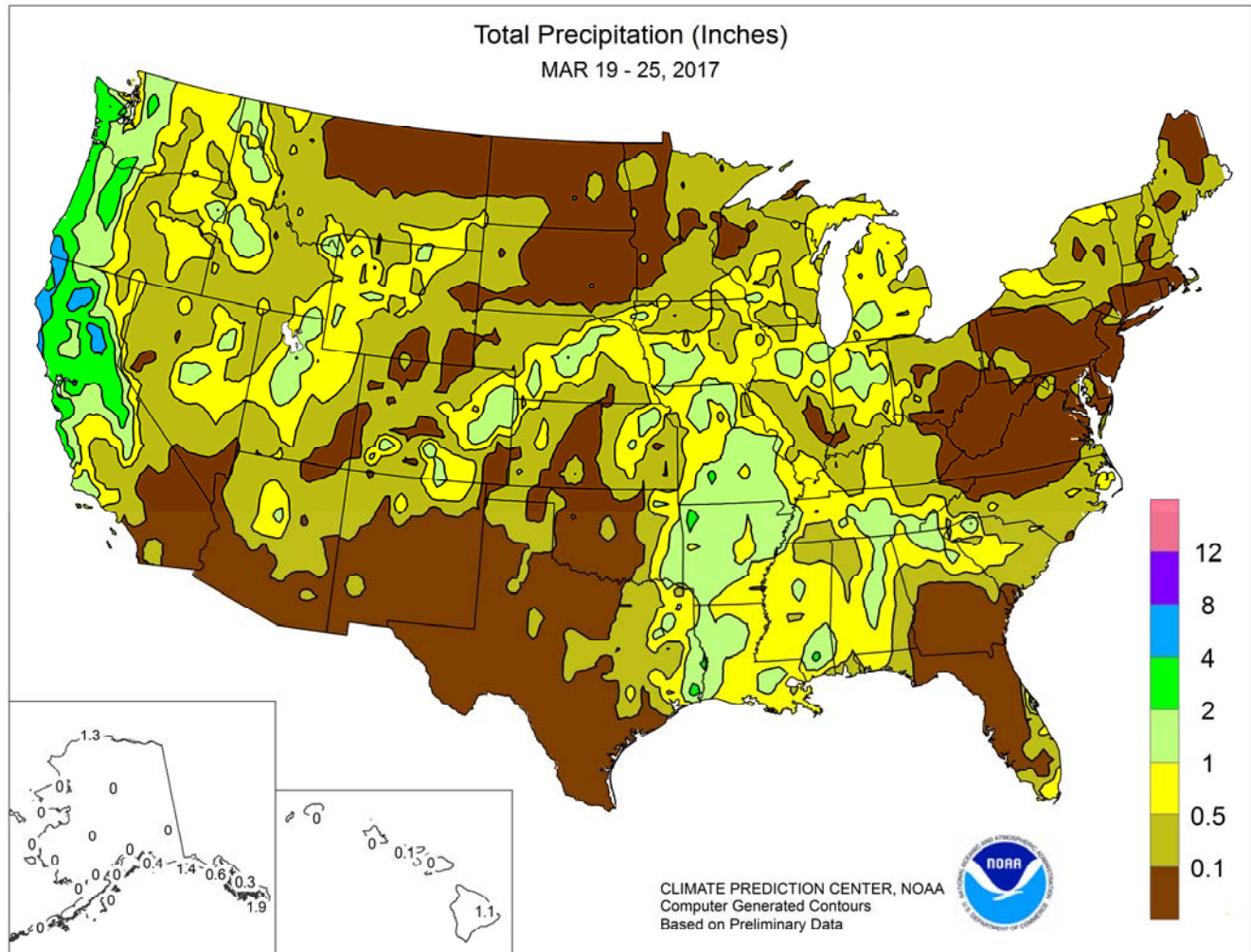


WEEKLY WEATHER AND CROP BULLETIN

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

March 19 – 25, 2017

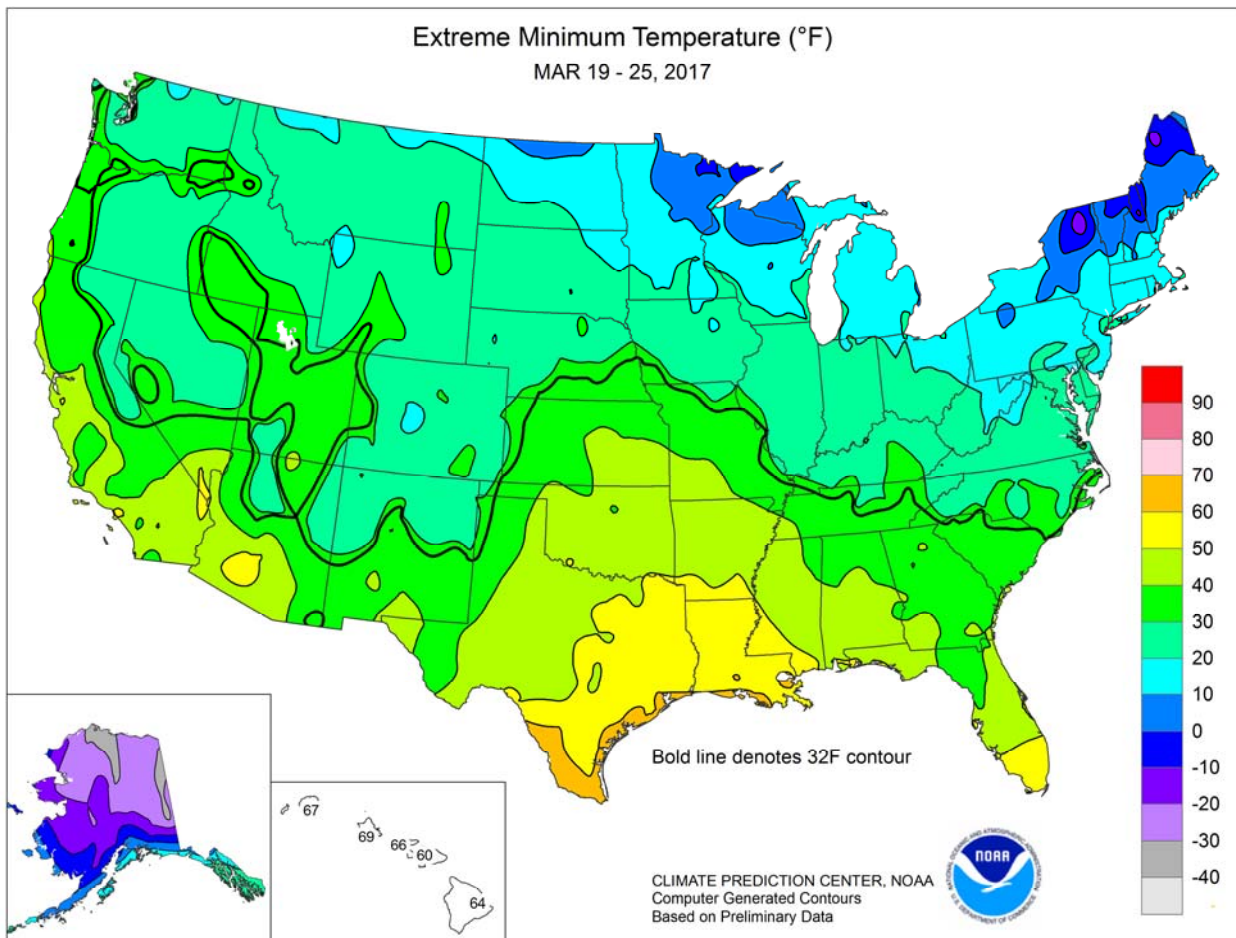
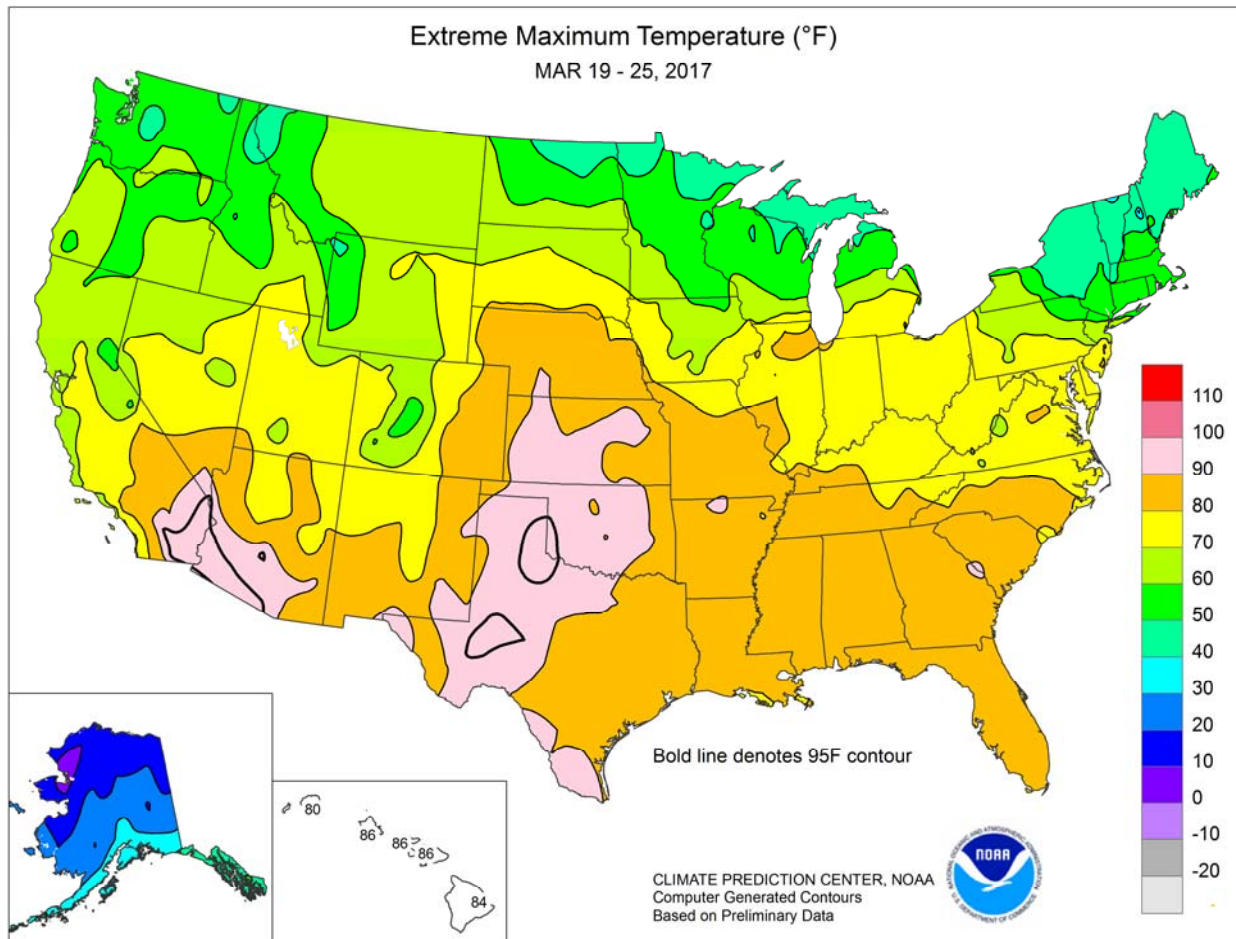
Highlights provided by USDA/WAOB

A pattern change brought a return of precipitation to **northern and central California**, as well as the **Great Basin** and **Intermountain West**. The average water content of the **Sierra Nevada** snowpack, which by mid-March had climbed to 47 inches, subsequently lost 3 inches but more recently gained 2 inches. As **Pacific** storminess shifted southward, showery weather also returned to the **central Plains**. The **Plains'** rain, while limited in coverage and mostly confined to parts of **Colorado, Kansas, and Nebraska**, was highly beneficial

(Continued on page 3)

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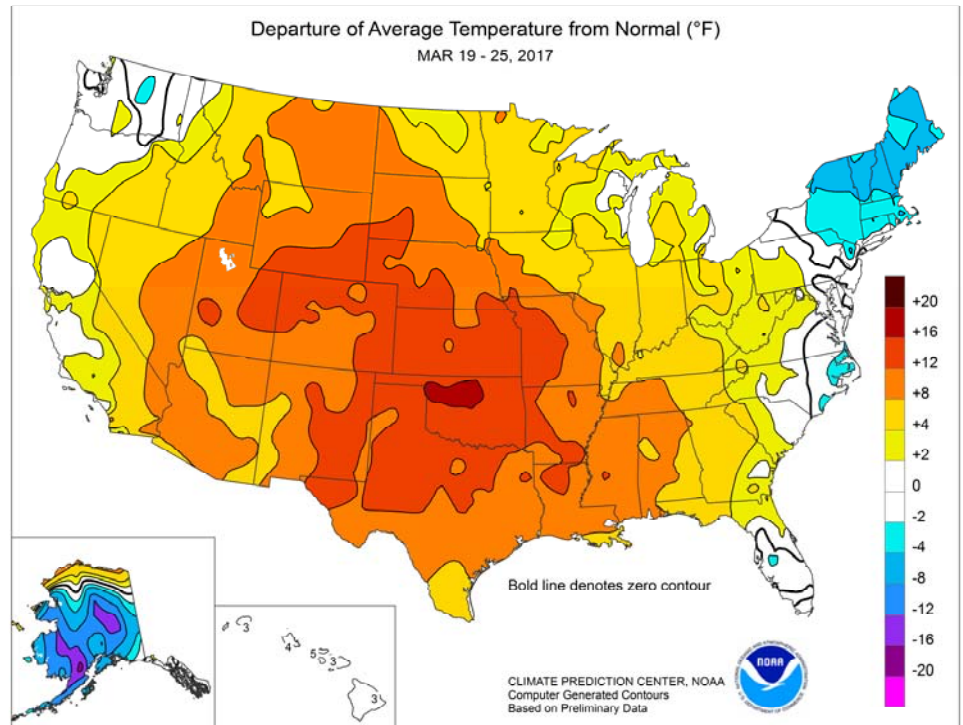


(Continued from front cover)

for rangeland, pastures, and winter grains. In contrast, significant rain has not fallen in at least 5 weeks across **western and central Oklahoma** and parts of neighboring states. Consistent warmth accompanied the dry weather across **southern portions of the Rockies and Plains**, pushing weekly temperatures at least 10 to 15°F above normal. In addition, early-week temperatures topped 95°F in the **Desert Southwest** and on the **Plains** as far north as **southwestern Oklahoma**. Farther east, widespread precipitation covered the **Midwest** and the **mid-South**. Totals approached or exceeded 2 inches in a few spots, slowing fieldwork but helping to condition soils in preparation for spring planting. Elsewhere, generally dry weather prevailed in the **East**. Much of the **Northeast** continued to recover from the previous week's winter storm amid chilly conditions, while producers in the **Southeast** monitored fruits and other temperature-sensitive crops in the wake of a mid-March cold snap. Furthermore, freezes on March 20 and 23 as far south as **North Carolina** posed an additional threat to some **mid-Atlantic** fruit crops and ornamentals.

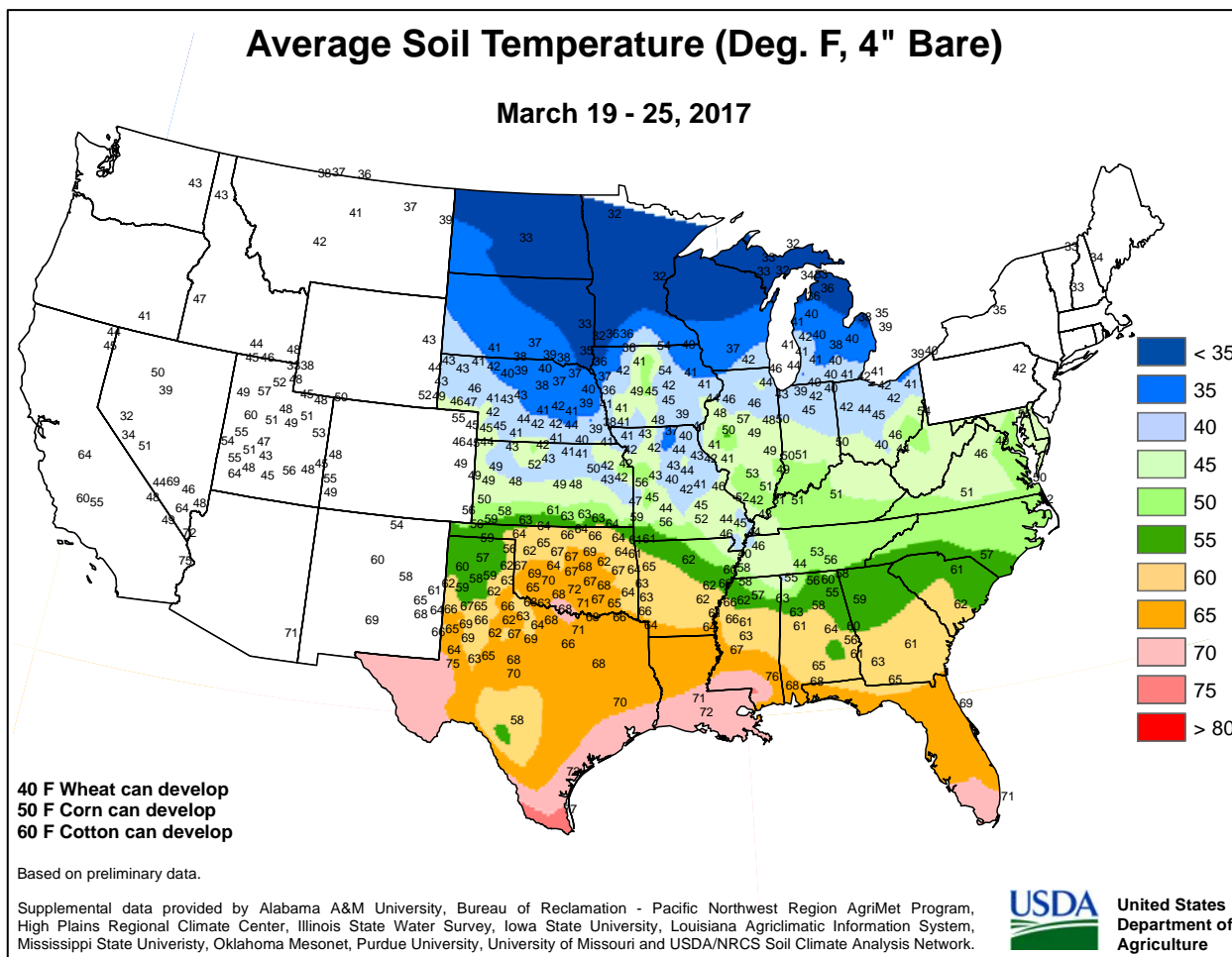
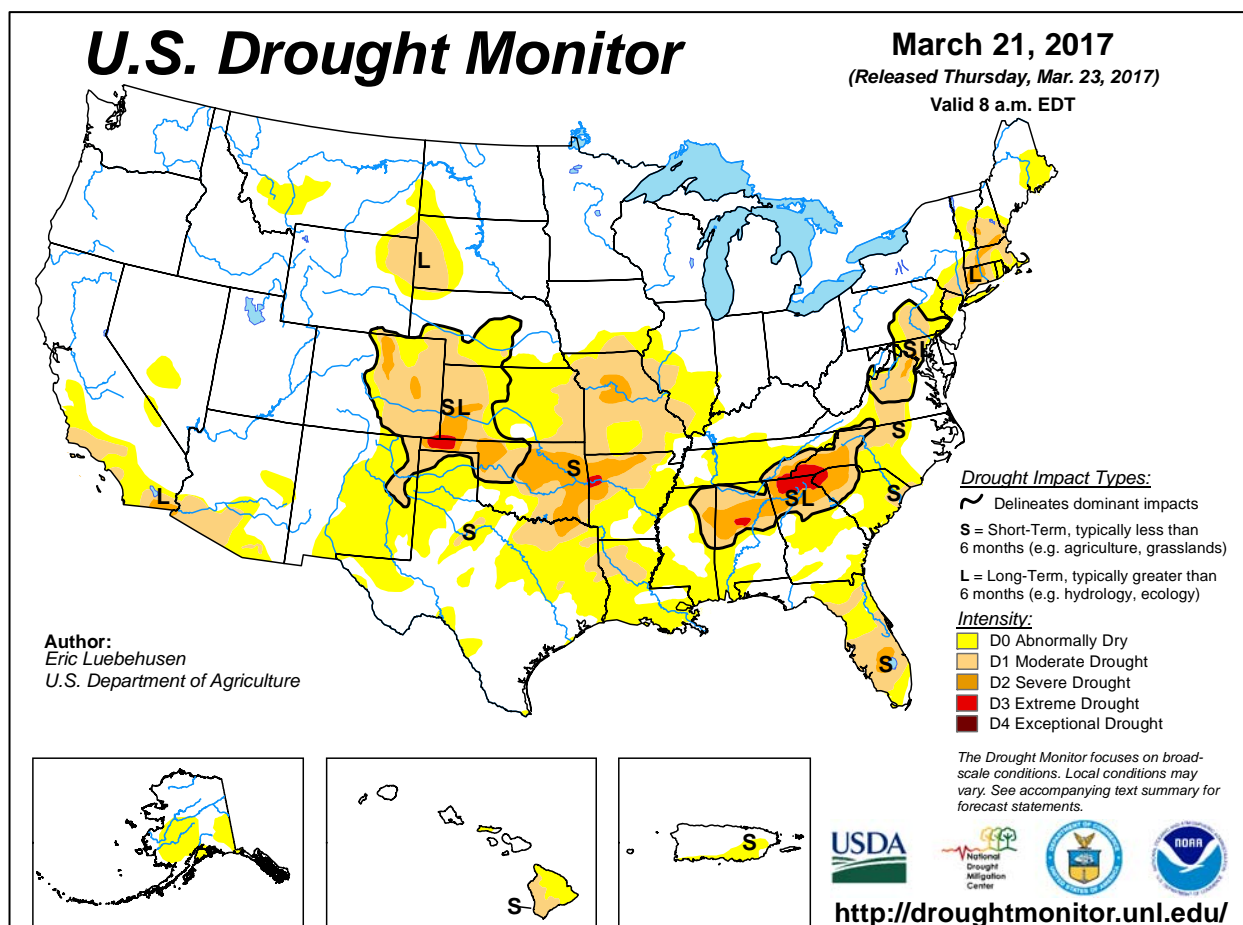
Early-week heat was especially pronounced across the **southwestern and south-central U.S.** From March 13-21, **Tucson, AZ**, posted highs above the 90-degree mark on 9 consecutive days, with the temperature peaking at 94°F on the 18th, 19th, and 20th. Elsewhere in **Arizona**, **Phoenix** notched three consecutive daily-record highs (95, 96, and 96°F) from March 18-20. **Death Valley, CA**, registered consecutive highs of 99°F (on March 18 and 19), setting daily records on both dates. Farther east, **Borger, TX**, opened the week with consecutive daily-record highs (94 and 91°F, respectively) on March 19-20. Similarly, **Midland, TX**, logged a trio of daily records (90, 94, and 96°F) from March 19-21. Meanwhile, **Pueblo, CO**, tied a monthly record with a high of 86°F on March 19. In **Chanute, KS**, consecutive daily-record highs (87°F both days) were established on March 19-20. Daily-record highs for March 19 soared to 93°F in **Garden City, KS**, and 91°F in **McCook, NE**. On March 20, daily-record highs climbed to 92°F in **Tulsa, OK**, and **Wichita Falls, TX**. By March 21, daily-record heat moved into **Southeastern** locations such as **Augusta, GA** (91°F); **Charleston, SC** (90°F); and **Fort Smith, AR** (90°F). On March 22, monthly record highs reached 90°F in **Apalachicola** and **Pensacola, FL**. The previous record in both locations had been 88°F—on March 17, 2015, in **Apalachicola** and on March 30, 1946, in **Pensacola**. Toward week's end, warmth spread to other areas, including the **Midwestern** and **Mid-Atlantic States**. In **Illinois**, daily-record highs for March 24 reached 82°F in **Chicago** and 81°F in **Moline**. **Atlantic City, NJ**, collected a daily-record high of 81°F on March 25.

Multiple disturbances crossing the nation became a little stronger as the week progressed. On March 20, thunderstorms affecting the **Ohio Valley** led to a daily-record total of 2.44 inches in **Dayton, OH**. The following day, **Greenville-Spartanburg, SC**, netted a record-setting total (3.90 inches) for March 21. Meanwhile, wet weather returned to **northern California**, where **Mount Shasta**



City measured a daily-record sum (1.51 inches on March 21). Precipitation shifted farther inland on March 22, when daily-record totals were set in **Nevada** locations such as **Elko** (0.59 inch) and **Eureka** (0.53 inch). **Nevada** experienced another round of significant precipitation on March 25, when daily-record amounts included 0.43 inch in **Eureka** and 0.41 inch in **Ely**. March 23 featured especially heavy precipitation across the **Intermountain West**. In fact, March 23 was the sixth-wettest day on record in **Salt Lake City, UT**, where 1.97 inches fell. It was also **Salt Lake City's** wettest March day, surpassing 1.56 inches on March 13, 1944. On March 24, **Burlington, CO**, recorded an impressive 2.25 inches of rain. That marked **Burlington's** first measurable precipitation since January 20, and represented the first March day with at least 2 inches of rain in that location since March 7, 2000, when 2.07 inches fell. Meanwhile, the **Pacific Northwest** remained wet through week's end, with **North Bend, OR**, netting a daily-record rainfall (2.09 inches) on March 24. Farther east, late-week thunderstorms swept across the **South**, where **Beaumont-Port Arthur, TX**, logged a daily-record sum of 2.79 inches on March 25.

Generally cold, dry weather persisted across the **Alaskan mainland**, where weekly temperatures averaged at least 10°F below normal in many locations. **Fairbanks** last reported a temperature above the freezing mark on February 26, when the high reached 33°F, and noted sub-zero readings on each of the first 25 days of March. In contrast, mild conditions prevailed in **southeastern Alaska** and along the **Arctic Coast**, accompanied by some precipitation. Weekly totals in **southeastern Alaska** included 1.86 inches on **Annette Island** and 1.49 inches (along with 9.1 inches of snow) in **Yakutat**. Farther south, **Hawaii** experienced warm, mostly dry weather. On March 21-22, **Honolulu, Oahu**, posted consecutive daily record-tying highs of 86 and 85°F, respectively. No measurable rain fell during the week in several locations, including **Kahului, Maui**, and **Honolulu**. During a late-week increase in shower activity on the **Big Island**, **Hilo** received 1.13 inches on March 23-24. Despite the rain, **Hilo's** month-to-date total through March 25 stood at just 1.95 inches (18 percent of normal).



National Weather Data for Selected Cities

Weather Data for the Week Ending March 25, 2017

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 MAR 1	PCT. NORMAL SINCE MAR 1	TOTAL IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP	
																	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL	BIRMINGHAM	78	54	89	41	66	11	1.19	-0.24	1.19	3.97	82	13.63	94	76	31	0	0	1	1
	HUNTSVILLE	75	50	85	37	62	9	0.46	-1.06	0.42	2.20	40	11.08	70	80	53	0	0	3	0
	MOBILE	82	59	88	49	70	9	0.92	-0.75	0.92	2.60	45	14.81	89	89	48	0	0	1	1
AK	MONTGOMERY	82	54	88	43	68	9	0.98	-0.44	0.98	3.51	66	18.21	115	74	32	0	0	1	1
	ANCHORAGE	31	10	33	7	21	-6	0.00	-0.12	0.00	0.00	0	2.70	140	72	50	0	7	0	0
	BARROW	5	-13	10	-34	-4	9	***	***	***	***	***	***	***	81	71	0	7	3	0
	FAIRBANKS	16	-19	24	-23	-1	-14	0.00	-0.06	0.00	0.11	55	2.31	206	82	71	0	7	0	0
	JUNEAU	40	27	44	20	33	-1	0.59	-0.14	0.30	2.60	88	13.18	112	97	85	0	7	4	0
	KODIAK	36	24	39	20	30	-3	0.00	-1.16	0.00	0.00	0	5.55	31	61	46	0	7	0	0
AZ	NOME	12	-9	16	-17	2	-8	0.00	-0.11	0.00	0.02	5	1.47	70	89	83	0	7	0	0
	FLAGSTAFF	57	30	69	27	44	7	1.22	0.67	0.90	1.22	55	8.11	116	89	35	0	6	3	1
	PHOENIX	86	60	96	52	73	10	0.06	-0.16	0.06	0.06	7	2.40	96	47	26	3	0	1	0
	PRESCOTT	67	40	78	32	53	9	0.54	0.15	0.28	0.54	33	4.00	78	76	26	0	1	2	0
	TUCSON	84	55	94	45	70	10	0.00	-0.15	0.00	0.00	0	1.37	54	36	20	3	0	0	0
	FORT SMITH	78	54	90	48	66	12	1.85	0.94	1.85	2.89	93	7.70	95	76	38	2	0	1	1
CA	LITTLE ROCK	77	51	86	45	64	10	0.72	-0.42	0.67	3.58	97	8.58	81	92	44	0	0	2	1
	BAKERSFIELD	71	51	76	43	61	3	0.12	-0.18	0.05	0.16	14	4.38	124	81	59	0	0	3	0
	FRESNO	68	51	76	45	60	4	0.66	0.18	0.48	0.95	51	8.97	146	88	65	0	0	4	0
	LOS ANGELES	66	55	67	50	60	2	0.06	-0.42	0.05	0.08	4	11.56	141	92	68	0	0	2	0
	REDDING	62	47	68	37	55	2	2.53	1.41	1.36	3.90	89	22.93	140	94	80	0	0	6	2
	SACRAMENTO	64	49	72	40	57	2	2.16	1.57	1.08	2.35	97	20.52	209	99	58	0	0	4	2
	SAN DIEGO	68	57	72	53	63	3	0.07	-0.43	0.07	0.08	4	6.80	110	76	60	0	0	1	0
	SAN FRANCISCO	61	53	65	50	57	3	1.85	1.17	0.75	3.00	107	19.76	175	88	70	0	0	4	2
	STOCKTON	66	49	74	42	58	3	1.90	1.41	0.70	2.15	112	13.63	192	95	78	0	0	4	2
CO	ALAMOSA	66	27	72	22	46	12	0.39	0.29	0.29	0.41	137	2.06	271	72	26	0	6	3	0
	CO SPRINGS	65	37	80	28	51	12	0.21	-0.03	0.21	0.21	29	0.60	44	69	25	0	2	1	0
	DENVER INTL	70	38	80	28	54	15	0.53	0.34	0.53	0.55	79	1.32	114	70	22	0	2	1	1
	GRAND JUNCTION	70	46	79	37	58	14	0.03	-0.19	0.03	0.03	4	1.58	86	52	30	0	0	1	0
	PUEBLO	73	35	86	25	54	11	0.21	-0.02	0.21	0.21	32	1.13	91	67	40	0	1	1	0
	BRIDGEPORT	49	31	55	20	40	-1	0.01	-0.95	0.01	2.00	63	7.19	73	63	41	0	3	1	0
CT	HARTFORD	45	25	54	14	35	-4	0.12	-0.78	0.08	2.96	99	8.94	91	69	46	0	6	2	0
	WASHINGTON	60	39	78	30	49	1	0.34	-0.47	0.21	2.21	76	5.64	64	69	37	0	1	2	0
	WILMINGTON	56	32	79	20	44	0	0.04	-0.87	0.04	2.66	84	6.68	71	78	34	0	4	1	0
DC	DAYTONA BEACH	78	58	88	45	68	3	0.20	-0.68	0.20	1.07	36	5.08	57	95	44	0	0	1	0
	JACKSONVILLE	77	50	87	39	64	2	0.00	-0.91	0.00	1.06	34	6.46	65	98	43	0	0	0	0
	KEY WEST	79	68	81	65	74	0	0.00	-0.43	0.00	0.93	68	3.98	78	81	56	0	0	0	0
DE	MIAMI	81	65	85	59	73	0	1.83	1.24	1.17	3.74	202	8.45	146	80	46	0	0	3	2
	ORLANDO	82	56	87	49	69	1	0.00	-0.83	0.00	0.09	3	3.02	40	86	40	0	0	0	0
	PENSACOLA	78	65	86	59	72	10	0.51	-0.97	0.51	0.71	14	16.06	106	82	46	0	0	1	1
FL	TALLAHASSEE	81	53	89	42	67	5	0.00	-1.49	0.00	1.05	20	10.98	72	90	42	0	0	0	0
	TAMPA	80	60	85	52	70	2	0.00	-0.61	0.00	0.97	41	3.89	53	83	40	0	0	0	0
	WEST PALM BEACH	79	60	83	53	69	-2	0.56	-0.33	0.56	1.52	56	5.06	56	83	51	0	0	1	1
GA	ATHENS	75	47	88	38	61	7	2.05	0.94	2.05	3.52	86	11.22	85	82	43	0	0	1	1
	ATLANTA	73	51	86	42	62	7	0.07	-1.13	0.07	1.94	44	11.99	85	71	42	0	0	1	0
	AUGUSTA	78	45	91	32	61	4	0.48	-0.56	0.48	1.48	39	13.71	111	86	35	1	1	1	0
	COLUMBUS	79	54	88	42	66	7	0.12	-1.18	0.12	1.15	24	15.41	110	75	28	0	0	1	0
	MACON	77	49	87	34	63	6	0.00	-1.08	0.00	1.25	31	14.45	106	82	34	0	0	0	0
	SAVANNAH	77	49	90	38	63	3	0.00	-0.85	0.00	0.35	13	9.18	95	84	36	1	0	0	0
HI	HILO	83	67	84	64	75	3	1.13	-2.31	1.12	2.36	21	20.87	71	82	72	0	0	2	1
	HONOLULU	85	71	86	69	78	4	0.00	-0.38	0.00	4.08	253	11.39	170	73	63	0	0	0	0
	KAHULUI	85	67	86	60	76	3	0.00	-0.52	0.00	4.12	226	6.60	83	79	69	0	0	0	0
	LIHUE	80	71	80	67	75	2	0.01	-0.79	0.01	5.77	201	12.25	114	81	73	0	0	1	0
	BOISE	59	43	64	37	51	6	0.47	0.17	0.19	0.84	79	5.02	139	82	56	0	0	3	0
	LEWISTON	55	38	58	33	46	0	0.38	0.13	0.17	2.95	355	5.73	196	85	72	0	0	4	0
ID	POCATELLO	60	38	72	30	49	10	0.37	0.07	0.16	0.61	57	6.56	204	90	69	0	1	5	0
	CHICAGO/O'HARE	54	34	82	28	44	5	0.86	0.23	0.71	1.70	91	6.09	116	78	55	0	3	3	1
	MOLINE	58	36	81	23	47	7	0.71	0.01	0.52	1.65	79	4.06	78	81	59	0	2	2	1
	PEORIA	59	37	80	27	48	7	0.95	0.30	0.79	1.87	88	4.53	86	85	50	0	2	3	1
	ROCKFORD	56	33	80	23	44	6	0.51	-0.06	0.32	0.99	60	5.02	114	79	54	0	4	5	0
	SPRINGFIELD	63	40	80	28	52	9	0.60	-0.13	0.52	1.96	81	3.63	62	88	42	0	2	3	1
IN	EVANSVILLE	66	43	80	27	54	7	0.18	-0.80	0.12	2.23	67	5.50	59	71	47	0	2	2	0
	FORT WAYNE	56	33	76	22	45	5	0.84	0.18	0.79	1.95	92	8.42	138	83	49	0	3	3	1
	INDIANAPOLIS	59	39	75	27	49	6	1.10	0.31	0.59	2.78	104	8.23	109	80	44	0	2	2	2
	SOUTH BEND	53	32	78	18	43	4	0.60	-0.08	0.44	1.98	94	8.97	141	86	60	0	3	3	0
	BURLINGTON	60	39	77	28	49	7	0.50	-0.19	0.34	1.22	55	3.08	61	93	46	0	2	4	0
	CEDAR RAPIDS	55	33	73	24	44	6	0												

Weather Data for the Week Ending March 25, 2017

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 MAR 1	PCT. NORMAL SINCE MAR 1	TOTAL IN., SINCE JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP	
																	90 AND ABOVE	32 AND BELOW	01 INCH OR MORE	50 INCH OR MORE
KY	WICHITA	73	50	89	43	62	15	0.56	-0.07	0.44	0.58	28	4.20	107	75	53	0	0	2	0
	JACKSON	64	42	79	29	53	5	0.10	-0.86	0.10	2.47	69	10.04	93	69	39	0	2	1	0
	LEXINGTON	64	40	78	29	52	5	0.09	-0.90	0.09	1.45	41	9.55	94	70	46	0	3	1	0
	LOUISVILLE	68	43	80	32	55	7	0.10	-0.89	0.10	1.26	35	7.53	75	66	33	0	1	1	0
LA	PADUCAH	68	45	84	30	56	7	0.95	0.01	0.60	3.75	111	8.58	80	83	44	0	1	4	1
	BATON ROUGE	82	62	86	58	72	11	0.96	-0.18	0.96	2.49	63	13.92	91	96	46	0	0	1	1
	LAKE CHARLES	80	60	83	56	70	8	0.95	0.13	0.95	1.50	54	8.45	73	98	58	0	0	1	1
	NEW ORLEANS	82	62	83	60	72	9	0.62	-0.55	0.62	1.95	47	9.59	62	95	63	0	0	1	1
ME	SHREVEPORT	84	59	88	55	71	12	0.02	-0.89	0.01	1.27	38	5.41	45	91	38	0	0	2	0
	CARIBOU	35	9	45	2	22	-4	0.00	-0.58	0.00	2.04	103	7.66	109	73	33	0	7	0	0
MD	PORTLAND	40	24	50	14	32	-3	0.29	-0.67	0.28	1.63	51	9.83	95	73	35	0	7	2	0
	BALTIMORE	58	35	80	25	47	2	0.22	-0.67	0.22	2.06	65	6.21	64	71	38	0	3	1	0
MA	BOSTON	46	28	53	18	37	-3	0.12	-0.76	0.08	1.09	36	8.56	84	67	38	0	5	3	0
	WORCESTER	42	24	50	13	33	-3	0.12	-0.86	0.06	1.95	59	8.30	79	66	34	0	7	2	0
MI	ALPENA	42	24	54	11	33	3	0.64	0.14	0.59	1.43	90	7.28	155	94	53	0	7	4	1
	GRAND RAPIDS	51	30	71	18	41	5	0.95	0.32	0.59	1.89	103	7.45	138	82	45	0	3	3	1
	HOUGHTON LAKE	44	25	56	14	35	4	0.95	0.47	0.66	1.93	130	7.41	170	87	55	0	5	3	1
	LANSING	51	29	74	17	40	5	1.43	0.87	1.08	2.24	138	8.52	182	83	51	0	3	4	1
MN	MUSKEGON	48	31	65	20	40	5	0.54	-0.02	0.25	1.16	68	6.86	125	81	55	0	3	4	0
	TRAVERSE CITY	43	27	53	18	35	3	0.50	0.03	0.36	1.53	112	7.69	125	89	53	0	4	4	0
	DULUTH	39	25	51	11	32	5	0.23	-0.18	0.22	1.01	86	3.97	127	85	61	0	5	2	0
	INT'L FALLS	39	22	48	5	31	6	0.24	0.02	0.23	0.67	105	3.42	161	84	42	0	7	2	0
MS	MINNEAPOLIS	46	31	56	21	38	4	0.23	-0.23	0.17	0.62	48	2.24	72	74	51	0	3	3	0
	ROCHESTER	43	29	56	18	36	4	0.91	0.45	0.75	2.32	187	6.09	208	84	66	0	3	3	1
	ST. CLOUD	44	29	54	16	36	6	0.14	-0.23	0.14	0.64	66	2.16	93	89	49	0	3	1	0
	JACKSON	83	57	87	47	70	12	0.68	-0.65	0.68	2.91	66	13.12	90	88	42	0	0	1	1
MO	MERIDIAN	81	53	89	42	67	9	1.13	-0.46	1.13	4.97	90	14.54	86	91	51	0	0	1	1
	TUPELO	75	52	87	39	64	10	0.06	-1.37	0.06	1.13	22	9.60	64	76	54	0	0	1	0
	COLUMBIA	68	46	84	36	57	12	0.90	0.17	0.45	2.28	94	3.80	60	80	48	0	0	4	0
	KANSAS CITY	70	47	87	36	59	14	0.49	-0.06	0.35	0.91	49	2.36	55	74	42	0	0	2	0
MT	SAINT LOUIS	67	45	86	36	56	9	1.20	0.37	0.92	2.63	95	4.92	68	75	56	0	0	3	1
	SPRINGFIELD	71	49	85	45	60	13	2.31	1.40	1.60	3.63	128	8.09	112	69	49	0	0	3	2
	BILLINGS	55	37	66	30	46	8	0.24	-0.02	0.14	1.23	158	2.99	138	89	50	0	2	4	0
	BUTTE	50	30	56	21	40	8	0.22	0.03	0.12	0.86	143	1.65	103	88	39	0	5	4	0
NE	CUT BANK	52	26	60	19	39	7	0.00	-0.12	0.00	0.06	17	1.33	129	81	30	0	7	0	0
	GLASGOW	56	31	65	25	43	11	0.00	-0.10	0.00	0.36	116	1.38	150	77	46	0	4	0	0
	GREAT FALLS	57	29	65	20	43	9	0.00	-0.22	0.00	0.39	54	1.81	95	70	22	0	5	0	0
	HAVRE	57	29	66	22	43	9	0.00	-0.17	0.00	0.15	29	1.53	114	80	44	0	6	0	0
NV	MISSOULA	53	33	57	26	43	4	0.13	-0.07	0.08	1.73	244	5.03	198	82	55	0	3	4	0
	GRAND ISLAND	61	38	82	31	50	10	0.30	-0.19	0.27	0.39	27	1.71	64	86	63	0	1	2	0
	LINCOLN	64	41	87	34	53	12	0.45	-0.09	0.29	0.51	32	2.16	74	72	56	0	0	3	0
	NORFOLK	57	36	80	28	47	9	0.78	0.31	0.44	0.89	63	3.13	114	78	57	0	2	4	0
NH	NORTH PLATTE	66	34	90	25	50	11	1.14	0.86	0.77	1.19	135	3.18	179	83	39	1	2	2	1
	OMAHA	63	40	82	33	52	11	1.06	0.55	0.60	1.16	75	3.26	105	66	53	0	0	3	1
	SCOTTSBLUFF	69	34	81	29	52	14	0.07	-0.20	0.07	0.17	21	2.39	124	75	38	0	2	1	0
	VALENTINE	61	34	82	20	48	12	0.30	0.05	0.27	0.43	55	2.84	182	80	49	0	4	2	0
NJ	ELY	58	35	68	23	47	10	0.73	0.51	0.41	1.83	226	5.08	221	73	43	0	3	3	0
	LAS VEGAS	79	60	90	51	70	11	0.00	-0.11	0.00	0.00	0	1.46	82	34	24	1	0	0	0
	RENO	62	40	72	31	51	7	0.32	0.15	0.32	0.66	90	9.65	339	68	44	0	1	1	0
	WINNEMUCCA	59	34	68	28	47	5	0.19	0.00	0.10	0.41	64	3.00	144	88	51	0	1	3	0
NY	CONCORD	41	19	53	12	30	-5	0.33	-0.36	0.17	1.39	60	6.62	86	80	43	0	7	2	0
	NEWARK	54	33	62	23	44	1	0.01	-0.97	0.01	1.72	52	8.45	83	57	33	0	3	1	0
OH	ALBUQUERQUE	75	45	82	41	61	12	0.00	-0.13	0.00	0.00	0	1.39	100	44	14	0	0	0	0
	ALBANY	43	24	51	13	34	-2	0.31	-0.41	0.22	2.13	91	8.11	116	70	37	0	7	2	0
	BINGHAMTON	40	23	48	12	31	-3	0.64	-0.03	0.51	3.82	169	10.08	138	86	60	0	6	3	1
	BUFFALO	43	28	62	16	36	0	0.94	0.25	0.67	3.17	139	8.35	106	82	51	0	5	2	1
NC	ROCHESTER	43	25	61	15	34	-1	0.59	0.00	0.44	1.82	94	6.90	109	84	61	0	5	2	0
	SYRACUSE	40	23	47	10	32	-3	0.51	-0.19	0.36	2.53	112	9.11	131	89	53	0	6	4	0
	ASHEVILLE	63	38	80	27	50	3	0.55	-0.49	0.55	1.46	39	5.88	51	76	49	0	2	1	1
	CHARLOTTE	69	40	86	30	55	1	0.09	-0.90	0.09	1.93	54	8.84	79	74	28	0	1	1	0
ND	GREENSBORO	66	40	81	31	53	3	0.00	-0.87	0.00	1.55	50	7.16	74	69	32	0	2	0	0
	HATTERAS	60	46	72	38	53	0	0.78	-0.37	0.76	4.07	103	10.38	75	84	53	0	0	3	1
	RALEIGH	67	39	82	30	53	1	0.20	-0.70	0.20	2.59	78	7.02	65	72	41	0	2	1	0
	WILMINGTON	67	38	85	31	53	-3	0.02	-0.92	0.02	1.98	57	7.52	65	94	41	0	1	1	0
OH	BISMARCK	48	27	62	21	38	7	0.24	0.05	0.24	0.53	93	2.33	152	86	67	0	7	1	0
	DICKINSON	53	28	61	21	40	8	0.15	-0.01	0.13	0.21	60	0.99	86	91	38	0	6	2	0
	FARGO	43	26	61	16	35	6	0.19	-0.09	0.19	0.33	40	2.10	96	88	56	0	5	1	0
	GRAND FORKS	40	25	54	16	32	5	0.46												

Weather Data for the Week Ending March 25, 2017

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 MAR 1	PCT. NORMAL SINCE MAR 1	TOTAL IN., SINCE JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.		
																	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
OK	TOLEDO	54	29	76	18	41	2	0.40	-0.21	0.16	1.40	73	7.17	125	85	54	0	5	3	0	
	YOUNGSTOWN	52	31	72	14	41	3	0.17	-0.54	0.09	3.07	133	10.95	164	84	55	0	4	2	0	
	OKLAHOMA CITY	80	55	91	46	67	15	0.08	-0.57	0.05	0.09	4	4.78	93	85	38	1	0	2	0	
OR	TULSA	78	57	92	46	67	14	0.51	-0.32	0.43	1.31	47	5.90	93	79	52	1	0	2	0	
	ASTORIA	53	42	59	32	48	2	1.46	-0.16	0.33	12.78	210	30.66	130	85	68	0	1	6	0	
	BURNS	53	34	62	27	43	5	0.64	0.38	0.33	1.13	112	6.13	186	91	67	0	2	4	0	
	EUGENE	56	42	65	33	49	2	1.22	-0.04	0.78	4.68	97	18.06	96	95	77	0	0	6	1	
	MEDFORD	61	45	66	36	53	6	0.63	0.24	0.31	1.39	91	10.40	170	95	57	0	0	6	0	
	PENDLETON	52	36	57	32	44	-2	0.87	0.59	0.53	2.05	209	5.97	164	87	72	0	1	3	1	
	PORTLAND	56	41	58	32	48	0	1.51	0.71	0.85	6.34	206	20.83	169	92	73	0	1	5	1	
	SALEM	56	41	64	32	49	2	1.39	0.51	0.78	6.81	193	25.62	177	84	70	0	1	6	1	
	PA	53	28	68	19	41	1	0.01	-0.81	0.01	2.85	102	7.94	88	65	44	0	5	1	0	
	ERIE	47	30	73	18	38	0	0.01	-0.71	0.01	1.55	66	8.97	125	86	64	0	5	1	0	
	MIDDLETOWN	54	33	76	22	44	1	0.08	-0.64	0.06	5.23	199	9.61	114	82	40	0	3	3	0	
	PHILADELPHIA	57	34	77	24	45	1	0.04	-0.84	0.02	2.06	69	6.27	68	63	38	0	3	2	0	
	PITTSBURGH	55	34	74	16	44	3	0.25	-0.47	0.25	2.70	110	9.00	120	78	41	0	2	1	0	
	WILKES-BARRE	47	27	57	16	37	-2	0.25	-0.37	0.16	3.95	197	10.18	155	76	45	0	5	2	0	
	WILLIAMSPORT	51	29	64	19	40	1	0.04	-0.69	0.02	2.38	98	7.68	97	74	50	0	4	2	0	
RI	PROVIDENCE	47	28	57	18	37	-3	0.02	-1.01	0.02	2.24	66	9.42	84	56	39	0	5	1	0	
	SC	76	48	90	38	62	4	0.00	-0.86	0.00	0.57	20	6.48	65	92	37	1	0	0	0	
	CHARLESTON	74	47	90	35	60	1	0.33	-0.60	0.33	0.84	27	5.02	49	86	32	1	0	1	0	
	COLUMBIA	74	45	89	32	60	4	0.51	-0.53	0.51	1.87	51	10.51	86	74	36	0	1	1	1	
	SD	70	44	86	32	57	4	3.90	2.71	3.90	5.91	134	11.63	89	75	34	0	1	1	1	
	ABERDEEN	47	28	65	19	37	5	0.00	-0.32	0.00	0.67	74	1.85	99	81	60	0	5	0	0	
	HURON	50	32	70	26	41	7	0.01	-0.39	0.01	0.81	70	2.22	101	89	51	0	4	1	0	
	RAPID CITY	61	33	74	28	47	11	0.15	-0.09	0.15	0.18	26	1.29	84	84	44	0	3	1	0	
	SIoux FALLS	50	33	73	24	42	8	0.07	-0.38	0.04	0.50	41	2.35	105	82	63	0	2	2	0	
TN	BRISTOL	65	37	76	26	51	3	0.02	-0.84	0.02	3.67	115	8.76	87	79	35	0	3	1	0	
	CHATTANOOGA	72	48	84	38	60	7	0.71	-0.70	0.41	2.78	55	11.20	73	71	38	0	0	2	0	
	KNOXVILLE	68	43	81	32	56	5	0.60	-0.57	0.60	4.44	106	10.98	86	72	36	0	1	1	1	
	MEMPHIS	75	55	85	46	65	11	0.55	-0.72	0.39	3.48	80	9.14	71	74	44	0	0	2	0	
	NASHVILLE	72	47	84	34	60	9	0.51	-0.59	0.18	3.58	91	8.48	73	76	39	0	0	3	0	
	TX	84	57	92	43	70	13	0.02	-0.28	0.02	0.02	2	3.40	107	78	45	1	0	1	0	
	ABILENE	77	44	92	36	60	11	0.13	-0.13	0.12	0.13	16	3.81	191	82	30	2	0	2	0	
	AMARILLO	84	62	86	49	73	10	0.09	-0.35	0.09	2.04	115	9.35	165	84	57	0	0	1	0	
	AUSTIN	84	61	85	58	73	10	2.80	1.93	2.79	3.50	120	5.55	46	95	48	0	0	2	1	
	BEAUMONT	85	66	90	62	76	7	0.00	-0.20	0.00	1.84	307	3.38	108	95	57	1	0	0	0	
	BROWNSVILLE	83	65	85	61	74	7	0.00	-0.36	0.00	4.83	347	7.67	158	97	68	0	0	0	0	
	CORPUS CHRISTI	85	60	89	53	73	8	0.00	-0.19	0.00	0.16	23	1.13	50	83	56	0	0	0	0	
	DEL RIO	86	53	93	44	70	12	0.00	-0.03	0.00	0.00	0	1.20	117	30	10	2	0	0	0	
	EL PASO	85	63	92	55	74	16	0.32	-0.33	0.32	0.51	20	7.23	106	85	39	1	0	1	0	
	FORT WORTH	79	69	81	66	74	9	0.00	-0.63	0.00	1.20	56	5.47	62	94	69	0	0	0	0	
	GALVESTON	84	62	86	58	73	10	1.28	0.52	1.26	3.95	151	12.46	134	91	54	0	0	2	1	
	HOUSTON	82	50	93	40	66	14	0.13	-0.02	0.13	0.13	25	3.05	175	76	40	2	0	1	0	
	LUBBOCK	87	56	96	43	72	15	0.12	0.06	0.12	0.13	38	1.97	136	68	31	4	0	1	0	
	MIDLAND	87	57	95	42	72	14	0.00	-0.19	0.00	0.04	5	2.75	99	69	37	4	0	0	0	
	SAN ANGELO	82	61	84	54	72	9	0.00	-0.41	0.00	1.24	83	7.57	154	86	46	0	0	0	0	
	SAN ANTONIO	83	62	85	58	73	8	0.06	-0.44	0.05	4.19	237	12.79	205	93	62	0	0	2	0	
	VICTORIA	80	60	83	49	70	11	0.23	-0.28	0.23	2.65	129	8.81	138	90	61	0	0	1	0	
	WACO	83	55	92	48	69	14	0.02	-0.48	0.02	0.11	6	4.07	91	78	49	1	0	1	0	
	WICHITA FALLS	64	45	75	33	55	11	2.69	2.25	2.07	2.96	201	6.62	159	80	44	0	0	3	2	
UT	BURLINGTON	38	17	47	3	27	-5	0.64	0.10	0.57	2.38	140	7.05	126	82	44	0	7	2	1	
VA	LYNCHBURG	63	34	75	25	48	1	0.05	-0.81	0.05	1.49	49	5.87	60	70	33	0	4	1	0	
	NORFOLK	59	40	78	31	49	-1	0.42	-0.51	0.42	2.80	86	7.87	75	77	44	0	2	1	0	
	RICHMOND	62	38	79	28	50	1	0.18	-0.75	0.18	2.11	64	7.11	72	75	45	0	2	1	0	
	ROANOKE	64	39	75	30	52	4	0.00	-0.87	0.00	0.97	32	5.61	60	62	35	0	2	0	0	
	WASH/DULLES	59	36	78	21	48	3	0.23	-0.57	0.14	1.85	66	5.29	61	69	42	0	3	3	0	
	WA	54	37	59	27	46	2	1.20	0.05	0.36	9.43	215	22.43	124	98	76	0	2	6	0	
	OLYMPIA	50	40	53	33	45	1	3.00	0.63	1.14	15.79	170	35.84	102	92	81	0	0	7	3	
	QUILLAYUTE	55	41	58	34	48	1	0.74	-0.07	0.36	6.11	198	19.17	155	86	62	0	0	6	0	
	SEATTLE-TACOMA	49	35	51	29	42	2	0.86	0.53	0.46	3.43	279	9.67	212	87	53	0	2	3	0	
	SPOKANE	56	36	61	29	46	3	0.38	0.24	0.16	0.84	162	5.40	217	82	55	0	2	4	0	
	WV	57	34	73	24	45	2	0.19	-0.62	0.11	2.32	79	8.69	95	71	57	0	4	2	0	
	CHARLESTON	61	39	77	26	50	3	0.45	-0.42	0.37	2.17	68	10.47	109	79	40	0	3	2	0	
	ELKINS	57	33	74	16	45	4	0.23	-0.64	0.09	2.62	83	9.87	101	85	39	0	3	3	0	
	HUNTINGTON	61	39	77	28	50	3	0.38	-0.47	0.38	2.10	68	9.90	105	72	42	0	3	1	0	
	WI	44	26	56	13	35	3	0.18	-0.28	0.14	1.01	82	5.08	165	90	45	0	5	3	0	
	EAU CLAIRE	42	28	55	18	35	2	0.68	0.18	0.55	1.49	103	4.84	132	91	68	0	4	2	1	
	GREEN BAY	</																			

National Agricultural Summary

March 20 – 26, 2017

Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

Weekly temperatures were well above normal, stretching from the Intermountain West to the Appalachian Mountains. Most of the southern Rocky Mountains, southern Great Plains, and lower Mississippi Valley recorded temperatures more than 9°F above normal. Conversely,

the Northeast experienced below-normal temperatures. Precipitation was close to normal across most of the nation. The most notable exception was the Pacific Coast, where several locations in California had weekly totals in excess of 5 inches of precipitation.

Arizona: Alfalfa was rated mostly fair to good, depending on location, with harvesting taking place on three-quarters of the state's acreage. Barley heading was estimated at 26 percent complete, while conditions were rated mostly good to excellent. Durum wheat heading was estimated at 20 percent complete, while conditions were rated mostly good to excellent. Cotton planting was estimated at 10 percent complete. Central Arizona growers shipped anise, beets, bok choy, broccoli, cabbage (green and red), carrots, cauliflower, celery, cilantro, collard greens, kale greens, kohlrabi, green onions, parsley, and Swiss chard. In western Arizona, growers shipped anise, arugula, bok choy, broccoli, cabbage (green and red), cauliflower, celery, Chinese cabbage, cilantro, endive, escarole, frisee, kale greens, lettuce (Boston, green leaf, iceberg, red leaf, romaine and other), parsley, radicchio, spinach, and Swiss chard. Pasture and range conditions were mostly fair to good. All of the 52 weather stations reported above-normal temperatures, ranging from 1 to 10°F above normal.

California: The weather oscillated between warm and wet to dry and cool two separate times, as springtime Pacific systems moved through the state. Winter forage crops were maturing well. Some growers were starting to harvest silage. Spotty lodging was noted due to heavy rain and wind. Corn seed was being received in advance of planting. Cotton preparation work was almost done for planting. Fieldwork in vineyards continued with pruning, tying, berm sanitation, and brush shredding. Cherries and late varieties of stone fruit continued to bloom. There were reports of heavy rain and hail that may have knocked off petals and

affected the bloom. Kiwifruit were being shipped to foreign and domestic marketplaces. The citrus harvest was slowed due to rain. Late navel orange harvest was underway in some areas. Navel oranges, Mandarins, lemons, Star Ruby grapefruit, and late harvest Finger limes were being packed and exported for foreign and domestic markets. Valencia orange harvest started. Orange groves were being hedge-rowed and skirted. Seedless tangerine groves continued to be netted to prevent cross pollination by bees during the coming bloom. Blueberries were blooming. Strawberry fields continued to thrive. Almond bloom continued to slow down. Almonds and pistachios continued to be packed and exported mainly to foreign marketplaces. Some walnut trees were blooming. Bee colonies continued to be moved into nut and stone fruit orchards for pollination. In Tulare County, new fields were being prepared for spring planting as weather permitted. Rangeland and dryland pasture quality continued to improve with all the recent rainfall and intervening warm weather. Some cattle ranchers increased their herd size to take advantage of the improved forage conditions.

Florida: There were 6.6 days suitable for fieldwork. Precipitation estimates ranged from no rain in multiple parts of the state to 1.54 inches in Indian River (Volusia County). Average temperatures ranged from 65.2°F in Macclenny (Baker County) to 71.7°F in Ft. Lauderdale (Broward County). Daily temperatures in the citrus regions were slightly above average. Rainfall in the citrus-producing counties was widespread but very sporadic. Valencia orange harvest was in full

swing. White and red grapefruit were still being harvested but going primarily to the processing plants. All citrus trees were in full bloom or have begun petal drop. Strawberry harvest slowed in Brevard, Hillsborough, and Manatee Counties. Much of the watermelon acreage will need to be replanted in north and central Florida due to recent frosts. Fruit and vegetable planting was ongoing throughout the state. Vegetable growers in southern Florida were having issues with whiteflies as vegetables were coming to market. Field activities picked up as corn was reported to be planted in Jackson, Lafayette, and Walton Counties. Sugarcane harvest continued on schedule in Glades, Hendry, and Palm Beach Counties. Cattle producers continued to use supplemental feeding, as pastures remained dry, although some areas across the state reported light rain. Cattle were reported in fair to good condition.

Kansas: Temperatures averaged more than 10°F above normal across most of the state. Large portions of Kansas received measurable rainfall; however, much of the state remained drier than normal. Spring tillage was active and planting was underway in southern counties. There were 5.9 days suitable for fieldwork. Topsoil moisture was rated 26 percent very short, 42 percent short, 31 percent adequate, and 1 percent surplus. Subsoil moisture was rated 20 percent very short, 41 percent short, and 39 percent adequate. Winter wheat was rated 7 percent very poor, 18 percent poor, 37 percent fair, 36 percent good, and 2 percent excellent. Winter wheat jointed was 17 percent, behind the 5-year average of 18 percent. Corn planting was underway in southern counties and was 2 percent complete, equal to last year. Cattle and calf conditions were rated 2 percent poor, 23 percent fair, 67 percent good, and 8 percent excellent. Calving progress was 73 percent complete. Cattle and calf death loss was rated 1 percent heavy, 57 percent average, and 42 percent light. Sheep and lamb conditions were rated 1 percent poor, 14 percent fair, 81 percent good, and 4 percent excellent. Lambing progress was 85 percent complete. Sheep and lamb death loss was rated 56 percent average and 44 percent light. Hay and roughage supplies were rated 2 percent

very short, 5 percent short, 87 percent adequate, 6 percent surplus. Stock water supplies were 4 percent very short, 13 percent short, 82 percent adequate, and 1 percent surplus.

Oklahoma: Although spring storms brought some rain to the Southeastern and East Central districts, drought conditions continued to advance across the state. Statewide temperatures averaged in the mid 60's. Drought conditions were rated 81 percent moderate, up 7 percentage points from last week and 46 percent severe, up 5 points. Topsoil and subsoil moisture conditions were rated mostly short to adequate. There were 6.6 days suitable for fieldwork. Winter wheat jointing reached 47 percent, down slightly from the 5-year average. Canola blooming reached 29 percent, 9 percentage points ahead of the 5-year average. Rye jointing reached 40 percent, 3 percentage points behind the 5-year average. Oats jointing reached 23 percent, 5 percentage points ahead of the previous year and 15 points ahead of the 5-year average. Rangeland and pastures were rated 70 percent poor to fair. Livestock condition was rated at 87 percent fair to good.

Texas: Warm, windy conditions were experienced in many areas of the state. Strong winds caused damage to some crops in the Trans Pecos. Most areas of the state recorded less than one-quarter of an inch of rainfall. There were 6.4 days suitable for fieldwork. Winter wheat was rated 72 percent fair to good. Oats were rated 79 percent fair to good, slightly below the previous week. Cotton planting continued in the Lower Valley and the Upper Coast. Producers in the northern districts of the state continued field preparations for cotton planting. Corn planting continued across the state. Sorghum planting was underway in South Texas. Pecan trees in the Southern Low Plains, the Cross Timbers, the Edwards Plateau, and South Texas were budding. Harvest of sugarcane, citrus, and vegetables continued in the Lower Valley. Producers on the Plains and the Blacklands were still supplementing cattle on range. Most of the cattle were in good condition. Although some of the pasture dried out due to warm weather and strong winds, pasture and rangeland was rated mostly fair to good.

March 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: Drought conditions have persisted in most parts of the State during the month of March. Rain has been infrequent and short, not enough to fully restore soil moisture lost in the fall. Pastures have not fully recovered, but are greening and in fair to good condition. Cattle responded well to the improved pastureland and are looking good. Despite increased grazing during March, cattle were still in need of supplemental feed but producers struggled to find more hay for their herds. While most small grains were in good condition, with some stands heading out, some of the crop sustained moderate to severe damage from recent frosts. Farmers took advantage of the mild conditions on these final days of the month by already beginning to plant corn and preparing ground to plant corn over the next few weeks. Cotton burndown also began. Most subsoil and topsoil was rated adequate. Average mean temperatures for the month ranged from 53°F in Guntersville to 63°F in Mobile. Precipitation estimates for the month ranged from 2.31 inches in Opelika to 6.03 inches in Gainesville.

ALASKA: DATA NOT AVAILABLE

ARIZONA: At the beginning of the month only 19 of the 52 weather stations reported above normal temperatures across Arizona, but on the third week of March, all of the 52 weather stations reported above normal temperatures, ranging from 6 to 17°F above normal across the entire State, with most locations more than 10°F above normal. At the end of the month all weather stations were still reporting above normal temperatures, ranging from 1 to 10°F. The temperature extremes for January were a high of 99°F at Paloma, Roll, and Yuma on the third week of March, and a low of 4°F at Grand Canyon and Flagstaff reported on the first week of March. Nogales had the lowest percent of normal precipitation at 32% and Teec Nos Pos finished as the highest with 327% of normal precipitation. Barley heading was 26% complete and durum wheat heading was 20% completed by the end of the month. Cotton planted was at 10% completed. Pasture and range conditions ranged from good to fair for the entire month.

ARKANSAS: The month of March saw some stormy and wet weather which mostly prevented early month planting and fieldwork from occurring. Due to big swings in temperatures, severe freeze damage has been reported on some fruits which were blooming early. Final burndown chemical applications applied in preparation for 2017 crop season. Soil moisture is in good condition from rains but some ponds remain low. Livestock are in good condition, enjoying the warmer weather, and chasing greening grass. Fertilization of wheat is complete, and continues to make steady growth despite some cooler temperatures. Even though heavy rains kept producers in several counties out of the fields, some corn, rice, and soybeans planting began late in the month.

CALIFORNIA: March started with a lot of variation in the weather across the State as a departing Pacific system exerted its influence onto the State. By the second week of

March, temperatures warmed up between 10 and 20°F from the first week, with a drier pattern taking hold over much of the State. Rainfall was largely confined to the northern one third of the State. The third week was warm across the State, as most of the area was well entrenched into a dry pattern. At the end of the month, the weather oscillated between warm and wet to dry and cool two separate times, as early springtime Pacific systems moved through the State. Corn seed was being received in advance of planting. Cotton preparation work was almost done for planting. Field work in vineyards continued with pruning, tying, berm sanitation, and brush shredding. Cherries and late varieties of stone fruit continued to bloom. Kiwifruit were being shipped to foreign and domestic marketplaces. Late navel orange harvest was underway in some areas. Navel oranges, Mandarins, lemons, Star Ruby grapefruit, and late harvest Finger limes were being packed and exported for foreign and domestic marketplaces. Valencia orange harvest started. Orange groves were being hedge-rowed and skirted. Seedless tangerine groves continued to be netted to prevent cross pollination by bees during the coming bloom. Strawberry fields continued to thrive. Almond bloom continued to slow down. Almonds and pistachios continued to be packed and exported mainly to foreign marketplaces. Bee colonies continued to be moved into nut and stone fruit orchards for pollination. Rangeland and dryland pasture quality continued to improve with all the recent rainfall and intervening warm weather. Some cattle ranchers have increased their herd size to take advantage of the improved forage conditions.

COLORADO: Topsoil moisture 11% very short, 29% short, 58% adequate, 2% surplus. Subsoil moisture 12% very short, 32% short, 55% adequate, 1% surplus. Barley planted 4%, 2% 2016, 9% avg. Spring Wheat Other than Durum planted 3%, 2% 2016, 8% avg. Winter wheat pastured 9%, 11% 2016; 1% jointed, 2% 2016, 2% avg; 5% very poor, 32% poor, 31% fair, 30% good, 2% excellent. Onions planted 4%, 7% 2016, 10% avg. Sugarbeets planted 1%, 3% 2016, 3% avg. Cows calved 50%, 53% 2016; 56% avg. Ewes lambed 33%, 32% 2016, 43% avg. Livestock condition 4% poor, 18% fair, 69% good, 9% excellent. Cattle death loss 1% heavy, 73% avg, 26% light. Sheep death loss 29% avg, 71% light. Pasture and range condition 3% very poor, 30% poor, 31% fair, 31% good, 5% excellent. Feed and concentrate supplies 3% short, 85% adequate, 12% surplus. The month began with continued abnormally dry and warm weather, but ended with welcome precipitation received in several counties, improving moisture conditions. Resulting fieldwork was adequate. Quality concerns still exist for winter wheat stands where moisture has not been sufficient for several months. Fall planted crops came out of dormancy earlier than normal due to warm temperatures. Depleted topsoil moisture is concerning for crop and range conditions. Received moisture will help spur planting progress for some early planted crops. Livestock are in good condition. As of March 24, 2017, Statewide snowpack was 110 percent measured as percent of median snowfall. The Southwest and San Luis Valley were at 128 and 115 percent, respectively.

DELAWARE: The month of March as usual started a snowy, cold, dry, breezy, rainy, and foggy pattern in most parts of the region. There were 14 episodes of precipitation with maximum of 2.92 inches of snow for a single day. Maryland registered a maximum temperature reaching 80°F and minimum temperature reaching 15°F. Delaware reported a maximum temperature reaching 79°F, and minimum reaching 14°F. Due to low temperatures small grain got some winter burn. Currently small grain is in need of some soil moisture. Pastures were greening up, and cool season weeds were starting the process of growing as well. Some reporters indicated farmers showed concerns for fruit crops due to high and then low temperature, and the threat of the avian flu. Farmers were also able to do their first fertilizer application and started to plant peas and some corn. In General, fieldwork activities included top dressing small grain, planting peas, spreading manure and fertilizer, and some early disking and ground work.

FLORIDA: Warm and dry conditions persisted across Florida in the month of March with the Panhandle area continuing to be the exception. Wind damage was reported to cause higher cull rates for vegetables that were harvested in early March. Cooler temperatures and multiple frosts in the third week of March damaged fruit and vegetable crops in northern and central Florida. A wide variety of vegetables were harvested and marketed during the month. Livestock producers relied on supplemental feed for their livestock as pastures remain dry and available drinking water is becoming an issue although cattle remain in good to fair condition. Sugarcane harvest was ongoing with approximately another month left of harvesting. Corn and peanuts were planted at the end of the month. Grapefruit harvest decreased towards the middle of the month while Valencia harvest ramped up in the second half of the month. All citrus trees were in full bloom or had begun petal drop. Growers have had some success fighting greening with bactericides and pesticides and pushing dead and dying trees and adjacent groves. Groves were irrigated heavily this month and other activities include fertilizing, hedging, and general maintenance.

GEORGIA: Total rainfall for the month ranged from 0.4 inch in Polk County to 4.8 inches in Rabun County. On average, rainfall totals were as much as 4 inches lower than normal for the month. According to the U.S Drought Monitor, the percentage of the State in a moderate to severe drought remained around 27 percent throughout the month. In addition to the continued drought throughout the northern most portion of the State, much the central and southern regions moved into the abnormally dry designation. Average temperatures were on par for this time of year. During mid-March, the State received several nights of below freezing temperatures that caused moderate to significant damage to blueberry, peach, and pear crops and mild to moderate damage to pastures, strawberries, and early vegetable crops. Consequently, yields were expected to be greatly diminished. Onions were largely unscathed by the cold and remained in good condition. Small grain damage varied widely. Some wheat was damaged to the point that growers were harvesting it for silage. Pastures and hayfields started to green up prior to the freeze, but were set back by the cold and frost. Some producers began harvesting rye and ryegrass crops for silage and hay. Pest pressures in pastures and small grains included leaf rust, aphids, mildew, and winter grain mites. Ability to graze winter forages remained low, and many farmers relied heavily on feeding hay. Most cattle producers were either out of hay or

on their last bales with many having to feed a mixed ration. Cattle condition was fair to good, despite feed shortages. Field preparations were well under way throughout the State. Farmers used irrigation generously on recently planted field corn and vegetables; however, many growers delayed planting while waiting on rain events to improve soil moisture.

HAWAII: DATA NOT AVAILABLE

IDAHO: March was very wet in the State. Annual precipitation levels approached 200% of normal in the southeast and well above normal throughout the State. Many areas, particularly in the north and southeast regions, were still covered in snow. In areas where the snow melted or was receding, conditions were soggy. Fields were mostly wet and many held standing water. Growers were on the lookout for snow mold in winter wheat and were assessing winter kill in fields that were dry enough. Melting snow caused rivers to rise and there were some flooding issues reported in multiple southern areas. Irrigation water was expected to be in full supply for the season. The south central region was able to begin some field work late in the month. Planting of spring cereal crops and beets was just getting underway. South central pasture and range grasses greened and grew nicely. Calving progressed at a steady pace.

ILLINOIS: Topsoil moisture 3% very short, 32% short, 61% adequate, and 4% surplus. Subsoil moisture 4% very short, 32% short, 62% adequate, and 2% surplus. Winter wheat condition 4% poor, 29% fair, 56% good, and 11% excellent. Statewide, temperatures for the month of March averaged 40.9°F, a degree above normal. Precipitation averaged 2.15 inches, 0.31 inch below normal.

INDIANA: Topsoil moisture 2% very short, 12% short, 71% adequate, and 15% surplus. Subsoil moisture 2% very short, 13% short, 74% adequate, and 11% surplus. Winter wheat condition rated 1% very poor, 3% poor, 26% fair, 57% good, 13% excellent. Statewide average temperatures remained above average at 40.2°F, 0.7°F above normal. Statewide precipitation was 2.98 inches, above average by 0.31 inch. Temperatures in March were closer to the seasonal norms in contrast to record highs seen in February. Scattered snow storms and reoccurring freezes followed by thaws had growers concerned about the winter wheat crop, which had come out of dormancy in late February. Some growers reported that the wheat had brown tips and begun to yellow somewhat, but any permanent frost damage to the crop is unclear. Most of the wheat remains in good condition throughout the State. Pastures continued to green up and grow. Hay supplies were reported to be low in March, but most are not concerned given the rapid pasture growth. Calving season has gone well this year, due to above average temperatures. Farmers have begun to apply herbicides to weeds and cover crops in preparation for the upcoming planting season. Other activities included purchasing inputs, prepping planting equipment, cleaning ditches, tilling fields, applying nitrogen to wheat, and hauling grain to elevators.

IOWA: Dry weather for most of the month allowed farmers to work in fields and apply anhydrous and dry fertilizer. Recent rains left much of the State wet and muddy; causing field work and grain movement to slow down. However, southeastern Iowa farmers are concerned about the shortage of soil moisture for this time of year. Many producers have been preparing equipment for planting. Cover crops are green and

have been growing since February. A few producers have started seeding oats and alfalfa. Overall, calving conditions have been good, although there were a few reports of temperature fluctuations causing cattle to become sick.

KANSAS: Days suitable 5.9. Topsoil moisture 26% very short, 42% short, 31% adequate, and 1% surplus. Subsoil moisture 20% very short, 41% short, 39% adequate, and 0% surplus. Winter wheat condition 7% very poor, 18% poor, 37% fair, 36% good, 2% excellent. Winter wheat jointed 17%, 29% last year, 18% average. Corn planted 2%, 2% last year, 0% average. Stock water supplies 4% very short, 13% short, 82% adequate, and 1% surplus. Hay and roughage supplies 2% very short, 5% short, 87% adequate, 6% surplus. Cattle and calf condition, 0% very poor, 2% poor, 23% fair, 67% good, 8% excellent. Calving progress 73% complete. Cattle and calf death loss, 1% heavy, 57% average, 42% light. Sheep and lamb conditions, 0% very poor, 1% poor, 14% fair, 81% good, 4% excellent. Lambing progress 85% complete. Sheep and lamb death loss, 0% heavy, 56% average, 44% light. Temperatures averaged 9 to 10°F above normal across most of the State. Large portions of Kansas received measurable rainfall, however much of the State remained drier than normal. Spring tillage was active and planting was underway in southern counties.

KENTUCKY: For the month of March, the Commonwealth experienced mostly above normal temperatures and mixed rainfall amounts. Mid-March brought a return to unseasonably cold conditions in Kentucky. The coldest temperatures dipped into the middle teens to low 20s for much of the Bluegrass State. Freeze Warnings were issued multiple nights with winter wheat, plasticulture strawberries, peaches, and other fruit trees all in advanced growth stages for this time of year. For the week ending March 26, 2017, days suitable for field work was 4.4. Topsoil moisture 1% very short, 8% short, 76% adequate and 15% surplus. Subsoil moisture 1% very short, 11% short, 78% adequate and 11% surplus. Wheat fields continue to be monitored for damage resulting from the mid-March freeze. Some areas appear to have experienced significant damage. Producers will be deciding how to proceed moving forward with their wheat crop this year. Winter wheat condition rated 5% very poor, 17% poor, 35% fair, 36% good, and 7% excellent. A relatively mild winter has helped most producers to have adequate hay stocks on hand. Hay is still being fed where needed. Hay and roughage supplies 4% very short, 13% short, 71% adequate, and 12% surplus. At the end of February, 81% of supplies were rated as adequate to surplus, compared to 83% currently. Spring calving is going well. Livestock condition 1% very poor, 4% poor, 19% fair, 62% good, and 14% excellent. Alfalfa and peaches in some areas will be impacted by the mid-March freeze. Producers marketed their grain and tobacco crops and attended various commodity meetings across the State. Farmers were busy performing routine equipment maintenance in preparation for the upcoming planting season. Some producers have applied burndown applications in preparation for corn and soybean planting. Fertilization and spring seeding of pastures continued on many livestock operations.

LOUISIANA: For the month of March, there has been significant increase in fieldwork due to dry and hot conditions earlier in the month. Rice and corn plantings continue with good crop emergence. Some areas remain too wet to get into the fields. Soybean producers are going to begin planting

soon, as field conditions improve. Livestock producers have begun making haylage where possible, and also spraying and topping summer pastures and hay fields for new growth. The crawfish catch remains well. Sugarcane crop is growing well for this time of the season with warm conditions. Also, about 60% of fertilizer has been applied to sugarcane and it is progressing at a rapid pace. Due to the warm winter we had, ryegrass pastures are not as productive. Heavy rains have delayed planting of many vegetables. Overall, everything is progressing at a very good rate with periodic rainfall.

MARYLAND: The region experienced a category 3 on the Northeast Snowfall Impact Scale (NESIS) winter storm "Stella." The month of March as usual started a snowy, cold, dry, breezy, rainy, and foggy pattern in most parts of the region. There were 14 episodes of precipitation with maximum of 2.92 inches of snow for a single day. Maryland registered a maximum temperature reaching 80°F and minimum temperature reaching 15°F. Delaware reported a maximum temperature reaching 79°F, and minimum reaching 14°F. Due to low temperatures small grain got some winter burn. Currently small grain is in need of some soil moisture. Pastures were greening up, and cool season weeds were starting the process of growing as well. Some reporters indicated farmers showed concerns for fruit crops due to high and then low temperature, and the threat of the avian flu. Farmers were also able to do their first fertilizer application and started to plant peas and some corn. In General, fieldwork activities included top dressing small grain, planting peas, spreading manure and fertilizer, and some early disking and ground work.

MICHIGAN: Topsoil moisture 1% short, 47% adequate, 52% surplus. Subsoil moisture 2% short, 47% adequate, 51% surplus. Winter wheat condition, 2% very poor, 9% poor, 25% fair, 51% good, 13% excellent. Temperatures were cold and wet for the majority of March. Continued rainfall kept the soil moisture levels elevated, and put a slight damper on fieldwork. Nitrogen applications began where conditions permitted. Producers also began spreading lime, hauling manure, and preparing equipment for spring planting season. Despite the temperate winter season, most of the winter wheat remained in good condition.

MINNESOTA: March was a windy month, with average daily wind speeds of 12 mph and 9 days with a peak wind gust over 30 mph. Overall weather conditions for March trended towards warmer and drier than normal. The preliminary Statewide average temperature for the month was 0.9°F above average at 33.6°F. The preliminary Statewide average precipitation was 0.02 inch below normal at 0.36 inch. However, Northeast and Northwest Minnesota had slightly greater than normal precipitation. Little to no snow cover remains throughout the State. The freezing and thawing throughout the month was reported as a concern for forage crops. Reported activities include manure and fertilizer application and readying equipment. Livestock producers have continued calving and lambing activities. The mild winter was generally good for livestock, but muddy conditions existed.

MISSISSIPPI: The month of March began with consistently above normal temperatures. Winter wheat and cool season forages progressed nicely in these conditions and the mild winter made it easier than normal on livestock, with some

producers having an abundance of hay inventory. Rains would help the inter annuals that survived the fall of 2016 drought, where extremely dry conditions caused nearly a 50% drop in winter annual acreages. As the rain events continued, wet soils delayed field preparations for early planting and caused pasture grass losses due to cattle bogging. The State witnessed a late freeze in mid-March, with temperatures well below normal temps (lows in the mid 20's) which greatly affected fruit orchards. Field conditions improved allowing producers to plant some corn, but many areas were still too wet after thunderstorms swept across the State. Conditions would improve toward the end of the month and producers took full advantage of such, planting most of intended corn acres in counties across the State.

MISSOURI: Topsoil moisture 10% very short, 33% short, 51% adequate, 6% surplus. Subsoil moisture 12% very short, 41% short, 44% adequate, 3% surplus. Hay and roughage supplies 3% short, 81% adequate, 16% surplus. Stock water supplies 2% very short, 29% short, 69% adequate. Winter Wheat condition 3% poor, 37% fair, 53% good, 7% excellent.

MONTANA: Topsoil moisture 1% very short, 25% last year; 6% short, 28% last year; 82% adequate, 47% last year; 11% surplus, 0% last year. Subsoil moisture 4% very short, 23% last year; 9% short, 41% last year; 78% adequate, 36% last year; 9% surplus, 0% last year. Winter wheat – wind damage 71% none, 77% last year; 22% light, 14% last year; 6% moderate, 8% last year; 1% heavy, 1% last year. Winter wheat – freeze and drought damage 65% none, 75% last year; 23% light, 16% last year; 9% moderate, 8% last year; 3% heavy, 1% last year. Winter wheat – protectiveness of snow cover 42% very poor, 52% last year; 15% poor, 20% last year; 30% fair, 16% last year; 12% good, 4% last year; 1% excellent, 8% last year. Livestock grazing accessibility – 77% open, 72% last year; 17% difficult, 9% last year; 6% closed, 19% last year. Livestock receiving supplemental feed – cattle and calves 91% fed, 96% last year. Livestock birthing – calving complete 13%, 13% last year. Livestock receiving supplemental feed – sheep and lambs 92% fed, 95% last year. Livestock birthing – lambing complete 9%, 11% last year. The month of March saw a return to milder, spring-like conditions with a few short lived cold spells. Precipitation was present across the State but in variable amounts, with the highest recorded this month in Heron with 5.21 inches of moisture. Other reporting stations recorded between 0.03 to 3.97 inches of moisture. Topsoil moisture conditions were 93 percent adequate to surplus which is above of last year's 47 percent. Subsoil moisture conditions are 87 percent adequate to surplus, well above last year's 36 percent. Winter wheat began breaking dormancy as temperatures warmed and snow cover dissipated. The State's snow coverage fell due to warm weather and high winds and is 13 percent good to excellent which is still above the coverage at this time last year when snow coverage was 12 percent good to excellent. Winter wheat condition is rated 62 percent good to excellent, compared with 49 percent last year. Livestock grazing is 94 percent open to difficult compared to 81 percent at the same time last year. Livestock producers are providing supplemental feed as they wait for pastures to start greening with 91 percent of cattle and 92 percent of sheep being fed. Livestock birthing continues with 13 percent of calving and 9 percent of lambing complete so far.

NEBRASKA: Topsoil moisture 10% very short, 28% short, 59% adequate, and 3% surplus. Subsoil moisture 12% very

short, 30% short, 57% adequate, and 1% surplus. Winter wheat condition 2% very poor, 10% poor, 49% fair, 35% good, 4% excellent. Stock water supplies 1% very short, 5% short, 93% adequate, and 1% surplus. Hay and roughage supplies 0% very short, 4% short, 91% adequate, 5% surplus. Cattle and calf condition, 0% very poor, 1% poor, 19% fair, 69% good, 11% excellent. Calving progress 55% complete. Cattle and calf death loss, 1% heavy, 66% average, 33% light. Sheep and lamb conditions, 0% very poor, 1% poor, 24% fair, 69% good, 6% excellent. Sheep and lamb death loss, 1% heavy, 78% average, 21% light. Temperatures averaged 2°F above normal across Nebraska, according to the USDA's National Agricultural Statistics Service. Snow fell at mid-month across many central counties. Rainfall occurred later in the month, but was limited to an inch or more over parts of southwest, central, and northeastern Nebraska. Statewide, soil moisture supplies declined during the month. Spring calving and lambing have gone well. Fieldwork preparation for spring planting was active in many counties.

NEVADA: The month of March started with below average temperatures. Then mid-month temperatures improved, though at the end of the month another cool front brought below normal temperatures. Soil conditions remained wet and saturated with reports of some areas of the State still flooded. Frequent rain showers slowed a lot of field work with spring grains. Forage grasses had good early spring growth and cheat grass added several inches growth. In some areas throughout the State, livestock continued to be fed, whereas some cattle were slowly being moved to spring range.

NEW ENGLAND: Throughout the month of March, New England weather alternated between snow storms and spring-like conditions throughout the region. Winter markets were still going strong, especially those with a variety of vegetables on hand. Farmers attended meetings, made marketing arrangements, and were planning for the upcoming 2017 growing season. The maple season has been highly variable throughout the region due to changing temperatures. Some tree fruit growers were also concerned about low temperatures in early March, but no significant damage has been reported. Fruit growers were finishing pruning activities. Vegetable growers were direct seeding crops in tunnels such as spinach, lettuce, cilantro, mustards and arugula. Greenhouse growers were preparing for Easter and Mother's Day, spending extra money on heat to keep the seeding houses up to temperature with these cold nights.

NEW JERSEY: Some south Jersey lettuce lost. Warm early weather encouraged planting followed by a cold spell. Fruit growers continued on edge with early progression due to early warm weather. The early progress in fruit trees makes them vulnerable to future cold. In high tunnels strawberries survived cold nights and were red but not ready. Nurseries had an intense March and were thankful for cold protecting tools. Bees likewise have to re cluster in cold weather after being active in warm. Further north in Warren (6 to 7 inches) and Hunterdon counties there was still plenty of snow covered fields with 10 days left in March. Although we still have some crop grounds covered with remaining snow, some crop ground is being fertilized depending on situation. It's cold and rainy. Soil temperature 45-49 F. Too cold for even peas/potatoes.

NEW MEXICO: Topsoil moisture 14% very short, 62% short, 23% adequate, 1% surplus. Subsoil moisture 9% very short, 54% short, 36% adequate, 1% surplus. Chile planted 22%, 24% last year. Onions planted 33%, 54% last year; emerged 30%. Alfalfa hay condition 7% poor, 66% fair, 27% good. Winter wheat condition 3% very poor, 43% poor, 45% fair, 6% good, 3% excellent. Cows calved 15%, 10% February 26, 20% last year. Cattle receiving supplemental feed 78%, 82% February 26, 81% last year. Cattle condition 2% poor, 40% fair, 54% good, 4% excellent. Ewes lambing 15%, 10% February 26, 18% last year. Sheep receiving supplemental feed 72%, 75% February 26, 42% last year. Sheep and lamb condition 2% very poor, 13% poor, 35% fair, 49% good, 1% excellent. Hay and roughage supplies 2% very short, 13% short, 78% adequate, 7% surplus. Stock water supplies 15% very short, 24% short, 57% adequate, 4% surplus. Above average temperatures coupled with below average precipitation plagued most areas across the State as producers began planting or preparing to plant their 2017 crops. Specifically, average temperatures varied from 0 to 13°F above normal, while monthly moisture deficits were recorded at all reporting weather stations except Capulin and Eagle Nest, where the departures from normal totaled 0.20 and 0.01 inch, respectively. Daytime highs ranged from 63°F at Eagle Nest to 94°F at Carlsbad. Overnight lows varied from -11°F at Eagle Nest to 36°F at NMSU and Santa Teresa. The northwest received the most widespread moisture during the month; however, total accumulations were less than an inch in these locations. Capulin and Eagle Nest in the northeastern portion of the State were the only two stations to record at least an inch of precipitation with 1.14 and 1.04 inches, respectively. In the northeast, growing conditions were deteriorating quickly under hot, dry, and windy weather. Reports from Union County indicated that winter wheat in the area had declined to the point where some producers were considering a replacement crop depending on spring conditions. Reports from NMSU indicated that alfalfa weevil presence will require greater field management in 2017 than in recent years, with larvae having been noted in some fields for approximately 3 weeks. Chile and onion planting was well underway despite dry soil conditions; however, progress was behind last year.

NEW YORK: The month of March was marked by a wide range of weather events for the Empire State. Several days of unusually high temperature was reported early in the month followed by a large snowfall mid-month which still covers fields in many regions of the State. After several months of drought Livingston County is no longer listed on the U.S Drought Monitor Index. Following the fluctuating temperature fruit growers are concerned that the cold weather may result in damaged buds and loss of production. Grape producers are finishing up with pruning and are now tying canes to the trellis. Field work is expected to begin soon and will depend on field wetness. Field activities for the month include tending livestock, trees, and vines, fixing and maintaining machinery and structures, and manure and fertilizer application.

NORTH CAROLINA: Days suitable for field work 6.0. Topsoil moisture 4% very short, 30% short, 65% adequate and 1% surplus. Subsoil moisture 6% very short, 27% short, 66% adequate and 1% surplus. Barley condition 1% very poor, 6% poor, 51% fair, 37% good and 5% excellent. Oats condition 1% very poor, 4% poor, 33% fair, 60% good and

2% excellent. Winter wheat condition 0% very poor, 9% poor, 26% fair, 60% good and 5% excellent. Pasture and range condition 2% very poor, 16% poor, 43% fair, 38% good and 1% excellent. Hay and roughage supplies 9% very short, 20% short, 68% adequate and 3% surplus. March has been relatively mild with overall temperatures above normal; however, there was a cold snap mid-month that brought a small amount of snow and temperatures into the teens. Pastures are greening up rapidly with the warmer conditions and spring fertilization. Field preparations for this year's crops is well underway. Hard Freeze on wheat the last two weeks caused very little damage. Field work is progressing. Diseases are showing up due to high humidity and low ventilation. February 24- March 23 time period, the highest temperature was 80°F and lowest was 19°F. Nearly 2 inches of snow fell during this time period.

NORTH DAKOTA: Topsoil moisture 1% very short, 4% short, 68% adequate, 27% surplus. Subsoil moisture 1% very short, 5% short, 76% adequate, 18% surplus. Winter wheat condition, 3% very poor, 2% poor, 16% fair, 75% good, 4% excellent. Cattle and calves condition, 0% very poor, 2% poor, 18% fair, 75% good, 5% excellent. Cattle and calves death loss, 1% heavy, 66% average, 33% light. Calving progress, 31% complete. Sheep and lambs condition, 1% very poor, 3% poor, 23% fair, 69% good, 4% excellent. Sheep and lambs death loss, 4% heavy, 60% average, 36% light. Lambing progress, 52% complete. Hay and roughage supplies, 3% very short, 15% short, 80% adequate, 2% surplus. Stock water supplies, 0% very short, 5% short, 87% adequate, 8% surplus. Calving and ewes lambing are in full swing. The northern half of North Dakota averaged 6°F below normal, where the rest of the State averaged 6°F above normal.

OHIO: Topsoil moisture, 1% very short, 3% short, 67% adequate, and 29% surplus. Subsoil moisture, 1% very short, 4% short, 84% adequate, 11% surplus. Winter wheat condition rated 2% poor, 19% fair, 64% good, and 15% excellent. In contrast to the unusually warm February temperatures, March has been a cool and wet month. The March 2017 Statewide average temperature through Sunday the 26th was 37.6°F, .8°F below normal. Precipitation averaged 3.24 inches Statewide for the same period, which was 0.77 inch above normal for the month. Above average precipitation and moisture conditions limited field work opportunities. There were some reports of freeze damage to winter wheat, but overall the winter wheat condition remains good. Severe windstorms reported at the start of the month caused some damage to fruit trees, nursery crops, and ornamentals. Observers noted that the cold temperatures in the second part of the month could also potentially affect fruit crops.

OKLAHOMA: For Oklahoma, a warm, dry February stretched into March. Although a chilly rain dropped temperatures to the low 20's in the middle of the month, temperatures rebounded and averaged high 60's. A couple of spring storms brought some rainfall in March, but drought conditions continued to advance across the State. According to the OCS Mesonet, the biggest drought increase came across Eastern and North West Oklahoma. Precipitation ranged from 0.08 of an inch in the Southwest district to 2.89 inches in the Southeast district. Statewide temperatures averaged in the high 60's, with the lowest recording of 14°F at Kenton on Tuesday, March 7th and the

highest recording of 98°F at Butler on Monday, March 20th. Topsoil and subsoil moisture conditions were rated mostly short to adequate. There was an average of 6.3 suitable days for fieldwork throughout the month.

OREGON: The Statewide temperature differential for the month of March ranged from 1 degree below normal to 8°F above normal. A low temperature was reported at 11°F Fahrenheit in the south central region. A high temperature was reported at 74°F Fahrenheit in the northern coastal region. Statewide, Oregon continued to experience above average precipitation as the State transitioned from a cooler and wetter winter to spring. Several parts of Oregon received record amounts of precipitation this past winter. The days suitable for fieldwork have consistently stayed below 3 days or less per week for the majority of March. While pastures experienced some growth from extended day length and rising temperatures, spring crops and plantings were also delayed for many growers due to wet conditions. In the northern region, fruit trees bloomed and livestock was fed hay to avoid pasture damage. In the northeast region, spring wheat was planted. Winter wheat also looked good and was aided by the early spring moisture. In the southwest region, Coos and Curry counties started the spring season with over 100 inches of cumulative precipitation (46 inches above the 5-year average). Orchards, vineyards and berry crop fields were still too wet for spraying. Growers finished late with pruning. There is some potential for insect and disease pressure as the season progresses. In the southwest region, growers and livestock producers experienced rain and snow as March came to an end. Pastures greened up in some areas. The colder and snowy winter moved a lot of feeder hay in this region. Some parts of Cook, Deschutes and Jefferson counties are weeks behind in growing degree days compared to last year.

PENNSYLVANIA: March's weather in Pennsylvania was a little colder than the previous month, lower temperatures brought snow in some areas, in other areas lots of snow. Overall, temperatures ranged from a high of 71o(F) to a low of 12o(F). Below normal temperatures have caused some concerns with productions, since the cold weather earlier this month may have affected the fruit trees. Pruning progress is ahead of normal. Small grains and hay fields were greening up, but the cold weather in early march has set them back. Producers are busy in the fields, hauling manure liming and some fertilizer spreading. Temperature fluctuation this time of the year can be a concern for Fruit Growers.

SOUTH CAROLINA: A warm and dry month for the State as the U.S. Drought Monitor estimates the State at 11 percent drought free compared to 55 percent on February 28, 2017. The northwestern corner of the State remains to be under the most serious drought conditions. Comments describe fieldwork preparation ongoing during the month of March. Producers held off planting in early March in anticipation of the realized frosts with most producers beginning to plant corn during the last week of the month. Some frost damage was reported to more advanced winter wheat fields. Several nights and mornings well below freezing caused heavy damage to the State's peach, blueberry, and strawberry crops as many were in bloom or in early fruit stages. Average maximum temperatures ranged from the low 70s in eastern South Carolina to the mid 60s in the west. Average minimum temperatures ranged from the mid 40s in the east to mid-30s in west. Precipitation estimates for the month

range from 6.15 inches near Greenville to 0.77 inches in Walterboro.

SOUTH DAKOTA: Topsoil moisture 1% very short, 11% short, 85% adequate, 3% surplus. Subsoil moisture 2% very short, 17% short, 79% adequate, 2% surplus. Winter wheat condition 0% very poor, 3% poor, 41% fair, 56% good, and 0% excellent. Stock water supplies 1% very short, 12% short, 85% adequate, 2% surplus. Hay and roughage supplies 4% very poor, 17% poor, 76% adequate, and 3% excellent. Cattle and calf conditions 0% very poor, 1% poor, 15% fair, 79% good, and 5% excellent. Calving Progress 32% complete. Cattle and calf death loss 0% heavy, 72% average, 28% light. Sheep and lamb condition 0% very poor, 3% poor, 20% fair, 75% good, and 2% excellent. Lambing progress 65% complete. Sheep and lamb death loss 0% heavy, 70% average, 30% light. For the month of March 2017, despite periods of snow and cold, reporters indicated generally favorable conditions for calving and lambing in the State. A mid-month winter storm brought 4 to 10 inches of snow to many eastern locations. However, temperatures for most areas were average to above average for the month. Spring fertilizer application began in drier areas of central and western South Dakota.

TENNESSEE: Days suitable 3.9. Topsoil moisture 2% short, 81% adequate, 17% surplus. Subsoil moisture 2% very short, 7% short, 81% adequate, 10% surplus. Winter wheat condition 6% very poor, 13% poor, 35% fair, 42% good, 4% excellent. Peaches all freeze damage 38% severe, moderate 28%, light 17%, none 17%. Strawberries freeze damage 22% severe, 40% moderate, 28% light, 10% none. Pasture and Range condition 4% very poor, 24% poor, 43% fair, 26% good, 3% excellent. Cattle condition 2% very poor, 6% poor, 33% fair, 52% good, 7% excellent. Hay supplies 12% very short, 32% short, 52% adequate, 4% surplus.

TEXAS: Warm and windy conditions were experienced in most areas of the State. Strong winds caused damage to some crops in the Trans Pecos. Precipitation across the east and south of the State was between 2 and 4 inches, with some areas recording upwards 5 inches of rain. In the Plains rainfall was less than 2 inches. Wheat entered the heading stage in the lower parts of the State. Days suitable for field work remained almost unchanged throughout the month.

UTAH: Topsoil moisture 0% very short, 0% last year; 3% short, 24% last year; 59% adequate, 68% last year; 38% surplus, 8% last year. Subsoil moisture 0% very short, 6% last year; 2% short, 23% last year; 76% adequate, 67% last year; 22% surplus, 4% last year. Pasture and range condition 0% very poor, 0% last year; 4% poor, 4% last year; 38% fair, 41% last year; 53% good, 48% last year; 5% excellent, 7% last year. Barley planted 1%, 5% last year. Spring wheat planted 3%, 10% last year. Winter wheat condition 7% very poor, 0% last year; 18% poor, 0% last year; 19% fair, 38% last year; 56% good, 51% last year; 0% excellent, 2% last year. Hay and roughage supplies 0% very short, 0% last year; 6% short, 1% last year; 81% adequate, 80% last year; 13% surplus year, 19% last year. Stock water supplies 0% very short, 0% last year; 4% short, 8% last year; 84% adequate, 90% last year; 12% surplus, 11% last year. Cattle and calves condition 0% very poor, 0% last year; 2% poor, 1% last year; 29% fair, 14% last year; 66% good, 67% last year; 3% excellent, 18% last year. Sheep and lambs condition 0% very poor, 0% last year; 3% poor, 0% last year; 28% fair, 39% last year; 69%

good, 45% last year; 0% excellent, 16% last year. Livestock receiving supplemental feed for cattle 68%, 68% last year. Livestock receiving supplemental feed for sheep 79%, 58% last year. Cows calved 28%, 25% last year. Farm Flock Ewes Lambed 25%, 20% last year, and Range Flock Ewes Lambed 3%, 5% last year. Warm temperatures combined with precipitation have caused rapid snowpack melt, leading to very muddy conditions causing issues for both winter wheat and cattle according to the Mountain Regional Field Office of the National Agricultural Statistics Service, USDA. Box Elder County reported rapid snowmelt due to precipitation and temperatures, leading to standing water in the alfalfa and winter wheat fields. Cache County reports standing water everywhere and there are concerns that winter wheat may need to be replanted. The persistent wet, muddy conditions have also been an issue for calving as death loss is higher than normal. Beaver County reports farmer planting crops along with beginning irrigation.

VIRGINIA: Barley conditions were 5% poor, 27% fair, 62% good, and 6% excellent. Oats conditions were 15% poor, 41% fair, and 43% good, and 1% excellent. Winter wheat conditions were 5% poor, 20% fair, 63% good, and 12% excellent. Livestock conditions were 1% very poor, 5% poor, 32% fair, 58% good, and 4% excellent. Pasture and range conditions were 9% very poor, 25% poor, 29% fair, 33% good, and 4% excellent. Percent of feed obtained from pastures 12%. March has been unusually warm but also included some very cold temperatures that brought with them freezes. These freezes have hurt vineyards and fruit producers. The warm-up that has since followed, plus the lack of rain and snow in the past have hindered spring planting. This also has affected pastures which are currently dealing with overgrazing as they are desirous of rain. Farming activities for the month included lime, fertilizer, manure, and burn down herbicide applications.

WASHINGTON: March brought excessive rainfall for the entire State. Many regions reported wet fields with standing water, while a few others reported some snow remained with spring arriving late. Temperatures dropped to as low as 12°F Fahrenheit in the east central region while the highest temperature was reported at 71°F in the southeast region. Days of freezing temperatures have dropped significantly, with under half of the days below freezing for the central and eastern regions while the western region had barely any. The highest reported precipitation was in the western region at 14 inches, while the lowest reported precipitation was in the central region at 0.87 inch. For most of the State, the fields were exceedingly wet with standing water preventing field work. Other regions experienced floods. Average temperatures were cooler than prior years. Orchards and berry vines on the other hand had some budding progress through the cold and wet weather. Snow mold concerns have increased in some areas. Some calves were born weak and were lost due to the freezing cold conditions while other ranchers were still using winter feed, exceeding prior year's usage. Only a select few managed to till and seed a small portion of the land. Overall crop planting was delayed significantly due to the prolonged wet winter conditions.

WEST VIRGINIA: Days suitable for fieldwork 4.3. Topsoil moisture was 3% very short, 18% short, 77% adequate, and 2% surplus. Subsoil moisture was 2% very short, 22% short, and 76% adequate. Hay and roughage supplies were 1% very short, 13% short, 79% adequate, and 7% surplus. Feed grain supplies were 9% short, 88% adequate, and 3% surplus.

Winter wheat conditions were 9% poor, 52% fair, 32% good, and 7% excellent. Cattle and calves were 4% poor, 19% fair, 72% good, and 5% excellent. Calving was 59% complete, 59% in 2016, 5-year avg. not available. Sheep and lambs were 3% poor, 13% fair, 79% good, and 5% excellent. Lambing was 64% complete, 69% in 2016, 5-year avg. not available. Weather this month has been on the warmer side with a mix of wintery weather in the middle of the month. Periods of below freezing temperatures mid-month have damaged some of the peach buds and possibly a few apples. Farming activities for the month included calving and lambing. There have been some reports of scours and respiratory problems in calves.

WISCONSIN: March temperatures at the five major weather stations ranged from 1.5°F below normal to 1.3°F above normal. Average highs ranged from 37.7°F in Eau Claire to 42.5°F in La Crosse, while average lows ranged from 19.9 to 25.5°F. in those same cities. Precipitation ranged from 1.07 inches in Eau Claire to 2.50 inches in Milwaukee. Milwaukee received the most snowfall of the major cities with 13.6 inches. Eau Claire received the least, with 4.8 inches of snow for the month. Temperatures and precipitation were both near normal. Reporters across the State expressed concern about low sugar content from maple trees this season. Some oat and alfalfa planting reports were received from the southern part of the State.

WYOMING: Topsoil moisture 12% very short, 29% short, 46% adequate, 13% surplus. Subsoil moisture 18% very short, 25% short, 45% adequate, 12% surplus. Barley planted 5% complete, 34% last year. Cows calved 18%, 21% last year. Winter wheat condition 11% very poor, 23% poor, 42% fair, 20% good, 4% excellent. Ewes lambled 16%, 19% last year. Sheep shorn 20%, 15% last year. Cattle and calves death loss 34% light, 62% average, 4% heavy. Sheep and lambs death loss 34% light, 50% average, 16% heavy. Livestock condition 1% very poor, 3% poor, 28% fair, 65% good, 2% excellent. Pasture and range condition 8% very poor, 26% poor, 32% fair, 33% good, 1% excellent. Hay and roughage supplies 11% very short, 27% short, 61% adequate, 1% surplus. Stock water supplies 8% very short, 12% short, 66% adequate, 14% surplus. Wet weather during March delayed the start of spring planting, and has caused poor calving and lambing conditions for livestock producers in some areas. Cattle and calves and sheep and lambs death loss showed an uptick when compared with estimates from a year ago. Warm temperatures melting a heavy snowpack led to flooding in certain locations, while other areas were in need of additional moisture to support the recent green up of native pastures and winter wheat. All reporting weather stations recorded some moisture during the month, with total accumulations varying from 0.03 inch at Powell to 2.65 inches at Lake Yellowstone. Twelve of the 34 stations reported over an inch of precipitation; however, year-to-date deficits currently exist at 14 stations. Average temperatures varied from 5°F below to 6°F above average. Daytime highs ranged from 47°F at Lake Yellowstone to 70°F at LaGrange, Torrington, and Wheatland. Overnight lows varied from -17°F at Powell to 14°F at Evanston. Barley seeding was underway, but well behind progress from a year ago. While estimates show hay and roughage supplies to be 62 percent adequate to surplus Statewide, comments from Unita County indicated that many livestock producers have fed substantially more feedstuffs over the winter, and their supplies were quickly dwindling and not easily replaced due to a short supply.

International Weather and Crop Summary

March 19-25, 2017

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

HIGHLIGHTS

EUROPE: Early-week showers in the east and late-week rain in the west maintained or improved moisture supplies for vegetative winter grains and oilseeds.

WESTERN FSU: Warm weather maintained a faster-than-normal winter wheat development pace, while well-placed showers in Russia contrasted with developing dryness concerns in central Ukraine.

MIDDLE EAST: Sunny skies promoted winter wheat development in Turkey, while locally heavy rain boosted moisture supplies for winter grains in Iraq and Iran.

NORTHWESTERN AFRICA: Timely showers maintained favorable prospects for reproductive winter wheat in Morocco, while much-needed rain improved soil moisture over all but northeastern portions of Algeria.

EASTERN ASIA: Showers across southeastern China benefited vegetative rice and reproductive rapeseed, while more rainfall would be welcome for wheat nearing reproduction farther north.

SOUTHEAST ASIA: Showers prevailed across the region, benefiting spring-sown rice and other seasonal crops.

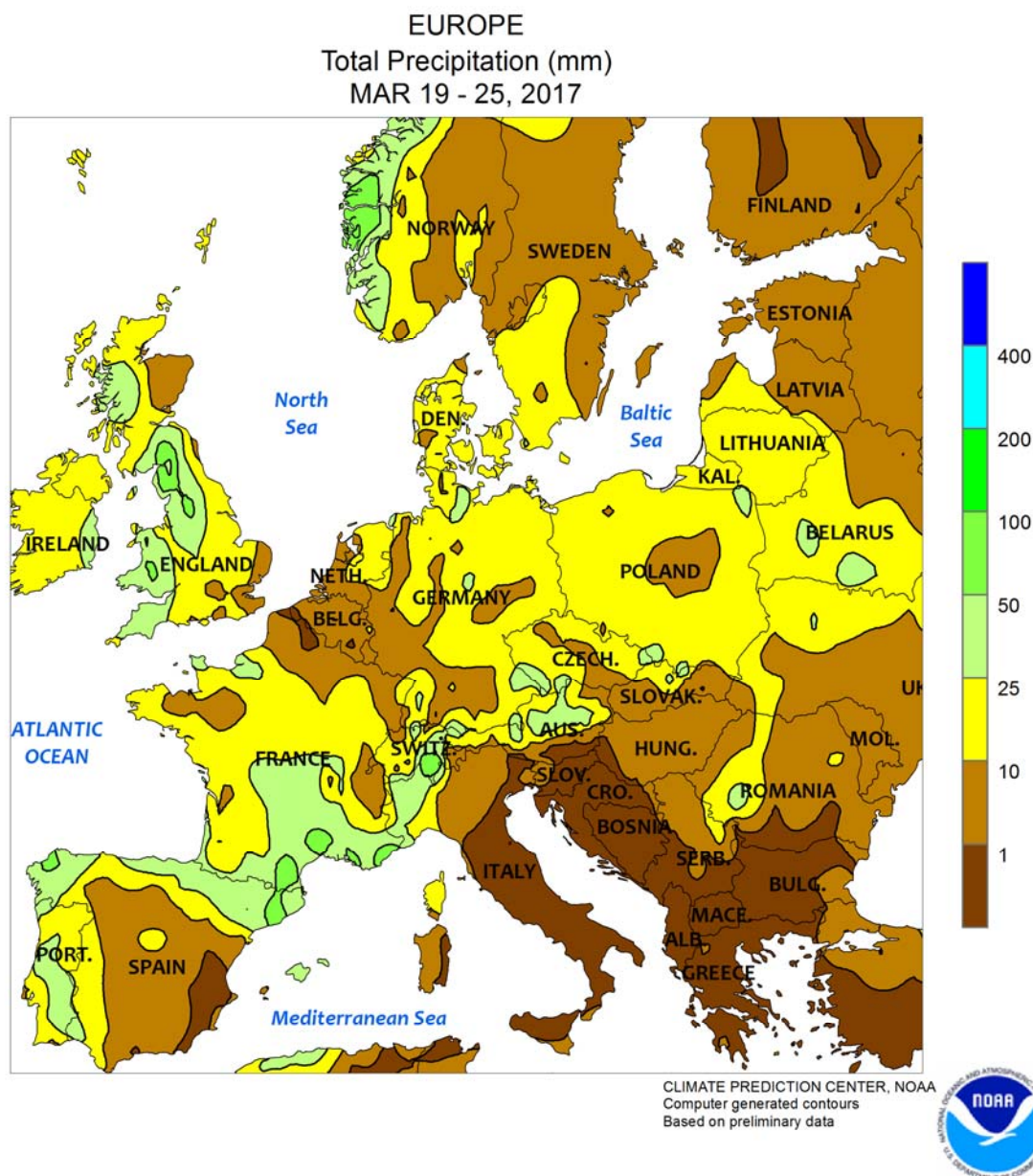
AUSTRALIA: Widespread showers hampered fieldwork throughout much of eastern Australia, but a pocket of dry weather favored local summer crop maturation and harvesting.

SOUTH AFRICA: Warm, mostly dry weather fostered rapid development of filling to maturing corn.

ARGENTINA: Warm, sunny weather hastened summer crop development in key grain and oilseed areas of central Argentina.

BRAZIL: Widespread showers maintained favorable conditions for corn and cotton in central and northeastern Brazil.



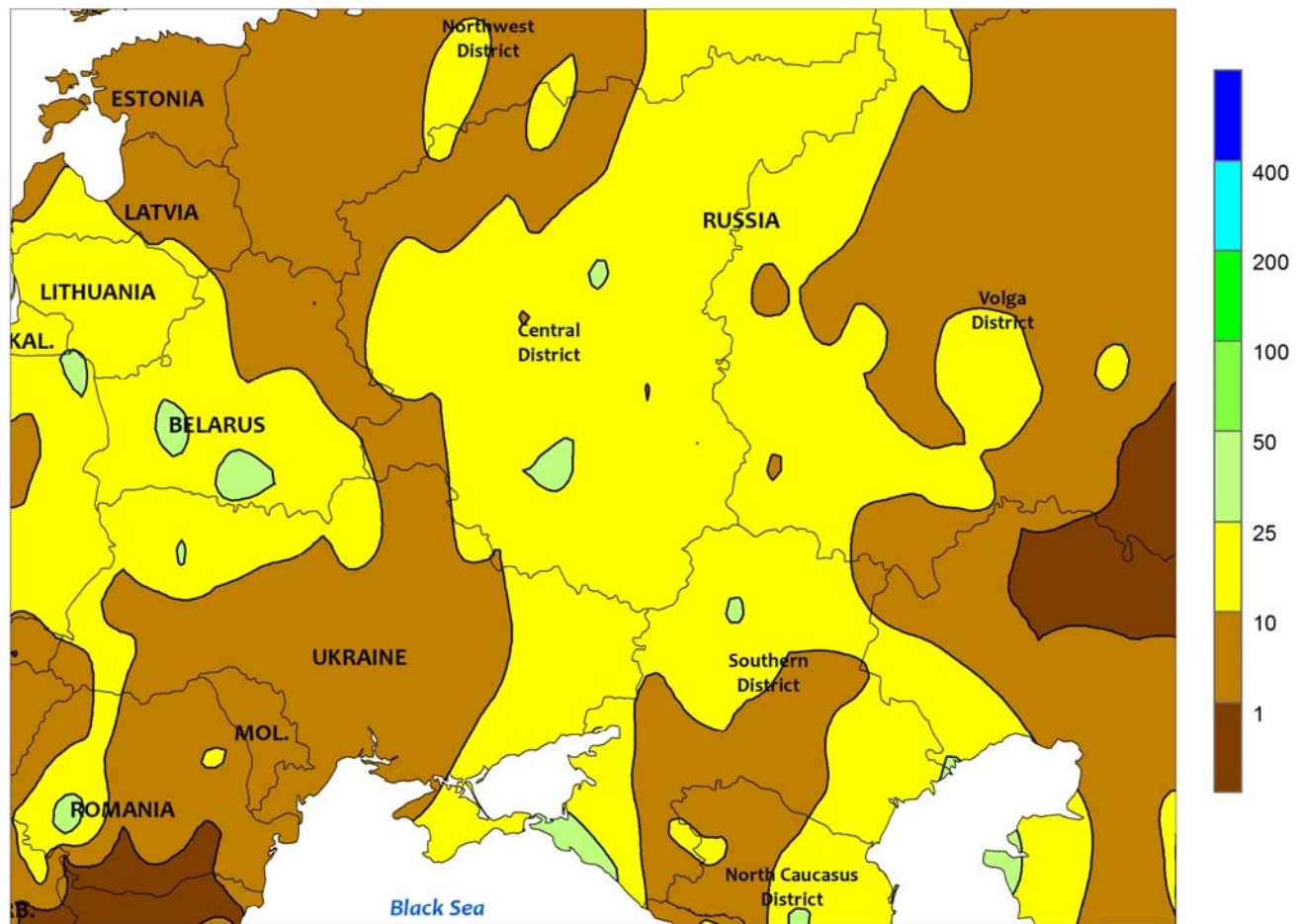


EUROPE

Periods of rain maintained or improved prospects for winter grains and oilseeds over much of the continent. Across central and eastern Europe, a series of fast-moving disturbances produced widespread showers (5-30 mm) in Germany, Poland, and the northern Balkans. Consequently, moisture reserves remained adequate to abundant for vegetative winter wheat and rapeseed following near- to above-normal precipitation over the past 60 days. Despite the occasionally wet weather, temperatures 3 to 5°C above normal (up to 8°C above normal in southeastern Europe) continued to promote faster-than-normal crop development. Farther west, late-week rain

improved prospects for reproductive winter grains in Spain (5-20 mm) and boosted moisture supplies for vegetative wheat and rapeseed in France (10-40 mm, locally more). The western storminess was accompanied by cooler weather (nighttime readings near or below 0°C), with wet snow reported in parts of Spain. However, the cold did not have any impact on wheat, barley, or rapeseed. Unsettled weather (5-25 mm) was also observed in southeastern England, sustaining favorable soil moisture for winter crops. Dry conditions prevailed over the Mediterranean Coastal areas, promoting citrus harvesting and other seasonal fieldwork.

WESTERN FSU
Total Precipitation (mm)
MAR 19 - 25, 2017



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

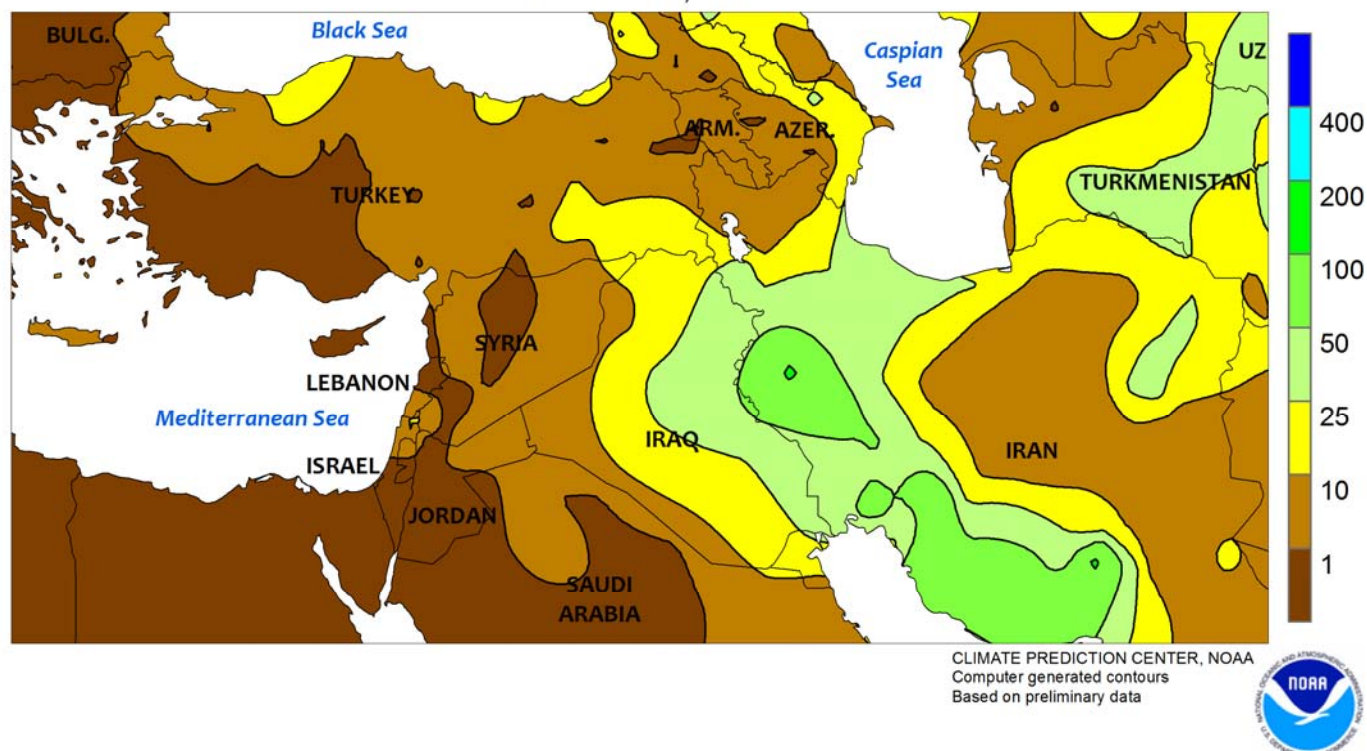


WESTERN FSU

Unseasonable warmth lingered over much of the region, with well-placed showers maintaining good to excellent early-season prospects for winter wheat in Russia. This week's temperatures averaged 4 to 7°C above normal, continuing a warm trend which began in mid-February; consequently, winter wheat — which broke dormancy up to a month ahead of normal — continued to develop at an accelerated pace. Precipitation during the period totaled 10

to 30 mm over western Russia, boosting moisture supplies for key wheat-producing areas in southern portions of the Southern District (Krasnodar Krai). In Ukraine, similar rainfall totals maintained good soil moisture for winter wheat in eastern portions of the country, while light rain (5 mm or less) did little to ease concerns over short-term dryness (25-50 percent of normal over the past 60 days) in central and southern wheat areas.

MIDDLE EAST
Total Precipitation (mm)
MAR 19 - 25, 2017

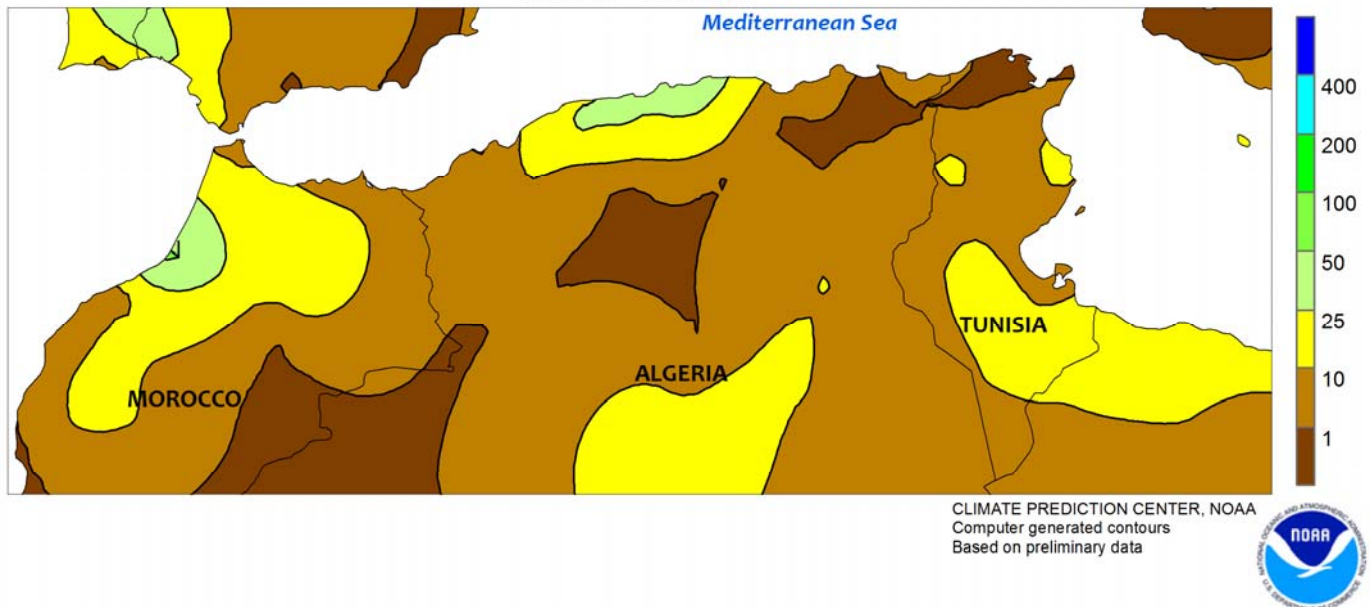


MIDDLE EAST

Widespread soaking rainfall in eastern growing areas contrasted with mostly dry albeit cooler weather farther west. In Turkey and Syria, sunny skies promoted the development of vegetative wheat and barley, following beneficial rain during the first half of March. Cooler weather prevailed for much of the period in Turkey, though above-normal temperatures returned by week's end. Meanwhile, a pair of moisture-laden storm systems

produced soaking rainfall over Iraq (12-65 mm) and western Iran (25-100 mm, locally more). As a result, moisture reserves remained adequate to abundant for vegetative winter grains, though there was likely some flooding and ponding in low-lying fields. Showers were lighter (5-15 mm) in northern Iran, though here, too, conditions for vegetative wheat and barley were overall favorable.

NORTHWESTERN AFRICA
Total Precipitation (mm)
MAR 19 - 25, 2017

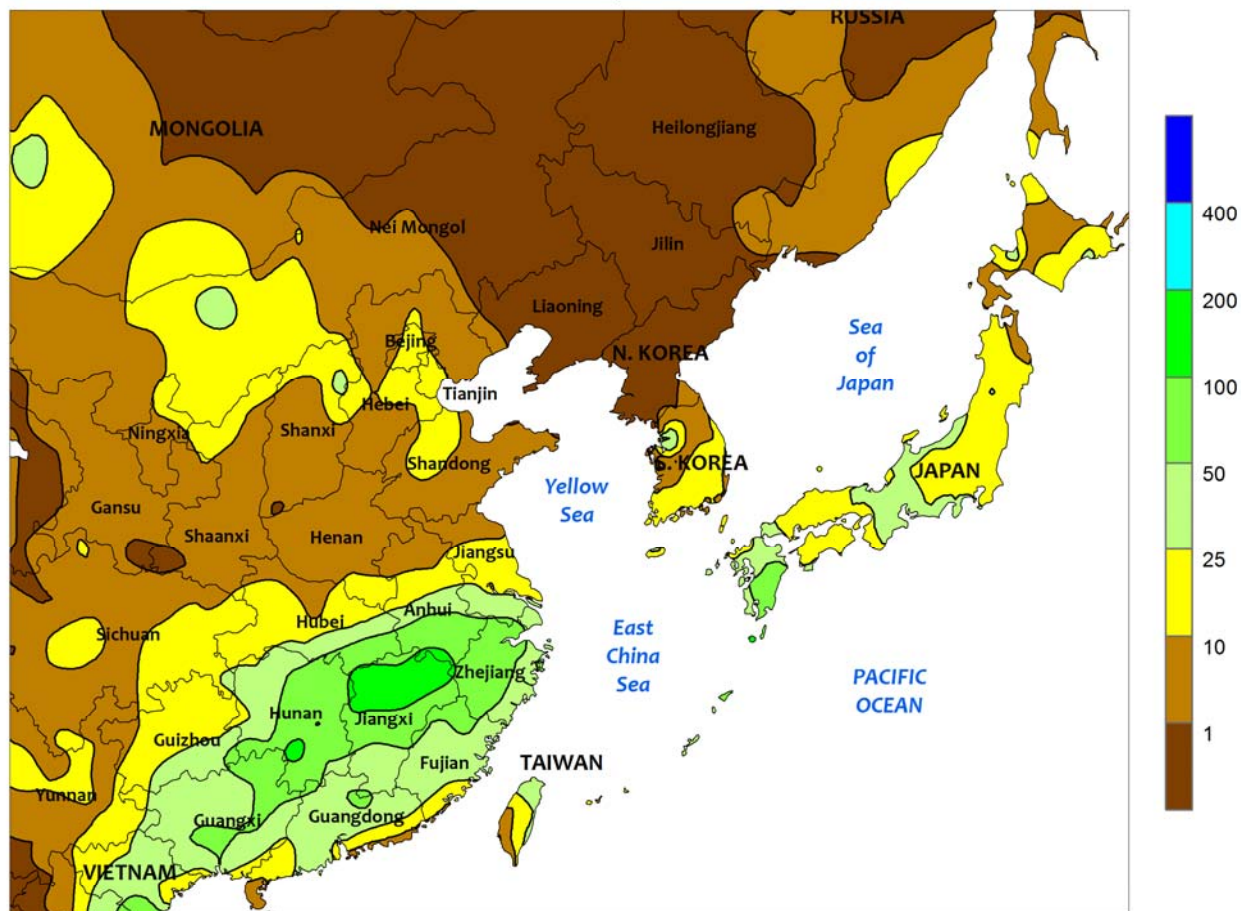


NORTHWESTERN AFRICA

Timely showers across much of the region maintained good to excellent prospects for winter grains, though dryness lingered in northeastern Algeria. A storm system off the Atlantic Coast brought cool, showery weather (5-20 mm, locally more near the coast) to Morocco, providing timely moisture for reproductive wheat. With the clouds and showers, temperatures averaged up to 2°C below normal, further benefiting wheat as it progressed through the temperature- and moisture-sensitive flowering stage of development. Highly variable showers (2-50 mm) were also

reported in western and central Algeria, benefiting winter grains that were approaching reproduction. However, northeastern Algeria remained dry, with 60-day rainfall now running less than half of normal. Consequently, wheat and barley prospects in this corner of the country are notably worse than crop areas farther west. In Tunisia, rain passed well south of the primary growing areas, though crop prospects remained favorable due to near- to above-normal rainfall for the growing season to date (since October 1).

EASTERN ASIA
Total Precipitation (mm)
MAR 19 - 25, 2017



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

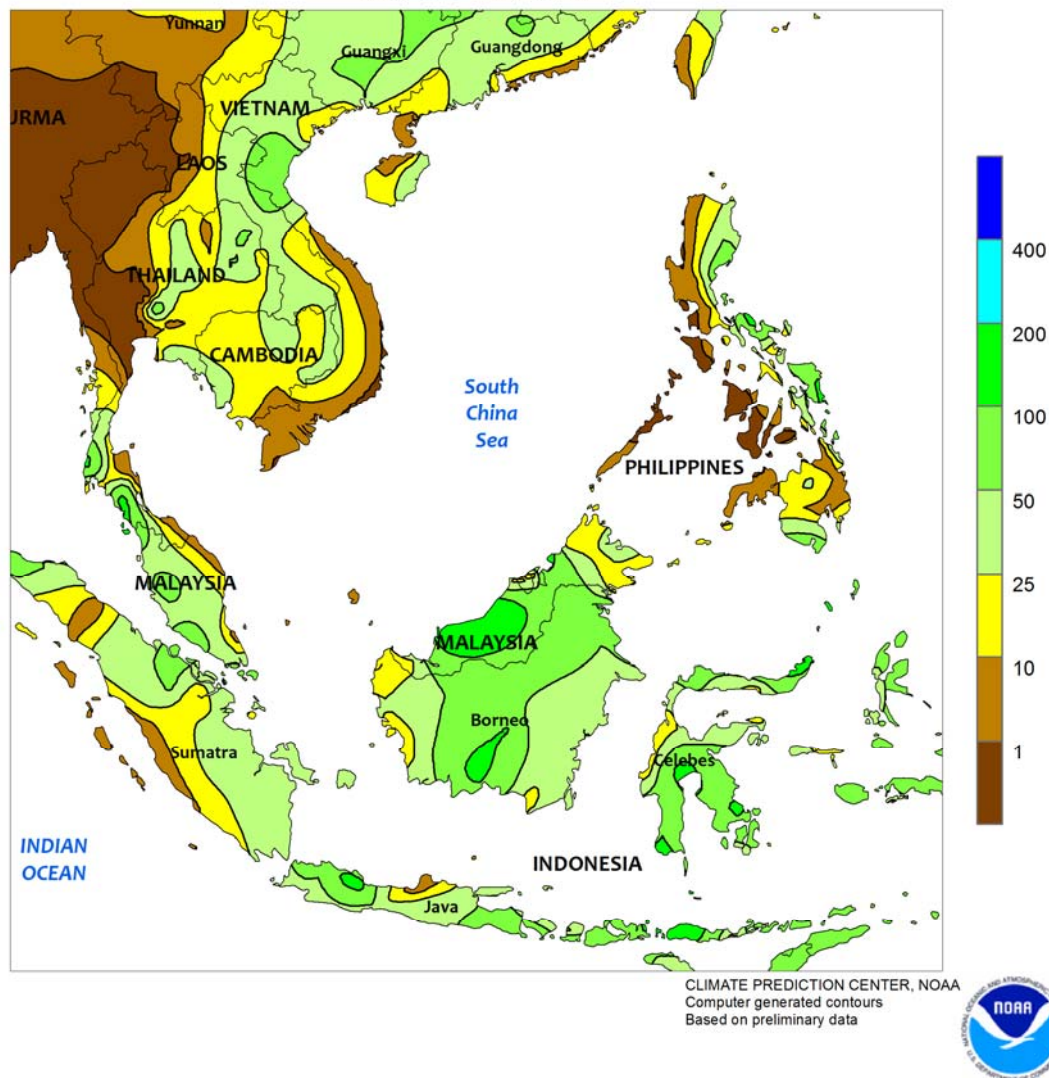


EASTERN ASIA

Rainfall prevailed across much of eastern China, with the highest totals in the south. Brief showers in the eastern Yellow River Basin (Henan, Hebei, and Shandong) produced 1 to 10 mm, maintaining good topsoil moisture for wheat nearing reproduction. More rain would be welcome to increase moisture throughout the soil profile and decrease supplemental irrigation. In the Yangtze Valley (from Sichuan to Jiangsu),

showers (10-25 mm) kept reproductive rapeseed well watered. Meanwhile, higher rainfall totals (25-100 mm, locally over 100 mm) in southeastern provinces further improved soil moisture and irrigation reserves for vegetative early-crop rice. Temperatures throughout eastern crop areas returned to near-normal after warmer-than-normal conditions persisted during the winter and into early spring.

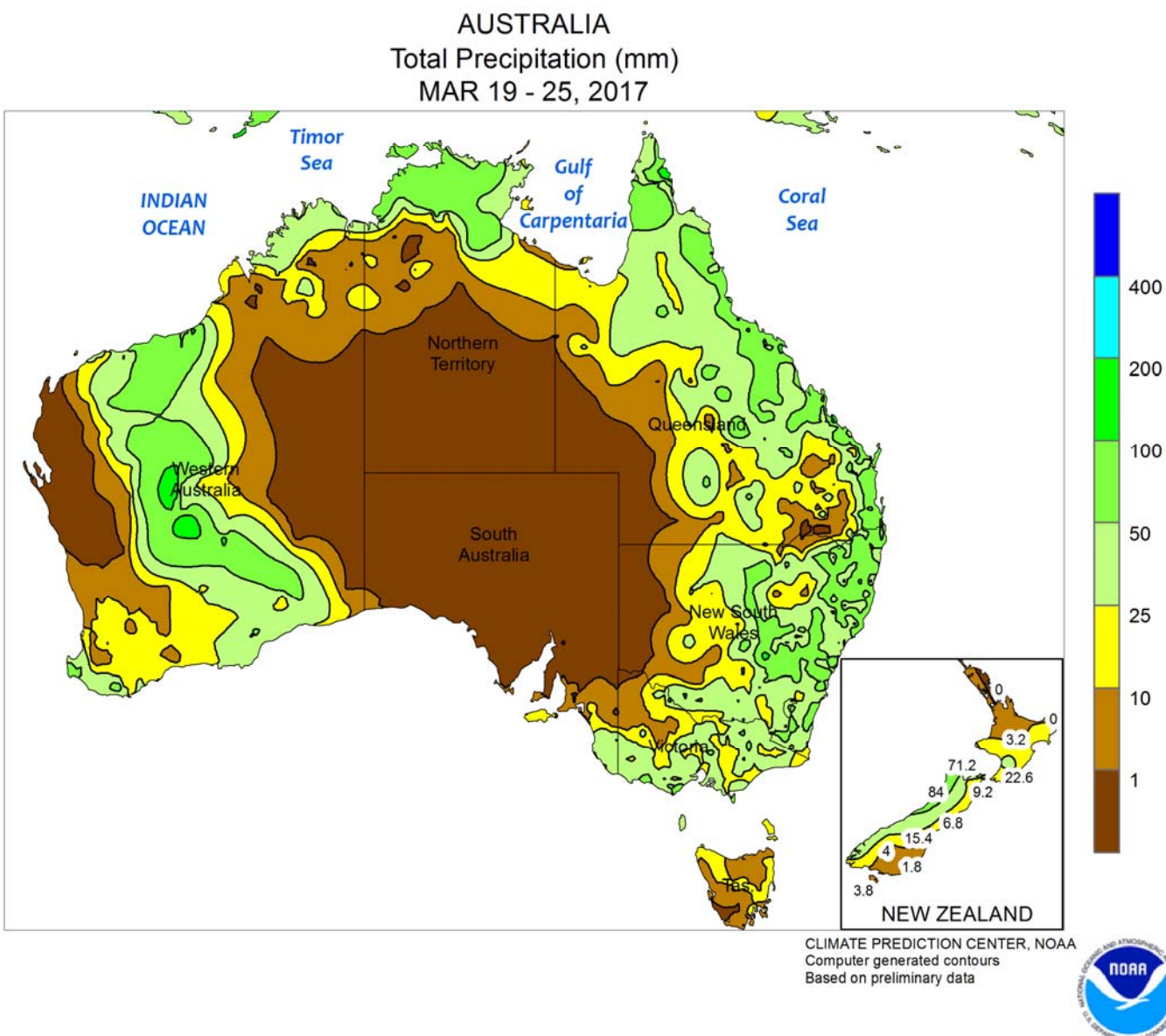
SOUTHEAST ASIA
Total Precipitation (mm)
MAR 19 - 25, 2017



SOUTHEAST ASIA

Showers continued across much of the region, including Thailand and environs. Rainfall totaled 10 to locally over 100 mm from eastern Thailand into Laos and northern Vietnam. The moisture benefited spring-sown rice, while causing only minor harvest delays for dry-season (sown in November) rice. In the Philippines, showers were confined to eastern-most

regions, where 10 to 50 mm was reported. Winter rice harvesting was underway across the Philippines with few delays, with a smaller spring-crop benefiting from the recent rainfall. In southern sections of the region, showers (25-100 mm) kept oil palm well watered in Malaysia and Indonesia as well as immature rice in Java (Indonesia).

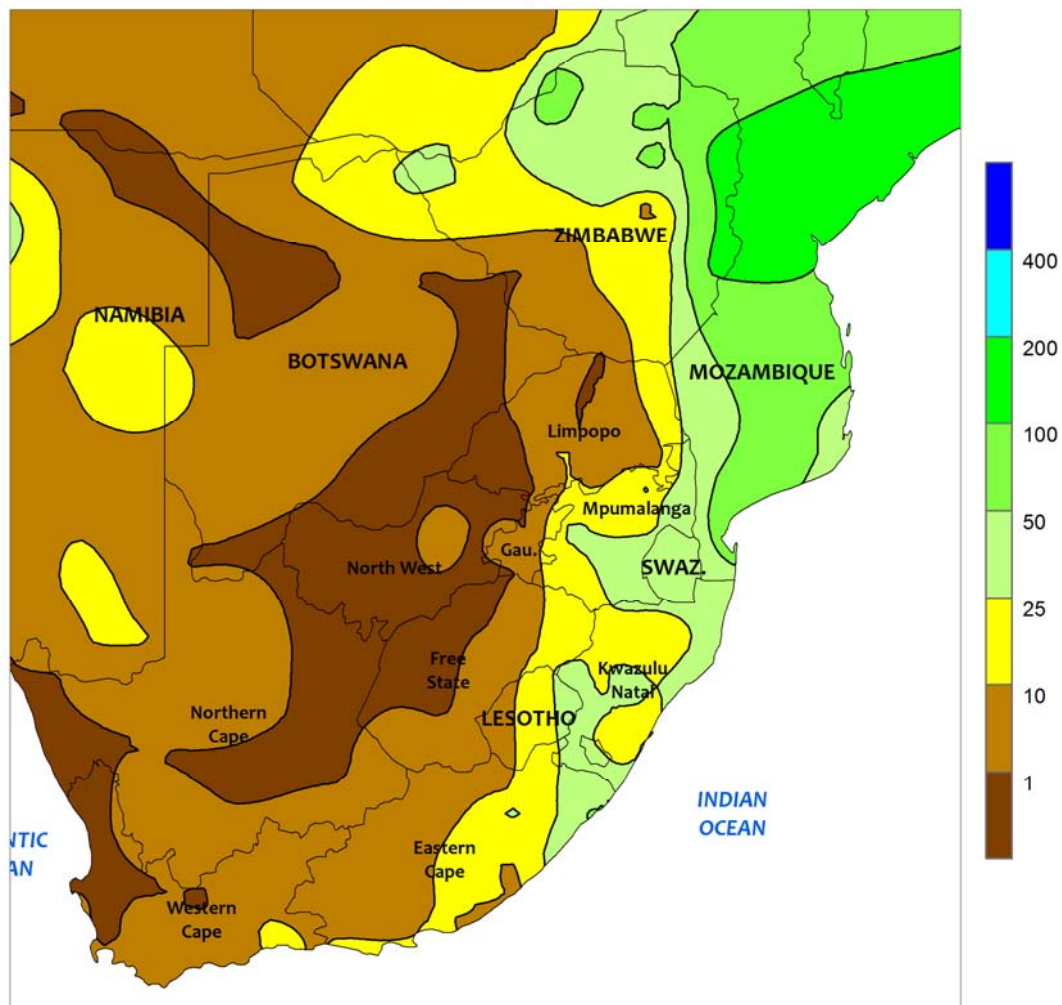


AUSTRALIA

Widespread showers (10-50 mm, locally more) hampered fieldwork throughout much of eastern Australia, but a pocket of mostly dry weather straddled the border of southern Queensland and northern New South Wales. The rainfall minimum was centered over major cotton and sorghum producing areas. This area of relatively dry weather promoted summer crop drydown and harvesting and helped maintain the quality of crops that were rapidly approaching maturation. The rainfall elsewhere in eastern Australia was unfavorable for maturing summer crops, but many farmers

welcome the rain because it helps fill the soil moisture profile prior to winter crop planting. Although the rain has some benefit, the rain comes well in advance of winter crop planting. Sowing typically begins in central Queensland in mid-April, and much of the sowing in eastern Australia occurs during May and June. Temperatures averaged about 2 to 4°C above normal in major summer crop producing areas during the week. Stressful heat remained absent, however, with daily maximum temperatures generally ranging from the upper 20s to lower 30s degrees C.

SOUTH AFRICA
Total Precipitation (mm)
MAR 19 - 25, 2017



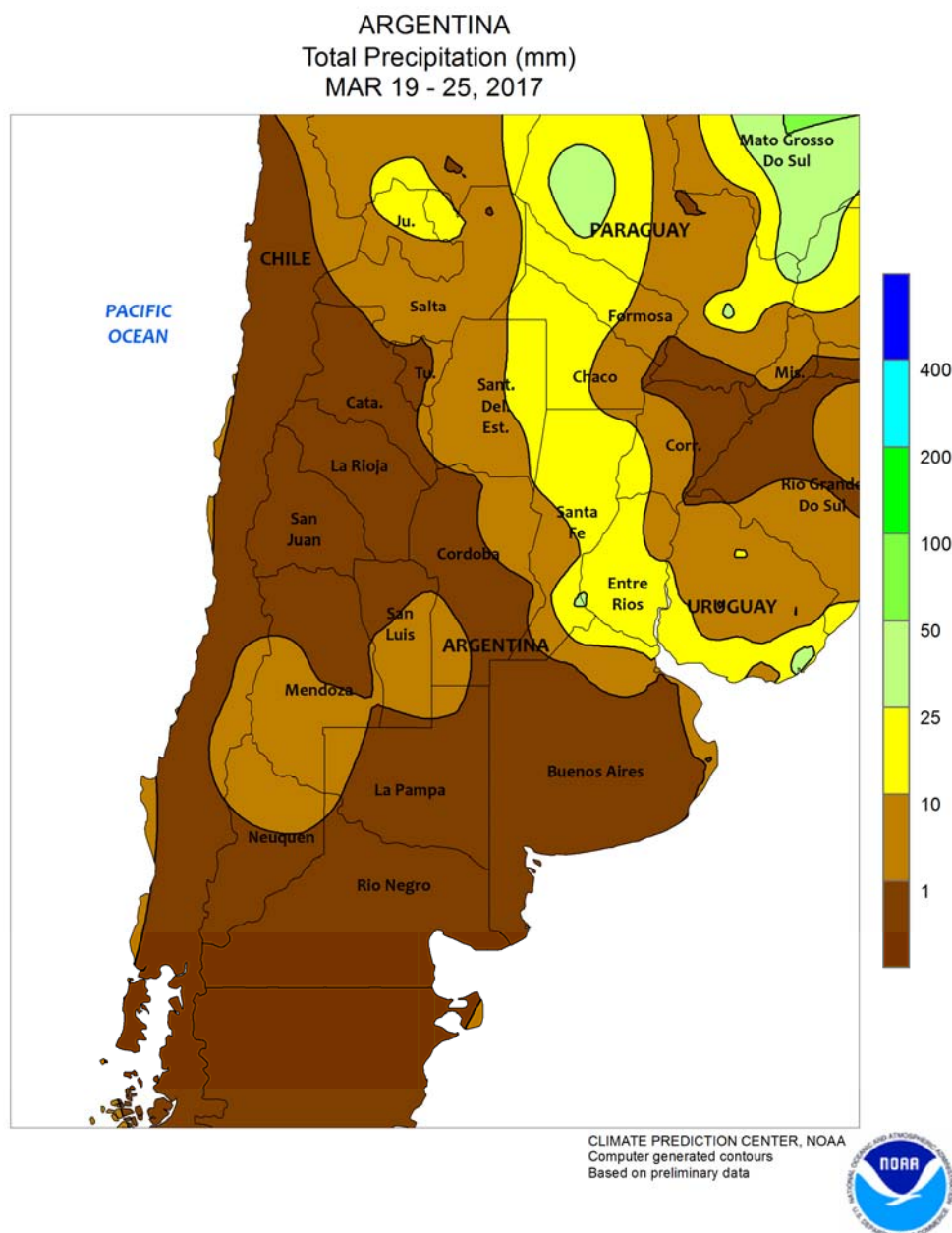
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data



SOUTH AFRICA

Warm, mostly dry weather fostered rapid development of filling to maturing corn across a large part of the corn belt. Virtually no rain fell in major production areas of North West and Free State, with generally light showers (5-25 mm) recorded farther east (notably Gauteng and Mpumalanga). It marked the third week of drier-than-normal conditions in the western corn belt, following the abundant rain that fell during the key developmental period of January and February. Weekly average temperatures

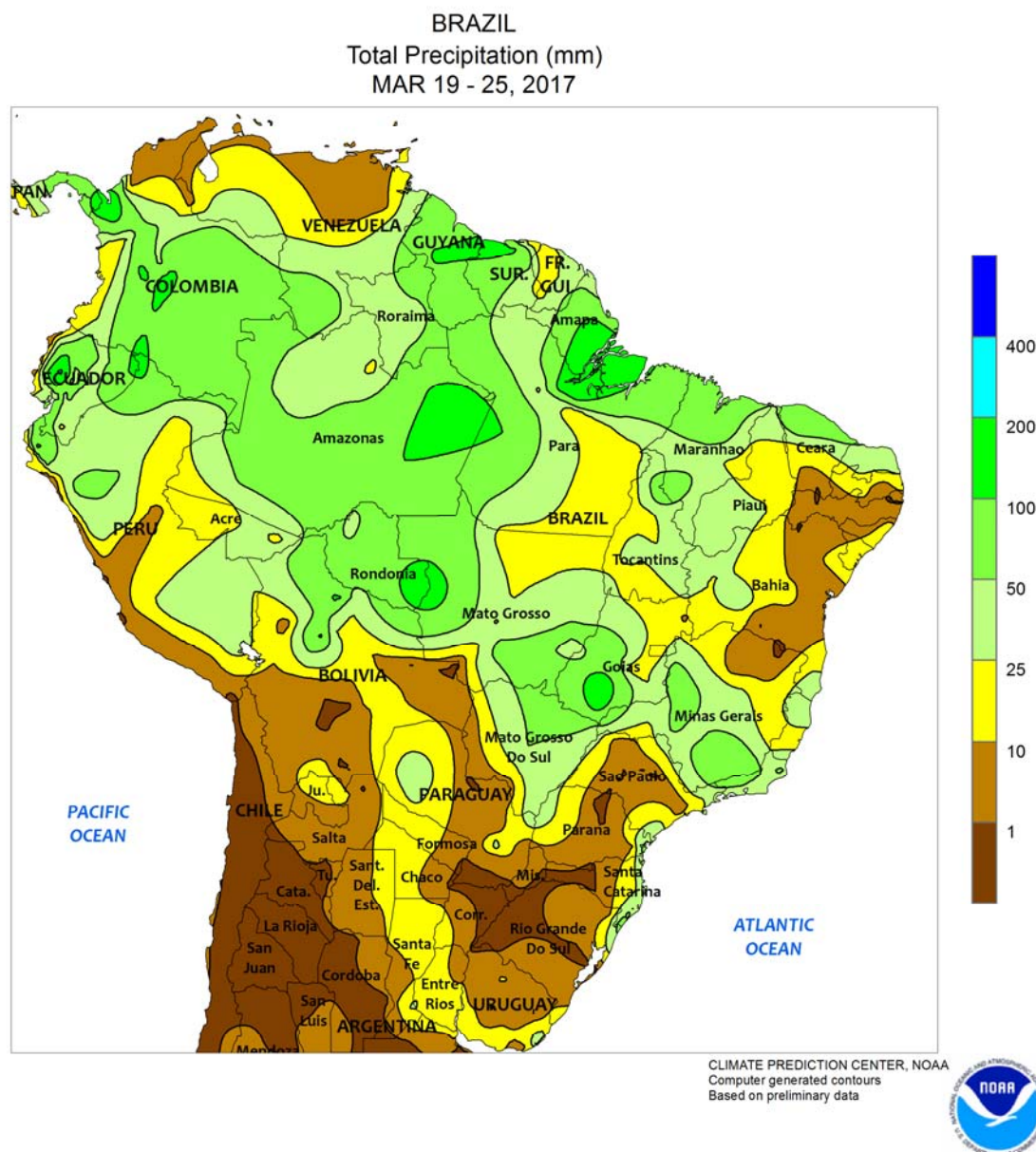
were generally within 1°C of normal, with daytime highs reaching the upper 20s and lower 30s (degrees C). Showers (10-50 mm) developed at week's end over KwaZulu-Natal, giving a late-season boost to sugarcane. The rainfall extended westward into Eastern Cape but dry, occasionally hot weather (daytime highs reaching the upper 30s and lower 40s at some locations) dominated the remainder of the Cape Provinces, spurring rapid development of irrigated row crops and harvesting of tree and vine crops.



ARGENTINA

Warm, sunny weather dominated much of central Argentina, spurring rapid growth of corn and soybeans. Little to no rain fell in La Pampa, most of Buenos Aires, and southern and western sections of Cordoba, where weekly average temperatures ranged from 1 to 3°C above normal (daytime highs reaching the upper 20s and lower 30s degrees C). Light showers (5-25 mm) lingered over Entre Rios and neighboring locations in Santa Fe and northern Buenos Aires, likely resulting in additional fieldwork delays. Rainfall also tapered off from the previous week across northern Argentina; light showers (greater than 10 mm) developed

from northern Santa Fe and Santiago del Estero northward through Formosa during the middle part of the week but mostly dry weather prevailed elsewhere, improving conditions for maturing summer grains, oilseeds, and cotton. Temperatures averaged within 1°C of normal in northern agricultural districts, with highs commonly in the upper 20s and lower 30s. According to the government of Argentina, sunflowers were 69 percent harvested as of March 23, compared with 83 percent last year. Sunseed harvesting reached 49 percent in Buenos Aires — Argentina's largest producer — versus 70 percent last year.

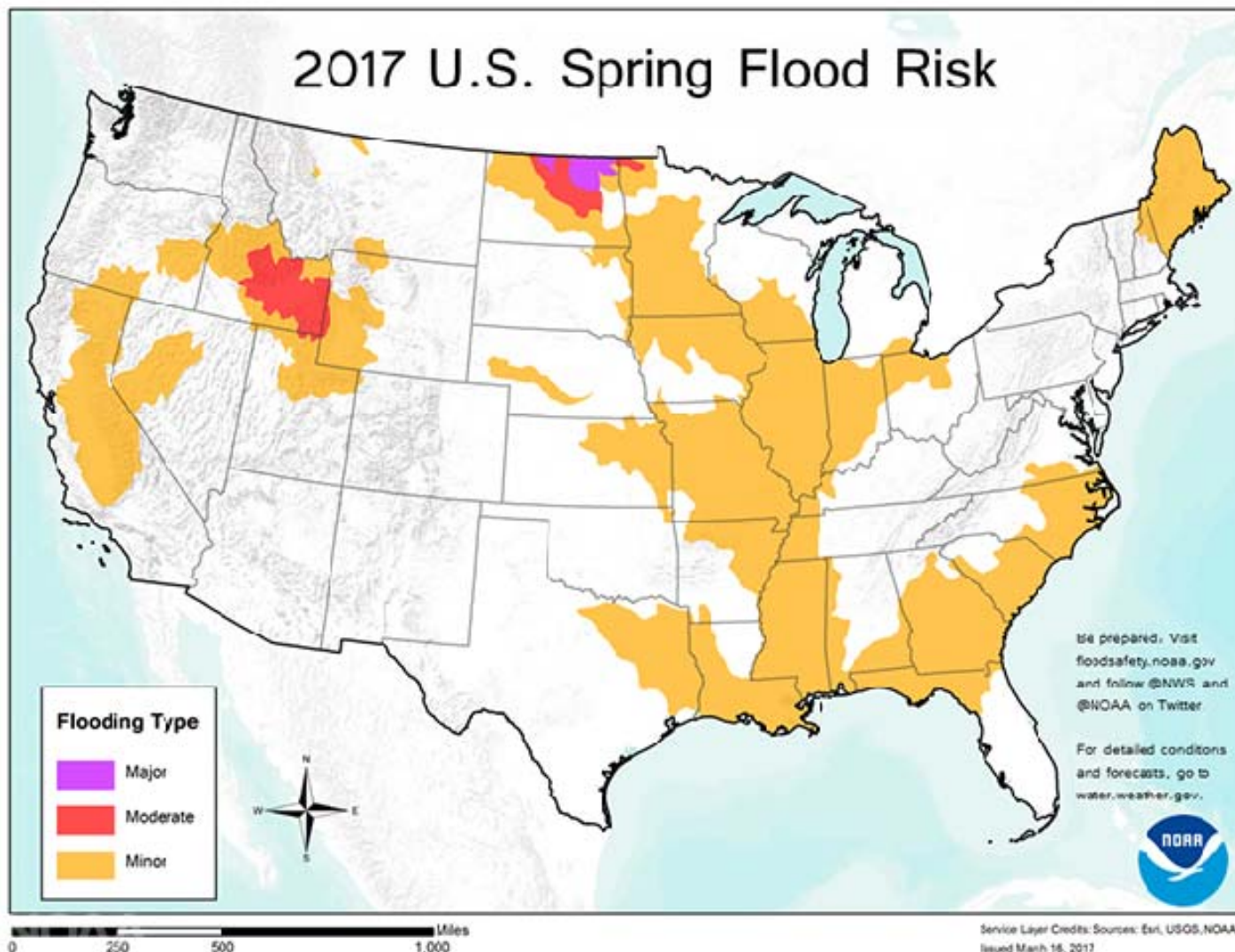


BRAZIL

Seasonal showers maintained favorable corn and cotton prospects in primary production areas of central and northeastern Brazil. Rainfall totaled 10 to 50 mm (locally higher) from Mato Grosso and Mato Grosso do Sul northeastward to Maranhao and Piaui, where above-normal temperatures (daytime highs reaching the middle 30s degrees C on a daily basis) maintained rapid rates of crop growth and water usage. The beneficial rain extended eastward through Minas Gerais, boosting moisture for coffee and immature summer row crops. However, drier conditions continued for a second week over much of Sao

Paulo, further reducing moisture for late-season development of sugarcane. Mostly dry, seasonably warm weather also dominated much of the remainder of southern Brazil (including Rio Grande do Sul and most of Parana), where sunshine and seasonable warmth (daytime highs in the upper 20s and lower 30s) fostered rapid development of corn and late-planted soybeans. According to the government of Rio Grande do Sul, 36 percent of the soybean crop was still in the filling stage as of March 23 and could benefit from the continued rain; a smaller percentage of corn (16 percent) was flowering to filling.

2017 U.S. Spring Flood Risk



<https://www.climate.gov/news-features/videos/2017-us-spring-climate-and-flood-outlook>

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