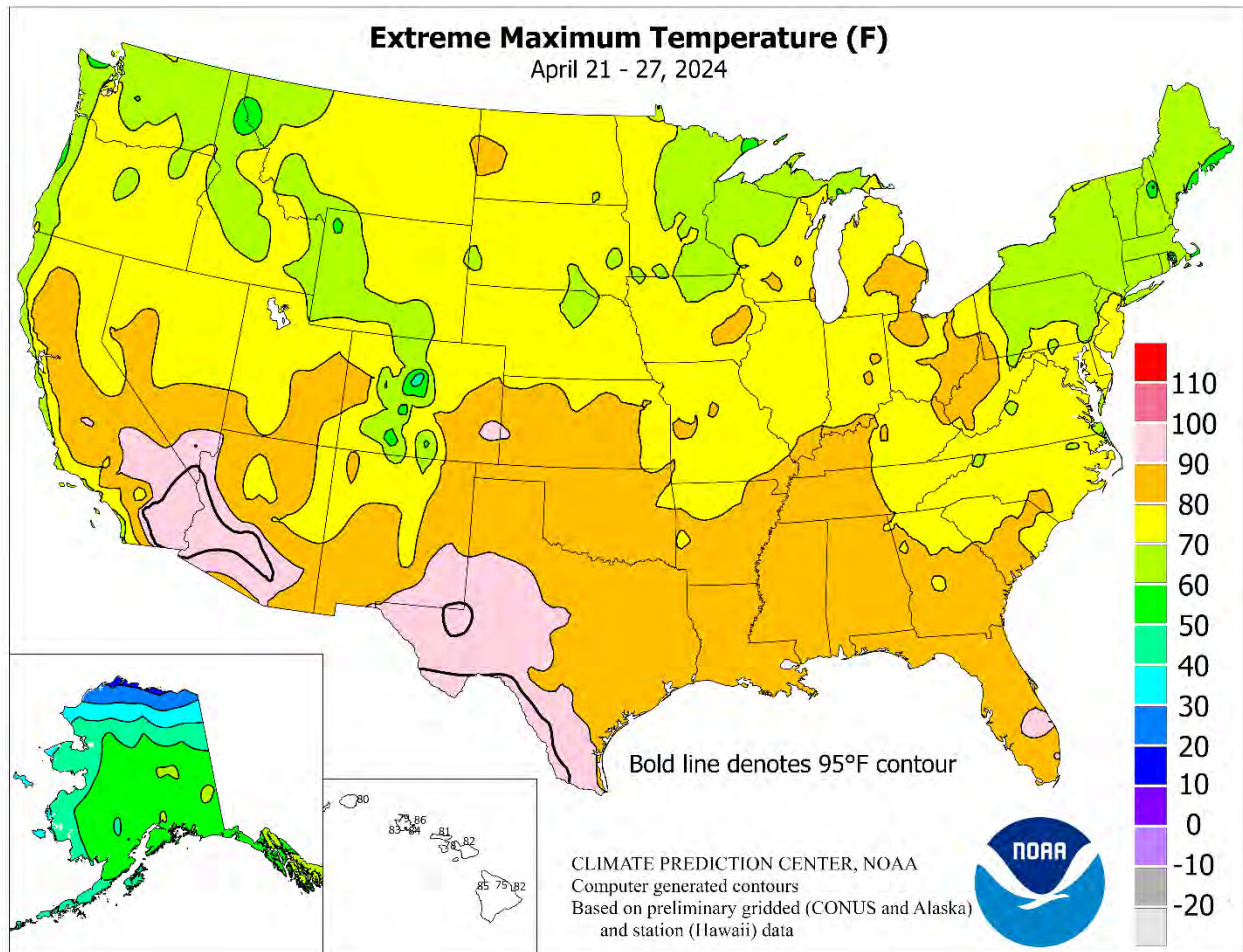
*Highlights provided by USDA/WAOB*

Following several days of mostly tranquil weather, back-to-back storm systems emerged from the **western U.S.** Prior to the storms' arrival, warm weather in the **West** had contrasted with chilly conditions farther east, especially in the **Midwest** and **Northeast**. In fact, weekly temperatures averaged at least 5°F below normal across large sections of the **middle and northern Atlantic States**, with cooler-than-normal conditions extending westward into the **Mississippi Valley**. Freezes were broadly reported as far south as the **Ohio Valley**, **central Appalachians**, and

*(Continued on page 3)*

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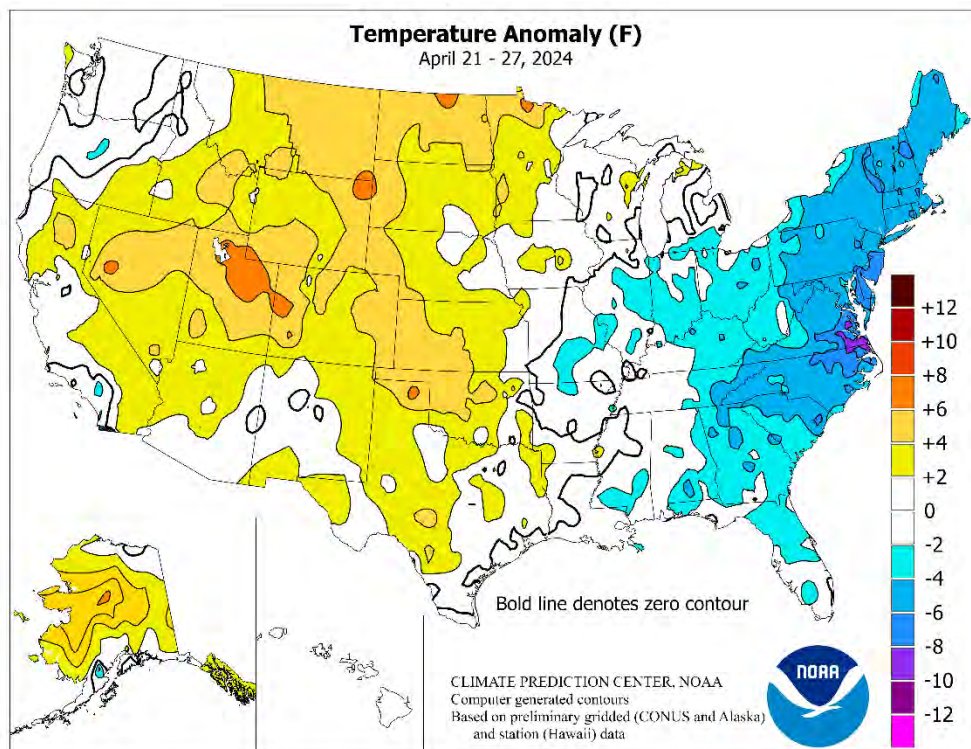
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(Continued from front cover)

**middle Atlantic States**, with scattered frost and light freezes reaching into the **Tennessee Valley**. (Earlier in the week, freezes had occurred throughout the **northwestern half of the Plains**.) In freeze-affected areas where fruits were blooming or winter wheat was heading, producers monitored crops for signs of injury. In contrast, temperatures averaged more than 5°F above normal in numerous locations across the **Intermountain West**, as well as the **northern and central High Plains**. As the weather pattern began to change, separate areas of rain developed across the **Pacific Northwest** and **mid-South**, starting on April 25. That day also marked the start of a protracted spell of severe weather, beginning with several tornadoes—mainly in **Colorado, Kansas, and Oklahoma**. Subsequently, the severe weather outbreak peaked on April 26-27, with well over 100 tornadoes spotted—based on preliminary reports—across the **Plains and western Corn Belt**. Some of the thunderstorms also produced heavy rain and resulted in localized damage due to high winds and large hail. Elsewhere, periodic rain and snow showers dotted the **West**, while a long stretch of dry weather in much of the **South and East** favored fieldwork, including spring planting. However, dryness also persisted across the **southern half of the High Plains**, with cascading impacts on drought-stressed winter wheat.

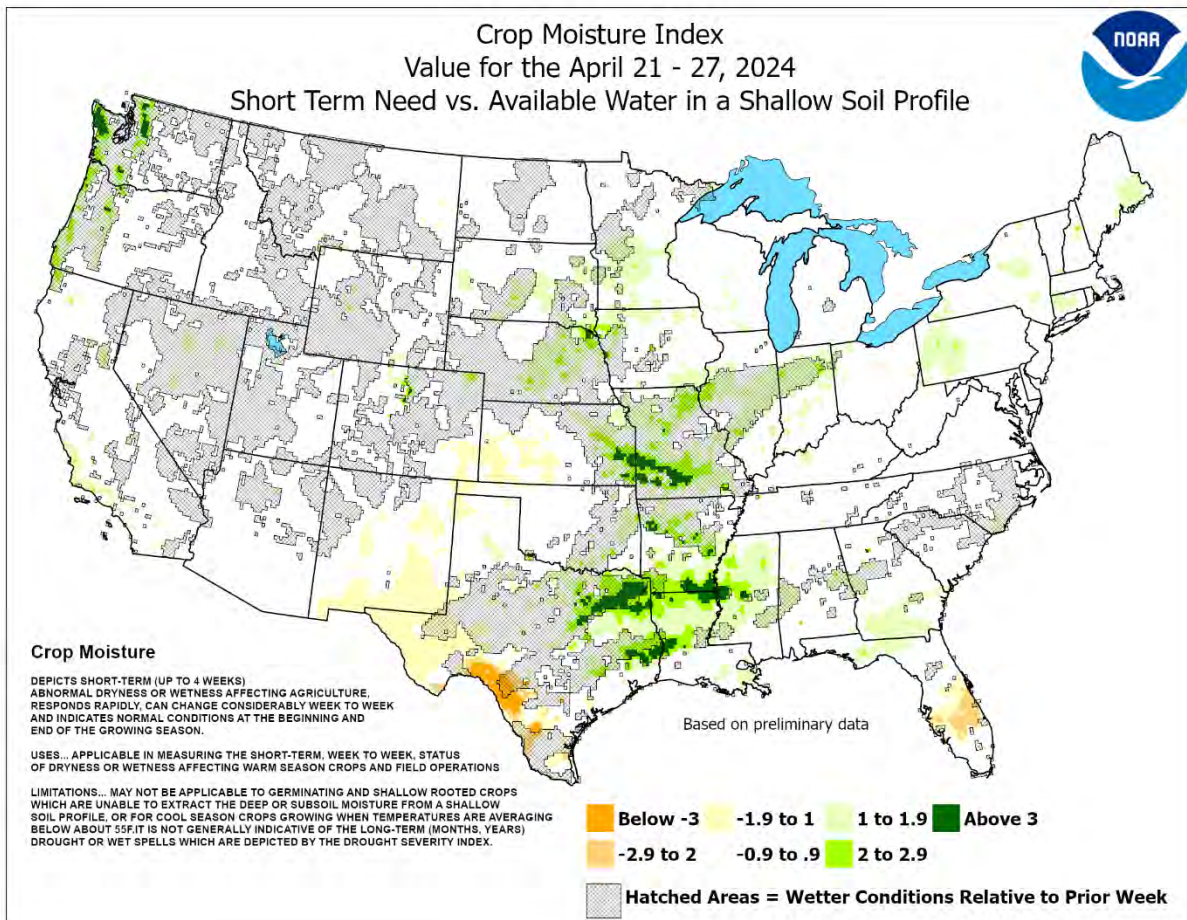
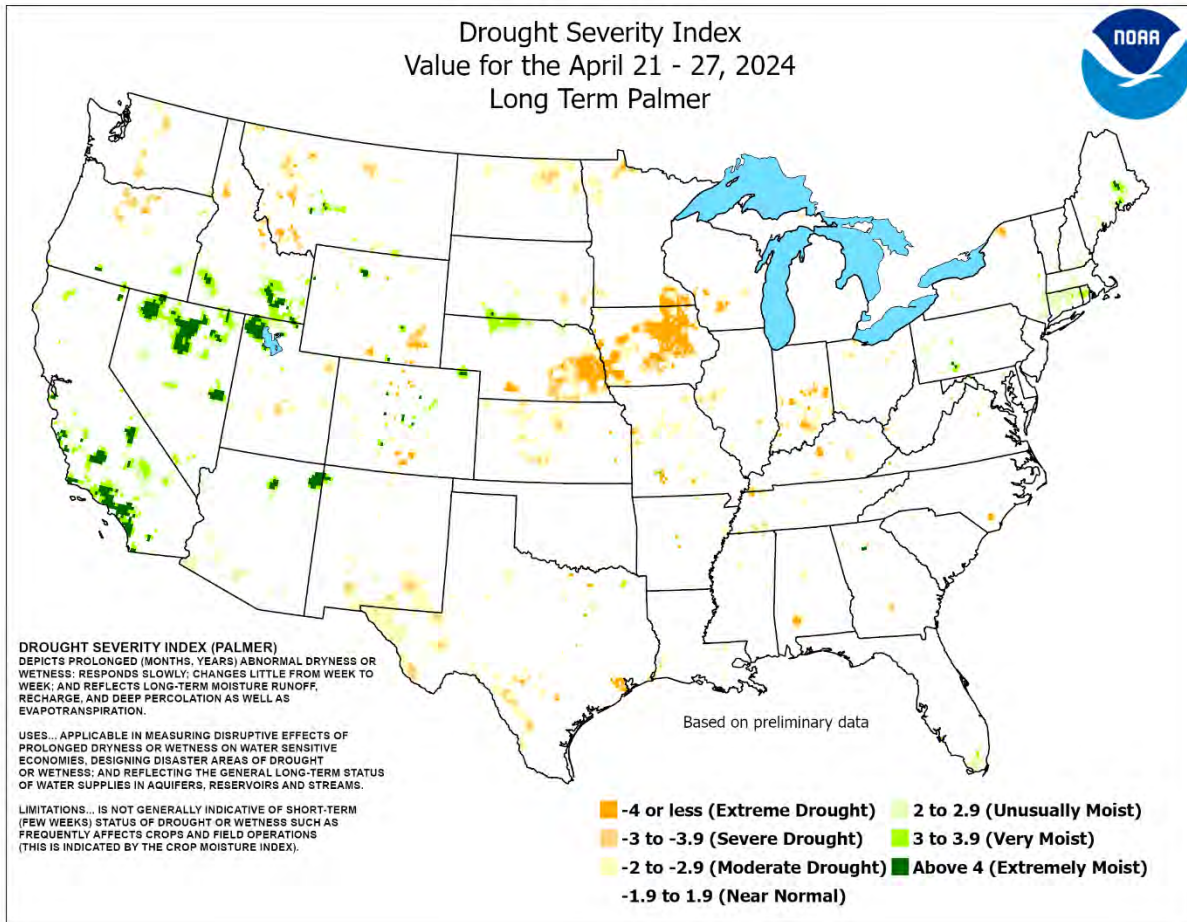
No measurable precipitation fell during the week in **Dodge City, KS**, leaving the March 1 – April 27 total at 0.27 inch (9 percent of normal). Additionally, **Dodge City's** winds gusted to 50 mph or higher this month on April 6, 15, 16, 18, 22, and 23. Elsewhere in **Kansas**, however, **Concordia, KS**, netted a daily-record rainfall total of 2.50 inches on April 25. Totals also topped 2 inches on the 25th, setting daily records, in **Springfield, MO** (2.54 inches), and **Russellville, AR** (2.44 inches). Farther west, rain on April 25 resulted in daily-record totals in locations such as **Astoria, OR** (1.29 inches), and **Hoquiam, WA** (1.11 inches). Farther inland, record-setting amounts for April 26 in **Nevada** included 0.72 inch in **Winnemucca**, 0.31 inch in **Eureka**, and 0.24 inch in **Las Vegas**. Across the **Plains and Midwest**, daily-record totals topped an inch on the 26th in **Quincy, IL** (1.66 inches); **Vichy-Rolla, MO** (1.60 inches); and **Lincoln, NE** (1.29 inches). Those totals occurred the same day that dozens of tornadoes prowled the **Plains and western Corn Belt**. While storm surveys and damage documentation are still ongoing, several of the April 26 and 27 tornadoes reached at least EF-3 intensity, featuring estimated winds greater than 135 mph. A twister that struck on April 27 in parts of **Marietta, Love County, OK**, was rated an EF-4, with estimated winds above 165 mph, becoming the nation's strongest twister since late-March 2023. Elsewhere, locally catastrophic damage was reported on April 26 in communities such as **Elkhorn, NE**, and **Minden, IA**, and on

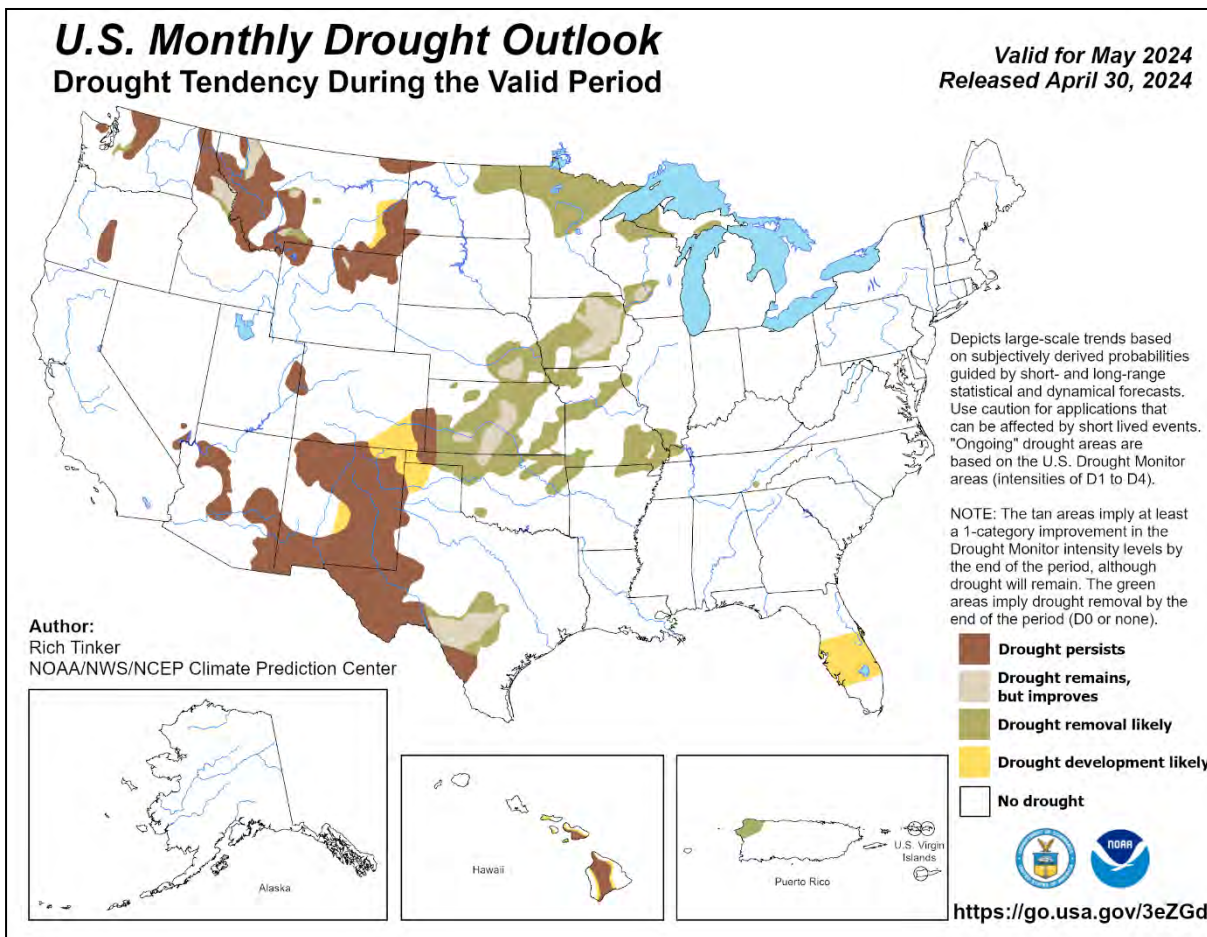
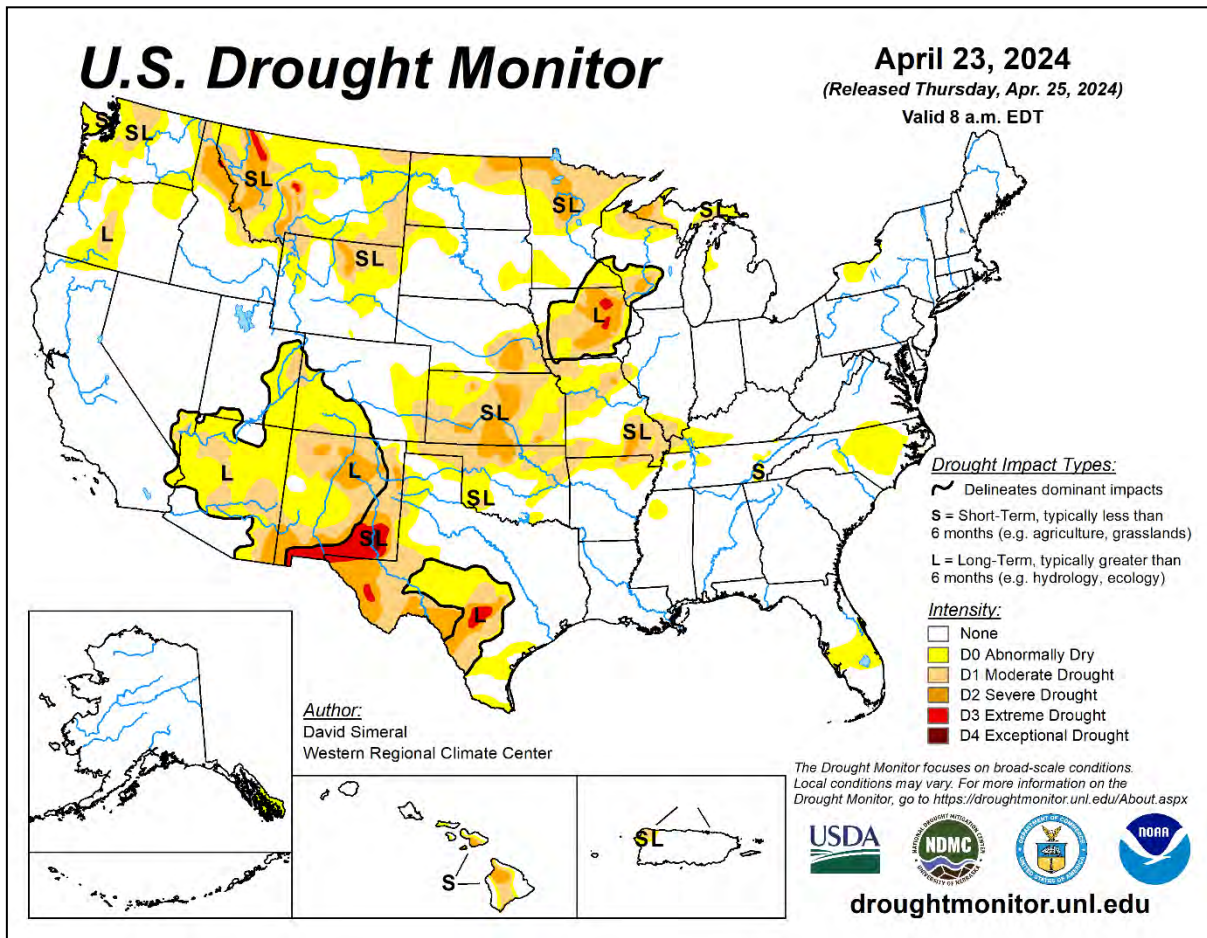


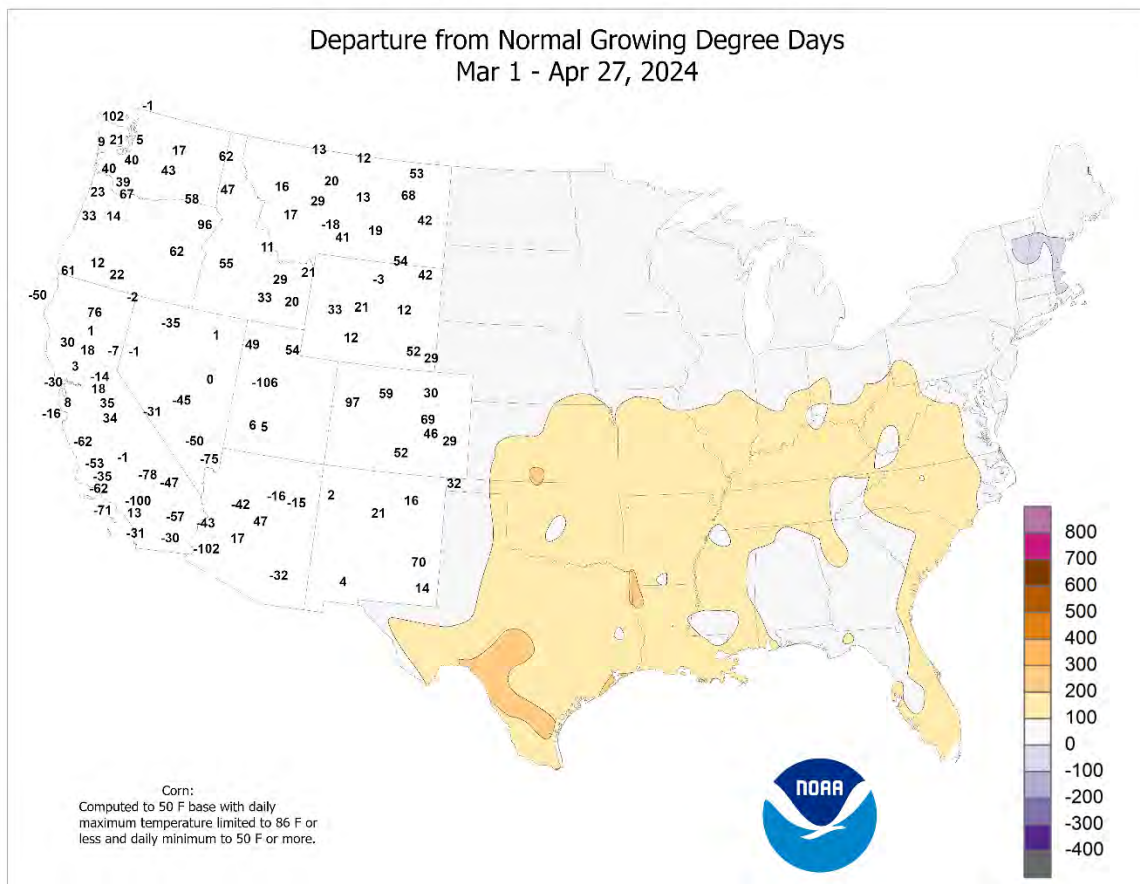
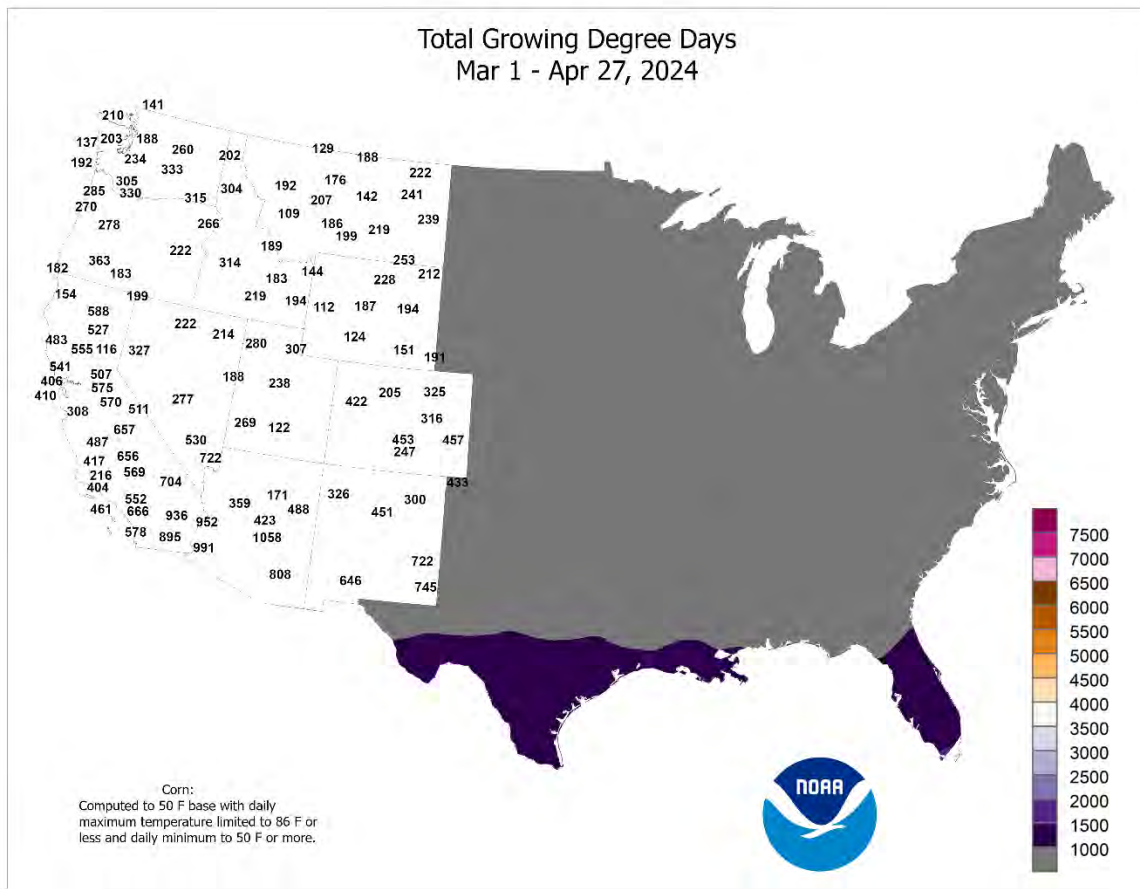
April 27 in multiple **Oklahoma** towns, including **Sulphur (Murray County)** and **Holdenville (Hughes County)**. Early reports indicated five tornado-related fatalities—four in **Oklahoma** and one in **Minden, IA**.

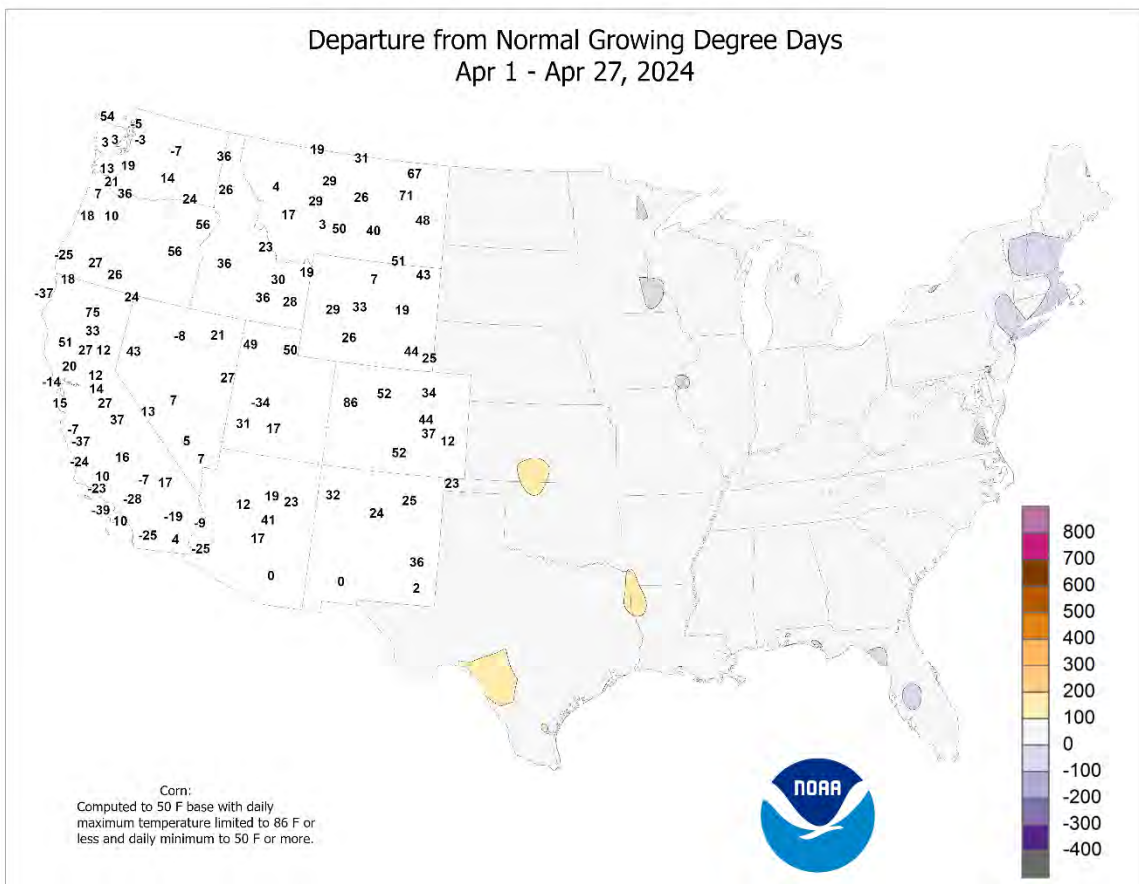
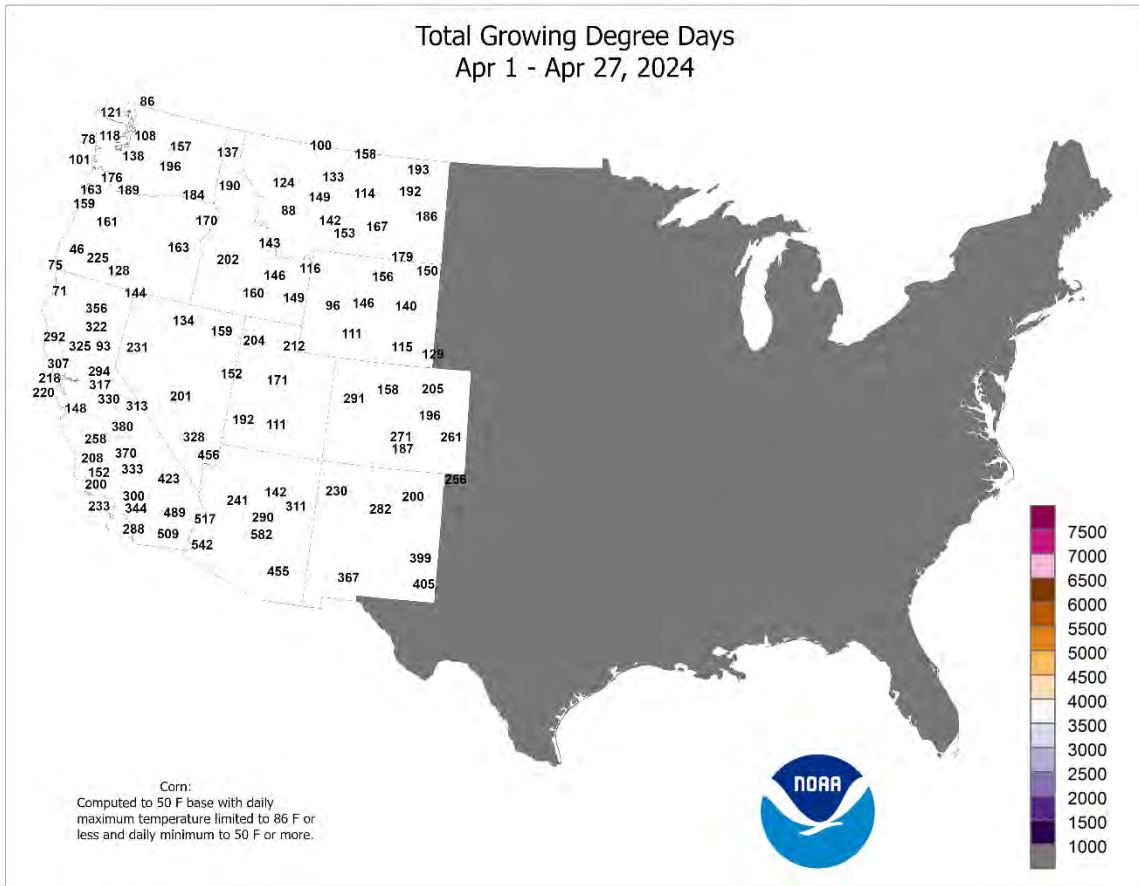
As the week began, chilly conditions covered the **Midwest**, where **Dubuque, IA**, notched a daily-record low (24°F) for April 21. Soon, cool air covered much of the remainder of the **central and eastern U.S.** By April 23, daily-record lows dipped to 40°F in **McComb, MS**, and 46°F in **New Iberia, LA**. Meanwhile, general warmth covered areas **west of the Rockies**, where **Grand Junction, CO**, collected a daily record-tying high of 85°F on April 22. During the second half of the week, a fresh surge of cool air covered the **Great Lakes and Northeastern States**. In **Michigan**, record-setting lows for April 25 included 20°F in **Alpena** and 26°F in **Flint**. In **Maine**, **Augusta** reported a freeze each calendar day from April 23-27, including a daily-record low of 26°F on the 25th. Elsewhere in **Maine**, record-setting minima for April 26 fell to 23°F in **Bangor** and 26°F in **Portland**. **Montpelier, VT** (22°F), also measured a daily-record low for April 26. Warmth returned, however, across the **Deep South**, where daily-record highs soared to 89°F (on April 26) in **Baton Rouge, LA**, and 98°F (on April 27) in **Del Rio, TX**.

In **Alaska**, near- or above-normal temperatures accompanied mostly dry weather. In **Fairbanks**, where measurable precipitation last fell on April 12, maximum temperatures topped 60°F on April 19, 20, 24, and 25. **Anchorage** also last received measurable precipitation on April 12. Farther south, frequent showers in **Hawaii**—mainly in windward locations—continued to ease any remaining short-term drought. Through April 27, month-to-date rainfall totaled 13.20 inches (153 percent of normal) in **Hilo**, on the **Big Island**, and 13.13 inches (710 percent) in **Lihue, Kauai**.









National Weather Data for Selected Cities

Weather Data for the Week Ending April 27, 2024

Data Provided by Climate Prediction Center

Table with columns: STATES AND STATIONS, TEMPERATURE °F, PRECIPITATION, RELATIVE HUMIDITY PERCENT, and NUMBER OF DAYS. Rows include states like AK, AL, AR, AZ, CA, CO, CT, DC, DE, FL, GA, HI, IA, ID, IL, IN, KS and various cities within those states.







## National Agricultural Summary

April 22 – 28, 2024

Weekly National Agricultural Summary provided by USDA/NASS

### HIGHLIGHTS

**Large sections of the Great Basin, Mississippi Valley, Great Plains, Rockies, and Southwest recorded at least twice the normal amount of weekly precipitation. Parts of eastern Kansas received at least 6 inches of rain. Meanwhile, most of the nation's mid-section and West recorded above-normal temperatures for**

**the week. Parts of the Great Plains and Rockies recorded temperatures 6°F or more above normal. In contrast, most of the eastern one-third of the nation was cooler than normal. Some locations in eastern Kentucky, the mid-Atlantic, and Northeast noted temperatures 6°F or more below normal.**

**Corn:** By April 28, producers had planted 27 percent of the nation's corn crop, 4 percentage points ahead of last year and 5 points ahead of the 5-year average. Progress was furthest advanced in Texas and North Carolina, with 71 and 70 percent planted, respectively. Seven percent of the nation's corn acreage had emerged by April 28, two percentage points ahead of the previous year and 3 points ahead of average.

**Soybean:** Eighteen percent of the nation's soybean acreage was planted by April 28, two percentage points ahead of last year and 8 points ahead of the 5-year average. Progress was furthest advanced in Arkansas and Mississippi, with 56 and 52 percent planted, respectively.

**Winter Wheat:** By April 28, thirty percent of the nation's winter wheat crop was headed, 7 percentage points ahead of last year and 9 points ahead of the 5-year average. On April 28, forty-nine percent of the 2024 winter wheat crop was reported in good to excellent condition, 1 percentage point below the previous week but 21 points above last year. In Kansas, the largest winter wheat-producing state, 31 percent of the winter wheat crop was rated in good to excellent condition.

**Cotton:** Nationwide, 15 percent of the cotton crop was planted by April 28, one percentage point ahead of both the previous year and the 5-year average. Planting progress was furthest advanced in Arizona at 64 percent, 21 percentage points ahead of last year and 9 points ahead of average.

**Sorghum:** Nineteen percent of the nation's sorghum acreage was planted by April 28, one percentage point behind both last year and the 5-year average. Texas had planted 65 percent of its sorghum acreage by April 28, two percentage points behind last year and 1 point behind average.

**Rice:** By April 28, producers had seeded 72 percent of the 2024 rice acreage, 12 percentage points ahead of the previous year and 26 points ahead of the 5-year average. Louisiana and Texas had the largest percentages of acreage planted, at 92 and

86 percent, respectively. By April 28, forty-eight percent of the nation's rice acreage had emerged, 12 percentage points ahead of last year and 20 points ahead of average.

**Small Grains:** Nationally, oat producers had seeded 63 percent of this year's acreage by April 28, sixteen percentage points ahead of last year and 12 points ahead of the 5-year average. Forty-two percent of the nation's oat acreage had emerged by April 28, ten percentage points ahead of the previous year and 8 points ahead of average.

Thirty-five percent of the nation's barley crop was planted by April 28, nineteen percentage points ahead of last year and 6 points ahead of the 5-year average. Progress was furthest advanced in Washington and Idaho, with 70 and 65 percent planted, respectively. Six percent of the nation's barley crop had emerged by April 28, four percentage points ahead of the previous year but 2 points behind average.

By April 28, thirty-four percent of the spring wheat crop was seeded, 24 percentage points ahead of last year and 15 points ahead of the 5-year average. Progress was furthest advanced in Washington and Idaho, with 76 and 72 percent planted, respectively. By April 28, five percent of the nation's spring wheat crop had emerged, 3 percentage points ahead of the previous year but equal to the 5-year average.

**Other Crops:** Nationally, producers had planted 9 percent of the 2024 peanut acreage by April 28, two percentage points ahead of the previous year and 1 point ahead of the 5-year average. Producers in Florida had planted 23 percent of the 2024 intended acreage by week's end, equal to last year but 1 percentage point ahead of average.

By April 28, sixty-six percent of the sugarbeet crop was planted, 44 percentage points ahead of last year and 34 points ahead of the 5-year average. Progress was furthest advanced in Minnesota and Idaho, with 81 and 63 percent planted, respectively.

**Crop Progress and Condition**

**Week Ending April 28, 2024**

Weekly U.S. Progress and Condition Data provided by USDA/NASS

Corn Percent Planted				
	Prev Year	Prev Week	Apr 28 2024	5-Yr Avg
CO	5	1	8	12
IL	34	11	25	25
IN	17	2	8	13
IA	24	13	39	28
KS	31	26	39	29
KY	47	23	35	38
MI	2	1	4	5
MN	4	8	30	18
MO	74	47	63	40
NE	24	6	22	23
NC	65	51	70	65
ND	0	0	6	2
OH	9	0	6	6
PA	13	0	2	6
SD	1	3	13	6
TN	57	31	49	45
TX	73	68	71	69
WI	2	2	10	8
<b>18 Sts</b>	<b>23</b>	<b>12</b>	<b>27</b>	<b>22</b>
These 18 States planted 92% of last year's corn acreage.				

Soybeans Percent Planted				
	Prev Year	Prev Week	Apr 28 2024	5-Yr Avg
AR	40	43	56	23
IL	32	11	26	18
IN	15	2	8	9
IA	13	8	25	12
KS	11	6	12	6
KY	25	13	22	15
LA	54	42	49	37
MI	5	1	7	6
MN	1	5	14	5
MS	40	28	52	35
MO	29	16	24	9
NE	13	2	10	11
NC	8	6	14	9
ND	0	0	0	0
OH	12	0	7	6
SD	0	0	4	2
TN	21	17	28	10
WI	2	2	11	3
<b>18 Sts</b>	<b>16</b>	<b>8</b>	<b>18</b>	<b>10</b>
These 18 States planted 96% of last year's soybean acreage.				

Cotton Percent Planted				
	Prev Year	Prev Week	Apr 28 2024	5-Yr Avg
AL	13	3	8	10
AZ	43	42	64	55
AR	8	6	14	6
CA	66	20	40	60
GA	7	4	10	9
KS	1	0	1	1
LA	14	5	13	15
MS	3	1	12	5
MO	4	3	10	3
NC	5	1	3	5
OK	0	0	0	1
SC	2	4	10	6
TN	4	1	5	2
TX	19	16	18	18
VA	28	12	26	12
<b>15 Sts</b>	<b>14</b>	<b>11</b>	<b>15</b>	<b>14</b>
These 15 States planted 99% of last year's cotton acreage.				

Sorghum Percent Planted				
	Prev Year	Prev Week	Apr 28 2024	5-Yr Avg
CO	2	0	0	0
KS	1	1	2	1
NE	1	0	1	1
OK	16	0	5	6
SD	0	3	12	1
TX	67	60	65	66
<b>6 Sts</b>	<b>20</b>	<b>17</b>	<b>19</b>	<b>20</b>
These 6 States planted 100% of last year's sorghum acreage.				

Corn Percent Emerged				
	Prev Year	Prev Week	Apr 28 2024	5-Yr Avg
CO	0	0	0	0
IL	3	1	6	3
IN	1	0	0	1
IA	1	0	2	1
KS	8	3	17	6
KY	21	8	15	14
MI	0	0	0	0
MN	0	0	1	0
MO	25	12	35	10
NE	1	0	1	1
NC	41	26	46	40
ND	0	0	0	0
OH	0	0	0	0
PA	1	0	0	0
SD	0	0	0	0
TN	20	5	18	18
TX	64	55	62	58
WI	0	0	0	0
<b>18 Sts</b>	<b>5</b>	<b>3</b>	<b>7</b>	<b>4</b>
These 18 States planted 92% of last year's corn acreage.				

**Crop Progress and Condition**

**Week Ending April 28, 2024**

Weekly U.S. Progress and Condition Data provided by USDA/NASS

Rice Percent Planted				
	Prev Year	Prev Week	Apr 28 2024	5-Yr Avg
AR	63	67	83	43
CA	4	5	15	10
LA	88	87	92	84
MS	49	27	45	40
MO	70	56	68	37
TX	80	72	86	82
<b>6 Sts</b>	<b>60</b>	<b>59</b>	<b>72</b>	<b>46</b>
These 6 States planted 100% of last year's rice acreage.				

Rice Percent Emerged				
	Prev Year	Prev Week	Apr 28 2024	5-Yr Avg
AR	30	29	54	19
CA	0	0	0	0
LA	82	77	82	77
MS	26	13	25	20
MO	26	14	24	16
TX	66	56	72	68
<b>6 Sts</b>	<b>36</b>	<b>33</b>	<b>48</b>	<b>28</b>
These 6 States planted 100% of last year's rice acreage.				

Oats Percent Planted				
	Prev Year	Prev Week	Apr 28 2024	5-Yr Avg
IA	80	78	90	77
MN	9	29	50	25
NE	79	71	82	77
ND	1	4	16	4
OH	68	27	66	57
PA	63	25	44	53
SD	24	45	60	38
TX	100	100	100	100
WI	21	19	39	30
<b>9 Sts</b>	<b>47</b>	<b>51</b>	<b>63</b>	<b>51</b>
These 9 States planted 66% of last year's oat acreage.				

Oats Percent Emerged				
	Prev Year	Prev Week	Apr 28 2024	5-Yr Avg
IA	24	34	53	24
MN	2	10	15	7
NE	37	36	55	39
ND	0	1	2	0
OH	27	10	19	26
PA	31	5	35	33
SD	1	13	24	11
TX	100	100	100	100
WI	4	7	11	9
<b>9 Sts</b>	<b>32</b>	<b>35</b>	<b>42</b>	<b>34</b>
These 9 States planted 66% of last year's oat acreage.				

Peanuts Percent Planted				
	Prev Year	Prev Week	Apr 28 2024	5-Yr Avg
AL	10	1	4	8
FL	23	11	23	22
GA	5	3	9	7
NC	6	1	4	3
OK	0	0	0	2
SC	6	4	13	8
TX	0	0	0	2
VA	11	0	9	6
<b>8 Sts</b>	<b>7</b>	<b>3</b>	<b>9</b>	<b>8</b>
These 8 States planted 96% of last year's peanut acreage.				

Sugarbeets Percent Planted				
	Prev Year	Prev Week	Apr 28 2024	5-Yr Avg
ID	66	39	63	82
MI	68	18	49	52
MN	0	29	81	18
ND	0	17	50	10
<b>4 Sts</b>	<b>22</b>	<b>26</b>	<b>66</b>	<b>32</b>
These 4 States planted 86% of last year's sugarbeet acreage.				

**Crop Progress and Condition**

**Week Ending April 28, 2024**

Weekly U.S. Progress and Condition Data provided by USDA/NASS

Winter Wheat Percent Headed				
	Prev Year	Prev Week	Apr 28 2024	5-Yr Avg
AR	64	50	65	57
CA	80	65	75	68
CO	0	0	0	0
ID	0	0	0	0
IL	13	11	16	11
IN	4	0	7	2
KS	9	4	33	6
MI	0	0	0	0
MO	21	23	51	17
MT	0	0	0	0
NE	0	0	0	0
NC	71	41	67	55
OH	0	0	0	0
OK	40	30	45	41
OR	0	0	0	2
SD	0	0	0	0
TX	64	50	64	64
WA	0	0	0	1
18 Sts	23	17	30	21
These 18 States planted 89% of last year's winter wheat acreage.				

Spring Wheat Percent Planted				
	Prev Year	Prev Week	Apr 28 2024	5-Yr Avg
ID	40	55	72	57
MN	0	18	48	11
MT	10	7	35	20
ND	5	7	20	11
SD	13	40	62	36
WA	67	60	76	73
6 Sts	10	15	34	19
These 6 States planted 100% of last year's spring wheat acreage.				

Barley Percent Planted				
	Prev Year	Prev Week	Apr 28 2024	5-Yr Avg
ID	42	53	65	59
MN	1	12	30	10
MT	12	21	30	24
ND	1	3	16	6
WA	47	52	70	62
5 Sts	16	24	35	29
These 5 States planted 84% of last year's barley acreage.				

Spring Wheat Percent Emerged				
	Prev Year	Prev Week	Apr 28 2024	5-Yr Avg
ID	9	10	30	18
MN	0	2	5	2
MT	0	0	0	2
ND	0	0	1	1
SD	0	6	10	11
WA	30	18	38	38
6 Sts	2	2	5	5
These 6 States planted 100% of last year's spring wheat acreage.				

Barley Percent Emerged				
	Prev Year	Prev Week	Apr 28 2024	5-Yr Avg
ID	10	8	23	22
MN	0	1	4	1
MT	0	0	0	1
ND	0	0	1	0
WA	10	4	24	25
5 Sts	2	2	6	8
These 5 States planted 84% of last year's barley acreage.				

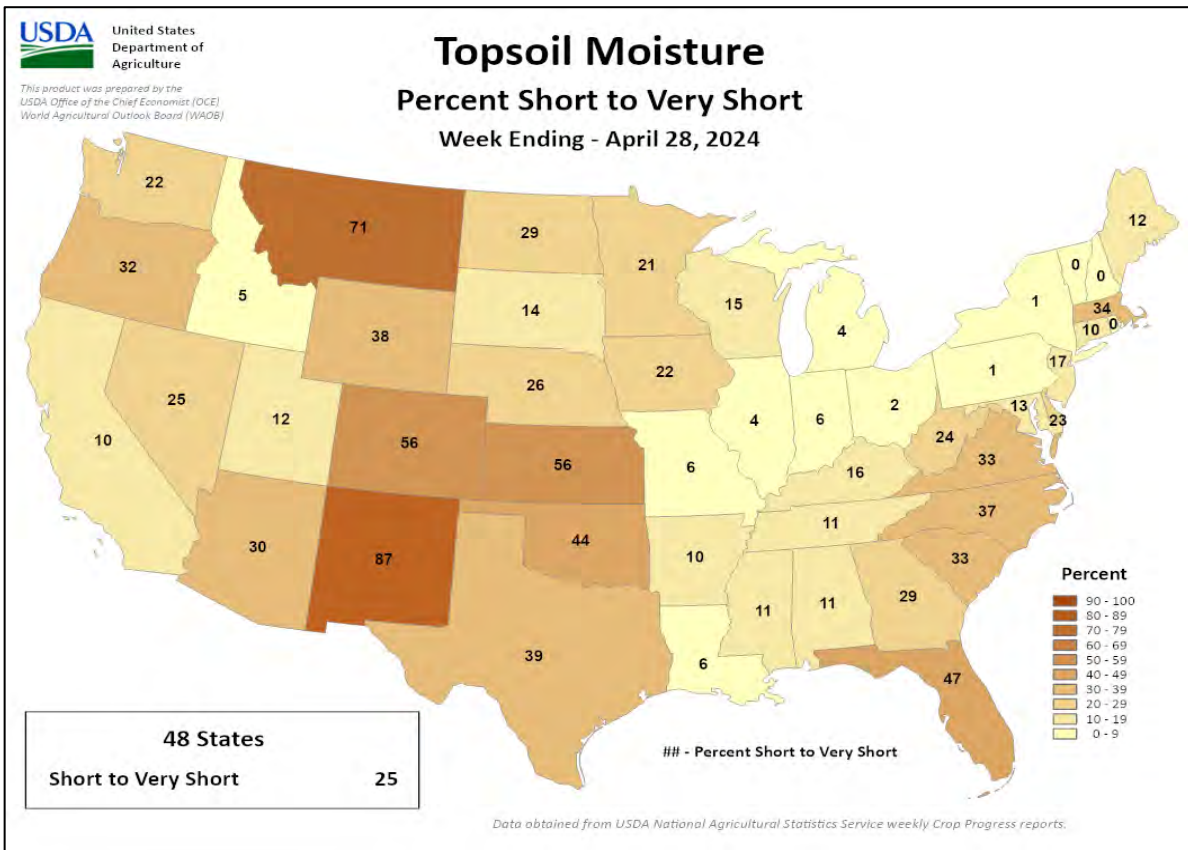
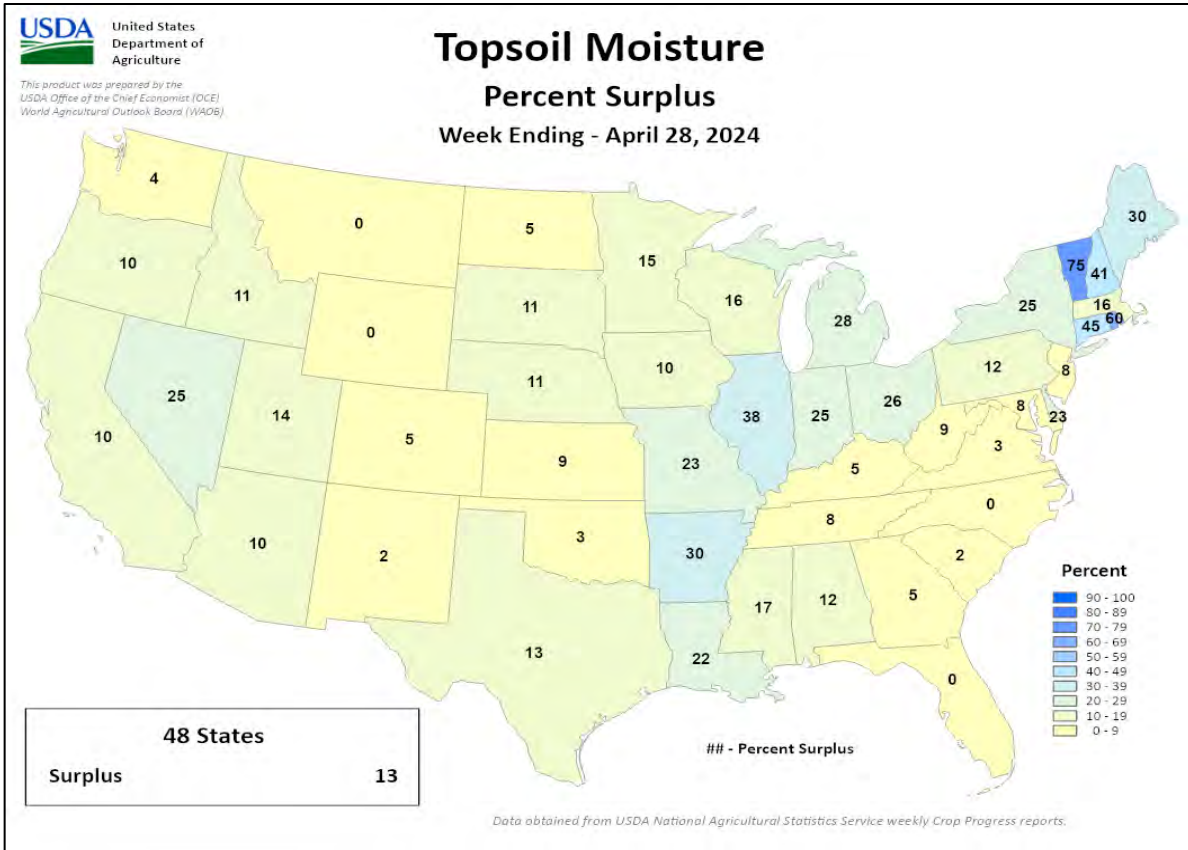
Winter Wheat Condition by Percent					
	VP	P	F	G	EX
AR	0	4	31	59	6
CA	0	0	5	25	70
CO	10	13	31	44	2
ID	0	5	28	62	5
IL	0	1	12	71	16
IN	1	3	18	62	16
KS	10	21	38	28	3
MI	0	4	29	44	23
MO	1	1	20	69	9
MT	0	5	52	41	2
NE	2	5	30	48	15
NC	0	2	20	71	7
OH	1	3	27	55	14
OK	3	11	40	43	3
OR	2	9	26	51	12
SD	1	3	29	61	6
TX	5	9	38	41	7
WA	4	8	32	52	4
18 Sts	5	11	35	43	6
Prev Wk	5	11	34	43	7
Prev Yr	19	23	30	25	3

VP - Very Poor    P - Poor    F - Fair    G - Good    EX - Excellent  
 NA - Not Available    \*Revised

### Crop Progress and Condition

### Week Ending April 28, 2024

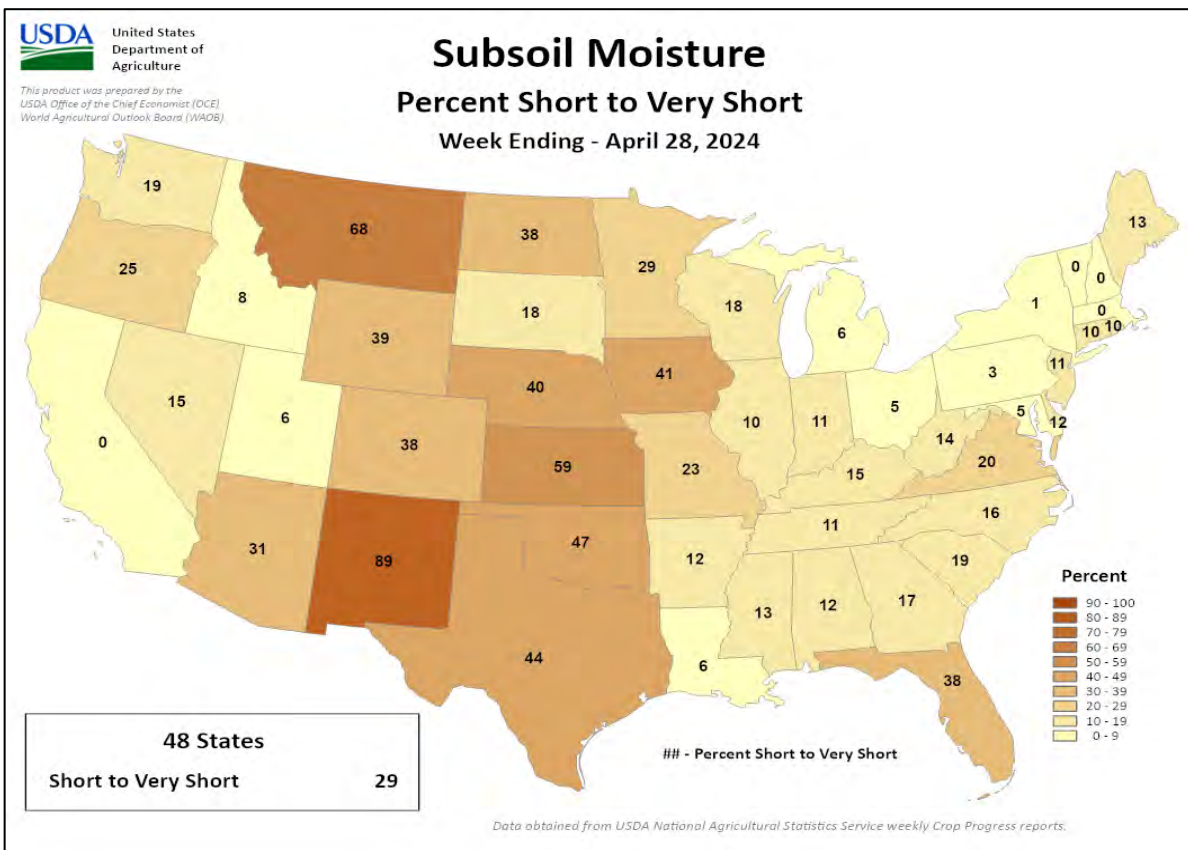
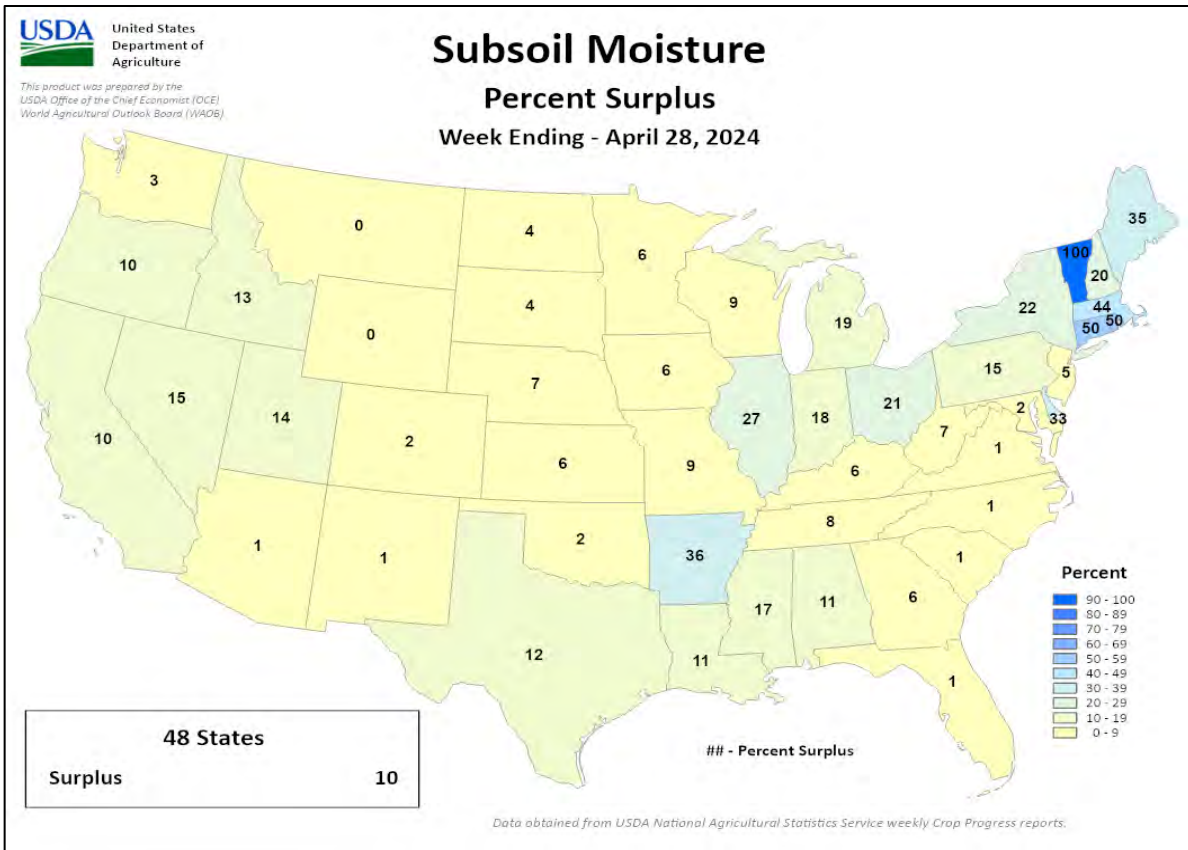
Weekly U.S. Progress and Condition Data provided by USDA/NASS



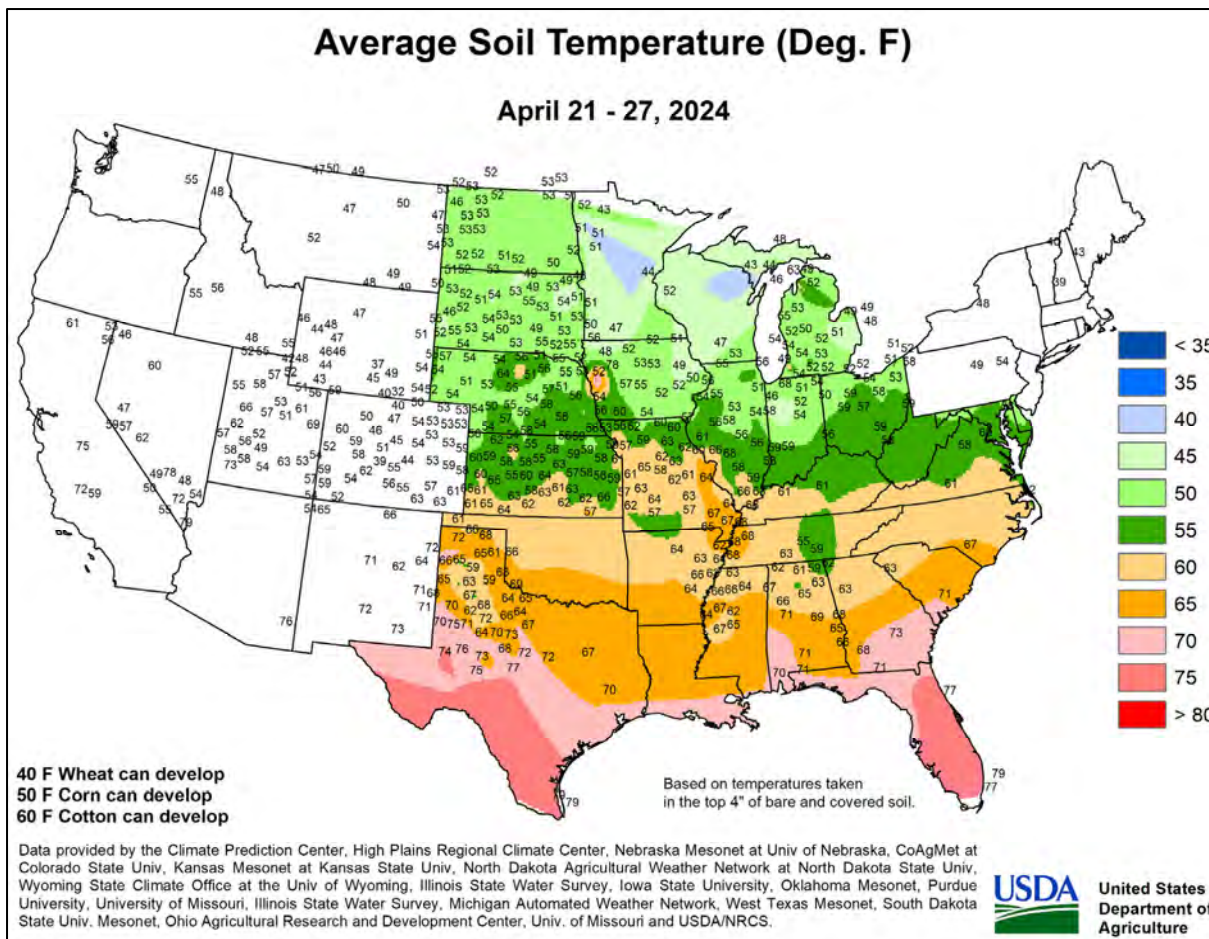
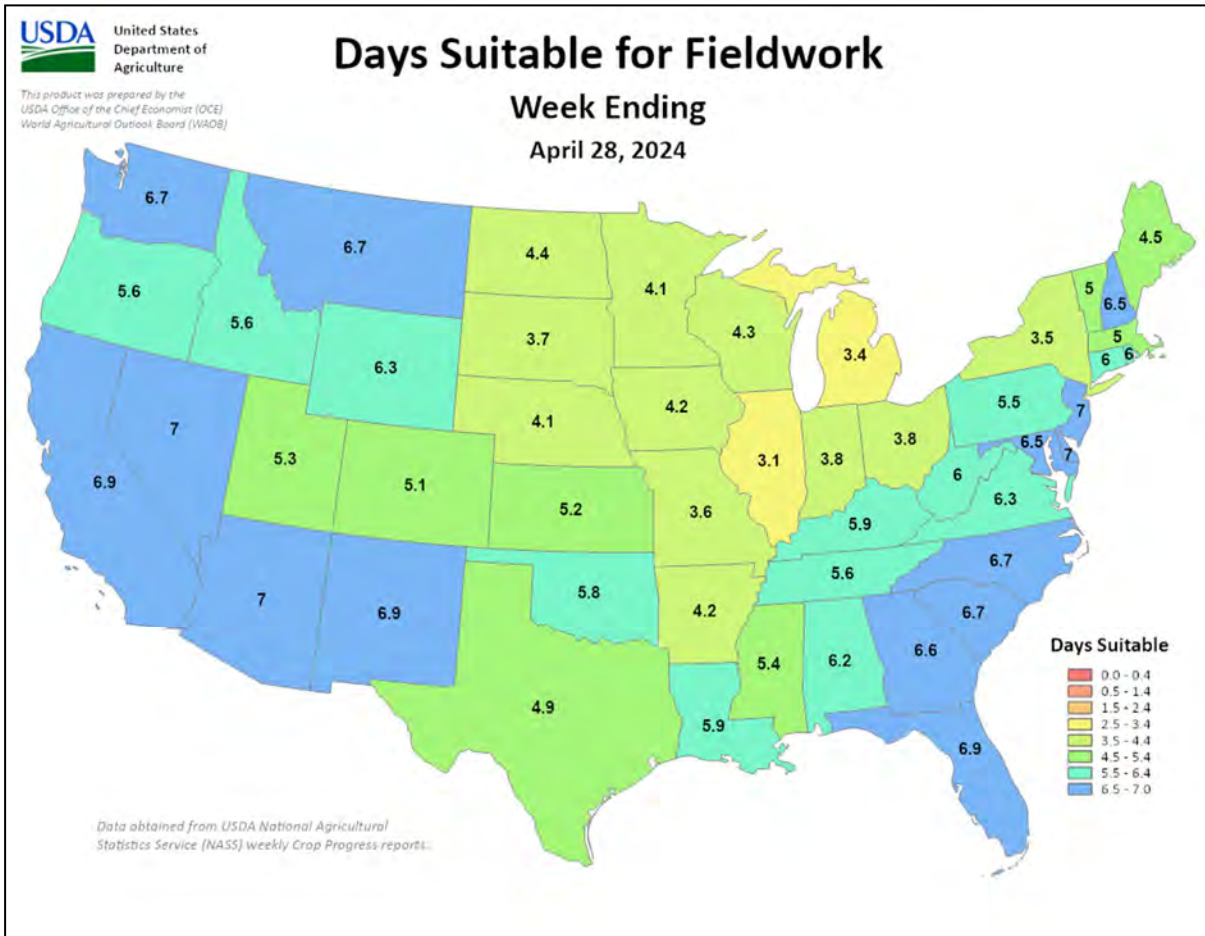
# Crop Progress and Condition

## Week Ending April 28, 2024

Weekly U.S. Progress and Condition Data provided by USDA/NASS







# International Weather and Crop Summary

April 21-27, 2024

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

## HIGHLIGHTS

**EUROPE:** An untimely hard freeze impacted reproductive winter crops across western, central, and northeastern Europe, while rain eased dryness concerns in the Balkans.

**WESTERN FSU:** Continued cool and rainy weather in the west stood in sharp contrast with persistent heat and dryness farther east.

**EASTERN FSU:** Sunny skies encouraged early spring grain sowing in the north and cotton sowing in the south, though some showers across eastern Uzbekistan and environs boosted soil moisture and irrigation reserves.

**MIDDLE EAST:** Sunny and hot weather expanded across the region, though rain lingered in southeastern croplands.

**EAST ASIA:** Heavy showers in southern China supported rice, while unseasonable warmth in winter crop areas promoted development.

**SOUTHEAST ASIA:** Showers prevailed in southern portions of the region, while extreme heat plagued northern locales.

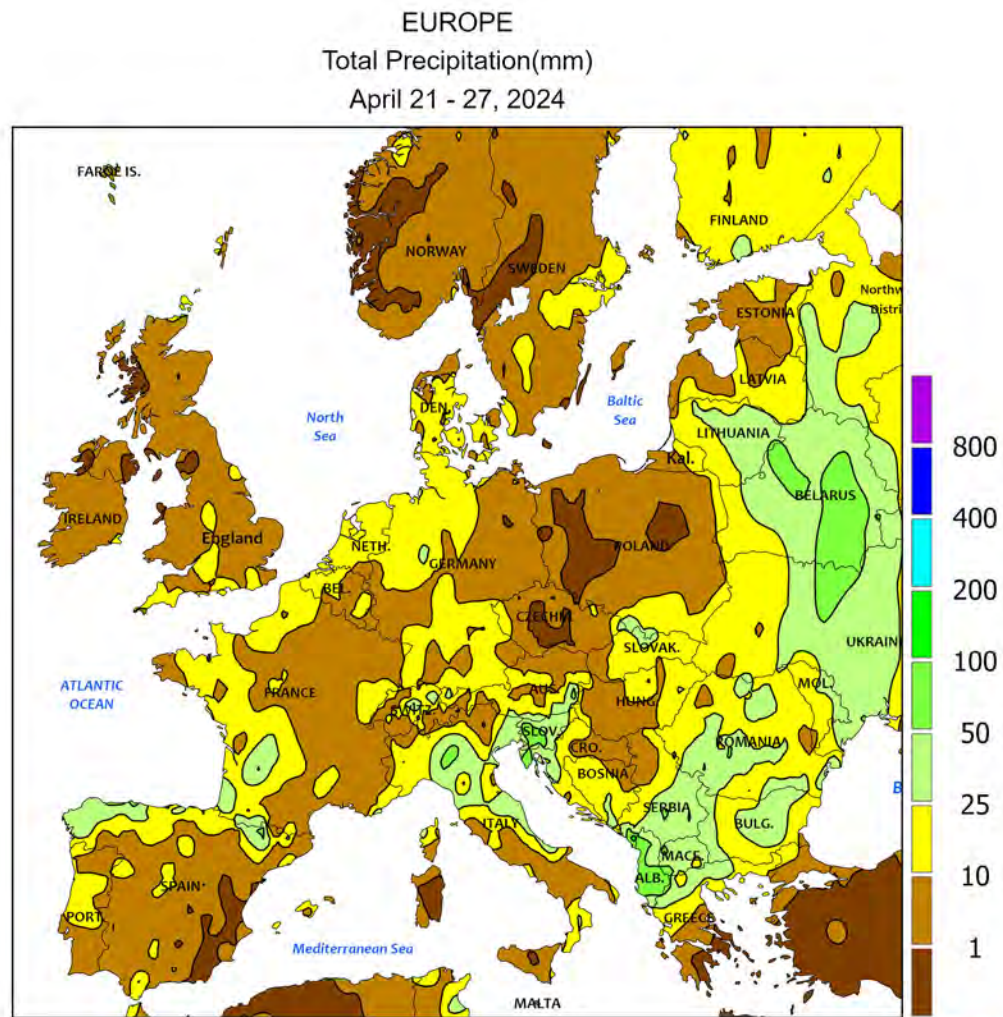
**AUSTRALIA:** Rain is needed in the south and west to promote winter crop planting and germination.

**ARGENTINA:** Scattered showers provided additional moisture for winter grain development in eastern farming areas.

**BRAZIL:** Dry, sunny weather dominated large sections of central Brazil.

**MEXICO:** Local showers helped to condition fields for planting corn and other rain-fed summer crops.





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

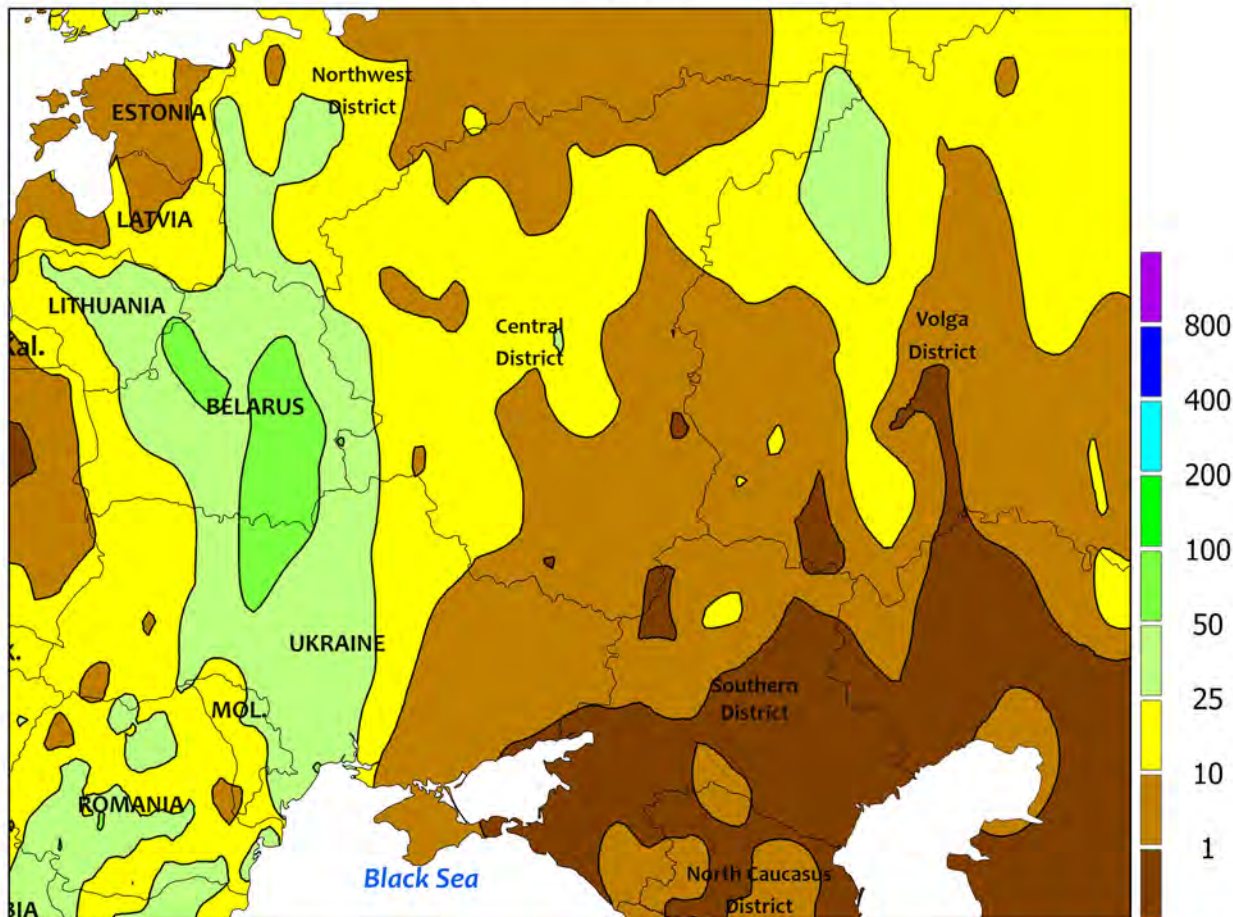


**EUROPE**

An untimely hard freeze overspread much of Europe, with additional showers in western and central growing areas transitioning to heavy rain in southeastern portions of the continent. Sharply colder weather (3-7°C below normal) overspread Europe, with hard freezes (-8 to -2°C) posing a threat to reproductive winter crops from central and eastern France eastward into Poland and environs. Similarly, the cold snap also impacted winter grains in northern portions of Spain and England; more information regarding the hard freeze can be found on page 29 of this week’s *Bulletin*. Widespread albeit highly variable showers (2-55 mm) over much of western and central Europe maintained adequate to

locally abundant moisture supplies for winter grains and oilseeds. Conversely, dry weather in eastern Germany and Poland facilitated spring grain and summer crop planting, though moderate to heavy rain wrapping into the Baltic States (locally more than 40 mm) slowed fieldwork. Meanwhile, 10 to 55 mm of rainfall in the Balkans eased soil moisture deficits and improved prospects for reproductive winter crops, though the rain largely bypassed northern Serbia, eastern Croatia, and western Hungary. Similarly, moderate to heavy rain (locally more than 60 mm) in northern Italy boosted moisture supplies for reproductive winter grains and emerging summer crops.

WESTERN FSU  
Total Precipitation(mm)  
April 21 - 27, 2024



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

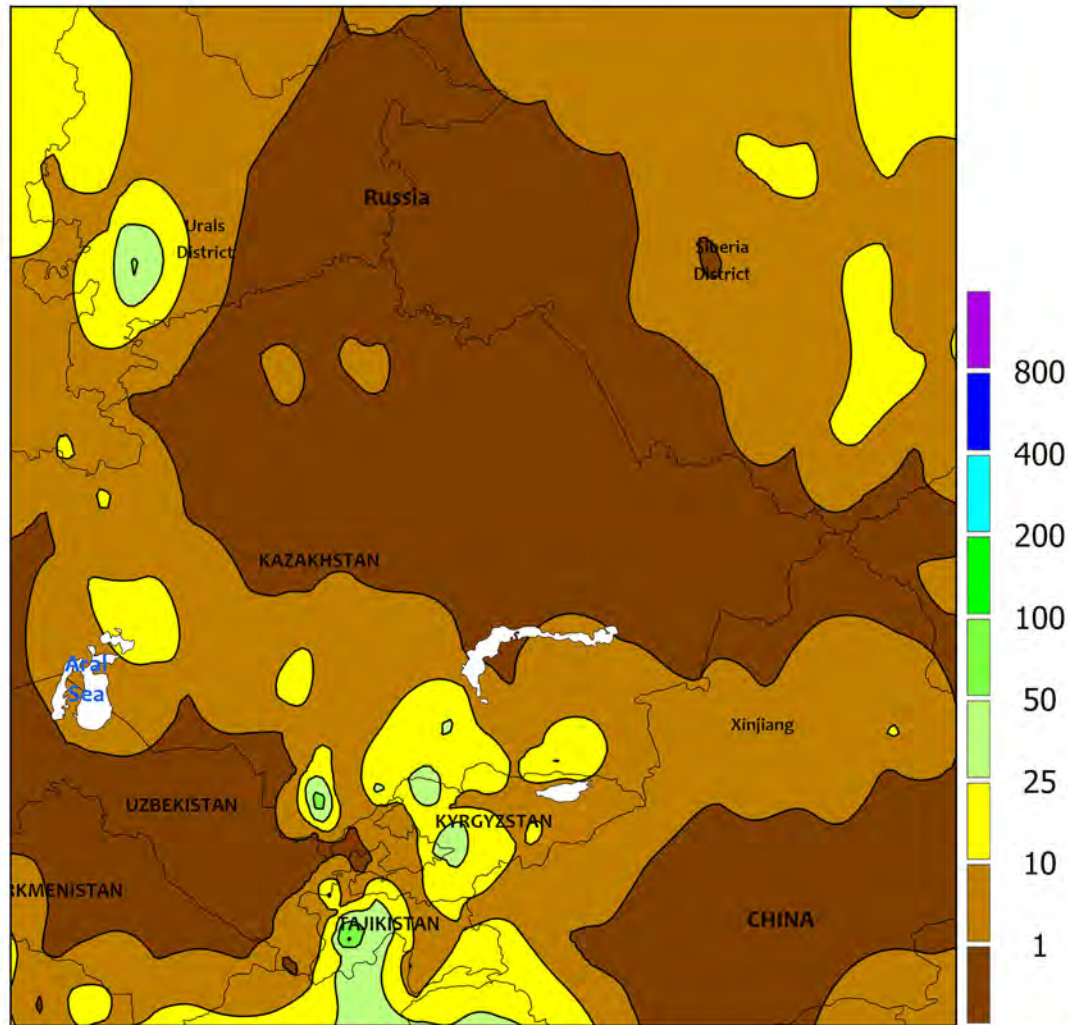


**WESTERN FSU**

Continued hot and dry weather across Russia and eastern Ukraine contrasted sharply with rainy and cooler conditions in western growing areas. Temperatures averaged 4 to 9°C above normal from southeastern Ukraine into Russia, accelerating winter crop growth but heightening soil moisture losses. In particular, daytime highs into the lower and middle 30s (degrees C) in southern Russia hastened winter wheat toward or into the heading stage of development up to two weeks ahead of average. Many of these same primary winter crop areas have received little to no rainfall since early February,

with this week’s isolated showers (5 mm or less) doing little to ease concerns over developing drought. However, spring grain and summer crop sowing proceeded without delay. Similar to previous weeks, moderate to heavy rain (10-70 mm) across Moldova, central and western Ukraine, Belarus, and northwestern Russia boosted moisture reserves for emerging spring grains in the north and late-vegetative winter crops in the south but curtailed fieldwork. The cloudy, showery weather in the west was accompanied by near- to below-normal temperatures (up to 4°C below normal in the far west).

EASTERN FSU  
Total Precipitation(mm)  
April 21 - 27, 2024



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

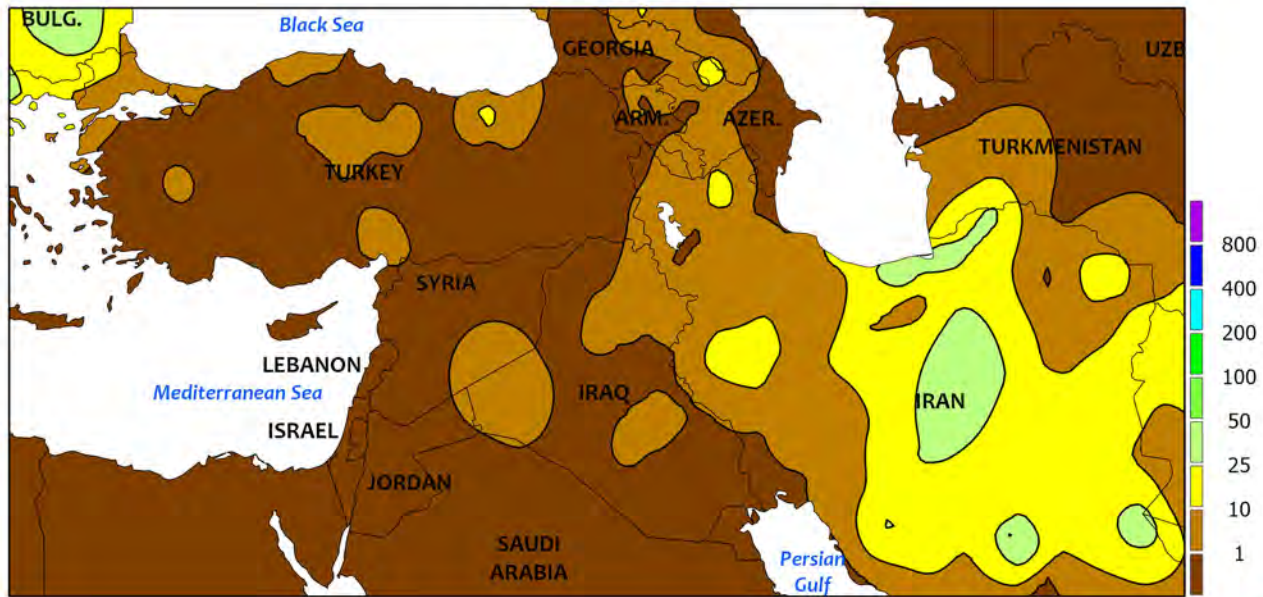


**EASTERN FSU**

Dry weather prevailed in the north, while showers in the eastern cotton belt gave way to drier, hotter conditions farther west. Mostly sunny skies across northern Kazakhstan and central Russia promoted early spring grain and summer crop sowing. Above-normal temperatures (up to 7°C above normal) in the western spring grain belt facilitated spring wheat and barley emergence, while chilly conditions (2-5°C below normal) lingered in eastern croplands. Farther south across the

Commonwealth of Independent States (CIS), dry and hot weather (up to 6°C above normal, highs reaching 35°C) in western portions of Uzbekistan and Turkmenistan accelerated cotton planting but hastened winter wheat through the reproductive stages of development. Conversely, additional rain and mountain snow (10-125 mm liquid equivalent) in eastern portions of the CIS boosted soil moisture for winter crops as well as irrigation supplies for cotton and other summer crops.

MIDDLE EAST  
Total Precipitation(mm)  
April 21 - 27, 2024



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

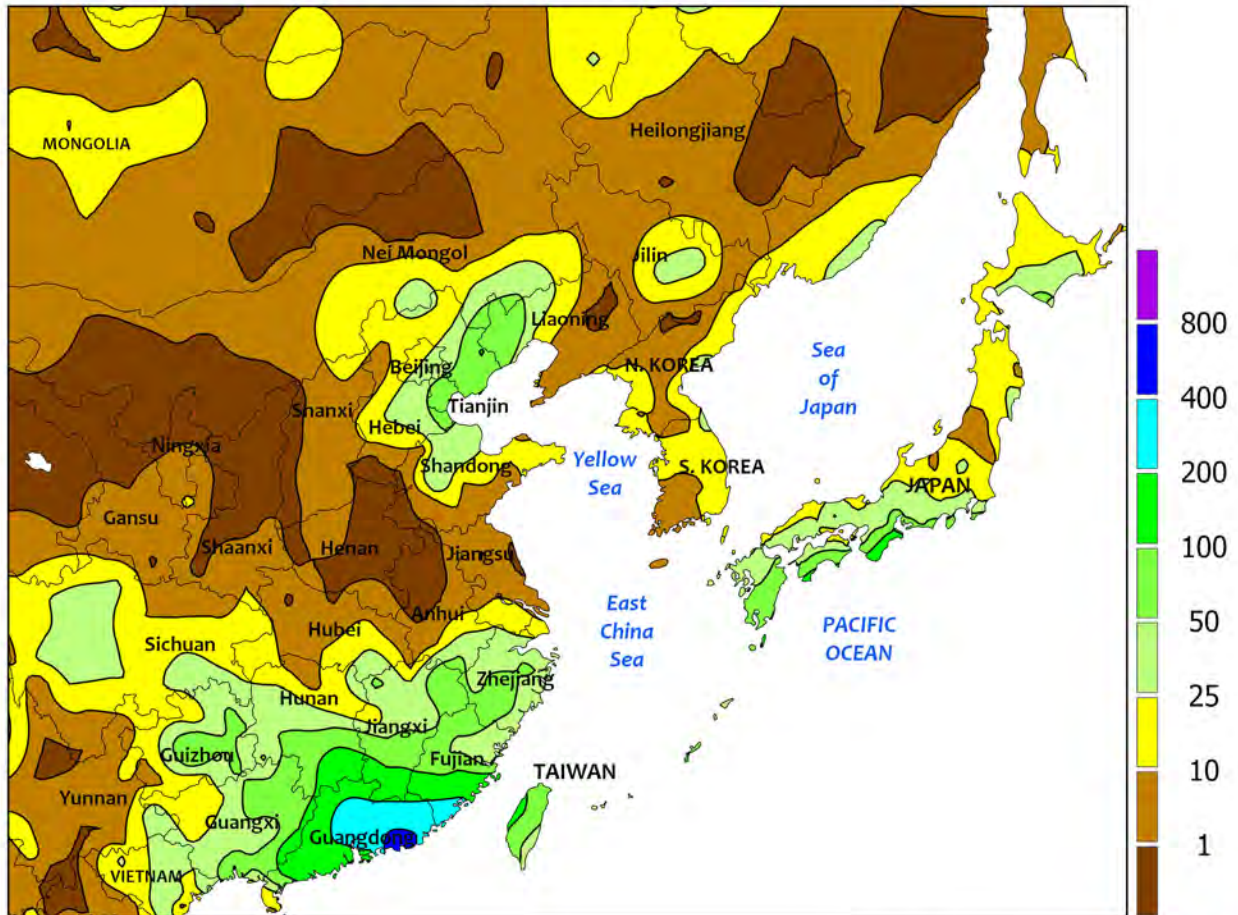


MIDDLE EAST

Lingering rain in southeastern Iran gave way to sunny skies and increasing heat across western and central growing areas. Early-week showers primarily associated with the previous week’s slow-moving storm tallied 5 to 50 mm over much of central and southern Iran, further boosting moisture supplies for reproductive to filling winter grains. Conversely, dry and hot weather (3-7°C above normal) prevailed elsewhere, with daytime highs reaching into the

lower and middle 30s (degrees C) in Turkey and Syria. Even higher temperatures (36-41°C) were reported from the southeastern Mediterranean Coast into central and southern Iraq. The latest satellite-derived Vegetation Health Index (VHI) indicated good to excellent conditions across most of the region, but the recent turn to anomalous heat and dryness has likely trimmed yield prospects for reproductive (north) to filling (south) winter grains.

EASTERN ASIA  
 Total Precipitation(mm)  
 April 21 - 27, 2024



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

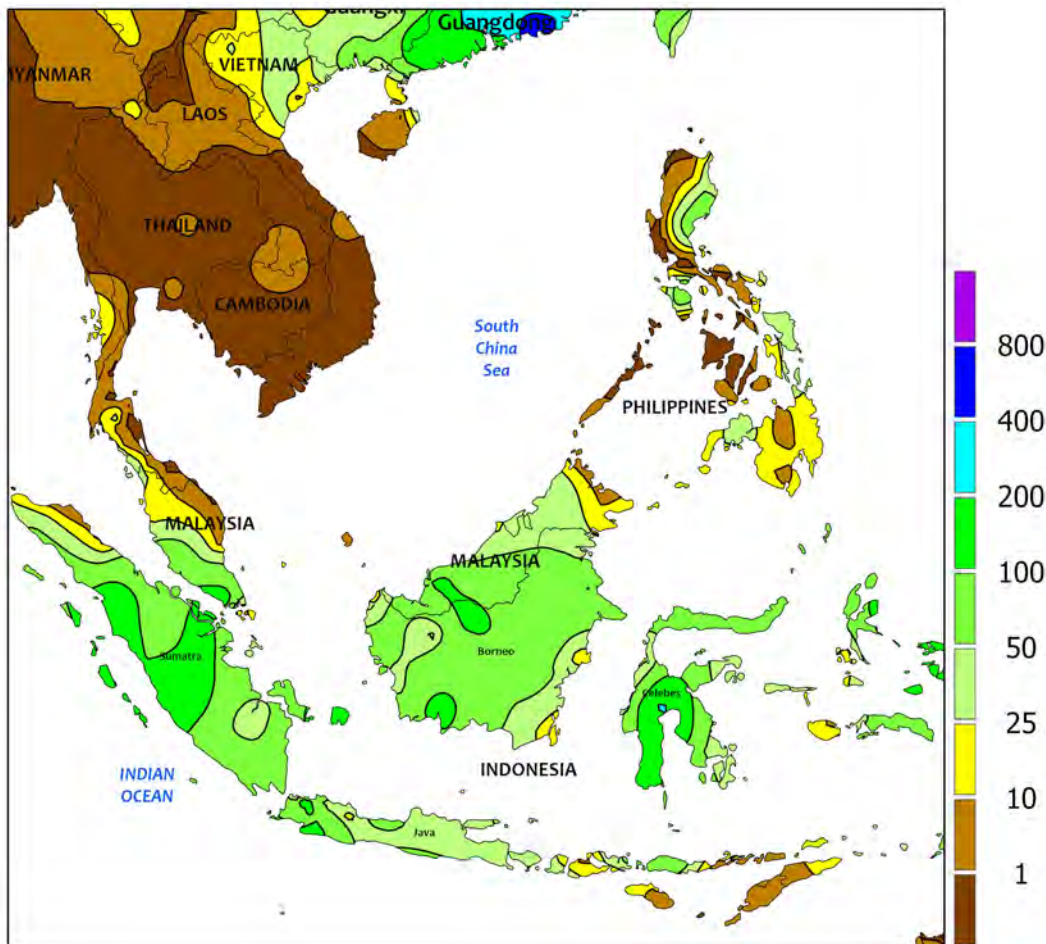


**EASTERN ASIA**

Daily showers in southern China further boosted moisture supplies for early-crop rice approaching reproduction. In some locales, rainfall totals topped 200 mm, with two-week totals nearing 400 mm. Rainfall became light (less than 25 mm) and more spotty into the Yangtze Valley where flowering rapeseed could benefit from additional moisture. Meanwhile, precipitation (10-50 mm) in wheat areas was limited to eastern- and northern-most portions of the North China Plain; spring rainfall has trended near normal, maintaining good soil

moisture for the crop now in reproductive stages of development. Furthermore, temperatures for the period across all winter crop areas were as much as 4°C above average, promoting crop development but increasing moisture requirements. Elsewhere, cotton sowing proceeded in western China, while corn and soybean planting activities expanded in the northeast under unseasonably mild conditions. Additionally, warmer-than-normal weather on the Korean peninsula and in Japan supported rice sowing.

SOUTHEAST ASIA  
Total Precipitation(mm)  
April 21 - 27, 2024



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



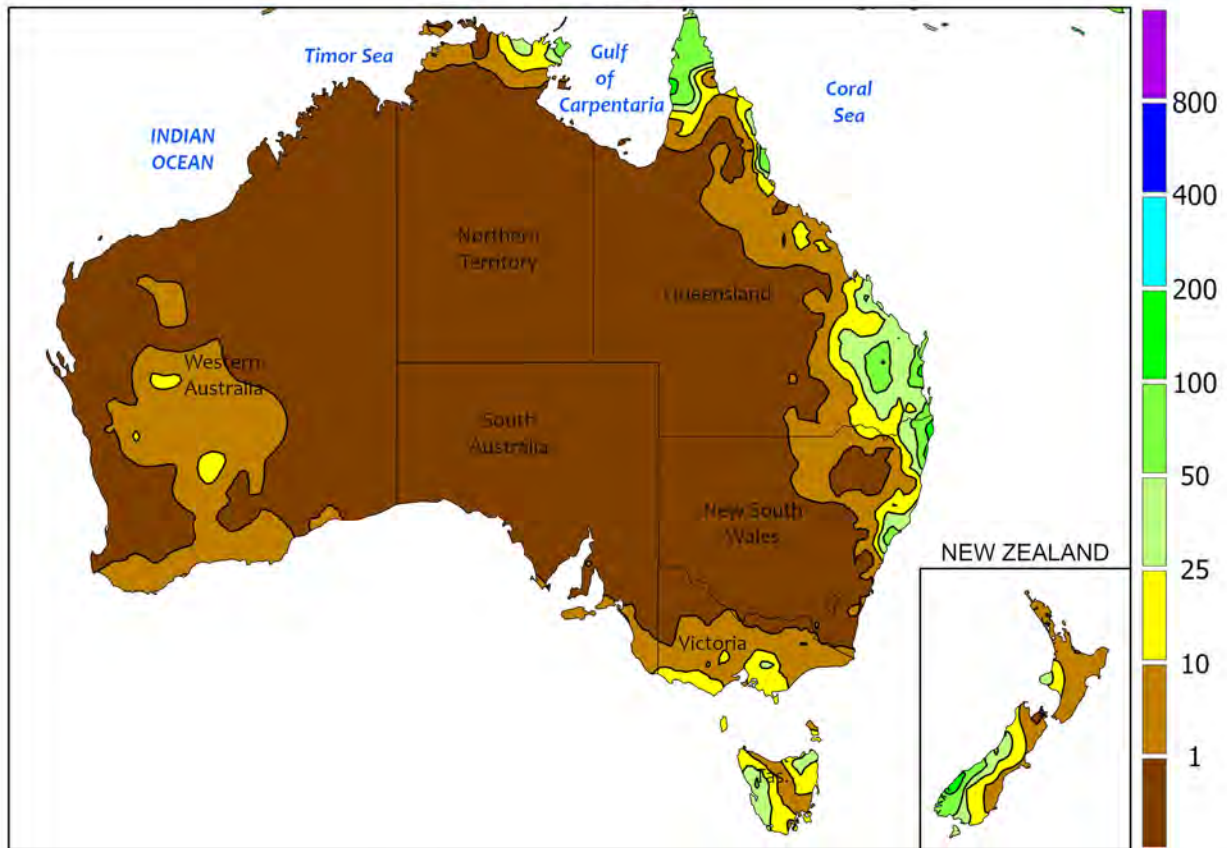
**SOUTHEAST ASIA**

Widespread showers continued across Indonesia and Malaysia, with most locales receiving 25 to 100 mm. The moisture continued to benefit seasonal rice as well as ease lingering moisture deficits for oil palm following poor rainfall in February and March. The Philippines experienced some improvement in precipitation, although amounts over 25 mm were spotty; year-to-date totals in key growing areas in the north continued to be half of normal,

lowering seasonal rice and corn yield prospects. Meanwhile, blistering heat (up to 44°C) plagued Thailand and some of the surrounding areas. While seasonal heat is common prior to the onset of the southwest monsoon, daytime temperatures were nearly 6°C above average. The excessive heat caused significant stress and possible yield loss to seasonal rice and other crops while also taxing irrigation supplies with evaporative losses.



AUSTRALIA  
Total Precipitation(mm)  
April 21 - 27, 2024



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 data

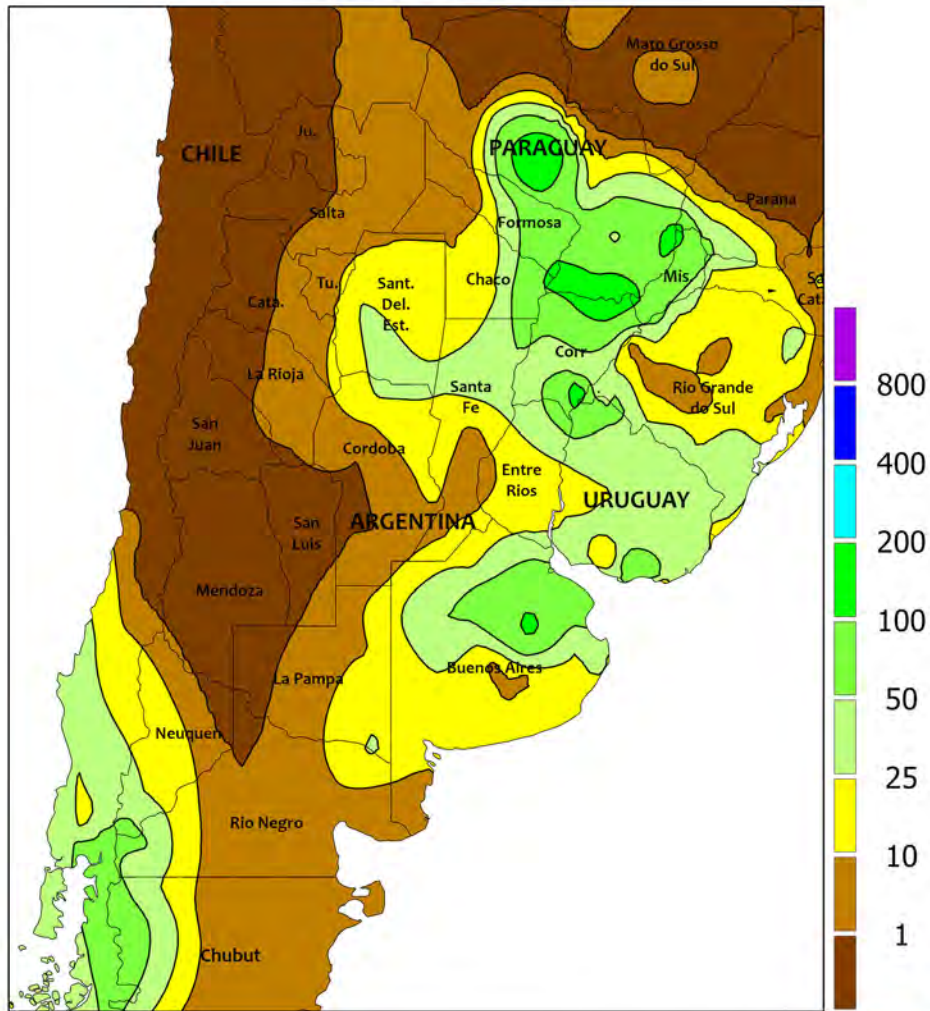


**AUSTRALIA**

After a wet start (10-50 mm, locally more) to the week, drier weather overspread southern Queensland, allowing cotton and sorghum harvesting and winter wheat planting to steadily regain momentum. Farther south, mostly dry weather prevailed across New South Wales and northern Victoria, enabling summer crop harvesting and early winter crop sowing to proceed without delay. A combination of sunny skies, mild temperatures, and average to above-average topsoil moisture favored germination of recently sown winter grains and oilseeds throughout eastern Australia. Elsewhere in the wheat

belt, dry weather persisted in South Australia and Western Australia. Farmers have reportedly been dry sowing winter crops, but some farmers are likely waiting for rain to arrive before planting. Regardless, more rain is needed in these states to help fill the soil moisture profile and to spur winter crop germination and emergence. Temperatures averaged 2 to 4°C below normal in South Australia and near to somewhat below normal (up to 2°C below normal) elsewhere in the wheat belt, with maximum temperatures generally in the lower to middle 20s (degrees C).

ARGENTINA  
Total Precipitation(mm)  
April 21 - 27, 2024



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

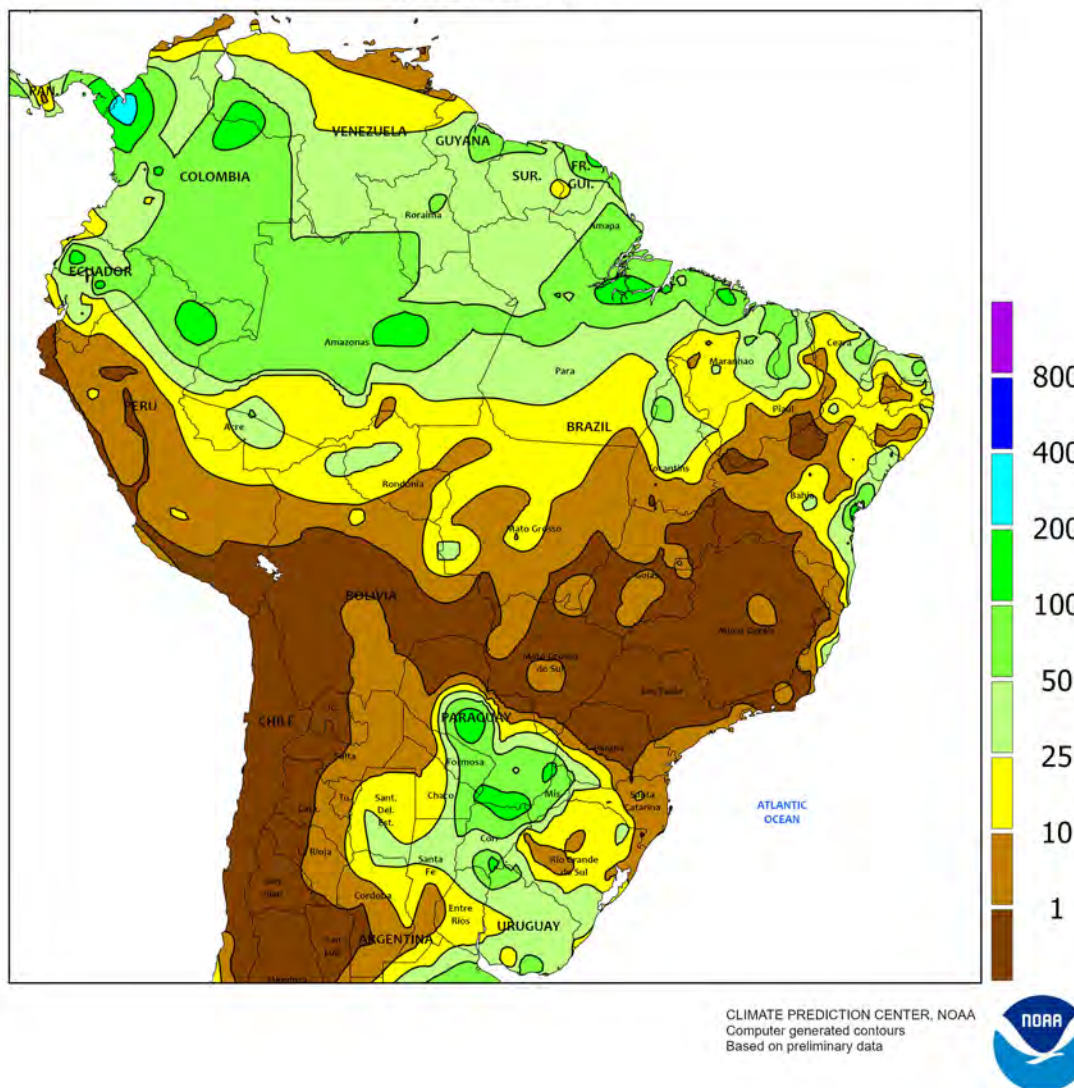


**ARGENTINA**

Lingering showers slowed summer crop harvesting but provided additional moisture for winter crop establishment. Moderate to heavy rainfall (25-100 mm, locally higher) continued over northern Buenos Aires and in northern locations in and around Corrientes and southern Paraguay. Lesser amounts were recorded elsewhere, particularly in western farming areas (notably Córdoba and Salta) that typically experience gradually drier conditions this time of year as the rainy season winds down. Weekly average temperatures ranged from 1 to 2°C

below normal in southern farming areas to as much as 5°C above normal in the far north, with nighttime lows dropping near freezing in southern-most production areas in La Pampa and Buenos Aires. Daytime highs reaching the middle and upper 30s (degrees C) hastened maturation and drydown of summer crops – including cotton – in northern farming areas. According to the government of Argentina, corn and soybeans were both 23 harvested, respectively, as of April 25, and cotton was 14 percent harvested.

BRAZIL  
Total Precipitation(mm)  
April 21 - 27, 2024

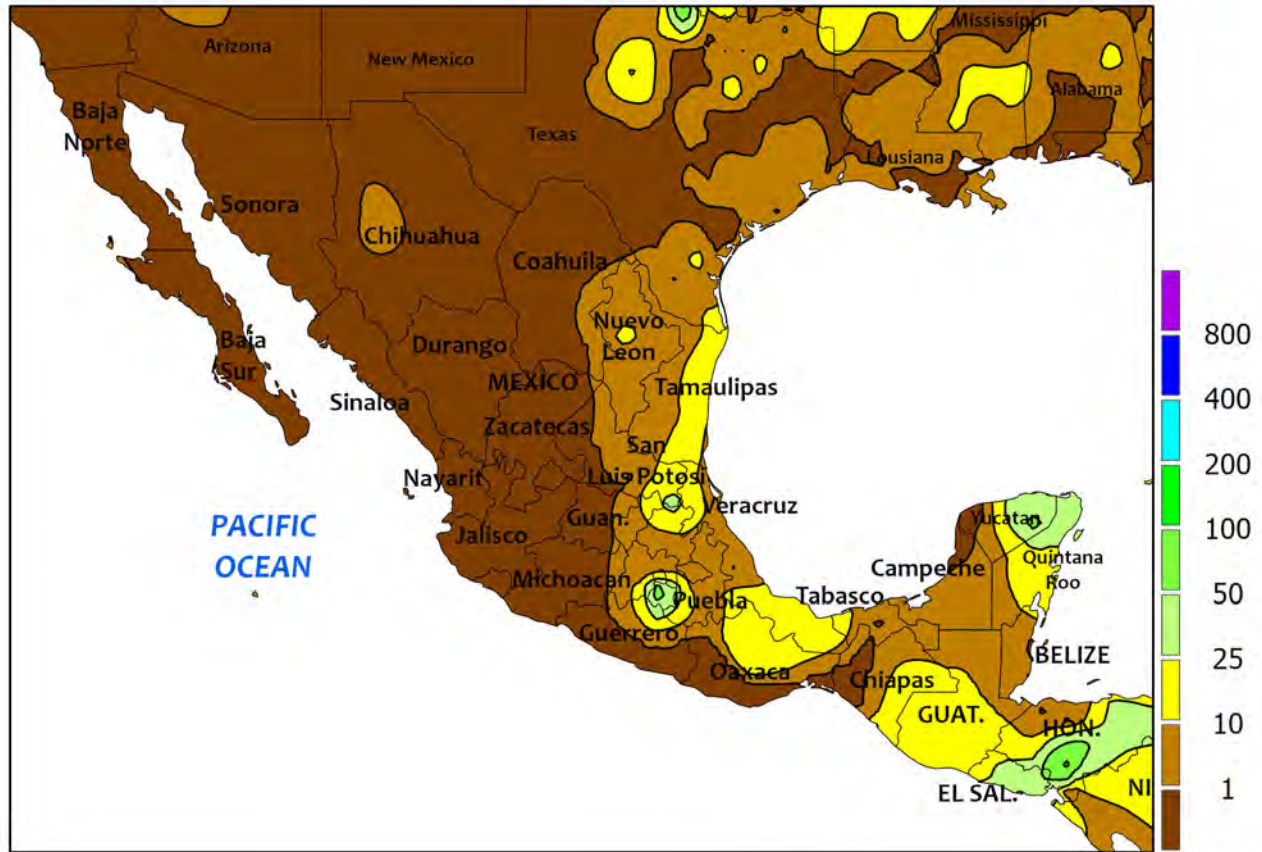


**BRAZIL**

Warm, sunny weather promoted rapid development of corn and cotton in key production areas of central Brazil. No rain fell from Mato Grosso do Sul and central Paraná northward into Bahia, including most of Goiás and neighboring sections of Mato Grosso, with highest temperatures reaching the middle 30s (degrees C) daily. In contrast, variable showers (10-50

mm) benefited immature crops in the far northern (Maranhão and environs) and southern (Rio Grande do Sul and southern Paraná) production areas. According to the government of Paraná, over 80 percent of the second corn crop had flowered as of April 22, while harvesting of both first-crop corn (97 percent) and soybeans (99 percent) was nearing completion.

MEXICO  
Total Precipitation(mm)  
April 21 - 27, 2024



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



MEXICO

Scattered showers provided timely moisture for germination of rain-fed summer crops in eastern farming areas. Rain was widely scattered and light, however, with few locations recording more than 10 mm, and heavier, more widespread rain will be needed soon. This is particularly true for eastern summer crop areas on the southern plateau (Jalisco to Puebla)

and along the Gulf Coast, which have entered the summer growing season in varying degrees of drought. Warm, sunny weather prevailed elsewhere, with high temperatures reaching 40°C in some of the warmer locations in the north and southeast, prompting rapid maturation of winter grains and other winter-grown crops.

## Untimely European Hard Freeze Follows Record-Shattering Warmth

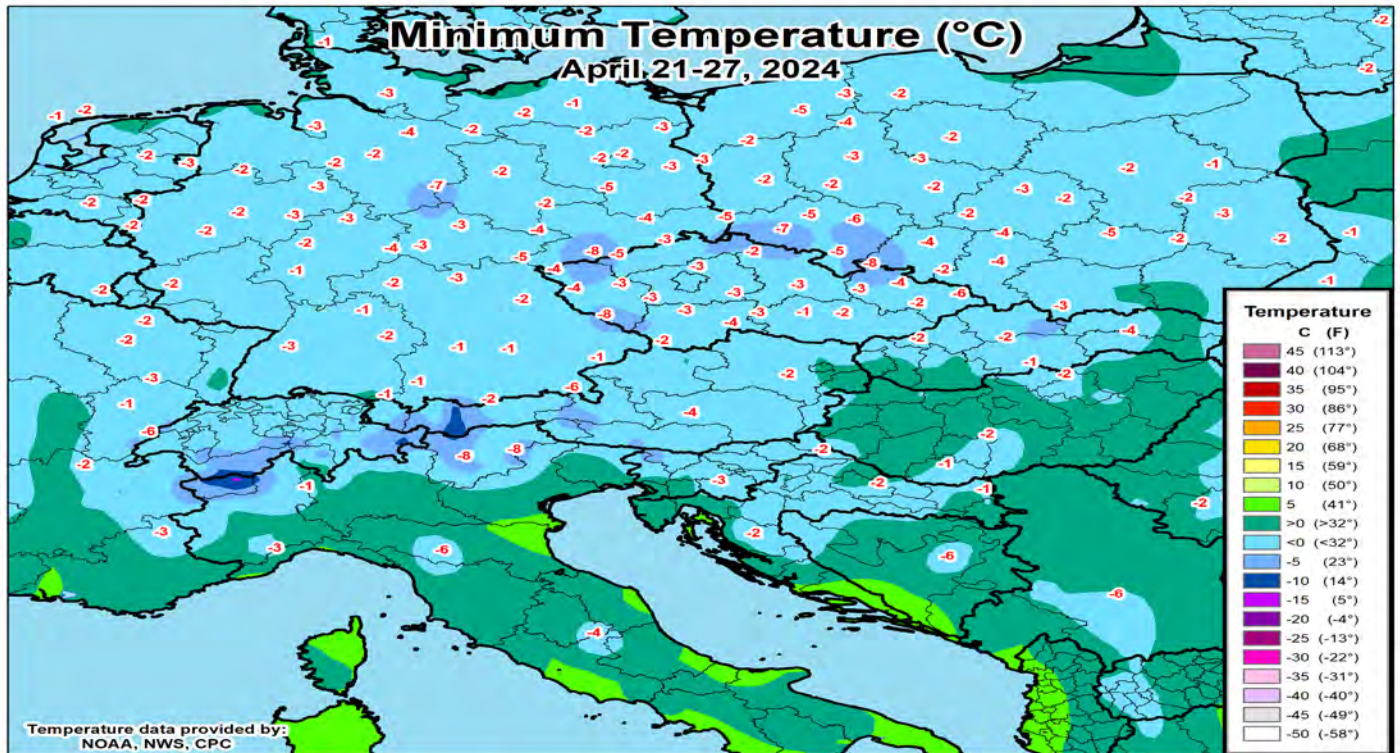


Figure 1: Minimum temperatures reported by first-order weather stations for the period April 21-27, 2024. Values at or below -1°C are plotted. Temperatures reached as low as -8°C in eastern Germany, western Poland, and the western Czech Republic.

**Synopsis:** Following record-shattering warmth which hastened winter crops into reproduction two to four weeks ahead of average, an ensuing and very untimely hard freeze impacted many primary growing areas.

An untimely hard freeze in Europe followed persistent, at times record-shattering warmth, adversely impacting winter grains and oilseeds. As seen in Figure 1, minimum temperatures during the monitoring period dropped below -2°C across central and northeastern growing areas, with numerous readings at or below -5°C across portions of Germany, Poland, and the Czech Republic. Hard freezes (-2°C or lower) were also noted in parts of Spain, France, and England.

The cold snap was not just widespread but long lasting. The first round of spotty freezes arrived on or about April 19 but intensified and expanded on the 21<sup>st</sup> before finally relenting on April 28. The freeze coincided with winter grains and oilseeds in the reproductive stages of development, with flowering rapeseed the most susceptible to deleterious impacts. In particular, Poland’s rapeseed areas were subjected to six consecutive days with minimum temperatures at or below -2°C, with a low of -7°C notched on April 23.

The effects of the sharp cold snap were heightened by the record-shattering warmth which prevailed over Europe for much of the winter and early spring. Average temperatures from February 1 through April 21 were by far the warmest on record in nearly all of the continent’s primary growing areas. Anomalies were most pronounced across the eastern half of the region, where numerous daily record highs were set and

temperatures during the aforementioned timeframe averaged 3 to 5°C above normal (see Figure 2). As a result, winter grains and oilseeds reached the freeze-sensitive flowering stage two to four weeks ahead of normal.

The extent of the freeze’s impacts will not be known for weeks or months. However, there was likely burnback or winterkill to rapeseed and — to a lesser extent — wheat and barley.

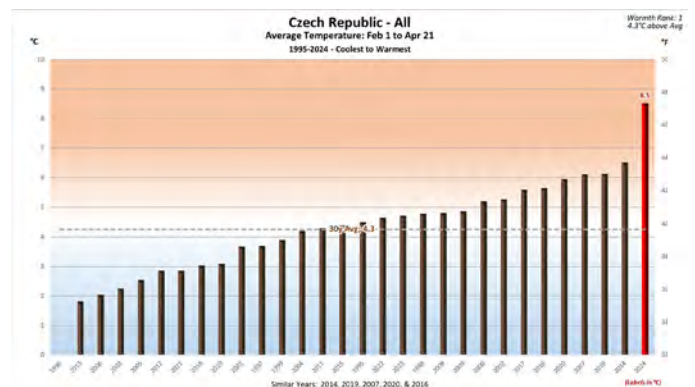
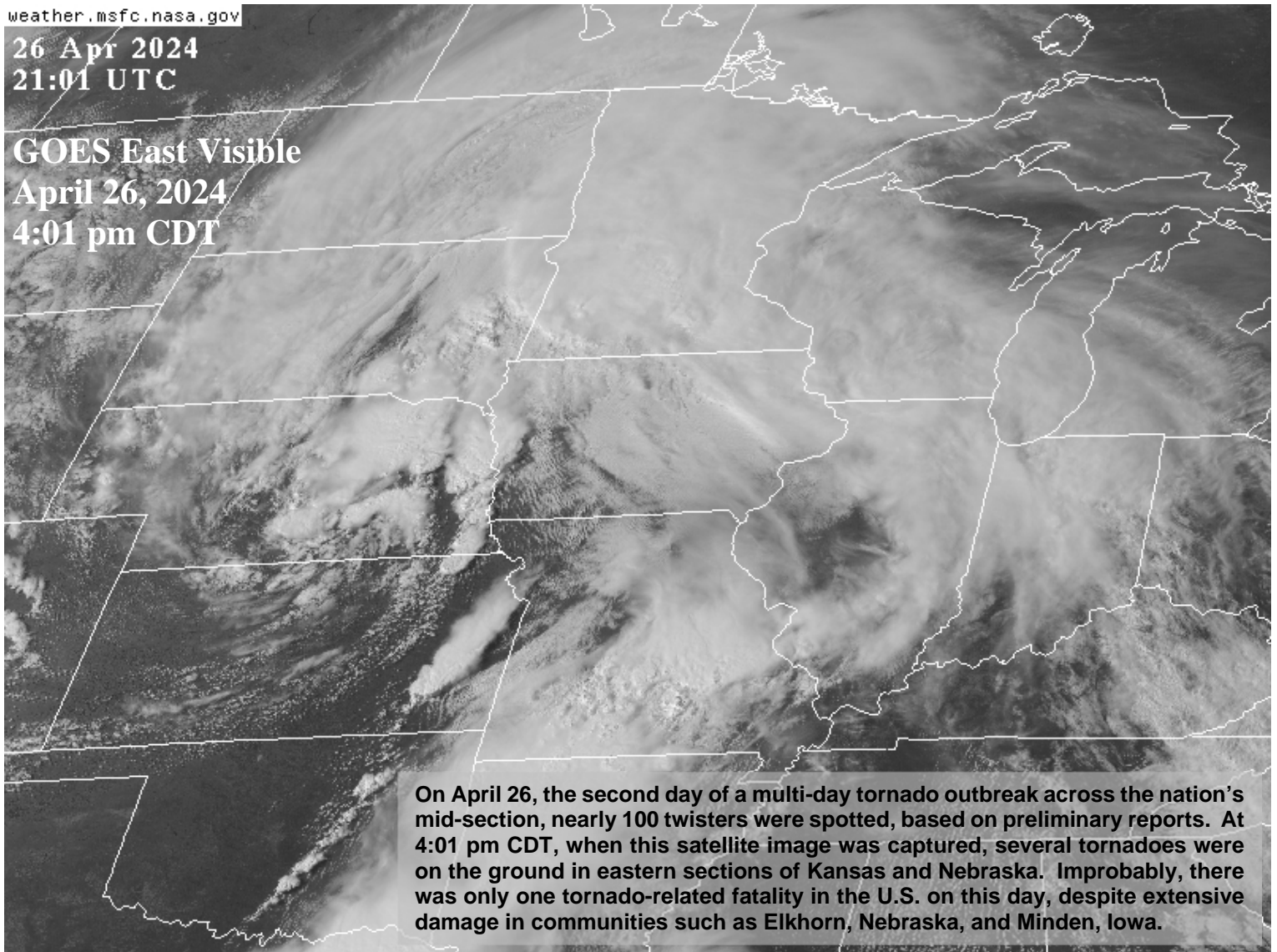


Figure 2: Average temperature (°C) for the period February 1 – April 21 from 1995 to 2024, for the Czech Republic, from coolest to warmest. This chart is representative of nearly all European croplands.

26 Apr 2024  
21:01 UTC

GOES East Visible  
April 26, 2024  
4:01 pm CDT



On April 26, the second day of a multi-day tornado outbreak across the nation's mid-section, nearly 100 twisters were spotted, based on preliminary reports. At 4:01 pm CDT, when this satellite image was captured, several tornadoes were on the ground in eastern sections of Kansas and Nebraska. Improbably, there was only one tornado-related fatality in the U.S. on this day, despite extensive damage in communities such as Elkhorn, Nebraska, and Minden, Iowa.

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Correspondence to the meteorologists should be directed to: **Weekly Weather and Crop Bulletin, NOAA/USDA, Joint Agricultural Weather Facility, USDA South Building, Room 4443B, Washington, DC 20250.**

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E-mail address: [brad.rippy@usda.gov](mailto:brad.rippy@usda.gov)

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**World Agricultural Outlook Board**

Managing Editor..... **Brad Rippey** (202) 720-2397

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