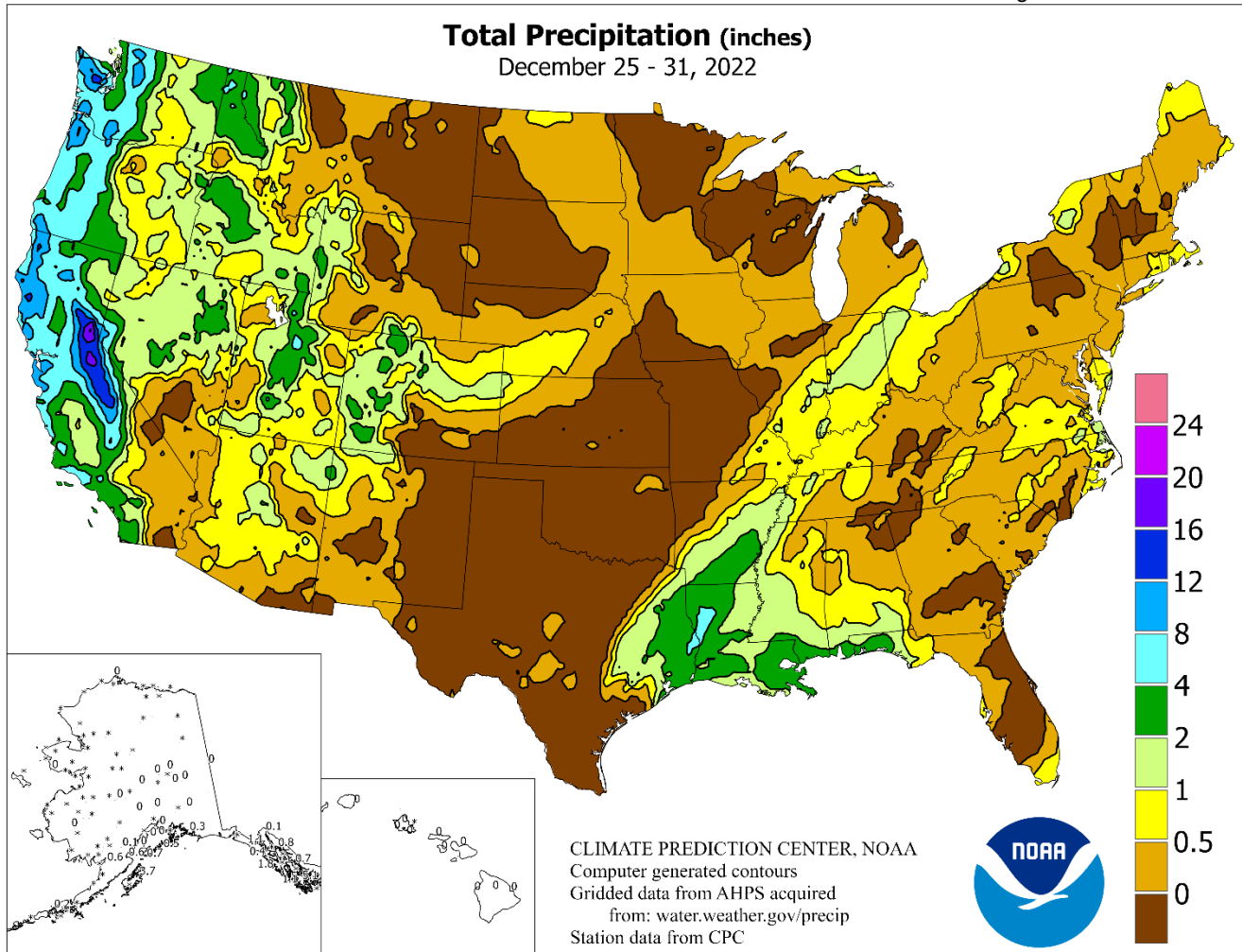


WEEKLY WEATHER AND CROP BULLETIN

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

December 25 – 31, 2022

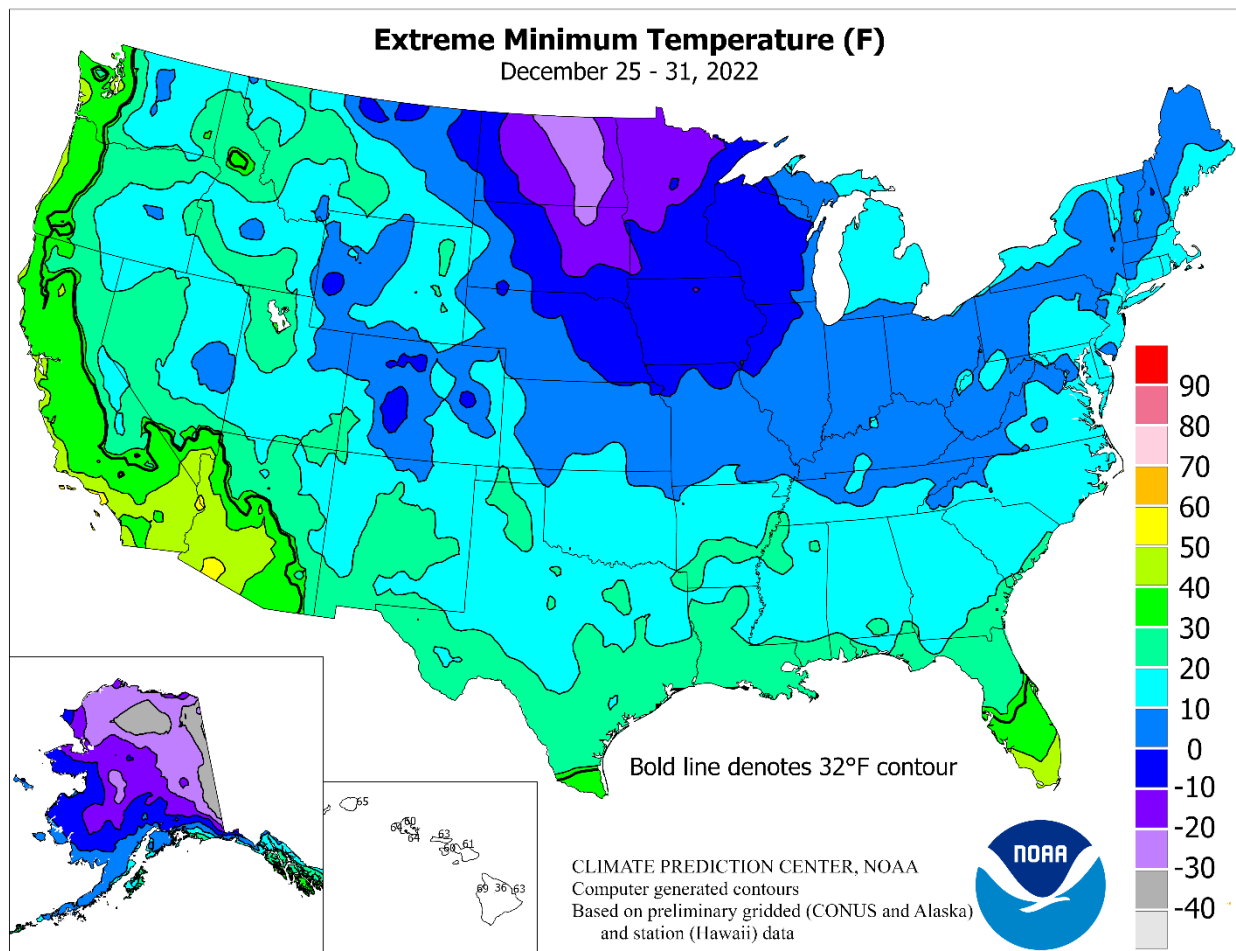
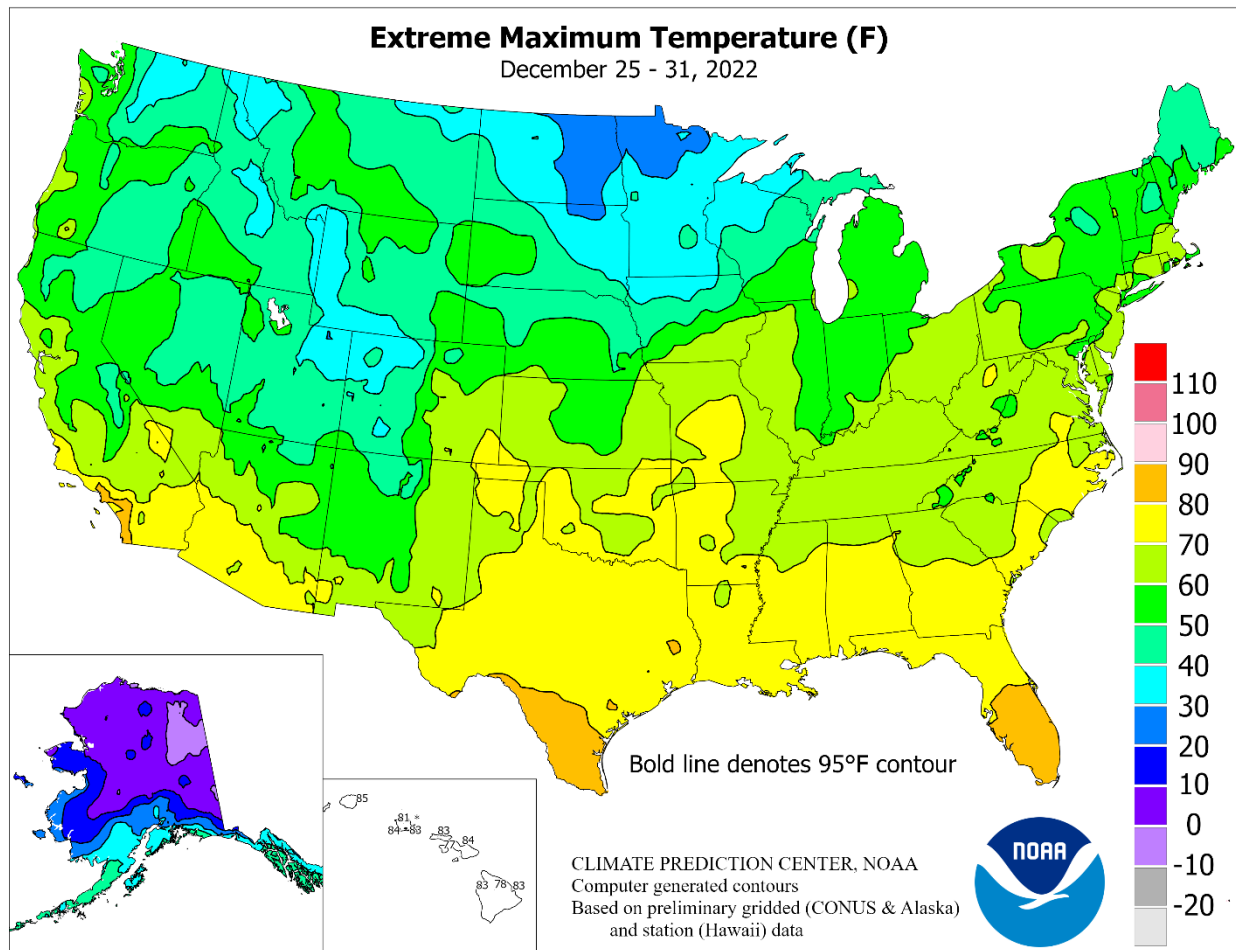
Highlights provided by USDA/WAOB

A pair of late-December storm systems moved ashore in the **West**, delivering heavy precipitation in the **Pacific Coast States** and significant snow from the **Cascades and Sierra Nevada to the western slopes of the Rockies**. Weekly precipitation totals in the **Sierra Nevada** and adjacent foothills locally totaled 4 to 12 inches or more, with an average of more than 5 inches of liquid equivalency being added to the **Sierra Nevada** snowpack during the final week of December. Farther east, mostly dry weather prevailed across the **nation's mid-section**,

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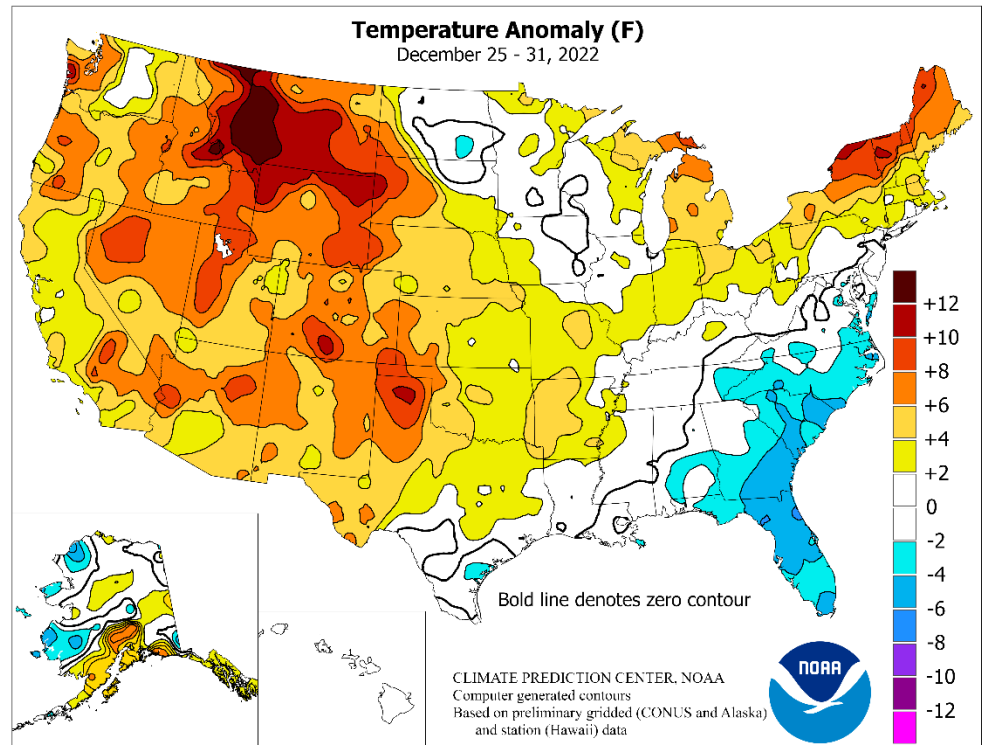


(Continued from front cover)

although light snow and blowing snow continued to cause rural travel disruptions across parts of the **northern Plains** and **upper Midwest**. Meanwhile, variable rainfall occurred along and east of a line from **eastern Texas to southeastern Michigan**. Some of the heaviest rain, locally 2 to 4 inches or more, fell in the **central Gulf Coast region** and parts of the **mid-South**. Throughout the **central and eastern U.S.**, sudden warming in the wake of the previous week's brutal cold snap boosted temperatures to near- or above-normal levels, except in the **southern Atlantic region**. Meanwhile, **Western** warmth was gradually replaced by slightly cooler, increasingly stormy weather. Following the frigid conditions of December 18-24, when temperatures averaged more than 30°F below normal across portions of the **northern Plains**, weekly readings averaged more than 10°F above normal in much of **western Montana** and environs. Any lingering cold weather was largely confined to the **Southeast**, where weekly temperatures averaged more than 5°F below normal in portions of the **southern Atlantic States**. The cold wave, which generally peaked from December 22-24, had threatened a variety of crops, including winter wheat across the **central and southern Plains**; citrus in **southern Texas** and **central Florida**; and sugarcane in **Louisiana**.

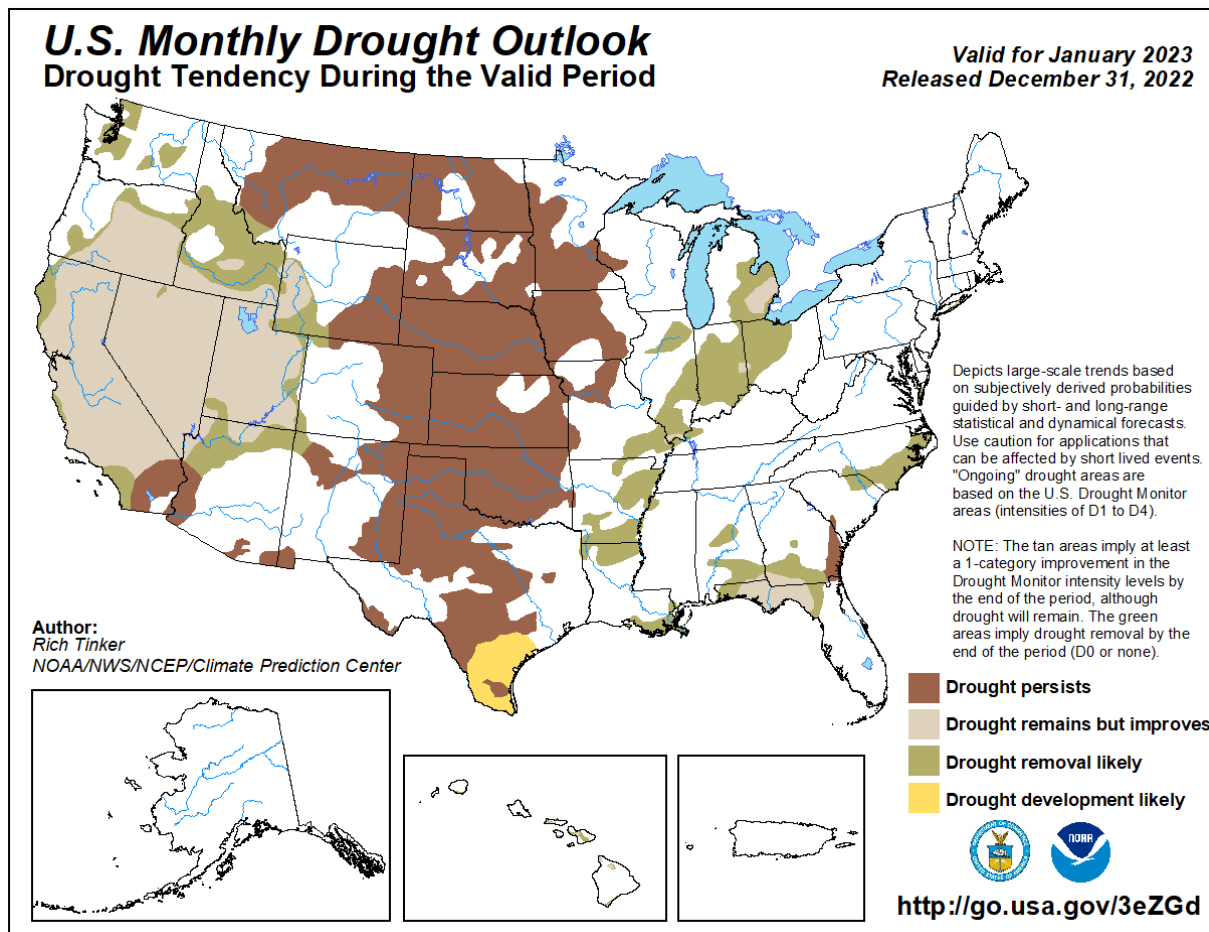
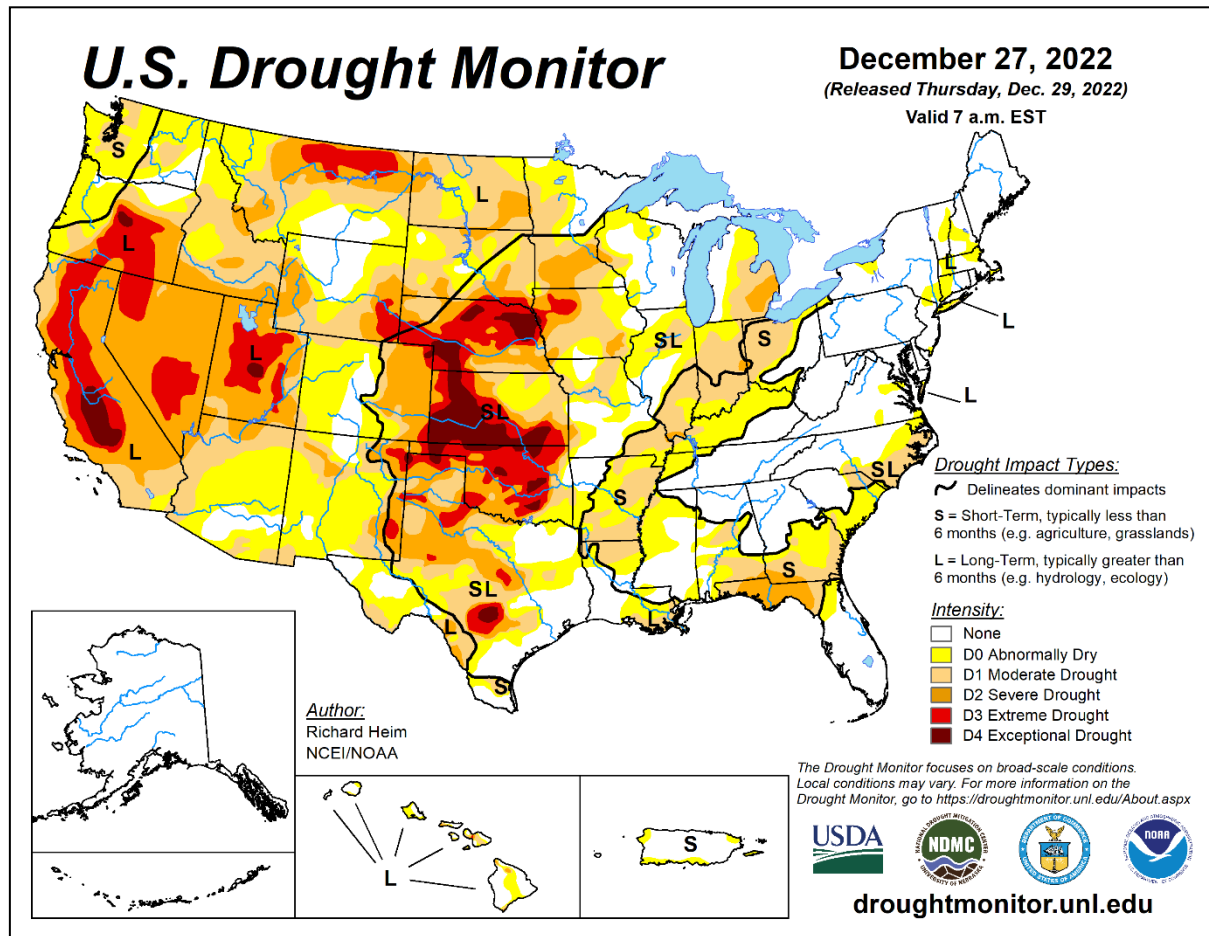
It was the warmest Christmas Day on record in parts of the **West**, with highs in **California** soaring to 85°F in **Ramona** and **Woodland Hills**. **Eugene, OR**, also posted a daily-record high (63°F) for December 25, breaking by 1°F a record originally set in 1913. **Southern California's** warmth continued through December 26, when daily-record highs reached 85°F in **Escondido**, 84°F in **Anaheim**, and 82°F in **San Diego**. In contrast, Christmas Day high temperatures remained below the 50-degree mark—lowest on record for the date—in **Florida** locations such as **St. Petersburg** (44°F), **Vero Beach** (47°F), and **Fort Lauderdale** (49°F); previous records had been set on December 25, 1989. By December 27, record-setting warmth arrived on the **High Plains**, where temperatures rose to 72°F in **Borger, TX**, and 68°F in **Burlington, CO**. **Wichita Falls, TX**, collected a daily-record high (75°F) on December 28. During the final 3 days of 2022, an impressive surge of warmth covered much of the **central and eastern U.S.** The parade of daily-record highs began on December 29 with a high of 73°F in **Columbia, MO**—exactly 80 degrees higher than the minimum reading of -7°F just 6 days earlier, on December 23. Elsewhere on the 29th, daily-record highs surged to 70°F in locations such as **Springfield, IL**, and **Chanute, KS**. Warmth shifted into the **East** by December 30, when daily-record highs climbed to 71°F in **Clarksburg, WV**; and 63°F in **Boston, MA**. In **Maine, Augusta** closed the month (and year) with consecutive daily-record highs of 51 and 50°F, respectively, on December 30-31. New Year's Eve featured the return of record-setting warmth in the **Deep South**; daily-record highs for the 31st included 87°F in **Vero Beach, FL**, and 83°F in **Del Rio, TX**.

An historic **Great Lake-effect** snow event lingered as the week began. In **Buffalo, NY**, 51.9 inches of snow fell from December 23-27, although only 11.7 inches fell from Christmas Day onward. Similarly, **Sault Sainte Marie, MI**, received 49.3 inches from December 22-28, aided by a daily-record snowfall of 10.9 inches on Christmas Day. By December 26, significant storminess returned to the **Pacific Coast**, where record-setting rainfall totals included 2.50 inches in **Hillsboro, OR**, and 1.91 inches in **Eureka, CA**. During the last 6 days of December, **Blue Canyon, CA**, received precipitation totaling 16.28 inches, with more than 90 percent of that amount occurring on December 27, 30, and 31. **Blue Canyon's** rainfall



of 7.21 inches on the 30th was a record for the date. Downtown **San Francisco, CA**, endured its second-wettest day on record (5.46 inches on December 31), behind only 5.54 inches on November 5, 1994. **San Francisco's** wettest calendar day in December had been December 19, 1866, with 4.28 inches. Elsewhere in the **San Francisco Bay area**, the **Oakland Museum** recorded its wettest day in the last 5 decades, with the 4.75-inch total on December 31 edging the standard of 4.74 inches, originally set on January 4, 1982. Farther inland, **Reno, NV**, was hammered by 2.26 inches of precipitation (and 9.0 inches of snow) on December 31. The only other days in **Reno's** history featuring more than 2 inches of precipitation were December 23, 1955, with 2.02 inches; January 21, 1943, with 2.29 inches; and January 28, 1903, with 2.71 inches. In **Utah**, **Alta** received December snowfall totaling 135.9 inches (170 percent of normal), boosted by a 24-hour total of 23.0 inches on December 27-28. As precipitation exited the **West** on December 28-29, a narrow band of snow crossing the **central Plains** delivered 7.1 inches to **Denver, CO**. Farther east, December 29-30 rainfall topped the 2-inch mark in locations such as **Shreveport, LA** (2.78 inches), and **Longview, TX** (2.19 inches). At week's end, locally heavy **Eastern** showers resulted in record-setting precipitation totals for December 31 in **Elizabeth City, NC** (1.36 inches), and **Atlantic City, NJ** (1.02 inches).

Dry weather and near-normal temperatures covered much of **mainland Alaska** in late December, following the previous week's harsh cold snap. **Anchorage** ended the month with 41.2 inches of snow (226 percent of normal)—second-snowiest December behind only 41.6 inches in 1955—although only 0.1 inch of that total occurred during the second half of December. Precipitation continued, however, across the **southern tier of Alaska**, where **Kodiak** netted 3.79 inches from December 25-31. In the **Aleutians, Ketchikan** reported its wettest Christmas Day on record, with 3.48 inches falling on the 25th. Farther south, dry weather dominated **Hawaii** in late December, following the previous week's major storm system. On the **Big Island**, no measurable rain fell in **Hilo** during the last 12 days of the month, leaving the final December total at 7.48 inches (62 percent of normal). At the state's other major airport observation sites, monthly rainfall ranged from 2.24 inches (103 percent of normal) in **Honolulu, Oahu**, to 4.93 inches (106 percent) in **Lihue, Kauai**, although negligible precipitation fell from December 20-31. In addition to the dry weather, **Lihue** posted daily-record highs of 85 and 83°F, respectively, on December 25 and 27.



National Weather Data for Selected Cities

Weather Data for the Week Ending December 31, 2022

Data Provided by Climate Prediction Center

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR IN.	TOTAL IN. SINCE DEC 1	PCT. NORMAL SINCE DEC 1	TOTAL IN. SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.		
																	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
AK	ANCHORAGE	28	19	30	5	24	6	0.06	-0.17	0.06	3.90	337	28.14	171	86	66	0	7	1	0	
	BARROW	-3	-9	2	-18	-6	0	0.04	0.01	0.04	0.62	275	9.60	178	83	74	0	7	1	0	
	FAIRBANKS	1	-11	5	-25	-5	2	0.02	-0.11	0.02	1.17	205	8.52	73	77	64	0	7	1	0	
	JUNEAU	35	29	38	19	32	3	0.80	-0.51	0.29	3.15	48	85.92	128	98	86	0	7	6	0	
	KODIAK	40	32	41	23	36	5	3.70	1.65	1.44	6.27	71	79.00	100	96	79	0	3	6	4	
AL	NOME	12	2	22	-8	7	0	0.00	-0.22	0.00	1.63	155	21.17	122	77	62	0	7	0	0	
	BIRMINGHAM	57	36	71	16	47	1	0.12	-1.00	0.12	4.25	87	52.63	93	79	40	0	4	1	0	
	HUNTSVILLE	54	33	68	17	43	0	0.22	-1.00	0.14	6.10	103	54.06	99	88	47	0	4	3	0	
	MOBILE	64	40	75	23	52	0	2.14	0.76	2.13	4.76	87	59.02	88	88	44	0	3	2	1	
	MONTGOMERY	62	32	77	18	47	-2	0.68	-0.51	0.64	3.56	71	52.16	102	85	39	0	4	2	1	
AR	FORT SMITH	58	32	75	16	45	5	0.00	-0.74	0.00	3.93	112	50.29	106	81	39	0	4	0	0	
	LITTLE ROCK	61	37	74	22	49	8	0.98	-0.08	0.56	6.16	121	46.01	91	83	46	0	4	2	1	
AZ	FLAGSTAFF	44	29	54	23	36	7	1.16	0.69	0.91	2.31	121	17.21	83	91	62	0	6	4	1	
	PHOENIX	67	49	74	46	58	3	0.68	0.50	0.58	2.01	272	5.64	78	80	40	0	0	2	1	
CA	PRESCOTT	54	34	66	29	44	6	0.36	0.11	0.31	0.89	90	11.43	89	92	48	0	3	3	0	
	TUCSON	71	43	79	36	57	5	0.08	-0.13	0.08	1.24	129	6.05	57	71	28	0	0	1	0	
	BAKERSFIELD	57	44	66	33	51	2	1.18	0.89	0.81	1.61	145	4.12	64	96	66	0	0	4	1	
	EUREKA	57	49	60	43	53	6	4.23	2.47	1.61	9.04	111	29.35	72	95	85	0	0	7	3	
	FRESNO	54	46	60	38	50	3	1.97	1.49	1.16	4.51	252	6.31	57	100	84	0	0	5	1	
	LOS ANGELES	66	55	81	52	60	3	1.22	0.56	0.69	2.45	109	6.02	49	89	59	0	0	4	1	
	REDDING	53	44	59	41	48	2	5.25	3.85	1.93	8.19	129	16.43	49	97	73	0	0	4	4	
	SACRAMENTO	54	44	60	36	49	3	4.15	3.32	2.16	7.79	226	11.20	61	99	82	0	0	5	3	
	SAN DIEGO	68	54	81	48	61	3	0.61	0.16	0.59	1.55	92	5.81	59	88	54	0	0	3	1	
	SAN FRANCISCO	59	50	63	45	55	4	6.19	5.23	3.81	9.59	231	13.27	67	97	79	0	0	5	2	
CO	STOCKTON	54	45	60	37	49	2	5.32	4.75	3.01	8.53	353	11.41	84	98	80	0	0	5	2	
	ALAMOSA	46	8	53	4	27	11	0.00	-0.07	0.00	0.02	5	10.85	146	84	34	0	7	0	0	
	CO SPRINGS	50	23	63	14	36	5	0.35	0.30	0.27	0.50	220	11.40	71	75	38	0	6	2	0	
	DENVER INTL	46	24	62	14	35	5	0.67	0.59	0.55	1.15	325	11.46	79	84	42	0	6	2	1	
	GRAND JUNCTION	37	23	43	16	30	4	0.92	0.79	0.65	1.25	210	9.21	101	95	73	0	7	5	1	
CT	PUEBLO	56	19	69	12	37	6	0.01	-0.05	0.01	0.13	45	9.33	77	86	30	0	6	1	0	
	BRIDGEPORT	42	26	55	14	34	0	0.41	-0.41	0.41	4.07	102	35.11	79	78	55	0	6	1	0	
	HARTFORD	44	23	64	12	34	4	0.34	-0.52	0.34	4.44	108	46.89	99	79	44	0	6	1	0	
DC	WASHINGTON	48	28	65	14	38	-1	0.11	-0.58	0.11	3.76	110	40.23	96	85	46	0	6	1	0	
DE	WILMINGTON	47	25	62	14	36	0	0.33	-0.44	0.33	5.19	134	41.10	90	81	45	0	6	1	0	
FL	DAYTONA BEACH	67	43	77	27	55	-5	0.00	-0.54	0.00	1.11	47	44.65	87	88	51	0	1	0	0	
	JACKSONVILLE	64	34	77	20	49	-6	0.00	-0.60	0.00	0.21	7	47.42	88	94	43	0	4	0	0	
	KEY WEST	70	62	80	54	66	-6	0.35	-0.10	0.31	4.04	187	38.33	94	98	76	0	0	2	0	
	MIAMI	72	60	83	45	66	-4	0.55	0.09	0.40	1.72	70	70.07	103	92	60	0	0	3	0	
	ORLANDO	69	46	82	30	57	-4	0.00	-0.52	0.00	0.93	37	60.86	118	85	46	0	1	0	0	
	PENSACOLA	62	43	74	26	53	-1	2.28	1.05	2.24	5.46	101	61.65	90	84	48	0	2	2	1	
	TALLAHASSEE	65	33	77	18	49	-4	0.51	-0.48	0.51	2.06	48	53.94	91	91	34	0	4	1	1	
	TAMPA	68	49	81	31	58	-5	0.29	-0.30	0.29	2.39	93	55.71	112	80	46	0	1	1	0	
	WEST PALM BEACH	71	58	84	41	65	-3	0.46	-0.29	0.24	3.46	99	50.63	82	87	58	0	0	3	0	
	ATHENS	55	31	65	17	42	-2	0.12	-0.97	0.09	4.72	106	44.41	90	82	43	0	4	2	0	
GA	ATLANTA	55	35	67	18	45	-1	0.12	-0.99	0.08	3.41	74	46.33	91	81	41	0	4	3	0	
	AUGUSTA	57	27	68	12	42	-6	0.01	-0.94	0.01	3.74	96	45.85	107	93	43	0	5	1	0	
	COLUMBUS	59	34	75	19	47	-2	0.21	-0.91	0.11	1.56	32	46.04	94	84	38	0	4	2	0	
	MACON	61	31	76	16	46	-2	0.06	-1.04	0.05	1.99	43	45.72	97	88	35	0	4	2	0	
	SAVANNAH	61	34	73	21	47	-4	0.01	-0.71	0.01	1.72	53	35.86	74	84	37	0	4	1	0	
HI	HILO	82	66	83	63	74	2	0.00	-2.28	0.00	7.48	61	92.25	76	89	61	0	0	0	0	
	HONOLULU	81	67	83	64	74	-1	0.00	-0.54	0.00	2.22	102	12.65	77	95	63	0	0	0	0	
	KAHULUI	82	64	84	61	73	0	0.00	-0.66	0.00	3.80	135	6.54	40	89	54	0	0	0	0	
IA	LIHUE	82	68	85	65	75	2	0.02	-0.94	0.02	4.84	104	27.98	77	87	60	0	0	1	0	
	BURLINGTON	38	17	66	-3	28	1	0.01	-0.34	0.01	0.81	43	25.25	66	89	62	0	6	1	0	
	CEDAR RAPIDS	33	11	60	-9	22	0	0.02	-0.27	0.01	0.31	19	22.69	63	92	68	0	6	2	0	
ID	DES MOINES	37	16	60	-2	27	2	0.08	-0.22	0.06	1.92	121	29.60	81	88	57	0	6	2	0	
	DUBUQUE	32	12	57	-7	22	1	0.17	-0.16	0.09	2.21	122	29.31	76	90	71	0	6	3	0	
	SIOUX CITY	34	13	43	-7	24	3	0.10	-0.11	0.08	1.66	168	14.66	50	87	69	0	7	2	0	
	WATERLOO	29	11	46	-11	20	-2	0.29	0.00	0.15	1.65	114	33.72	92	86	68	0	7	3	0	
	BOISE	42	32	56	26	37	6	0.54	0.19	0.34	1.84	119	10.28	89	88	60	0	5	4	0	
IL	LEWISTON	48	35	54	29	42	8	0.28	0.02	0.10	1.18	104	15.46	120	86	57	0	2	5	0	
	POCATELLO	39	27	47	24	33	9	0.77	0.52	0.44	1.59	140	12.29	104	86	64	0	7	3	0	
	CHICAGO/O_HARE	37	21	59	2	29	1	0.01	-0.43	0.01	2.14	101	30.43	80	81	60	0	6	1	0	
IN	MOLINE	39	16	67	-5	28	2	0.09	-0.32	0.06	1.67	81	30.92	80	82	59	0	6	3	0	
	PEORIA	40	19	65	3	29	2	0.04	-0.46	0.04	2.65	119	26.38	70	92	64	0	6	1	0	
	ROCKFORD	36	14	61	-1	25	1	0.00	-0.38	0.00	2.54	131	39.16	105	89	67	0	6	0	0	
	SPRINGFIELD	42	21	64	4	31	1	0.02	-0.47	0.01	2.08	97	33.62	88	86	62	0	6	2	0	
	EVANSVILLE	43	30	60	9	37	1	0.67	-0.16	0.45	3.54	93	44.57	93	91	65	0	4	4	0	
KS	FORT WAYNE	37	26	55	5	31	3	1.33	0.75	1.11	2.19	88	32.52	82	88	71	0	4	2	1	
	INDIANAPOLIS	40																			

Weather Data for the Week Ending December 31, 2022

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
																		TEMP. °F		PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN., SINCE DEC 1	PCT. NORMAL SINCE DEC 1	TOTAL IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	01 INCH OR MORE	50 INCH OR MORE	
KY	WICHITA	50	23	59	10	37	3	0.04	-0.20	0.04	0.78	64	29.33	85	85	47	0	5	1	0	
	LEXINGTON	47	30	69	9	39	3	0.21	-0.67	0.19	3.38	80	43.22	86	77	53	0	4	2	0	
	LOUISVILLE	47	32	68	12	39	2	0.39	-0.51	0.31	3.25	78	39.65	82	86	56	0	4	4	0	
LA	PADUCAH	46	31	61	3	38	1	0.47	-0.48	0.34	4.45	103	42.20	83	90	63	0	4	4	0	
	BATON ROUGE	66	41	80	22	53	1	2.26	0.87	2.20	7.26	136	51.31	82	91	45	0	3	3	1	
	LAKE CHARLES	64	41	77	22	53	-1	1.91	0.70	1.91	9.23	202	42.93	71	96	53	0	3	1	1	
MA	NEW ORLEANS	65	46	77	30	55	1	3.02	1.74	3.00	8.02	166	55.67	87	89	48	0	2	2	1	
	SHREVEPORT	62	38	79	21	50	2	0.00	-1.09	0.00	0.00	0	37.74	73	83	46	0	4	0	0	
	BOSTON	44	29	63	14	37	4	0.37	-0.52	0.37	3.69	85	29.89	68	74	45	0	5	1	0	
MD	WORCESTER	42	26	62	9	34	7	0.37	-0.51	0.37	6.09	142	48.01	99	72	46	0	4	1	0	
	BALTIMORE	49	23	66	10	36	0	0.31	-0.45	0.31	4.78	128	46.50	103	86	43	0	6	1	0	
	CARIBOU	29	17	46	0	23	7	0.50	-0.26	0.23	4.51	125	43.50	106	86	71	0	6	5	0	
ME	PORTLAND	38	21	51	12	29	2	0.05	-0.90	0.05	3.95	87	54.60	113	83	54	0	7	1	0	
	ALPENA	36	26	56	16	31	8	0.00	-0.41	0.00	1.46	77	28.84	97	87	65	0	4	0	0	
	GRAND RAPIDS	37	26	54	14	31	4	0.06	-0.49	0.03	1.45	58	34.09	86	87	69	0	5	3	0	
MI	HOUGHTON LAKE	33	23	51	11	28	6	0.00	-0.36	0.00	1.31	74	25.31	90	89	72	0	5	0	0	
	LANSING	38	26	56	13	32	5	0.11	-0.32	0.07	0.98	51	32.55	97	84	65	0	5	3	0	
	MUSKEGON	40	29	57	17	34	5	0.04	-0.47	0.02	1.18	48	31.83	90	83	67	0	5	3	0	
MN	TRAVERSE CITY	38	27	56	16	32	6	0.03	-0.33	0.02	0.66	36	29.15	100	82	65	0	4	2	0	
	DULUTH	22	9	35	-9	16	2	0.11	-0.19	0.06	3.21	218	32.83	105	85	71	0	7	3	0	
	INT_L FALLS	25	2	30	-7	13	6	0.04	-0.18	0.04	0.30	30	35.28	139	98	91	0	3	1	0	
MO	MINNEAPOLIS	26	11	38	-4	19	1	0.02	-0.22	0.02	1.77	151	23.86	75	83	64	0	7	1	0	
	ROCHESTER	25	10	39	-6	17	0	0.08	-0.16	0.04	1.61	125	34.78	100	87	73	0	7	2	0	
	ST. CLOUD	25	10	36	-7	17	3	0.09	-0.09	0.09	1.89	216	25.07	88	86	68	0	7	1	0	
MS	COLUMBIA	48	24	73	4	36	4	0.00	-0.48	0.00	1.21	57	32.96	79	82	46	0	6	0	0	
	KANSAS CITY	49	22	68	0	36	6	0.00	-0.30	0.00	1.18	75	33.65	85	76	44	0	5	0	0	
	SAINT LOUIS	47	27	66	8	37	3	0.36	-0.25	0.31	1.95	78	48.35	115	81	53	0	4	3	0	
MT	SPRINGFIELD	50	26	70	5	38	3	0.02	-0.59	0.02	2.22	84	41.22	92	83	48	0	4	1	0	
	JACKSON	61	37	73	19	49	1	1.24	0.05	1.18	5.62	109	59.78	104	87	47	0	4	3	1	
	MERIDIAN	60	36	74	17	48	0	0.57	-0.66	0.57	4.00	75	52.00	92	95	45	0	4	1	1	
NC	TUPELO	55	36	69	21	46	1	0.45	-0.74	0.38	7.16	120	50.68	87	82	49	0	4	3	0	
	BILLINGS	44	31	53	23	38	12	0.00	-0.14	0.00	0.61	107	14.90	104	79	45	0	4	0	0	
	BUTTE	39	22	49	13	31	12	0.08	-0.03	0.07	0.48	100	9.56	74	84	50	0	7	2	0	
ND	CUT BANK	42	29	49	21	35	14	0.00	-0.08	0.00	0.00	0	7.59	70	80	57	0	5	0	0	
	GLASGOW	32	12	42	5	22	7	0.01	-0.09	0.01	0.88	215	9.47	70	85	70	0	7	1	0	
	GREAT FALLS	45	30	54	25	38	13	0.00	-0.13	0.00	0.91	172	14.43	97	77	51	0	5	0	0	
NE	HAVRE	35	12	42	-3	23	5	0.42	0.31	0.35	1.47	365	10.32	87	92	73	0	6	4	0	
	MISSOULA	40	28	47	21	34	11	0.35	0.10	0.17	1.26	117	10.44	74	92	68	0	6	5	0	
	ASHEVILLE	47	23	62	12	35	-4	0.17	-0.78	0.12	3.56	85	47.48	95	88	48	0	6	2	0	
NH	CHARLOTTE	52	27	64	13	40	-3	0.36	-0.49	0.36	4.54	127	42.44	97	87	33	0	5	1	0	
	GREENSBORO	51	26	66	13	38	-2	0.34	-0.37	0.34	3.75	118	46.46	105	85	43	0	5	1	0	
	HATTERAS	53	37	68	28	45	-5	0.31	-0.70	0.17	3.28	69	42.39	69	90	55	0	4	2	0	
NJ	RALEIGH	56	29	72	15	42	0	0.35	-0.44	0.35	3.64	107	44.41	96	80	37	0	5	1	0	
	WILMINGTON	61	31	75	20	46	-2	0.22	-0.63	0.22	2.17	58	40.05	66	92	38	0	5	1	0	
	BISMARCK	24	4	36	-14	14	-1	0.37	0.23	0.36	2.09	347	27.54	144	87	71	0	7	2	0	
NM	DICKINSON	35	11	43	-8	23	6	0.00	-0.05	0.00	0.14	76	14.00	89	92	72	0	6	0	0	
	FARGO	18	2	31	-20	10	-2	0.30	0.08	0.30	1.97	220	20.49	85	94	80	0	7	1	0	
	GRAND FORKS	17	2	27	-21	10	1	0.04	-0.11	0.04	1.31	199	22.29	102	87	74	0	7	1	0	
NV	JAMESTOWN	19	1	28	-20	10	-2	0.05	-0.03	0.05	0.43	124	15.26	76	89	73	0	7	1	0	
	GRAND ISLAND	44	17	59	-4	31	4	0.19	0.02	0.19	0.44	51	12.05	45	83	58	0	7	1	0	
	LINCOLN	43	16	51	-6	29	3	0.01	-0.23	0.01	0.63	53	18.91	64	84	56	0	7	1	0	
OH	NORFOLK	39	16	49	-8	27	4	0.32	0.16	0.31	0.68	80	13.00	48	83	61	0	7	2	0	
	NORTH PLATTE	44	17	54	4	30	5	0.66	0.54	0.66	1.34	295	13.79	65	89	60	0	7	1	1	
	OMAHA	39	17	49	-4	28	2	0.01	-0.23	0.01	1.04	84	21.61	67	85	63	0	7	1	0	
OK	SCOTTSBLUFF	49	23	59	11	36	9	0.02	-0.10	0.02	0.65	125	8.98	57	80	41	0	6	1	0	
	VALENTINE	40	18	47	-2	29	5	0.02	-0.06	0.02	2.22	518	12.15	58	89	62	0	6	1	0	
	CONCORD	39	17	56	8	28	3	0.05	-0.73	0.05	4.01	108	38.14	90	87	46	0	7	1	0	
PA	ATLANTIC_CITY	47	24	64	11	36	-1	1.01	0.12	1.01	5.51	123	54.40	118	87	48	0	6	1	1	
	NEWARK	45	29	62	14	37	2	0.25	-0.62	0.25	4.48	108	38.33	82	72	43	0	5	1	0	
	ALBUQUERQUE	51	31	56	26	41	5	0.07	-0.04	0.05	0.63	117	8.77	99	81	40	0	6	2	0	
RI	ELY	41	21	49	4	31	6	0.81	0.65	0.34	1.50	224	8.07	85	94	61	0	6	4	0	
	LAS VEGAS	61	45	68	41	53	5	0.00	-0.13	0.00	0.07	15	1.80	43	68	29	0	0	0	0	
	RENO	53	33	59	29	43	8	3.35	3.06	2.22	5.07	460	8.13	110	88	47	0	3	4	2	
SC	WINNEMUCCA	46	31	53	24	38	8	1.39	1.21	1.13	2.41	323	5.91	74	88	61	0	2	4	1	
	ALBANY	41	26	57	11	34	7	0.07	-0.61	0.07	3.77	115	44.83	110	75	47	0	5	1	0	
	BINGHAMTON	36	24	54	4	30	5	0.10	-0.56	0.10	3.74	121	43.28	102	83	61	0	5	1	0	
SD	BUFFALO	38	28	55	14	33	5	6.57	5.72	4.01	9.78	260	44.64	109	88	62	0	4	5	2	
	ROCHESTER	40	28	62	12	34	5	12.35	11.76	4.95	14.27	533	40.29	114	82	60	0	4</			

Weather Data for the Week Ending December 31, 2022

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN., SINCE DEC 1	PCT. NORMAL SINCE DEC 1	TOTAL IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.	
																	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
OK	TOLEDO	40	28	57	6	34	4	0.01	-0.56	0.01	0.90	36	38.85	111	84	64	0	4	1	0
	YOUNGSTOWN	40	28	63	6	34	5	0.21	-0.53	0.20	1.57	49	42.38	102	80	57	0	4	2	0
	OKLAHOMA CITY	57	28	69	14	42	4	0.00	-0.36	0.00	2.02	112	24.03	66	79	34	0	4	0	0
OR	TULSA	56	27	70	14	41	3	0.06	-0.43	0.06	2.55	104	33.50	81	86	40	0	4	1	0
	ASTORIA	55	44	61	38	49	6	6.33	3.89	2.28	11.55	108	70.30	100	97	78	0	0	7	4
	BURNS	39	23	43	10	31	6	1.09	0.75	0.84	2.37	156	7.88	75	92	72	0	5	4	1
PA	EUGENE	55	44	62	39	49	9	3.10	1.60	1.31	5.00	69	30.89	75	96	80	0	0	6	3
	MEDFORD	56	42	75	36	49	10	3.15	2.40	1.13	4.00	113	14.17	76	95	62	0	0	5	2
	PENDLETON	49	34	58	23	41	8	0.43	0.08	0.22	1.48	98	15.62	121	84	52	0	2	5	0
	PORTLAND	49	41	55	33	45	4	4.76	3.55	1.69	8.35	144	39.79	107	93	76	0	0	6	3
	SALEM	54	44	60	40	49	8	3.52	2.04	1.56	5.60	80	39.57	98	96	80	0	0	7	3
	ALLENTOWN	41	22	59	11	32	-1	0.34	-0.43	0.34	4.34	112	45.50	96	80	48	0	7	1	0
	ERIE	41	28	64	12	35	4	0.34	-0.59	0.30	1.05	25	47.57	110	85	59	0	4	2	0
	MIDDLETOWN	42	24	55	14	33	0	0.33	-0.36	0.33	4.35	127	40.82	92	83	52	0	5	1	0
	PHILADELPHIA	44	26	58	17	35	-1	0.30	-0.49	0.30	4.81	121	39.45	89	83	49	0	6	1	0
	PITTSBURGH	40	24	64	7	32	1	0.14	-0.50	0.12	1.66	58	37.28	94	84	55	0	5	2	0
RI	WILKES-BARRE	41	25	58	10	33	3	0.03	-0.55	0.03	3.65	130	40.74	105	80	52	0	5	1	0
	WILLIAMSPORT	40	23	56	13	31	1	0.07	-0.59	0.07	5.08	155	40.00	91	82	54	0	5	1	0
	PROVIDENCE	44	25	62	12	34	2	0.49	-0.42	0.49	6.00	129	45.39	95	83	49	0	6	1	0
SC	CHARLESTON	62	34	76	21	48	-2	0.16	-0.60	0.16	1.66	49	48.51	92	85	37	0	4	1	0
	COLUMBIA	57	28	68	14	42	-4	0.11	-0.80	0.11	2.99	80	40.50	89	91	45	0	5	1	0
	FLORENCE	58	28	76	14	43	-4	0.01	-0.83	0.01	2.71	78	37.31	82	89	37	0	5	1	0
SD	GREENVILLE	51	27	65	13	39	-4	0.07	-0.98	0.07	4.44	97	53.70	108	82	40	0	5	1	0
	ABERDEEN	22	2	30	-20	12	-2	0.20	0.05	0.20	1.44	234	19.20	88	94	76	0	7	1	0
	HURON	28	10	38	-11	19	2	0.10	-0.04	0.10	1.74	263	16.43	70	89	72	0	7	1	0
TN	RAPID CITY	46	17	59	2	32	8	0.00	-0.09	0.00	0.69	194	15.58	89	85	48	0	7	0	0
	SIOUX FALLS	30	15	39	-8	22	3	0.33	0.16	0.21	1.62	194	23.33	83	80	65	0	6	2	0
	BRISTOL	49	23	66	8	36	-1	0.48	-0.30	0.47	3.85	102	40.95	93	88	47	0	6	2	0
TX	CHATTANOOGA	54	28	69	16	41	-1	0.04	-1.04	0.03	6.06	115	54.74	99	87	39	0	5	2	0
	KNOXVILLE	49	26	68	12	38	-2	0.11	-0.91	0.10	5.48	109	51.71	99	90	48	0	6	2	0
	MEMPHIS	52	37	64	21	45	2	0.79	-0.33	0.43	5.91	107	53.21	96	88	60	0	4	4	0
	NASHVILLE	52	33	68	14	43	2	0.75	-0.13	0.39	4.40	99	50.89	100	85	44	0	4	4	0
	ABILENE	64	36	76	23	50	4	0.01	-0.26	0.01	0.46	36	14.47	57	72	27	0	3	1	0
	AMARILLO	61	31	69	19	46	8	0.00	-0.17	0.00	0.15	21	15.93	81	68	23	0	5	0	0
	AUSTIN	68	40	78	24	54	2	0.00	-0.65	0.00	1.89	69	19.99	55	81	34	0	3	0	0
	BEAUMONT	67	42	79	25	55	1	3.66	2.49	3.57	5.63	113	50.89	81	97	51	0	3	2	1
	BROWNSVILLE	73	50	83	38	62	-1	0.00	-0.27	0.00	0.26	21	28.31	105	95	47	0	0	0	0
	CORPUS CHRISTI	71	41	82	25	56	-2	0.00	-0.44	0.00	0.31	16	23.34	73	92	40	0	2	0	0
UT	DEL RIO	69	36	83	23	53	1	0.00	-0.14	0.00	0.00	0	5.70	29	75	28	0	3	0	0
	EL PASO	63	37	68	22	50	5	0.16	0.03	0.16	0.32	50	9.57	108	64	29	0	3	1	0
	FORT WORTH	64	37	74	22	51	5	0.00	-0.65	0.00	2.37	83	39.11	105	74	35	0	3	0	0
	GALVESTON	63	48	75	35	56	-1	1.46	0.61	0.93	3.17	74	35.54	75	91	64	0	0	2	2
	HOUSTON	66	41	77	26	54	0	1.16	0.30	0.82	3.83	95	40.44	78	91	46	0	2	2	1
	LUBBOCK	63	33	72	18	48	8	0.00	-0.17	0.00	0.41	55	13.76	75	65	22	0	4	0	0
	MIDLAND	64	34	75	18	49	4	0.00	-0.13	0.00	0.08	14	8.87	65	70	26	0	3	0	0
	SAN ANGELO	65	34	76	18	49	3	0.00	-0.20	0.00	1.02	114	13.53	64	80	28	0	3	0	0
	SAN ANTONIO	68	37	77	22	53	1	0.00	-0.44	0.00	0.47	23	11.20	34	82	29	0	3	0	0
	VICTORIA	70	38	81	20	54	-1	0.02	-0.54	0.02	1.43	61	23.15	57	95	43	0	3	1	0
VA	WACO	65	32	77	16	49	1	0.00	-0.69	0.00	0.56	19	20.48	56	91	38	0	3	0	0
	WICHITA FALLS	63	30	75	18	47	5	0.00	-0.31	0.00	2.02	129	19.13	68	76	28	0	4	0	0
	SALT LAKE CITY	45	33	55	29	39	9	0.74	0.43	0.36	2.29	163	12.00	77	90	60	0	3	4	0
VT	LYNCHBURG	51	24	67	11	38	1	0.87	0.16	0.87	5.58	159	46.01	107	80	39	0	6	1	1
	NORFOLK	53	30	68	19	41	-3	1.10	0.38	1.10	2.84	86	35.45	72	90	45	0	5	1	1
	RICHMOND	53	26	69	14	39	0	0.41	-0.32	0.41	4.50	128	38.89	85	82	41	0	5	1	0
WA	ROANOKE	50	26	65	14	38	-1	0.16	-0.47	0.16	3.93	127	46.50	108	78	40	0	6	1	0
	WASH/DULLES	49	23	66	7	36	1	0.25	-0.41	0.25	4.91	148	40.09	92	84	43	0	6	1	0
	BURLINGTON	40	29	58	12	35	10	0.19	-0.35	0.19	2.57	103	38.24	101	72	53	0	5	1	0
WI	OLYMPIA	50	41	55	33	45	7	3.83	2.04	1.74	7.62	97	50.81	100	99	85	0	0	7	3
	QUILLAYUTE	51	42	56	37	47	6	6.23	3.07	2.15	14.61	105	92.85	91	100	85	0	0	7	4
	SEATTLE-TACOMA	51	44	57	41	47	6	2.64	1.36	1.29	7.50	131	40.18	102	93	72	0	0	7	2
WY	SPOKANE	38	30	44	22	34	6	1.52	0.99	1.02	3.54	151	17.08	103	96	76	0	4	5	1
	YAKIMA	37	23	46	10	30	0	0.99	0.66	0.47	2.14	149	7.14	89	92	70	0	7	4	0
	EAU CLAIRE	27	7	42	-7	17	0	0.00	-0.26	0.00	1.02	75	21.31	64	85	68	0	7	0	0
WV	GREEN BAY	32	16	51	-1	24	3	0.03	-0.33	0.03	1.69	96	31.56	99	86	66	0	6	1	0
	LA CROSSE	29	13	45	-2	21	0	0.15	-0.14	0.10	2.02	135	26.83	76	84	64	0	6	3	0
	MADISON	34	15	55	-1	24	3	0.09	-0.22	0.09	2.33	143	35.84	96	82	62	0	6	1	0
WY	MILWAUKEE	38	21	60	5	30	3	0.07	-0.32	0.07	2.27	120	34.37	99	75	55	0	6	1	0
	BECKLEY	44	26	63	5	35	1	0.41	-0.28	0.41	2.77	84	47.63	109	81	48	0	4	1	

December 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: December temperatures were generally on par with historical values, although temperatures late in the month were some of the lowest recorded in recent history. December began dry but the State received a significant amount of precipitation the rest of the month to improve drought conditions. Total rainfall for the month ranged from 2.1 inches in Talladega County to 9.6 inches in Cullman County. According to the U.S. Drought Monitor, 49 percent of the State had abnormally dry conditions by month's end, compared to 84 percent at the month's beginning. Most producers harvested row crops in a timely manner, but some cotton harvest was behind schedule due to equipment issues and rainy weather. Winter wheat planting continued throughout the month on schedule, but reporters in some areas noted that the late cold weather caused damage to the crop. Some fruit and vegetable producers reported losses due to the extended period below freezing. The cold spell also caused damage to winter grazing conditions throughout much of the State. Livestock were reported to be in mostly fair condition, with producers using significant supplemental feeding due to poor winter grazing conditions.

ALASKA: DATA NOT AVAILABLE

ARIZONA: This report for Arizona is for the month of December 2022. Responses were based on the entire month, with consideration for any weather-related impacts that are forecast between now and month's end. By the end of the month, cotton harvest was 98 percent complete, compared with 68 percent on the last report and 97 percent for the previous year, according to the Mountain Regional Field Office of the National Agricultural Statistics Service, USDA. Twenty-six percent of barley has been planted and 9 percent has emerged. Twenty-two percent of Durum wheat has been planted and 4 percent has emerged. Ninety-five percent of the alfalfa crop was rated good to excellent depending on location last week, with harvesting taking place on more than three-quarters of the alfalfa acreage across the State. For the entire State, 79 percent of the pasture and range was rated fair to good as soil moisture conditions remained mostly adequate. According to the United States Drought Monitor for December 27, severe drought covered 7.9 percent of the State. The State was free of extreme and exceptional drought. In the northwestern part of the State, some spotty, heavy rains and snowfall were reported, but some areas were still very dry. Most range conditions fall in the fair category due to the presence of different weed species. In the western part of the State, last week rains have helped to improve soil moisture, but overall, during the entire month, below normal precipitation has affected soil conditions. In the last 30 days, the average minimum temperature was reported around 15 degrees Fahrenheit, mostly in the north-central and central-east part of the State.

ARKANSAS: For the week ending January 1, 2023, topsoil moisture 2% short, 38% adequate, 60% surplus. Subsoil moisture 2% very short, 6% short, 38% adequate, 54% surplus. Days suitable for fieldwork during the month of December were 17.0 days. December conditions for the State were cold and wet. Significant rainfall and major freeze events occurred with subzero wind chill taking a toll on cool season forages. Ranchers

continued winter feeding and herd management while row crop farmers continued equipment maintenance and input planning for the upcoming season.

CALIFORNIA: For the week ending January 1, 2023 - Days suitable for fieldwork 3.4. Topsoil moisture 5% short, 40% adequate, 55% surplus. Subsoil moisture 10% short, 45% adequate, 45% surplus. Winter wheat condition 5% fair, 85% good, 10% excellent. Snowpack content ranged between 13 and 16 inches in the Northern, Southern and Central Sierras. Field work was limited due to abundant precipitation and muddy fields. Precipitation and cool temperatures have been beneficial for dryland wheat and oats. Wheat, oats, and barley were planted. Irrigated pastures have benefitted from the recent rains and were growing well. Most cotton gins had completed their season. Strawberry fields were prepared for next year's crop. Blueberries were planted. Fields were prepped and planted with winter vegetables. Persimmons were harvested. Pecans were harvested in Tulare County. Navel orange, mandarin, grapefruit, lime, and lemon harvests continued but were slowed at the end of December due to heavy rain. In the Central Valley, walnuts and almonds were sprayed for weeds.

COLORADO: This report for Colorado is for the entire month of December 2022. Topsoil moisture 12% very short, 24% short, 62% adequate, 2% surplus. Subsoil moisture 26% very short, 37% short, 37% adequate. Winter wheat condition 5% very poor, 10% poor, 35% fair, 50% good. Livestock condition 5% very poor, 8% poor, 33% fair, 46% good, 8% excellent. Pasture and range condition 11% very poor, 24% poor, 24% fair, 41% good. Moderately dry weather across the State during the month of December was interspersed with a few productive snowstorms. According to the latest U.S. Drought Monitor report, 86 percent of the State is abnormally dry or in a state of drought. Just under 31 percent of the State is in severe to exceptional drought, a much better start than 2022 when over 67 percent of the State was under severe to exceptional drought conditions. Productive snowstorms during the latter half of December improved moisture across the State, and greatly boosted snowpack. During the third week of December, bitter cold and snow moved across the State, causing temperatures to drop as low as -30 degrees. Northeastern counties remained very dry, but received beneficial moisture at the end of December, accumulating one to three inches above normal precipitation levels. Drought conditions deteriorated in southeastern counties since the end of the growing season, with most counties in a severe drought or worse. Livestock producers continued to utilize winter grazing arrangements where available. In southwestern counties, reporters noted snow events had provided good topsoil moisture. The San Luis Valley has received limited snowfall this winter, leaving soils dry and rangeland deteriorating. According to county reports, livestock were in fair condition and hay supplies were short. Producers continued to provide feed supplements due to poor range conditions. Statewide, winter wheat condition improved, with 50 percent of the crop rated good to excellent, compared with 30 percent good to excellent from the previous report and 25 percent good to excellent last year. As of January 1, 2023,

snowpack in Colorado was 124 percent measured as percent of median snowfall.

DELAWARE: The month of December saw a mix of extremely cold temperatures throughout most of the month, with unseasonably high temperatures and freezing conditions during the last week of the month. Farmers are concerned about what impact the weather fluctuations will have on small grains and livestock.

FLORIDA: December temperatures were on par with historical averages, although a cold spell at the end of the month brought significantly colder than normal temperatures. Total rainfall for the month ranged from trace amounts in Hernando County to over 9 inches in Pasco County. According to the U.S. Drought Monitor, 41 percent of the State had abnormally dry conditions by month's end, compared to 33 percent at the month's beginning. Most of the State received little precipitation last month, which worsened drought conditions in the northern region of the State. Pasture conditions remained mostly fair to good, although the cold spell at the end of the month brought damage to pastures across the State. Livestock remained in mostly fair to good condition as well, but there were some reports of cattle death due to the cold spell. Sugarcane planting and harvest progressed well throughout December. Citrus grove activities throughout the month included mowing, fertilizing, maintenance hedging, spraying and general grove maintenance. Early oranges and red grapefruit that were not damaged by the hurricanes in the fall shipped to packing houses. Vegetables that were planted and harvested during December include green beans, yellow squash, zucchini, sweet corn, boniato, and avocados.

GEORGIA: December temperatures were generally on par with historic averages. Total rainfall for the month ranged from 1.0 inch in Glynn County to 7.1 inches in Lumpkin County. According to the U.S. Drought Monitor, 54 percent of the State had abnormally dry conditions and 28 percent had moderate drought conditions by month's end, compared to 70 percent abnormally dry and 41 percent with moderate drought at the month's beginning. Excessive rainfall in some areas throughout the month limited winter field activities. Severe cold temperatures around the end of December caused stress on crops and livestock across the State. Livestock were reported to be in mostly fair condition, although some calves were noted to have been affected by the cold. The cold weather hurt cool season forages and winter grazing growth, thus prompting producers to increase supplemental feeding. Hay supplies were reported to be running low. Winter wheat growth was reported to have been stalled in some areas due to the below freezing temperatures but have since shown signs of recovery. Late planted cotton continued to be harvested and is nearing completion. Some cotton was severely damaged with bolls not opening in central Georgia.

HAWAII: DATA NOT AVAILABLE

IDAHO: The average temperatures in Idaho for the month of December varied from below normal to normal for most regions of the State. Accumulated precipitation remained slightly below to slightly above normal for the water year. Northern Idaho had cooler than average temperatures and heavy snowfalls throughout December. In southwest Idaho, temperatures were above freezing, with good precipitation. Hay stocks looked good. In south central Idaho, conditions were cold with little moisture. Rain on top of frozen soil caused some ponding in late

December. Weather conditions were favorable for livestock. In eastern Idaho, temperatures were below normal, with heavy snowfall. While reservoir levels remained low, growers were cautiously optimistic about the snowpack in Bonneville and Madison Counties. Livestock was fed hay, and hay stores were adequate. Teton County experienced extremely cold temperatures followed by warmer temperatures leading to ice buildup in some areas. Bannock and Bingham Counties received persistent moisture in the form of snow and rain.

ILLINOIS: For the week ending January 1, 2023. Topsoil moisture 8% short, 82% adequate, 10% surplus. Subsoil moisture 6% very short, 23% short, 66% adequate, 5% surplus. Statewide, the average temperature in December was 30.0 degrees, 0.01 degree above normal. Precipitation averaged 2.47 inches, 0.22 inch below normal.

INDIANA: Topsoil moisture for the month of December was 6% very short, 19% short, 63% adequate, and 12% surplus. Subsoil moisture for the month was 9% very short, 30% short, 54% adequate, and 7% surplus. Winter wheat condition was rated 2% very poor, 6% poor, 30% fair, 52% good, and 10% excellent. Statewide temperatures averaged 31.8 degrees, 0.7 degree above normal for the month of December. Statewide average precipitation was 2.35 inches, 0.71 inch below normal. December was off to a mild start, but gradually became colder as the month progressed. Except for a relatively warm week in early December, average temperatures hovered around normal for most of the month. Precipitation levels were below normal for the month of December, but some rain and snow events towards the end of the month helped replenish soil moisture. Winter wheat conditions remained relatively unchanged from the previous month with 62 percent of the crop rated in good to excellent condition. Livestock were reported to be doing well despite enduring a severe cold snap toward the end of the December. Other activities for the month included equipment maintenance, construction projects, manure applications, grain hauling, and completion of paperwork.

IOWA: Weather conditions were normal for December until late in the month when an Arctic cold front swept across the State creating blizzard conditions with wind gusts of 45-55 mph and wind chills down to -40 degrees. Most cattle producers were well-prepared, although there were some cattle deaths. Some swine and poultry illnesses were also reported. There were frozen water sources, wells, and pipes due to a week of below-freezing temperatures. Grain movement was hindered briefly by heavy and blowing snow and high winds. Fieldwork activities early in the month included planting cover crops, bulldozing, applying fertilizer, and tilling. Soil moisture levels continue to be a concern due to below average precipitation as farmers look forward to the 2023 crop year.

KANSAS: For the week ending January 1, 2023, topsoil moisture supplies rated 43% very short, 26% short, 29% adequate, 2% surplus. Subsoil moisture supplies rated 47% very short, 34% short, 18% adequate, 1% surplus. Winter wheat condition rated 23% very poor, 26% poor, 32% fair, 17% good, 2% excellent.

KENTUCKY: For the month of December, Kentucky saw above normal temperatures and below normal precipitation. The State has now received below normal precipitation for four months straight. Despite the low totals, overall spatial drought coverage was reduced from November. Although temperatures for the month were mild overall, an arctic event during the week of

Christmas brought extremely cold weather and snow with wind chills well below zero. Temperatures for the period averaged 39 degrees across the State, 1 degree above normal. Precipitation (liq. equ.) for the period totaled 3.55 inches Statewide, which was 0.66 inch below normal and 84% of normal. Drought stunted fall pasture growth causing many farmers to begin feeding hay early. For the month, hay supplies 5% very short, 22% short, 65% adequate, 8% surplus. Livestock condition 1% very poor, 5% poor, 29% fair, 57% good, 8% excellent. Condition of winter wheat 5% very poor, 7% poor, 25% fair, 59% good, 4% excellent. Tobacco stripping 82% complete.

LOUISIANA: For the week ending January 1, 2023, topsoil moisture 1% very short, 1% short, 38% adequate, 60% surplus. Subsoil moisture 1% very short, 1% short, 62% adequate, 36% surplus. Days suitable for fieldwork during the month of December were 18.0 days. December conditions for the State were filled with excessive rain and severe weather. Several days consisted of below freezing temperatures and encounters with flash flood events leaving some fields incapable of equipment activity. Sugarcane harvest continued through the month with extremely wet field conditions, many producers reported concerns from freeze damage. A stretch of very cold temperatures in late December injured or killed most unprotected vegetables and the freeze events offered significant burn to the wheat crop and winter forages for livestock grazing. Crawfish producers will soon begin harvest efforts.

MARYLAND: The month of December saw a mix of extremely cold temperatures throughout most of the month, with unseasonably high temperatures and freezing conditions during the last week of the month. Despite the weather fluctuations, small grains and livestock in the State were reported in good condition. Farmers are beginning to spread lime as land begins to dry out.

MICHIGAN: Topsoil moisture 2% very short, 10% short, 82% adequate, 6% surplus. Subsoil moisture 5% very short, 27% short, 65% adequate, 3% surplus. Winter wheat condition rated 2% very poor, 4% poor, 23% fair, 51% good, 20% excellent. Precipitation for the month of December averaged 2.09 inches throughout the State, 0.16 inch below normal. Temperature for the month of December averaged 27.3 degrees, 2.5 degrees above normal. Approximately 52 percent of the State experienced abnormally dry conditions or worse, with 32 percent experiencing moderate drought and 10 percent experiencing severe drought conditions, according to the US Drought Monitor. The driest areas included the southeastern and thumb regions of the Lower Peninsula. Soil moisture in western counties in the Lower Peninsula remained high while mid and eastern counties continued to have opportunities to complete harvest activities, wheat plantings, fall tillage, or fertilizer and manure applications due to dry conditions. Blizzard conditions and extremely cold weather halted fieldwork across the State between December 23rd and 26th. Unusually warm weather followed and much of the snow cover melted away. Other activities for the month included tilling work, purchasing seed, preparing equipment for spring, and tending livestock.

MINNESOTA: The average temperature for the month of December was a few degrees cooler than normal across the State. This was largely due to a cold stretch between the 20th and 25th of the month, covering the State in average temperatures 15 to 25 degrees below normal. Snowfall accumulation for the month was higher than normal for December, with most regions receiving 5 to 15 more inches than

usual. Snow cover as of December 29 was higher than usual, with much of the northern half of the State having at least 15 inches of snow on the ground. In the southern half of the State, snow cover ranged from about a foot in the north to about a half-foot in the south. No major livestock losses have been reported.

MISSISSIPPI: For the week ending January 1, 2023, topsoil moisture supplies were 1% very short, 5% short, 74% adequate, and 20% surplus. Subsoil moisture supplies were 5% short, 74% adequate, and 21% surplus. Days suitable for fieldwork during the month of December were 19.0 days. Conditions for most of December have been mild, but late December brought freezing winter conditions. Late freezing temperatures caused severe damage to winter wheat and cover crops in some areas. Livestock conditions decreased with the cold front and set back winter pastures dramatically. The cold front burned down rye grass and killed it in some cases which kept those producers from getting a start on early grazing. Plant leaves were yellow in most areas throughout the State with minimum growth. Overall, with a mix of cold and warm temperatures for the month of December, crop progress for Mississippi should increase with a consistent warmer weather pattern.

MISSOURI: For the week ending January 1, 2023. Topsoil moisture 4% very short, 14% short, 76% adequate, and 6% surplus. Subsoil moisture 8% very short, 33% short, 59% adequate, and 0% surplus. Winter wheat condition 0% very poor, 3% poor, 27% fair, 66% good, and 4% excellent. Statewide, precipitation averaged 2.37 inches for the month of December, 0.45 inch below average. Temperatures averaged 33 degrees, 0.1 degree above normal.

MONTANA: This report for Montana is for the entire month of December 2022. Topsoil moisture 19% very short, 27% short, 53% adequate, 1% surplus. Subsoil moisture 27% very short, 40% short, 32% adequate, 1% surplus. Winter wheat - condition 1% very poor, 10% poor, 67% fair, 16% good, 6% excellent. Winter wheat - wind damage 82% none, 13% light, 4% moderate, 1% heavy. Winter wheat - freeze and drought damage 77% none, 22% light, 1% moderate. Winter wheat - protectiveness of snow cover 1% very poor, 36% poor, 25% fair, 14% good, 24% excellent. Pasture and range - condition 24% very poor, 17% poor, 28% fair, 30% good, 1% excellent. Livestock grazing accessibility - 23% open, 37% difficult, 40% closed. Livestock receiving supplemental feed - cattle and calves 95% fed. Livestock receiving supplemental feed - sheep and lambs 88% fed. The month of December brought little precipitation and cool temperatures to Montana. Limited precipitation for the month did little to change drought conditions in the State. According to the US Drought Monitor published on December 29, 2022, 87.9 percent of the State continues to experience drought conditions, unchanged from the end of the November. The amount of land rated as abnormally dry was 28.0 percent, compared to 21.2 percent at the end of November. Moderate drought was present across 24.8 percent of the State, down slightly from 26.2 percent at the end of November. Severe drought covered 22.9 percent of the State, down from last month's 25.0 percent and extreme drought was found in 12.2 percent of the State, down from last month's 15.5 percent.

NEBRASKA: For the week ending January 1, 2023, topsoil moisture supplies rated 33% very short, 40% short, 27% adequate, and 0% surplus. Subsoil moisture supplies rated 39% very short, 44% short, 17% adequate, and 0% surplus.

Winter wheat condition rated 10% very poor, 26% poor, 46% fair, 16% good, and 2% excellent.

NEVADA: For the week ending January 1, 2023 - Days suitable for fieldwork 0.8. Topsoil moisture 25% short, 75% adequate. Subsoil moisture 30% short, 70% adequate. The US Drought Monitor shows 75% of the State in D2 and more than 24% in D3. Winter storms and snowpack buildup halted field work operations. Cattle are receiving supplemental feed.

NEW ENGLAND: New England States experienced very variable weather - cold days, snow, rain, and periods of warmth. Christmas Eve in some parts of New England was the coldest in nearly 50 years. High winds in the Boston and northern New England areas caused power outages, potentially forcing some residents to go without heat in below-freezing conditions. Snow changed to rain as 2022 ended. According to a New Hampshire reporter, most of the counties had 3 or more inches of snow on the ground after a stiff windstorm on December 23rd, 2022. Power outages happened a few times but came back on quickly. According to a Vermont reporter most of the counties received about 24 inches of snow in December, but recent heavy rain and above freezing temperatures has melted most of it. Large amounts of rainfall through the holidays have provided ample water for wells and flooded some lowlands. Some freezing and thawing, however not a lot of ice, so not much impact on winter kill to date. Farm activities varied in December and included combining corn and spreading manure (CT), shipping potato crops (ME), planning for the 2023 season (NH) harvesting some cold crops and seeding winter rye (RI). In Vermont, strong winds brought down trees on maple sap lines at tapping time which has delayed progress. Orchardists prepared for pruning apple trees and Christmas tree growers finished up their season. Fresh greens were sold at winter farmers markets. Farmers looking forward to 2023 and how they will deal with high input costs in crop production and changing weather patterns.

NEW JERSEY: The temperatures this month went from warm to below normal to warm again. In addition to the temperature fluctuations, there has been a significant amount of precipitation. Cover crops were growing with the warmer temperatures. Vegetable and herb growers were seeding in the greenhouses to start early plantings in late February or early March.

NEW MEXICO: This report for New Mexico is for the month of December 2022. Topsoil moisture 41% very short, 35% short, 23% adequate, 1% surplus. Subsoil moisture 42% very short, 35% short, 23% adequate. Corn harvested for grain 98%, 99% last year. Cotton harvested 85%, 99% last year. Onions planted 99%; emerged 95%. Pecans harvested 84%, 70% last year. Pecan condition 1% very poor, 1% poor, 36% fair, 24% good, 38% excellent. Winter wheat condition, 22% poor, 58% fair, 19% good, 1% excellent. Cattle receiving supplemental feed 57%, 69% last year. Cattle condition 1% very poor, 5% poor, 49% fair, 34% good, 11% excellent. Sheep receiving supplemental feed 71%, 61% last year. Sheep and lambs condition 11% very poor, 31% poor, 38% fair, 19% good, 1% excellent. Hay and roughage supplies 17% very short, 38% short, 41% adequate, 4% surplus. Stock water supplies 24% very short, 40% short, 36% adequate. Dry conditions prevailed across the State during the month of December and further depleted soil moisture supplies. Row crop harvest wrapped up in several areas. Compared to last year, cotton harvest at the end of the month was behind last year while pecan harvest was ahead of last year's progress. Comments from Union County noted little moisture received during the month was accompanied by high winds. Temperatures varied

widely in the area with overnight lows dipping below zero. Other eastern counties noted conditions remained dry and monthly precipitation was minimal. Across the State, livestock were grazing recently seeded winter wheat fields and pasture grass where available. County reports noted reduced livestock numbers on wheat or pasture due to dry conditions. Winter wheat condition declined. Converted moisture totals during the past month ranged from no precipitation to approximately 4 inches. Significant precipitation was mostly confined to western and central counties. Most counties saw below average precipitation during December and remained below average for the year. Isolated areas in a few counties continued to register yearly rainfall accumulation at or below 50 percent of normal. Conversely, yearly precipitation for an area centered over portions of Catron, Cibola, and Socorro Counties totaled 200 percent of normal or more. Average temperatures during December were generally above normal except for a few northeastern counties that were at or below normal. According to the United States Drought Monitor for December 27, exceptional drought (D4) continued its hold across a portion of land in Union County. Extreme drought (D3) was noted across 3.6 percent of the State, severe drought (D2) covered 14.8 percent, moderate drought (D1) covered 23.2 percent, and abnormal dryness (D0) covered 51.2 percent. Drought free conditions covered 7.0 percent of the State.

NEW YORK: December weather had extremes with a few areas experiencing large temperature fluctuations. Some northern and southeastern parts of the State, including Long Island, experienced abnormally dry conditions according to the U.S. Drought monitor. Snowfall varied across the State with the northwestern parts experiencing record levels and sheets of ice on fields. For other parts of the State, snow was temporary with temperatures warming back up. There were no reports that livestock were impacted by the weather, however there was concern on the impact to honeybees. Vineyards began dormant pruning which will continue until the spring.

NORTH CAROLINA: For the week ending January 1, 2023 - Subsoil moisture 2% very short, 22% short, 57% adequate and 19% surplus. Topsoil moisture 2% very short, 17% short, 59% adequate and 22% surplus. Barley condition 2% poor, 16% fair, 80% good and 2% excellent. Hay and roughage supplies 1% very short, 17% short, 81% adequate and 1% surplus. Oat condition 1% poor, 21% fair, 77% good and 1% excellent. Pasture and range condition 4% very poor, 14% poor, 66% fair, 15% good and 1% excellent. Winter wheat condition 18% fair, 75% good and 7% excellent. December was mild and warm in the first half of the month followed by a cold wave around the Christmas holiday. The weather warmed up at the end of the month.

NORTH DAKOTA: For the week ending January 1, 2023, topsoil moisture supplies rated 8% very short, 34% short, 52% adequate, 6% surplus. Subsoil moisture supplies rated 10% very short, 41% short, 45% adequate, 4% surplus. Winter wheat condition rated 1% very poor, 3% poor, 48% fair, 46% good, 2% excellent. Cattle and calf conditions, 1% very poor, 6% poor, 37% fair, 51% good, 5% excellent. Sheep and lamb conditions, 2% very poor, 5% poor, 39% fair, 47% good, 7% excellent. Hay and roughage supplies, 1% very short, 9% short, 87% adequate, 3% surplus. Stock water supplies, 2% very short, 16% short, 80% adequate, 2% surplus.

OHIO: Topsoil moisture for the month was 2% very short, 10% short, 65% adequate, 23% surplus. Subsoil moisture for the

month was 7% very short, 24% short, 61% adequate, 8% surplus. Winter wheat condition was rated 2% very poor, 8% poor, 37% fair, 46% good, 7% excellent. The Statewide average temperature was 32.5 degrees, 0.8 degree above normal. Precipitation averaged 1.79 inches Statewide, 1.13 inches below normal for December. Approximately 64 percent of the State experienced abnormally dry conditions or worse, with 43 percent experiencing moderate drought, according to the US Drought Monitor. After a near average few weeks of temperatures and precipitation, a widespread deep cold weather pattern developed on December 22 with high winds and sub-zero temperatures, which remained for several days. Above average temperatures returned after Christmas with abnormally warm temperatures across much of the State, which resulted in all snow cover melting. The wild temperature swings created stress for livestock, especially younger animals. While some damage to winter wheat was reported, crop conditions have remained stable for the month.

OKLAHOMA: For the month of December, rainfall totals averaged 1.86 inches throughout the State, with the East Central district recording the highest precipitation at 3.15 inches and the Panhandle district recording the lowest precipitation at 0.16 of an inch. According to the December 27th US Drought Monitor Report, 98 percent of the State was in the abnormally dry to exceptional drought category, up 3 percent from the previous year. Additionally, 90 percent of the State was in the moderate drought to exceptional drought category, unchanged from the previous year. Statewide temperatures averaged in the high 30's and low 40's, with the lowest recording of -7 degrees at Vinita on Thursday, December 22 and the highest recording of 83 degrees at Tipton on Monday, December 5. Topsoil and subsoil moisture conditions were rated mostly adequate to short.

OREGON: Moisture conditions throughout the State ranged from very wet to wet for December. However, the western part of Oregon was below normal for seasonal precipitation. Temperatures ranged from lower than normal to normal. Clackamas, Multnomah, and Washington Counties reported record low temperatures and flooding in low areas. In Columbia, Multnomah, and Washington Counties, berries had floral buds, and other agronomic crops were in good condition. Low temperatures affected some nursery container materials. Polk County reported normal conditions. Benton and Lincoln Counties reported cold conditions likely affected livestock. A snowstorm resulted in downed trees that contributed to power outages. Tillamook and Clatsop Counties reported very wet conditions. Fields were seeded, but growth was slow. Gilliam, Hood River, Sherman, and Wasco Counties reported runoff due to freezing temperatures, resulting in isolated flooding of fields with diversion ditches full of standing water. Cattle started to calve, and no losses were reported due to the weather. Umatilla and Wallowa Counties reported runoff and erosion in some fields due to frost and high precipitation. Winter wheat was doing well, however, some winter wheat stands were late to emerge due to a lack of autumn precipitation, resulting in a lack of overall number of stands. Douglas, Jackson, and Josephine Counties reported good rainfall, albeit below average. Malheur County reported snowpack and annual precipitation above 100 percent for both the Owyhee and Malheur River Basins. They still had a long way to go due to reservoirs being completely drained last crop season. Growers were hesitant to acquire seeds and other supplies for crops that require vast amounts of water, such as corn. Wheeler County reported good moisture conditions. However, erosion of fields was reported due to frozen soil.

PENNSYLVANIA: For the month of December, the State experienced fluctuating warm temperatures and little snowfall. There was an extreme cold snap followed by warmer than normal temperatures that allowed some farmers to finish up harvesting. The heavy rain followed by an extreme cold snap over Christmas has frozen the ground. That allowed a lot of manure to get spread but once it warms up it will be a long time until the fields are fit to work again. Fluctuating temperatures and humidity are not particularly healthy for cattle in the barn nor for tobacco hanging in the shed. Some tobacco was getting moldy tips from excessive moisture in the sheds.

SOUTH CAROLINA: December temperatures were 1.0 to 3.2 degrees cooler than historic averages depending on location. Total rainfall during the month ranged from 1.6 inches in Charleston County to 5.9 inches in Greenwood County. According to the U.S. Drought Monitor, 51 percent of the State was experiencing abnormally dry conditions by month's end, compared to 32 percent at the beginning of the month. Harvest of cotton and soybeans continued throughout the month as conditions allowed. Planting of winter wheat also carried on into December, with emergence aided by sufficient rainfall in most areas. Freezing temperatures during the last part of December caused stress to livestock and damage to cool season small grain crops, with oats noted to have been damaged the most in the Lowcountry region.

SOUTH DAKOTA: For the week ending January 1, 2023, topsoil moisture supplies rated 16% very short, 33% short, 48% adequate, 3% surplus. Subsoil moisture supplies rated 24% very short, 38% short, 36% adequate, 2% surplus. Winter wheat condition rated 5% very poor, 16% poor, 63% fair, 16% good, and 0% excellent.

TENNESSEE: For the week ending January 1 - Days suitable 2.5. Topsoil moisture 6% short, 65% adequate, 29% surplus. Subsoil moisture 6% short, 74% adequate, 20% surplus. Winter wheat condition 6% very poor, 18% poor, 36% fair, 35% good, 5% excellent. Pasture and Range condition 8% very poor, 20% poor, 43% fair, 27% good, 2% excellent. Cattle condition 1% very poor, 5% poor, 37% fair, 49% good, and 8% excellent. Hay and roughage supplies 2% very short, 23% short, 68% adequate, 7% surplus. Tennessee experienced variable weather with an extreme cold snap mid-December and then unseasonably warm temperatures to round out the end of the month. Cold temperatures placed considerable strain on wheat, pasture, cattle, and production infrastructure including pipes and pumps. Forage stockpiles have been negatively influenced throughout the season by low rainfall, frigid events, and minimal snow to mitigate the cold, dry air.

TEXAS: For the month of December, precipitation mostly ranged from trace amounts to upwards of 3 inches; however, isolated areas in Southeast Texas and the Upper Coast received between 8 to 15 inches of rainfall. Cotton harvest was nearly complete throughout the State. Pecan harvest continued in the Southern High Plains and the Cross Timbers. Citrus, sugarcane, and vegetables were being harvested in the Lower Valley. Small grains seeding was nearing completion; however, development was behind normal in some areas due to cold, wet weather conditions. Range and pasture conditions were rated 67 percent poor to fair. Supplemental feeding continued Statewide.

UTAH: This report for Utah is for the entire month of December 2022. Topsoil moisture 7% short, 65% adequate, 28% surplus. Subsoil moisture 8% short, 65% adequate, 27% surplus. Pasture

and range condition 11% very poor, 17% poor, 70% fair, 2% good. Winter wheat condition 10% poor, 22% fair, 58% good, 10% surplus. Hay and roughage supplies 18% short, 82% adequate. Stock water supplies 1% very short, 17% short, 79% adequate, 3% surplus. Cattle and calves condition 1% poor, 15% fair, 71% good, 13% excellent. Sheep and lambs condition 6% poor, 34% fair, 57% good, 3% excellent. Livestock receiving supplemental feed for cattle 60%. Livestock receiving supplemental feed for sheep 50%. Cows calved 1%. Ewes lambing 1%. As of January 1, 2023, snowpack in Utah was 170 percent measured as percent of median snowfall.

VIRGINIA: Topsoil moisture 3% short, 82% adequate, 15% surplus for week ending January 1, 2023. Subsoil moisture 3% short, 97% adequate for week ending January 1, 2023. Winter wheat condition 3% poor, 14% fair, 78% good, 5% excellent. Barley condition 1% poor, 13% fair, 83% good, 3% excellent. Livestock condition 4% poor, 27% fair, 64% good, 5% excellent. Pasture and Range condition 14% poor, 40% fair, 43% good, 3% excellent. Hay supplies 1% very short, 16% short, 82% adequate, 1% surplus. Percent of feed obtained from pastures 16%. Virginia experienced below normal temperatures and above normal precipitation in December. The State experienced freezing rain and very cold temperatures from Winter Storm Elliott which has caused stress on pastures and hay supplies and resulted in increased feeding of hay and silage for livestock. Hay and roughage supplies are mostly adequate to short. Primary activities for the month include equipment maintenance and purchasing seed and fertilizer.

WASHINGTON: Central Washington experienced low temperatures during December. In Klickitat and Yakima Counties, the ground had been covered in snow for about a month. Cattle were fed on winter ground. In Benton County, the weather through crop producing areas dropped into the single digits in the early morning hours. Perennial crops were dormant, and no orchard or agricultural activities were observed. Northeast Washington also saw a lot of snowfall in December. In Stevens County, there was one week of below freezing temperatures. There were no reports of flooding or livestock issues. Pend Oreille and Spokane Counties also saw snow, but it was not as cold. In the heart of Washington, an arctic blast swept through and caused sub-zero temperatures. This was followed by freezing rain and snow, which caused slick conditions. In Adams and Lincoln Counties, winter wheat was in mostly good to excellent condition, despite the weather. In southeast Washington, most counties saw above average snowfall. In Asotin and Garfield Counties, there were a few days of below-zero temperatures, and some livestock losses were reported. Most crops were snow covered, which should help limit crop loss.

WEST VIRGINIA: For the week ending January 1, Topsoil moisture 4% short, 78% adequate, and 18% surplus. Subsoil moisture 7% short, 80% adequate, and 13% surplus. Hay and roughage supplies 8% short, 88% adequate, and 4% surplus. Feed grain supplies 5% short and 95% adequate. Winter wheat

condition 47% fair, 51% good, and 2% excellent. Cattle and calves condition 3% poor, 38% fair, 52% good, and 7% excellent. Sheep and lambs condition 1% poor, 35% fair, 60% good, and 4% excellent. Weather conditions for the month have been wet with rain and snow, along with a mix of warm and very cold temperatures. Freezing temperatures caused some calf losses. Farming activities for the month included checking on livestock and planning for the next growing season.

WISCONSIN: December began with some farmers still harvesting their corn crop. Snowfall early in the month brought an end to the harvest leaving a few fields unharvested but providing good cover for overwintered crops. For the month, precipitation was 0.9 inch above normal. The average temperature for December was 0.3 degree above normal, but this masked some wide temperature swings. The storm system of December 22 brought snow, bitter wind, and temperatures well below normal. It was followed by unusually warm temperatures the last week of the month, which melted the snow in many parts of the State leaving some concern about damage to the alfalfa and wheat crops. The sharp swing in temperatures also brought concerns about respiratory illnesses in young livestock.

WYOMING: This report for Wyoming is for the entire month of December 2022. Topsoil moisture 23% very short, 33% short, 43% adequate, 1% surplus. Subsoil moisture 38% very short, 28% short, 33% adequate, 1% surplus. Winter wheat condition 4% very poor, 20% poor, 66% fair, 9% good, 1% surplus. Hay and roughage supplies 3% very short, 20% short, 73% adequate, 4% surplus. Livestock condition 1% very poor, 2% poor, 13% fair, 82% good, 2% excellent. Stock water supplies 6% very short, 17% short, 72% adequate, 4% surplus. Pasture and range condition 4% very poor, 16% poor, 29% fair, 48% good, 3% surplus. Wyoming received little relief from the ongoing drought conditions during the month of December. Precipitation levels were slightly above normal in most of the northeast and southwest, while northwestern, southeastern and far southwestern portions of the State saw less than normal amounts of precipitation. Temperatures ran below normal for most of the State. Portions of northern and west-central Wyoming saw temperatures as much as 6 to 8 degrees below average. Some snow fall was reported over the last month in Washakie and Hot Springs Counties where grazing conditions were still fair to good. Reports in Lincoln County indicated significant rain and snowfall with much needed moisture and tolerable temperatures during December. According to the United States Drought Monitor for December 29, 2022, the amount of land rated as drought free was 25.6 percent, compared to 25.7 percent on December 1. The amount of land rated abnormally dry improved somewhat to 20.8 percent compared to 18.4 percent on December 1. Moderate drought was found in 25.0 percent of Wyoming, compared to 27.3 percent on December 1. Severe and extreme conditions remained constant since December 1 at 22.1 and 6.5 percent, respectively.

International Weather and Crop Summary

December 25-31, 2022

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

EUROPE: Record-setting warmth overspread the continent, with rain in the north and west contrasting with dry conditions across the Mediterranean Basin.

MIDDLE EAST: Dry weather over much of Turkey and northeastern Iran reduced soil moisture for winter grains, while moderate to heavy rain persisted in central portions of the region.

NORTHWESTERN AFRICA: Dry and very warm weather expanded across the region, exacerbating drought in the east while renewing drought concerns in the west.

SOUTHEAST ASIA: Wet weather continued in the traditionally wet eastern and southern portions of the region, favoring rice and other seasonal crops.

AUSTRALIA: Generally tranquil weather favored winter crop harvesting and summer crop development.

SOUTH AFRICA: Mild, showery weather maintained favorable conditions for corn and other rain-fed summer crops.

ARGENTINA: Dry, progressively hotter weather stressed emerging summer grains and oilseeds.

BRAZIL: Widespread showers benefited soybeans in central and northeastern Brazil, but pockets of dryness lingered in southern farming areas.

December 2022

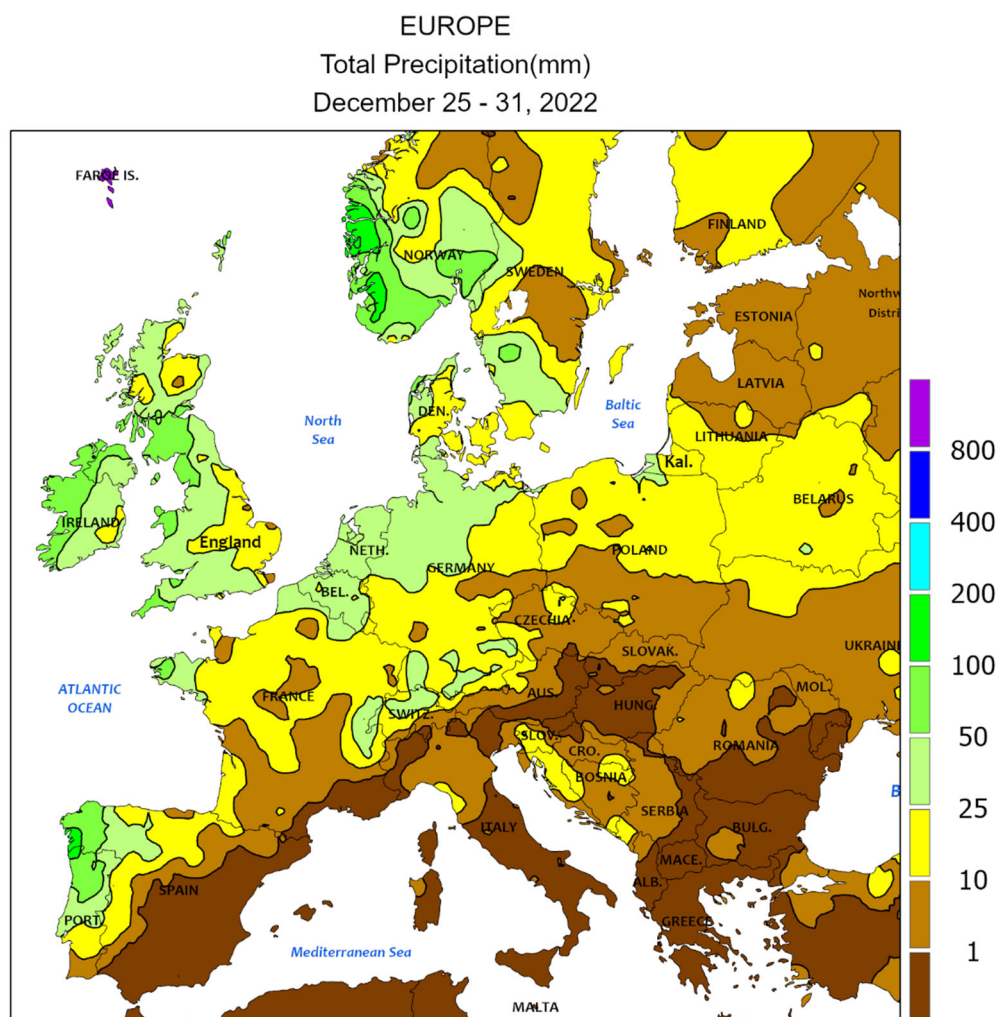
COUNTRY	CITY	TEMPERATURE (C)						PRECIP. (MM)	
		AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DEP NRM	TOT	DEP NRM
ALGERI	ALGER	22	10	27	4	16	3.7	22	-66
	BATNA	18	2	23	-4	10	3.3	6	-22
ARGENT	IGUAZU	33	19	36	0	26	0.4	29	-175
	FORMOSA	35	20	41	0	27	0.4	61	-117
	CERES	34	19	43	0	26	1.5	320	187
	CORDOBA	33	16	41	10	24	1.9	116	-30
	RIO CUARTO	33	16	39	0	24	1.6	33	-100
	ROSARIO	33	18	39	10	25	1.9	36	-92
	BUENOS AIRES	31	17	38	9	24	1.5	72	-28
AUSTRA	SANTA ROSA	34	17	40	9	25	2.2	10	-80
	TRES ARROYOS	31	14	38	7	23	1.9	29	-51
	DARWIN	32	26	36	23	29	0.5	453	*****
	BRISBANE	26	19	32	16	22	-1.7	36	-87
	PERTH	30	17	37	12	23	0.1	1	-10
	CEDUNA	27	15	43	8	21	-0.2	*****	*****
	ADELAIDE	25	15	39	10	20	-0.5	*****	*****
AUSTRI	MELBOURNE	23	12	38	6	18	-0.7	39	-6
	WAGGA	27	12	35	4	20	-2.5	48	2
	CANBERRA	23	9	32	2	16	-3.2	48	-19
BAHAMA	VIENNA	4	0	13	-8	2	0.8	31	-5
	INNSBRUCK	4	-2	9	-14	1	0.7	41	-14
BARBAD	NASSAU	28	21	29	18	24	1.3	51	15
BELARU	BRIDGETOWN	29	24	31	19	26	-0.1	20	-64
BERMUD	MINSK	-2	-5	4	-13	-3	-0.4	68	21
BOLIVI	ST GEORGES	21	17	24	0	19	0.3	129	25
BRAZIL	LA PAZ	16	3	21	-2	10	-0.1	75	-26
	FORTALEZA	31	26	32	25	29	0.2	3	-22
CANARY	RECIFE	30	25	31	23	28	-1.1	27	-6
	CAMPO GRANDE	31	22	34	20	27	0.1	202	33
	FRANCA	27	18	32	15	23	-0.6	389	90
	RIO DE JANEI	29	22	34	18	26	-0.7	57	-54
	LONDRINA	***	***	35	-65	***	*****	172	-29
	SANTA MARIA	32	19	37	14	25	0.6	56	-105
	SOFIA	8	1	16	-6	5	3.5	38	-2
BULGAR	OUAGADOUGOU	34	19	38	15	27	0.6	0	*****
BURKIN	LETHBRIDGE	-6	-17	9	-36	-11	*****	17	*****
CANADA	REGINA	-13	-21	2	-36	-17	-4.6	10	1
	WINNIPEG	-9	-16	1	-28	-12	-1.4	24	1
	TORONTO	2	-4	13	-15	-1	0.9	95	38
	MONTREAL	2	-5	10	-11	-2	3	126	32
	PRINCE ALBER	-15	-24	-2	-39	-19	-4.5	12	-2
	CALGARY	-6	-17	10	-32	-12	-5.3	19	5
	VANCOUVER	4	-1	12	-14	1	-2.5	183	16
CHILE	LAS PALMAS	24	18	26	15	21	1.8	13	*****
CHINA	SANTIAGO	31	14	37	10	22	2.1	0	*****
	HARBIN	-11	-20	-2	-26	-15	-0.3	11	4
HAMI	HAMI	-2	-15	3	-19	-9	-1.2	0	-3
	BEIJING	3	-8	10	-11	-3	-1.9	0	-3
	TIENTSIN	3	-8	10	-12	-2	-1.8	0	-3
	LHASA	11	-5	16	-9	3	1.4	0	-2
	KUNMING	15	6	21	2	10	0.8	15	-1
	CHENGCHOW	8	-2	13	-6	3	-0.9	2	-9
	YECHANG	10	3	17	-2	7	-0.3	1	-18
	HANKOW	10	0	16	-7	5	-1.1	4	-28
	CHUNGKING	11	8	16	4	10	-0.1	41	16
	CHIHKIANG	11	4	18	-3	7	-0.5	22	-13
	WU HU	8	1	14	-6	4	-2	27	-19
	SHANGHAI	9	3	16	-5	6	-1.3	32	-17
	NANCHANG	10	4	16	-2	7	-1.2	32	-24
	TAIPEI	18	15	23	9	17	-1.8	52	-29
CANTON	CANTON	18	9	23	4	14	-2.1	17	-18
	NANNING	17	10	23	6	14	-1.3	4	-29
COLOMB	BOGOTA	20	7	32	3	14	0	17	-41
COTE D	ABIDJAN	31	25	34	22	28	0.1	76	3
CUBA	CAMAGUEY	30	19	32	16	24	0.7	20	*****
CYPRUS	LARNACA	21	12	23	6	17	2.3	19	*****
CZECHR	PRAGUE	3	-2	16	-13	1	0.5	42	16
DENMAR	COPENHAGEN	4	0	10	-9	2	-0.8	36	-11
EGYPT	CAIRO	22	14	26	10	18	2.3	0	*****
ASWAN	ASWAN	26	12	31	0	19	1.6	0	*****

Based on Preliminary Reports

December 2022

COUNTRY CITY		TEMPERATURE					PRECIP.			COUNTRY CITY		TEMPERATURE					PRECIP.			
		(C)					(MM)					(C)					(MM)			
		AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DEP NRM	TOT	DEP NRM			AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DEP NRM	TOT	DEP NRM	
ESTONI	TALLINN	-1	-5	6	-12	-3	-2.0	43	-15			MARRAKECH	23	11	28	7	17	3	12	*****
ETHIOP	ADDIS ABABA	***	***	24	5	***	*****	*****	*****	MOZAMB	MAPUTO	30	21	38	0	26	-0.6	240	140	
F GUIA	CAYENNE	30	23	32	21	26	-0.4	459	106	N KORE	PYONGYANG	-1	-11	7	-17	-6	-3	12	-5	
FIJI	NAUSORI	32	22	33	0	27	0.9	172	-168	NEW CA	NOUMEA	30	24	33	21	27	1.6	106	53	
FINLAN	HELSINKI	-1	-5	5	-19	-3	-1.3	81	19	NIGER	NIAMEY	34	17	38	13	25	-0.3	0	*****	
FRANCE	PARIS/ORLY	7	3	16	-6	5	-0.1	30	-28	NORWAY	OSLO	-4	-7	5	-18	-6	-2.1	77	9	
	STRASBOURG	6	1	19	-13	4	0.3	20	-25	NZEALA	AUCKLAND	23	16	27	11	20	1.4	107	25	
	BOURGES	8	3	18	-7	6	0.3	42	-26		WELLINGTON	20	15	25	11	17	1.0	82	14	
	BORDEAUX	12	6	21	-3	9	1.1	36	-71	P RICO	SAN JUAN	29	24	31	22	26	0.4	76	-47	
	TOULOUSE	13	6	20	-6	9	2.0	18	-32	PAKIST	KARACHI	29	14	32	0	22	1.1	0	*****	
	MARSEILLE	14	6	20	-4	10	1.6	50	9	PERU	LIMA	24	19	27	17	21	0.1	0	*****	
GABON	LIBREVILLE	30	24	31	22	27	0.0	212	-109	PHILIP	MANILA	30	25	33	23	28	0.3	32	-74	
GERMAN	HAMBURG	4	0	14	-9	2	-0.4	71	-2	PNEWGU	PORT MORESBY	31	22	33	0	27	-1.6	307	195	
	BERLIN	4	0	18	-10	2	-0.4	50	6	POLAND	WARSAW	2	-1	14	-14	0	0.3	48	12	
	DUSSELDORF	6	2	18	-10	4	-0.1	72	2		LODZ	2	-1	14	-12	0	0.5	50	8	
	LEIPZIG	4	0	18	-12	2	-0.3	56	22		KATOWICE	3	-1	13	-13	1	0.9	59	15	
	DRESDEN	4	0	18	-12	2	0.2	32	-12	PORTUG	LISBON	17	12	19	7	15	2.6	345	247	
	STUTTGART	5	0	19	-14	2	0.4	40	-5	ROMANI	BUCHAREST	7	0	17	-9	3	3.2	25	-22	
	NURNBERG	4	-1	16	-15	2	0.6	43	-6	RUSSIA	ST.PETERSBUR	-2	-5	4	-9	-3	-0.6	61	10	
	AUGSBURG	4	-1	17	-14	2	0.9	41	-9		KAZAN	-6	-10	2	-19	-8	-0.6	80	30	
GREECE	THESSALONIKA	14	8	20	-1	11	3.4	29	-28		MOSCOW	-3	-6	3	-14	-4	0.2	98	47	
	LARISSA	13	6	18	-2	10	3.1	57	6		YEKATERINBUR	-8	-13	2	-22	-11	-0.2	19	-9	
	ATHENS	18	12	23	6	15	3.1	22	*****		OMSK	-13	-19	0	-31	-16	-2.2	25	-4	
GUADEL	RAIZET	29	21	30	18	25	-0.4	48	-79		BARNAUL	-13	-21	-2	-32	-17	-3.9	33	1	
HONGKO	HONG KONG IN	19	14	23	9	16	-2.4	42	10		KHABAROVSK	-13	-20	-2	-30	-16	1.0	13	-6	
HUNGAR	BUDAPEST	5	0	14	-6	3	1.7	73	34		VLADIVOSTOK	-7	-12	1	-19	-9	-0.4	32	12	
ICELAN	REYKJAVIK	-2	-5	6	-13	-4	-4.5	56	-39		VOLGOGRAD	-1	-7	4	-16	-4	0.6	0	-44	
INDIA	AMRITSAR	20	7	26	3	14	1.1	1	-14		ASTRAKHAN	2	-6	10	-14	-2	-0.8	3	-15	
	NEW DELHI	23	8	28	5	16	0.0	0	-14		ORENBURG	-6	-14	1	-25	-10	-0.2	13	-18	
	AHMEDABAD	30	16	34	10	23	1.6	0	*****	S AFRI	JOHANNESBURG	25	15	29	12	20	0.1	102	*****	
	INDORE	27	14	31	10	21	1.7	3	-10		DURBAN	27	20	32	17	24	-0.5	267	143	
	CALCUTTA	27	16	30	12	22	2.5	0	*****		CAPE TOWN	26	16	31	11	21	1.0	45	32	
	VERAVAL	31	20	35	14	26	1.4	0	*****	S KORE	SEOUL	2	-6	10	-14	-2	-2.8	12	-11	
	BOMBAY	33	20	36	15	27	0.4	0	*****	SAMOA	PAGO PAGO	31	25	32	23	28	-0.3	217	-148	
	POONA	31	14	33	9	23	2.1	0	*****	SENEGA	DAKAR	30	23	35	19	26	2.2	0	*****	
	BEGAMPET	30	18	33	14	24	1.5	9	*****	SPAIN	VALLADOLID	11	6	15	-3	8	3.5	140	95	
	VISHAKHAPATN	30	23	32	18	26	1.3	49	*****		MADRID	13	6	17	-1	9	3.0	135	101	
	MADRAS	30	23	33	19	26	0.8	278	90		SEVILLE	18	10	22	0	14	2.3	134	*****	
	MANGALORE	33	22	36	19	28	0.3	7	*****	SWITZE	ZURICH	4	1	16	-8	3	0.9	91	7	
INDONE	SERANG	32	24	35	22	28	0.2	159	-6		GENEVA	8	3	16	-5	5	2.3	110	22	
IRELAN	DUBLIN	7	2	15	-4	5	-0.4	76	3	SYRIA	DAMASCUS	15	4	19	0	9	1.4	3	*****	
ITALY	MILAN	7	4	14	-2	6	1.2	86	45	TAHITI	PAPEETE	30	23	33	0	27	-0.6	151	-120	
	VERONA	8	3	12	-3	6	2.3	84	25	TANZAN	DAR ES SALAA	32	25	33	19	28	0.2	78	-43	
	VENICE	9	5	12	-1	7	1.6	0	-52	THAILA	PHITSANULOK	31	19	34	15	25	-0.1	42	19	
	GENOA	12	8	17	1	10	0.2	139	*****		BANGKOK	32	24	35	19	28	-0.2	18	-1	
	ROME	16	9	19	3	12	2.5	121	48	TOGO	TABLIGBO	35	23	37	18	29	0.7	****	*****	
	NAPLES	17	8	20	3	13	2.4	75	-18	TRINID	PORT OF SPAI	31	22	32	0	26	-0.6	53	-99	
JAMAIC	KINGSTON	32	21	33	20	27	-0.3	0	-41	TUNISI	TUNIS	22	11	28	6	16	3.0	4	-62	
JAPAN	SAPPORO	1	-4	8	-9	-1	-0.2	124	10	TURKEY	ISTANBUL	14	9	20	4	11	3.6	39	-40	
	NAGOYA	11	3	16	-2	7	-0.5	26	-30		ANKARA	9	0	15	-6	4	3.0	32	-16	
	TOKYO	12	4	16	0	8	-0.1	58	-2	TURKME	ASHKHABAD	8	0	20	-6	4	-0.1	5	-13	
	YOKOHAMA	12	5	18	1	9	0.3	66	-2	UKINGD	ABERDEEN	5	1	11	-10	3	-1.1	126	59	
	KYOTO	11	3	16	-2	7	0.0	26	-32		LONDON	8	3	14	-6	5	-0.8	48	-9	
	OSAKA	12	5	17	1	8	-0.4	20	-36	UKRAIN	KIEV	***	***	7	-1	***	*****	*****	*****	
KAZAKH	KUSTANAY	-11	-18	-1	-28	-15	-2.0	10	-15		LVOV	***	***	11	-2	***	*****	*****	*****	
	TSELINOGRAD	-12	-18	-1	-27	-15	-3.1	19	-4		KIROVOGRAD	***	***	8	-3	***	*****	*****	*****	
	KARAGANDA	-10	-18	-2	-27	-14	-2.4	15	-15		ODESSA	***	***	10	0	***	*****	*****	*****	
KENYA	NAIROBI	26	16	28	12	21	0.4	39	*****		KHARKOV	***	***	5	0	***	*****	*****	*****	
LIBYA	TRIPOLI	***	***	***	20	***	*****	*****	*****	UZBEKI	TASHKENT	6	-2	15	-10	2	-2.3	33	-25	
	BENGHAZI	22	12	28	0	18	2.9	2	*****	VENEZU	CARACAS	***	***	***	0	***	*****	0	-52	
LITHUA	KAUNAS	-1	-4	8	-16	-2	-1.2	40	-6	YUGOSL	BELGRADE	10	4	19	-3	7	4.1	76	23	
LUXEMB	LUXEMBOURG	4	1	16	-10	3	0.4	96	6	ZAMBIA	LUSAKA	***	***	32	15	***	*****	*****	*****	
MALAYS	KUALA LUMPUR	32	24	35	23	28	-0.1	335	55	ZIMBAB	KADOMA	***	***	33	***	***	*****	*****	*****	
MALI	BAMAKO	34	18	37	13	26	1.5	0	*****											
MARSHA	MAJURO	30	27	31	25	28	0.4	262	-40											
MARTIN	LAMENTIN	30	22	32	16	26	-0.4	93	-62											
MEXICO	GUADALAJARA	24	9	28	6	17	0.7	1	*****											
	TLAXCALA	21	6	25	0	14	0.2	1	*****											
	ORIZABA	22	14	27	0	18	0.5	30	*****											
MOROCC	CASABLANCA	22	14	26	10	18	3.1	157	*****											

Based on Preliminary Reports



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

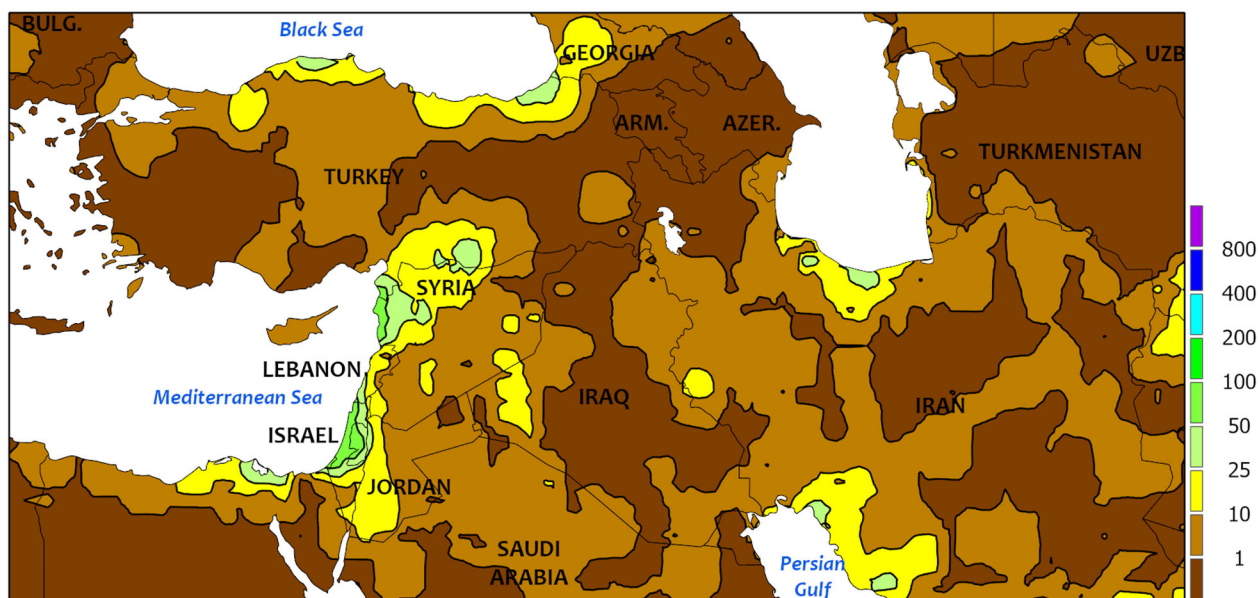


EUROPE

Record-setting warmth overspread the continent, with rain in central, northern, and western portions of Europe contrasting with dry weather across the Mediterranean Region. As the week progressed, daytime highs climbing into the middle and upper teens (degrees C) established all-time monthly record highs in France, Germany, and Poland and pushed weekly average temperatures to as much as 10°C above normal. The anomalous warmth melted the lingering vestiges of protective snow cover, reduced winter crop cold hardiness, and further lowered

mountain snowpacks and resultant spring runoff prospects. Moderate to heavy rain (10-100 mm, locally more) accompanied the unseasonably warm conditions over most of western, central, and northern Europe, with the highest totals reported in windward locales adjacent to the Atlantic Ocean and North Sea. Conversely, dry weather was observed across the Mediterranean Basin, sustaining long-term drought in northern Italy but benefiting flood recovery efforts in areas besieged by excessive rainfall during the first half of December.

MIDDLE EAST
Total Precipitation(mm)
December 25 - 31, 2022



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



MIDDLE EAST

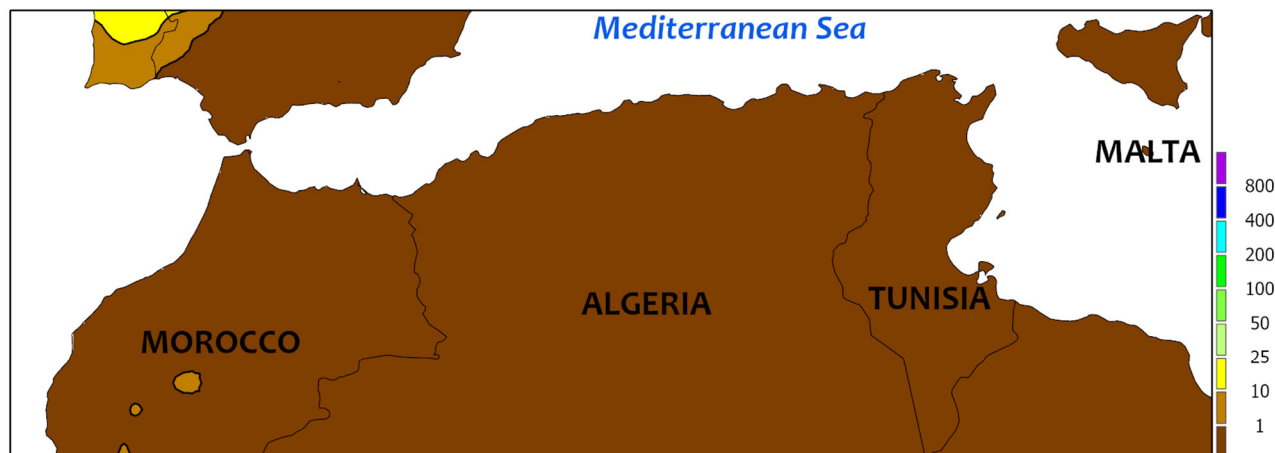
Increasingly dry weather over Turkey contrasted with more rain and mountain snow in central and southern portions of the region. After beneficial rain in Turkey during late November and early December, a multi-week period with little to no rain or snow has renewed drought concerns. The entire northwestern part of the country — collectively known as the Marmara Region — has reported less than 50 percent of normal precipitation since September 1, ranking as the driest of the past 30 years. Likewise, the Anatolian Plateau has slipped to less than 65 percent of normal over the same timeframe, which put it as the 6th driest of the past 30 years. Winter-time drought generally has little to no impact on winter grains as long as timely rain returns in the spring. Likewise,

northeastern Iran (Khorasan) has trended dry over the past 30 days, though winter wheat and barley were largely dormant and not immediately impacted by the dryness. Meanwhile, a slow-moving storm system produced moderate to heavy rainfall (10-60 mm, locally more) across the eastern and southeastern Mediterranean Coast and neighboring environs, promoting the development of emerging to vegetative winter grains. Beneficial light to moderate showers were also noted over southern Iran (2-22 mm), though dry weather returned to Iraq and western Iran. Meanwhile, unusually heavy showers and thunderstorms continued to propagate northeastward across Saudi Arabia, with amounts as high as 80 mm in the far south near the Red Sea.

NORTHWESTERN AFRICA

Total Precipitation(mm)

December 25 - 31, 2022



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

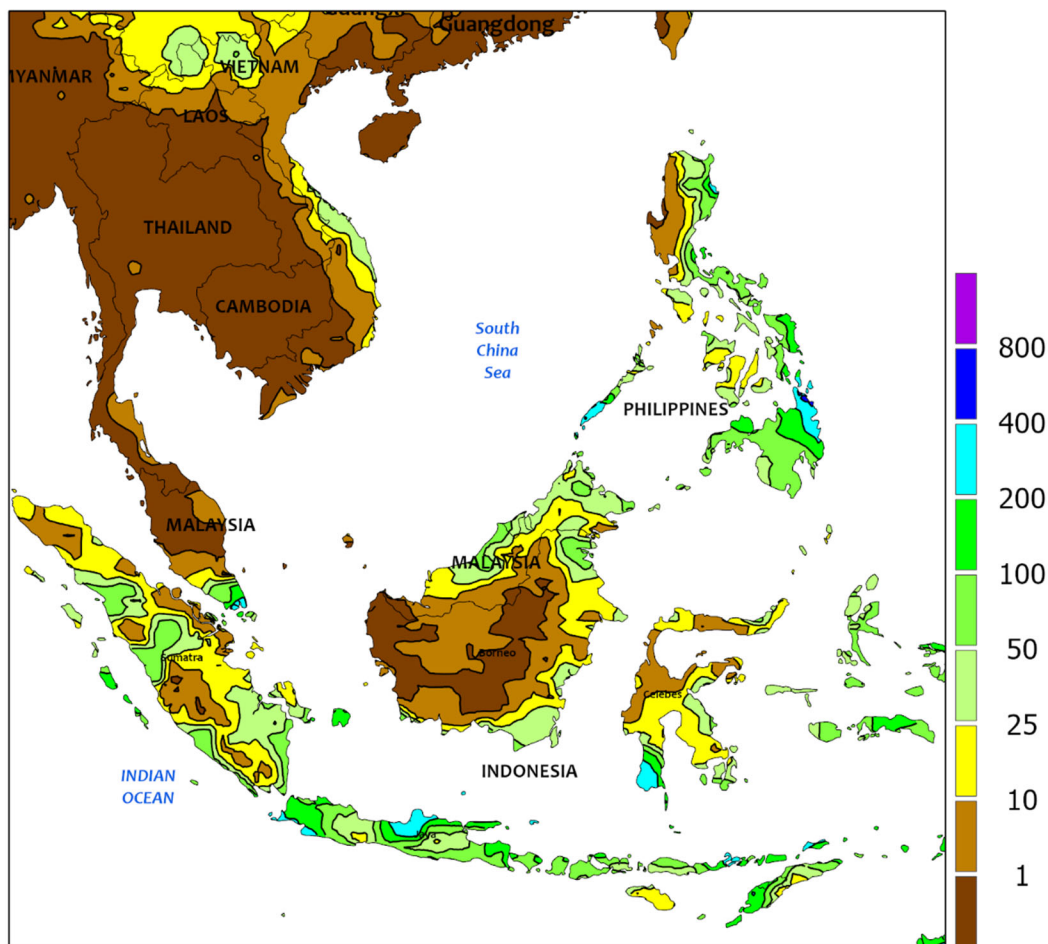


NORTHWESTERN AFRICA

Dry and very warm weather increased drought in the east and renewed dryness concerns in the west. After much-needed rain eased record-setting drought in Morocco during the first half of December, a second consecutive week with no rain and above-normal temperatures (2-5°C above normal) raised the specter of drought yet again for emerging to vegetative winter wheat and barley. The most recent satellite-derived Vegetation Health Index (VHI), which had likewise depicted improving conditions in Morocco, ended the year with the 3rd lowest

value on record (since 1982) for the last week of December. Farther east, drought intensified in Algeria and Tunisia under sunny skies and temperatures up to 7°C above normal. Season-to-date rainfall (since September 1) was at or below 50 percent of normal and the driest of the past 30 years in croplands adjacent to the Mediterranean Sea in western Algeria, eastern Algeria, and northern Tunisia, while north-central Algeria's growing areas were the 2nd driest at 55 percent of normal.

SOUTHEAST ASIA
Total Precipitation(mm)
December 25 - 31, 2022



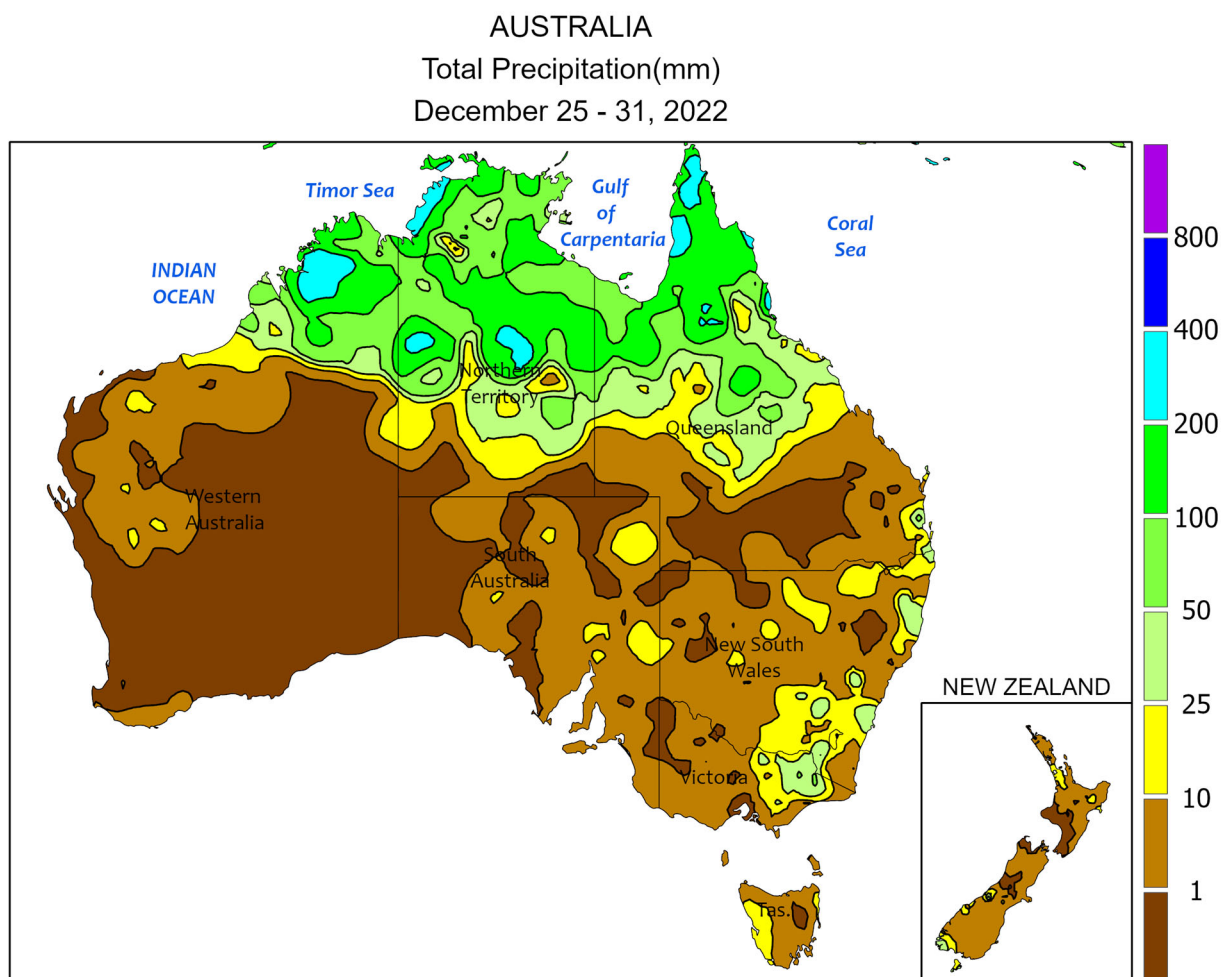
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data



SOUTHEAST ASIA

Heavy showers continued across the traditionally wet eastern and southern sections of the region. In the Philippines, all but the extreme northwestern locales recorded over 25 mm and over 150 mm locally. Similarly, southern Indonesia (Java) reported rainfall totals between 25 and 100 mm, locally over 150 mm. The downpours maintained ample moisture supplies for rice in both the aforementioned countries. Meanwhile, drier weather in

other parts of Indonesia (Sumatra and Kalimantan) as well as adjacent portions of Malaysia aided oil palm harvesting. In fact, the dryness was particularly welcome in western Malaysia following persistent deluges the past few weeks (rainfall averaged over 1,200 mm since November 1). The remainder of the region (Thailand and surrounding environs) remained seasonably dry with irrigation supplies remaining adequate for rice.



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

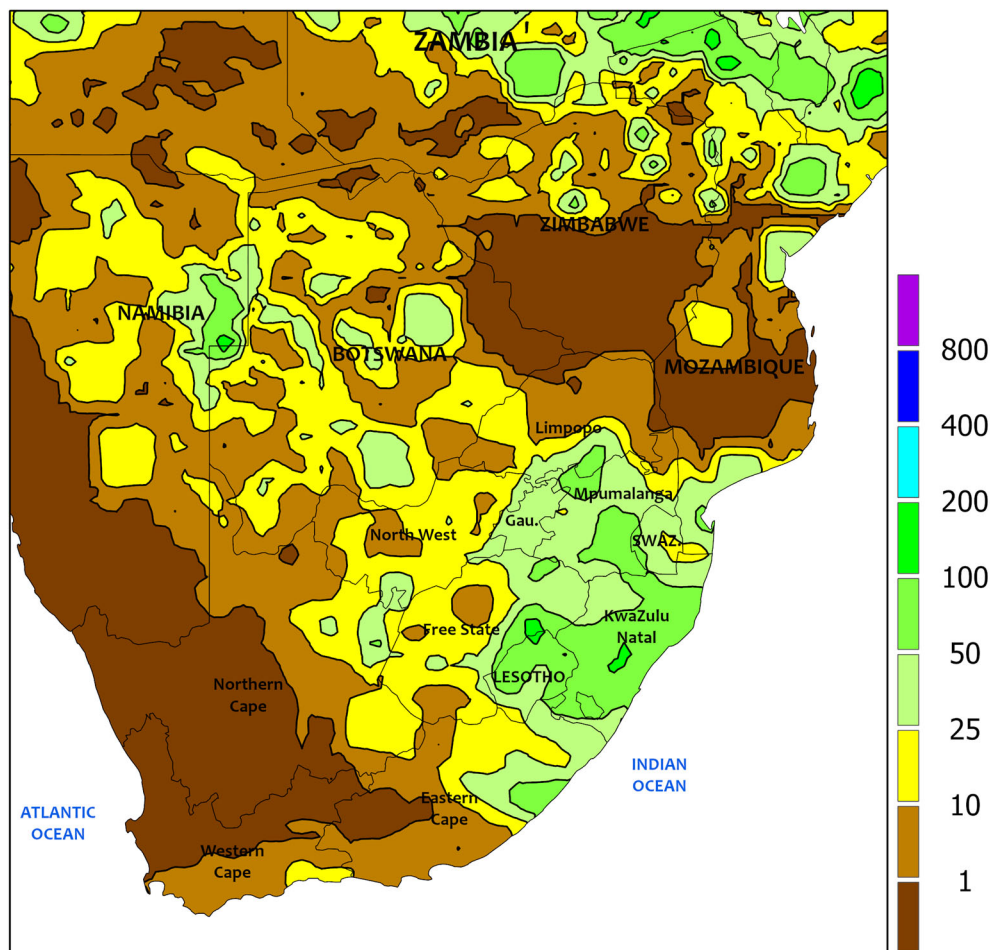


AUSTRALIA

Seasonably warm, dry weather in Western Australia favored rapid winter crop harvesting, which is reportedly nearing completion in northern parts of the wheat belt. Similarly, hot, mostly dry weather (less than 5 mm) in South Australia and western Victoria benefited wheat, barley, and canola harvesting, allowing fieldwork to continue without delay in most areas. Elsewhere in the wheat belt, passing showers (5-25 mm) in eastern Australia may have temporarily interrupted local winter crop harvesting, but any delays were likely brief. Otherwise, sunny skies and abundant

moisture supplies promoted cotton and sorghum development and maintained overall good summer crop prospects. Extreme maximum temperatures were generally in the lower to middle 30s (degrees C) in southern Queensland and eastern New South Wales. Somewhat warmer weather was observed in Western Australia, where maximum temperatures were mostly in the middle 30s. Hot weather overspread South Australia and western Victoria, with maximum temperatures generally in the upper 30s and lower 40s.

SOUTH AFRICA
Total Precipitation(mm)
December 25 - 31, 2022



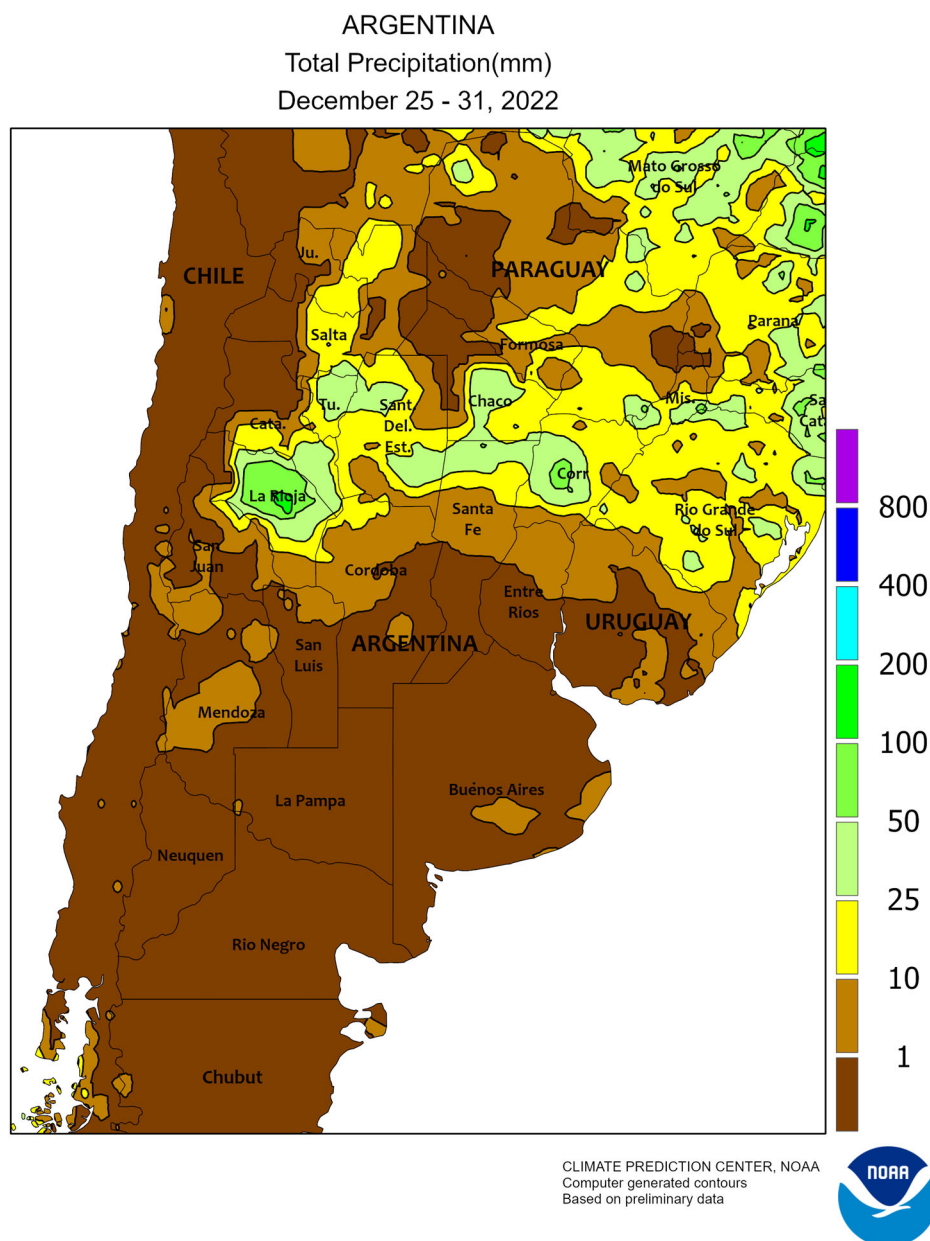
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data



SOUTH AFRICA

Mild, showery weather benefited emerging to vegetative corn and other rain-fed summer crops in most major production areas. Rainfall totaled 25 to 75 mm from Mpumalanga southward through KwaZulu-Natal, where traditionally earlier-planted corn was nearing reproduction. Generally lighter rain (amounts locally below 10 mm) in North West and Free State kept topsoils moist for germinating later-planted corn, while allowing the final stages of fieldwork to

progress. Highest daytime temperatures in the aforementioned regions ranged from the upper 20s to lower 30s (degrees C), with somewhat warmer weather at the northern and eastern fringes of the corn belt. Farther west, warm, sunny weather (highs locally approaching 40°C) favored rapid development of irrigated crops, including tree and vine crops in Western Cape and cotton in Northern Cape farming areas along the Orange River.



ARGENTINA

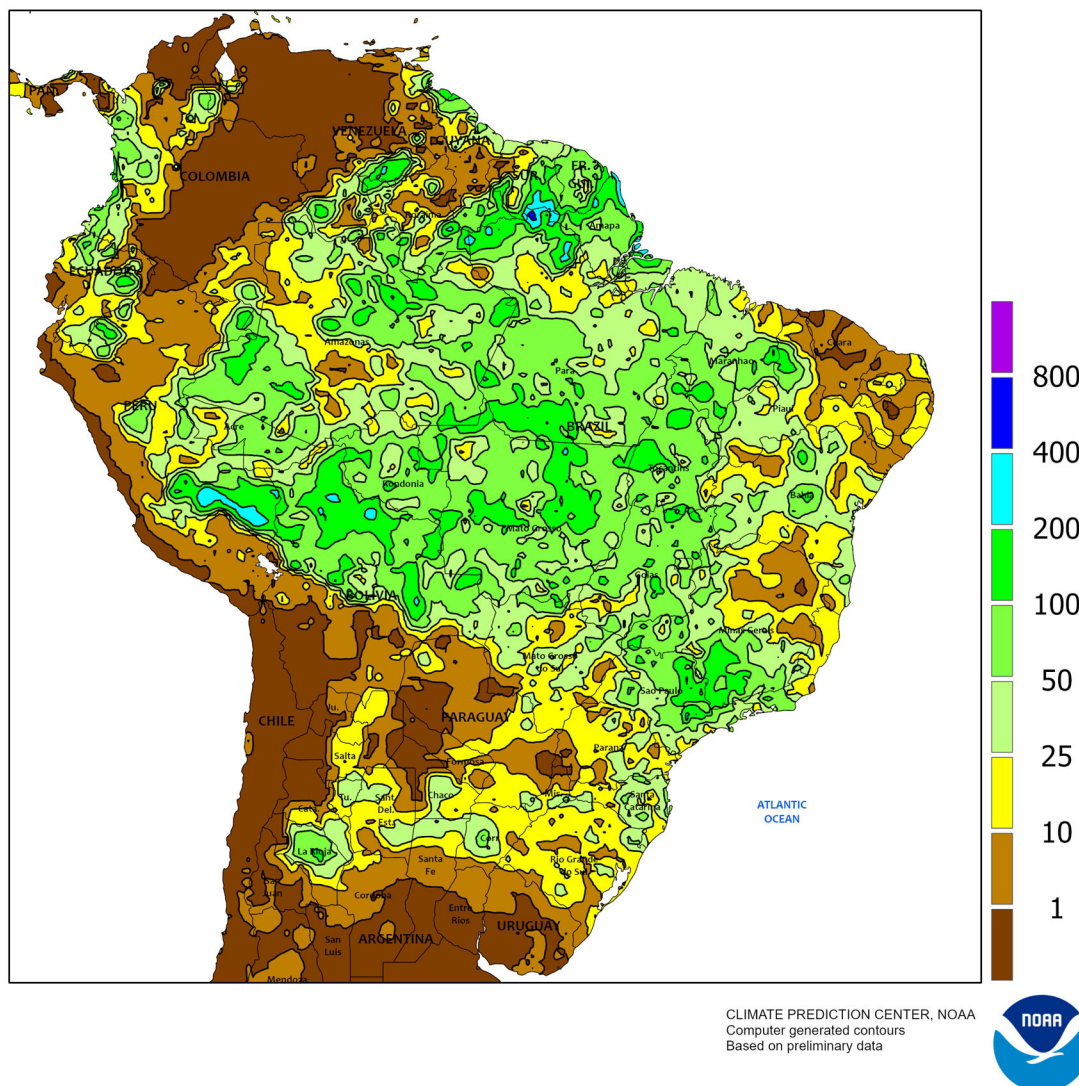
Sunny, increasingly warm weather dominated major farming areas of central Argentina. Nearly all locations in Buenos Aires and La Pampa, along with southern delegations in Córdoba, Santa Fe, and Entre Ríos, were completely dry. Furthermore, temperatures rose to stressful levels by week's end, with daytime highs reaching the upper 30s (degrees C) regionwide on several days. While hastening drydown and harvesting of winter grains, the dryness and heat reduced soil moisture for germination of summer grains and oilseeds and stressed emerged crops. In contrast, moderate to heavy rain

(10-50 mm) provided timely moisture for cotton and other summer crops across northern Argentina, although daytime highs reached the lower 40s at week's end, maintaining high evapotranspiration rates and soil moisture losses through evaporation. According to the government of Argentina, corn and soybeans were 77 and 82 percent planted, respectively, as of December 29, still lagging last year's pace for both crops. Cotton was 74 percent planted versus 90 percent last year. Meanwhile, harvesting of wheat and barley was 94 and 93 percent completed, respectively.

BRAZIL

Total Precipitation(mm)

December 25 - 31, 2022



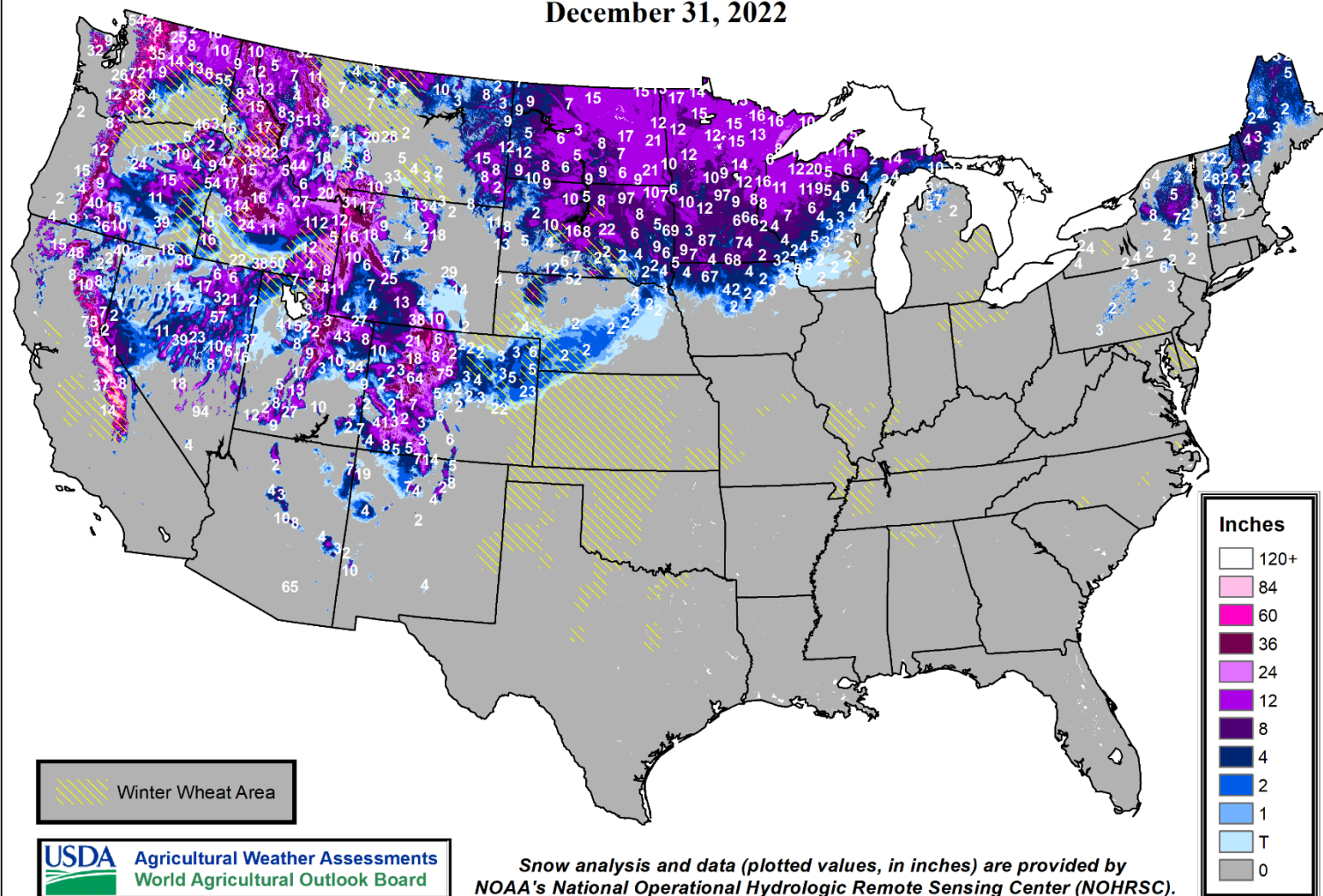
BRAZIL

A drying trend persisted over large sections of southern Brazil, where moisture remained limited for normal development of soybeans and first-crop corn. As in recent weeks, many locations from Mato Grosso do Sul southward recorded less than 25 mm with few days of measurable rainfall. Summer warmth (daytime highs often reaching the lower and middle 30s degrees C) compounded the impact of the dryness on diminishing soil moisture reserves. In Rio Grande do Sul, corn was 91 percent planted as of December 29, with 70 percent of the sown crop having reached

reproduction; in contrast, 95 percent of soybeans were planted but flowering was still in the early stages (5 percent). Meanwhile, mild, showery weather maintained overall favorable crop prospects farther north, including the main production areas in Mato Grosso, Brazil's largest producer of soybeans. Rainfall totaling 25 to locally more than 100 mm spanned a broad area stretching from São Paulo and southwestern Minas Gerais northward, extending westward through Goiás and Mato Grosso, where highest daytime temperatures stayed in the upper 20s and lower 30s.

Snow Depth

December 31, 2022



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