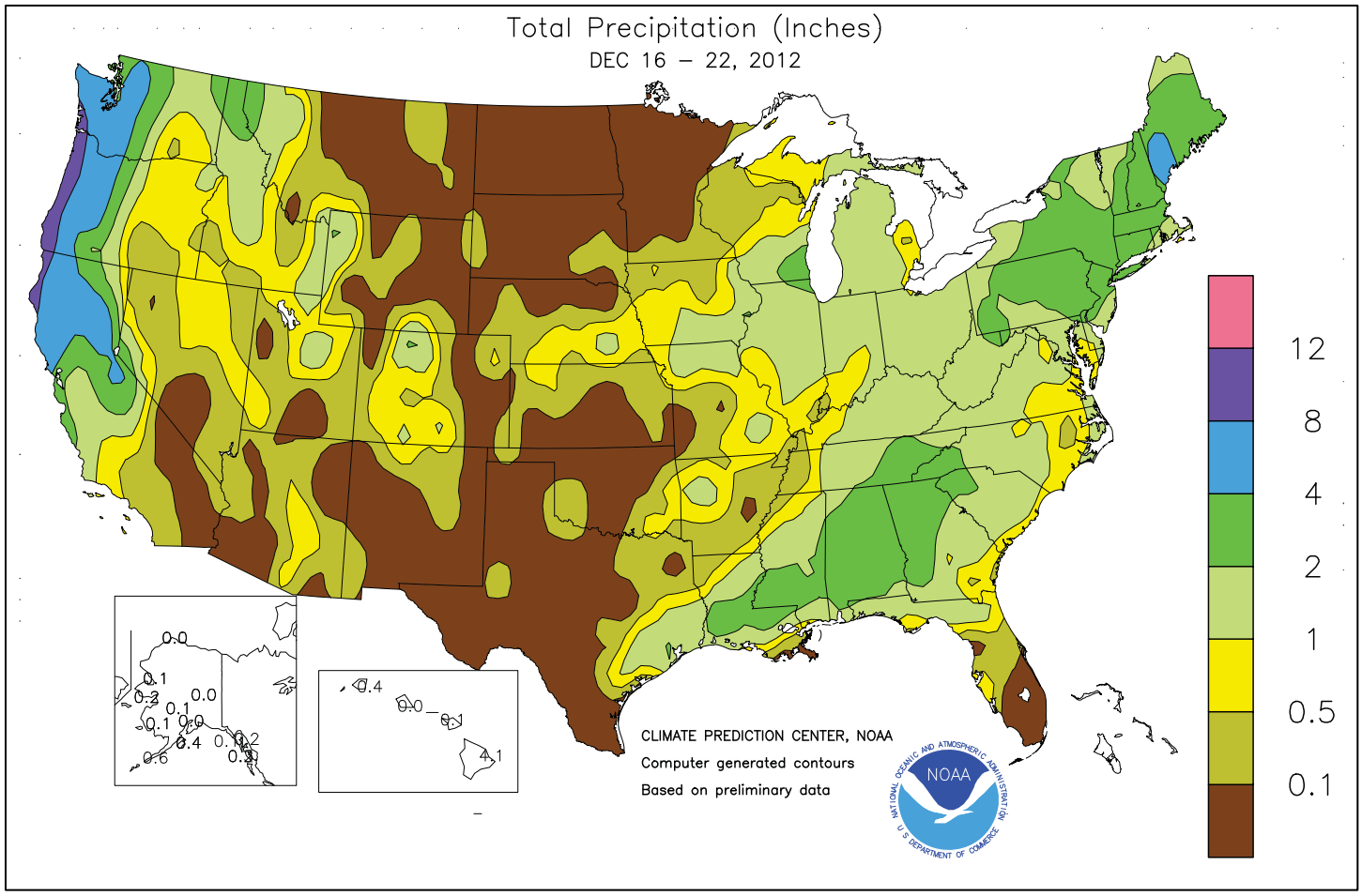
Volume 99, No. 52 http://www.usda.gov/oce/weather December 27, 2012

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 16-22, 2012

Highlights provided by USDA/WAOB

For the second consecutive week, an active weather pattern resulted in beneficial precipitation in several key drought areas, including the **central Plains**, **upper Midwest**, **Southeast**, and **Southwest**. In addition, heavy precipitation returned to portions of the **Pacific Coast States**, especially across **northern California**. Two rounds of showers and thunderstorms swept across the **Southeast**, boosting topsoil moisture and easing irrigation demands for **Florida's** citrus and winter crops. However, strong thunderstorms caused localized wind damage and

(Continued on page 3)

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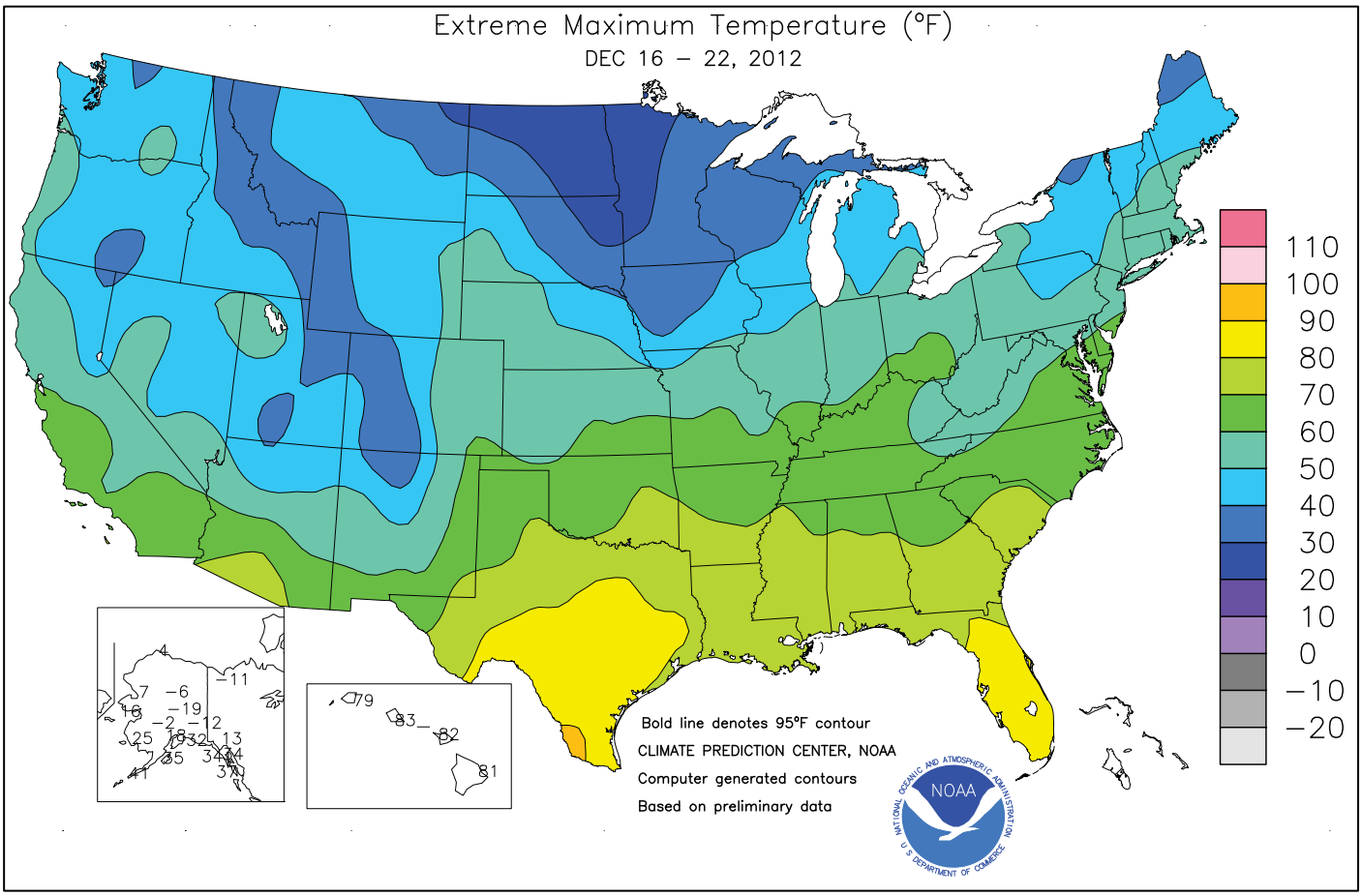
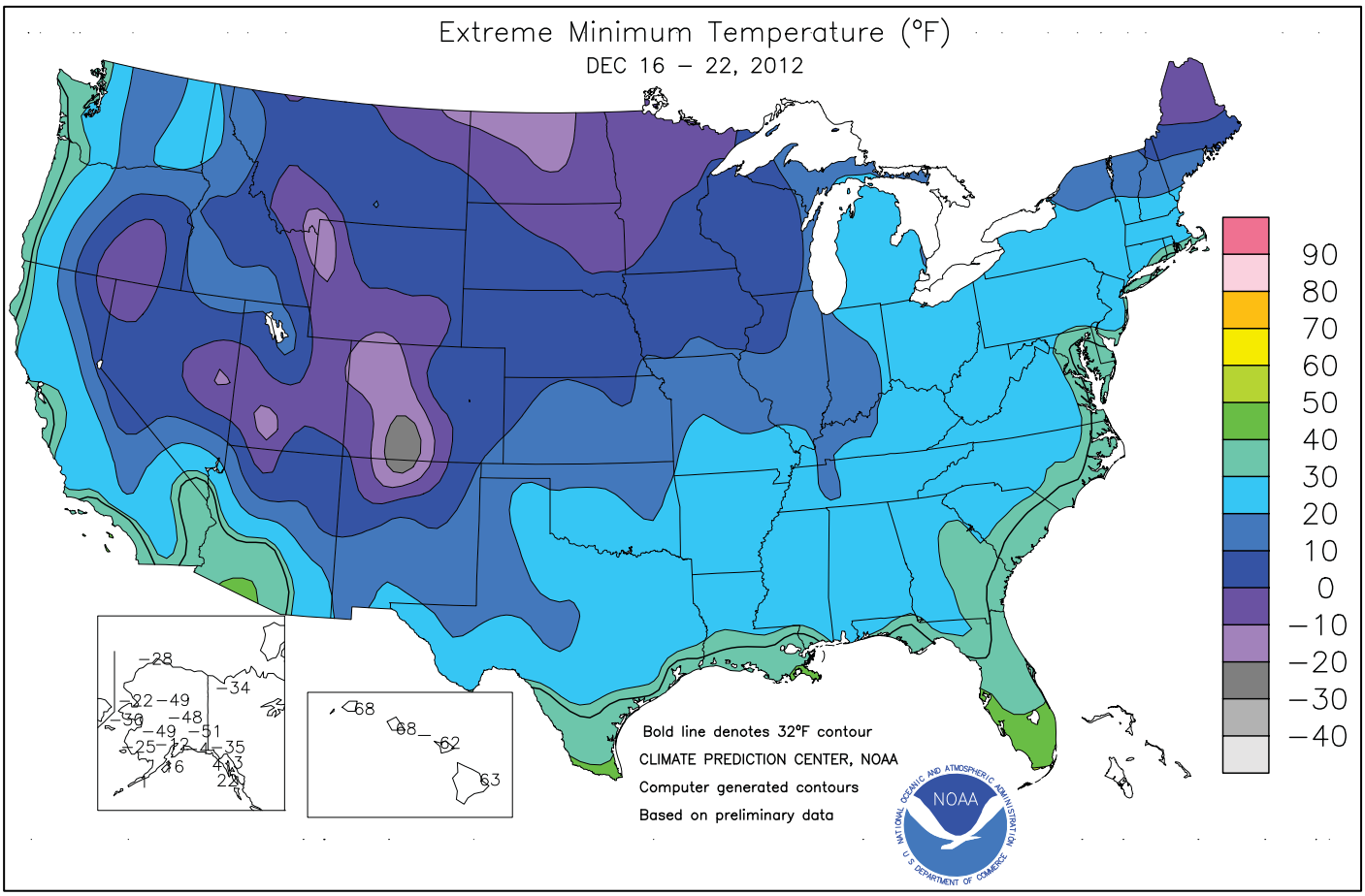
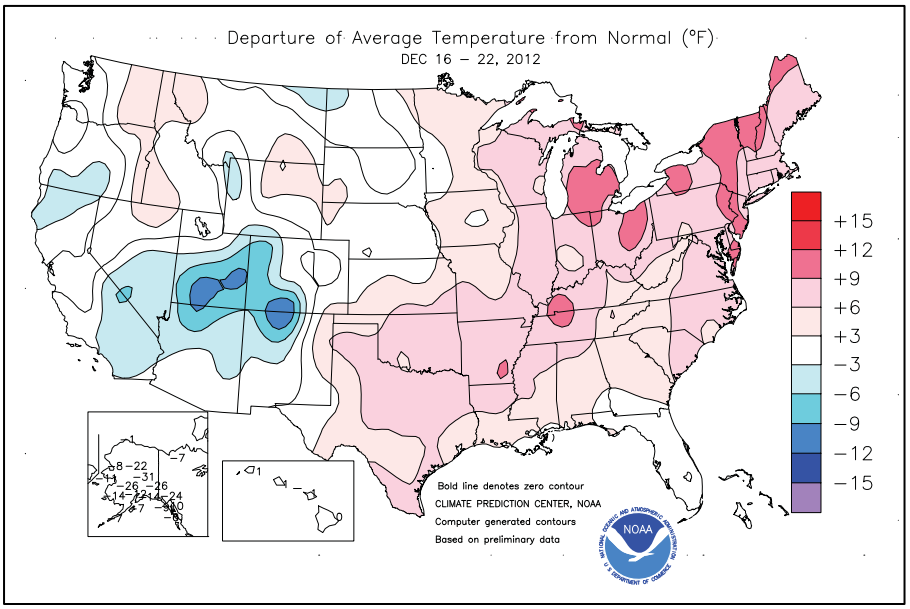

Extreme Maximum Temperature (°F)
DEC 16 – 22, 2012
110
100
90
80
70
60
50
40
30
20
10
0
−10
−20
Bold line denotes 95°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data
NOAA


Extreme Minimum Temperature (°F)
DEC 16 – 22, 2012
90
80
70
60
50
40
30
20
10
0
−10
−20
−30
−40
Bold line denotes 32°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data
NOAA

(Continued from front cover)



spawned isolated tornadoes across the **lower Southeast** on December 17 and more broadly across the **South** on December 19-20. Farther north, more than an inch of rain soaked parts of the **eastern Corn Belt**, where drought has been largely eradicated. On December 19-20, wind-driven snow overspread parts of the **northern and western Corn Belt**, disrupting travel but helping to replenish topsoil moisture. Toward week's end, rain changed to snow squalls downwind of the **Great Lakes**. Meanwhile, variable conditions prevailed across the **nation's mid-section**. Generally tranquil weather covered the **northern Plains**, but several inches of snow accumulated at mid-week on the **central Plains**—mainly in **Nebraska**, **Kansas**, and **eastern Colorado**. The snow hampered travel but provided desperately needed moisture for drought-stressed pastures, rangeland, and winter wheat. Farther south, however, precipitation largely bypassed the **southern Plains**, where high winds on December 19 raised dust. Elsewhere, much of the **West** received some precipitation, although amounts were heaviest across **northern California** and the **Northwest**. High-elevation precipitation continued to establish or improve **Western** snow packs. Between storms, freezes were noted in several winter agricultural regions, including **California's San Joaquin Valley** (on December 19-20) and portions of the **Desert Southwest** (on December 20-21). In freeze-affected areas, producers monitored citrus and other temperature-sensitive crops—and in some cases took protective measures—to guard against freeze injury.

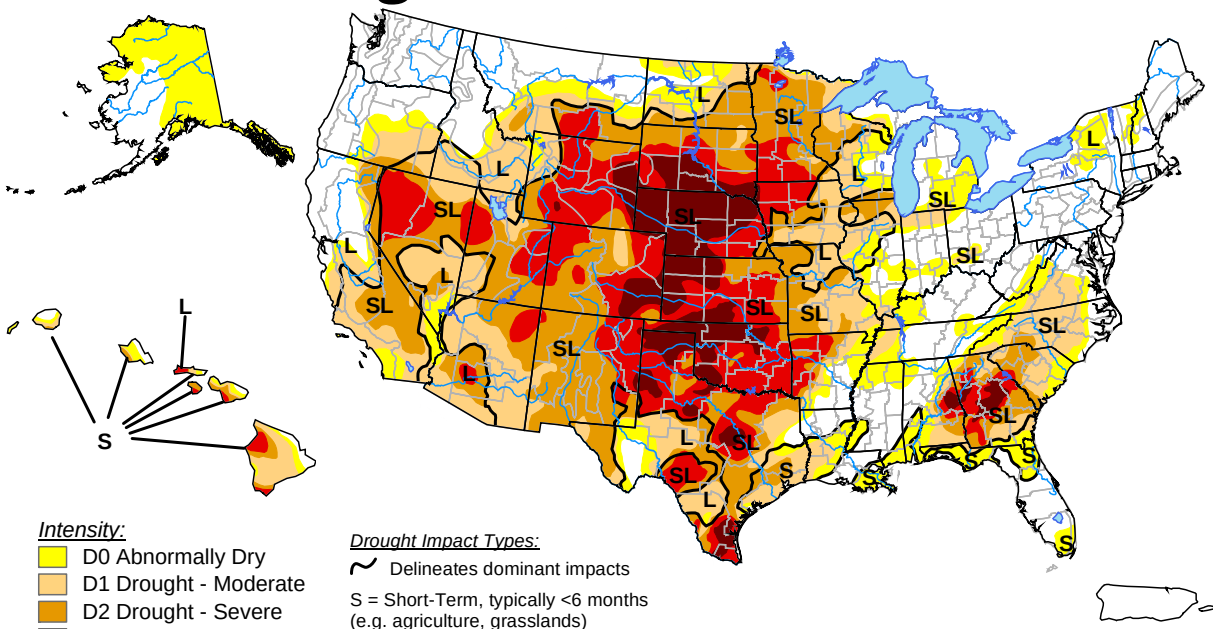
Early in the week, warmth prevailed across the **Deep South**. On December 16, daily-record highs were achieved in locations such as **Brownsville, TX** (85°F), and **New Iberia, LA** (79°F). The following day, **Daytona Beach, FL** (82°F), tied a daily-record high for December 17. Meanwhile, colder air trailed a storm system into the **West**, where **Burns, OR** (-9°F), posted a daily-record low for December 18. Across the **Intermountain West**, daily-record lows for December 19 dipped to -18°F in **Ely, NV**, and -13°F in **Challis, ID.** On the same date, record-breaking lows in **California** included 30°F in **Salinas** and 32°F in **San Rafael**. Farther inland, **Cedar City, UT** (-10°F), collected a daily-record low for December 20. In advance of the storm, another round of record-setting warmth arrived across the **South**. December 18 featured daily-record highs in **Texas** locations such as **Laredo** (89°F), **Corpus Christi** (87°F), **Brownsville** (85°F), and **San Angelo** (83°F). By December 19, record-setting highs included 89°F in **McAllen, TX**, and 78°F in **Vicksburg, MS.**

As the week began, showers and thunderstorms swept across the **South**. Record-setting rainfall totals for December 16 reached 2.46 inches in **Huntsville, AL**, and 2.16 inches in **Vicksburg, MS.** The following day in the **Northeast**, **Binghamton, NY** (0.93 inch), received a daily-record precipitation total for December 17. Meanwhile, a new storm arrived in the **Pacific Northwest** on December 16, resulting in wind gusts to 84 mph on **Cape Disappointment, WA**, and 81 mph in **Lincoln City, OR.** Later, snow developed across portions of the **northern Plains** and much of the **West**. Record-breaking snowfall totals for December 18 included 11.0 inches in **Ely, NV**, and 3.6 inches in **Sioux Falls, SD. Rangely, CO**, received 8.5 inches of snow in a 24-hour total on December 18-19. On December 19-20, significant snow blanketed the **central Plains** and the **upper Midwest**. **Des Moines, IA**, netted 12.4 inches, setting daily snowfall records on both December 19 and 20 (5.6 and 6.8 inches, respectively). Other record-setting snowfall totals for December 19 reached 5.5 inches in **Waterloo, IA**, and 4.2 inches in **Goodland, KS.** The storm also brought drought-easing moisture and blizzard-inducing high winds; **Des Moines** reported a storm-total liquid equivalent of 1.18 inches but clocked a peak wind gust to 54 mph. Farther south, December 19 wind gusts to near 60 mph were common on the **southern High Plains**, where Clovis , NM, clocked a gust to 64 mph. On December 20, **Midwestern** snowfall totals attained daily-record levels in locations such as **Gaylord, MI** (13.8 inches), and **Madison, WI** (13.3 inches). In **Illinois**, the season's first accumulating snowfall occurred on December 20 in **Rockford** (1.4 inches) and **Chicago** (0.2 inch). Both **Rockford** and **Chicago** experienced a record-high 290 days (March 5 - December 19) without measurable snow; previous records had been 287 days (in 1922) in **Rockford** and 280 days (in 1994) in **Chicago**. In addition, **Chicago** experienced its latest first measurable snowfall on record (previously, December 16, 1965). **Milwaukee, WI**, which received 2.16 inches of liquid and 2.8 inches of snow on December 20, reported its second-wettest December day on record behind only 2.24 inches on December 2, 1982. Later, **Northeastern** daily-record precipitation totals for December 21 included 1.44 inches in **Allentown, PA**, and 1.01 inches in **Binghamton, NY.** Farther west, another **Pacific** storm arrived on December 19, when **Astoria, OR** (2.71 inches), collected a daily-record rainfall and wind gusts reached 75 mph in **Garibaldi, OR**, and 67 mph on **Cape Disappointment, WA.** Very heavy snow blanketed the **interior Northwest** on December 19-20, when 24-hour totals in **Washington** reached 24.0 inches in **Stehekin** and 12.1 inches in **Mazama**. For **Stehekin**, it was the greatest 24-hour snowfall total in December since December 1-2, 1979, when 28.0 inches fell.

Bitterly cold weather gripped **interior Alaska**, where weekly temperatures averaged at least 20 to 30°F below normal in several locations. In **Fairbanks**, the minimum temperature fell to -40°F or lower on 9 consecutive days from December 15-23, including a reading of -48°F on the 17th. This was the lowest pre-Christmas temperature in **Fairbanks** since 1977, when the low plunged to -52°F on December 13. **Fairbanks** also experienced its fourth-coldest November 1 - December 24 period on record—and coldest since 1956—with an average temperature of -15.0°F (14.6°F below normal). Among several **Alaskan** daily-record lows were readings of -49°F (on December 16) in **McGrath** and -57°F (on December 22) in **Tok**. Most of **Alaska** received little or no precipitation, although **King Salmon** received 2.2 inches of snow and clocked a wind gust to 45 mph as cold air arrived on December 18. Farther south, parts of **Hawaii** received beneficial precipitation. On the **Big Island**, for example, **Hilo** received a weekly rainfall total of 4.05 inches. Elsewhere on the **Big Island**, **Saddle Quarry** netted 10.41 inches of rain in a 48-hour period from December 19-21. In contrast, December 1-22 rainfall totaled just 0.01 inch (2.22 inches below normal) in **Honolulu, Oahu**, and 0.22 inch (2.18 inches below normal) in **Kahului, Maui**.

U.S. Drought Monitor

December 25, 2012
Valid 7 a.m. EST



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

Drought Impact Types:
~ Delineates dominant impacts
S = Short-Term, typically <6 months (e.g. agriculture, grasslands)
L = Long-Term, typically >6 months (e.g. hydrology, ecology)

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

http://droughtmonitor.unl.edu/

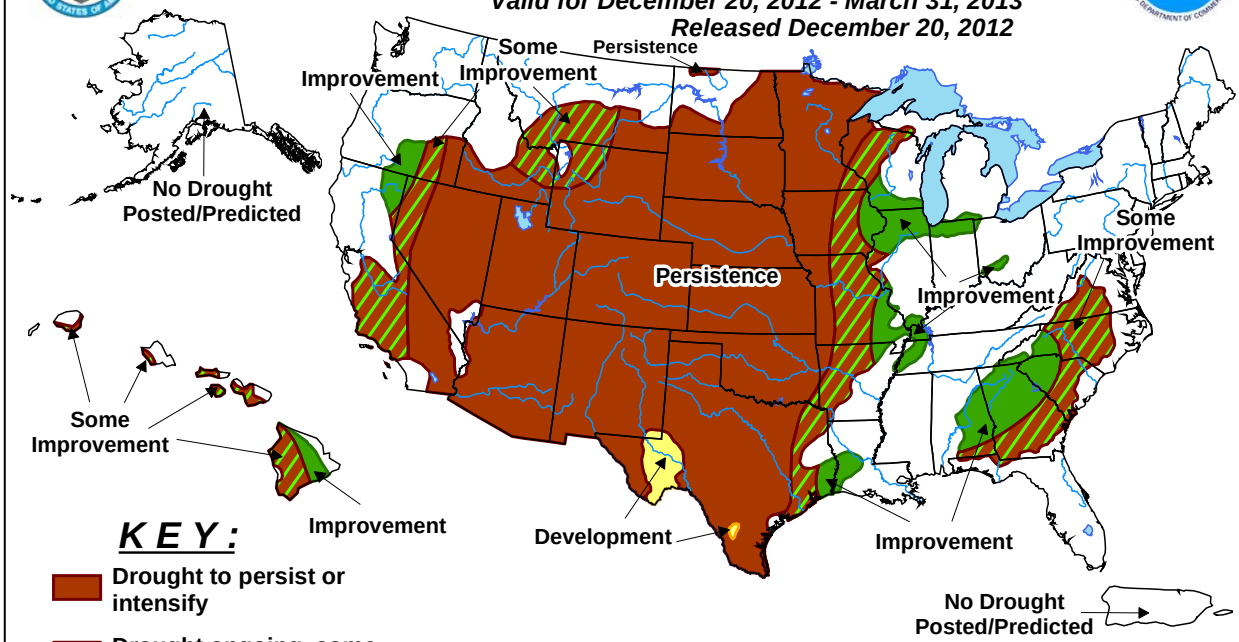
USDA National Drought Mitigation Center

Released Thursday, December 27, 2012
Author: Richard Heim, NOAA/NESDIS/NCDC

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

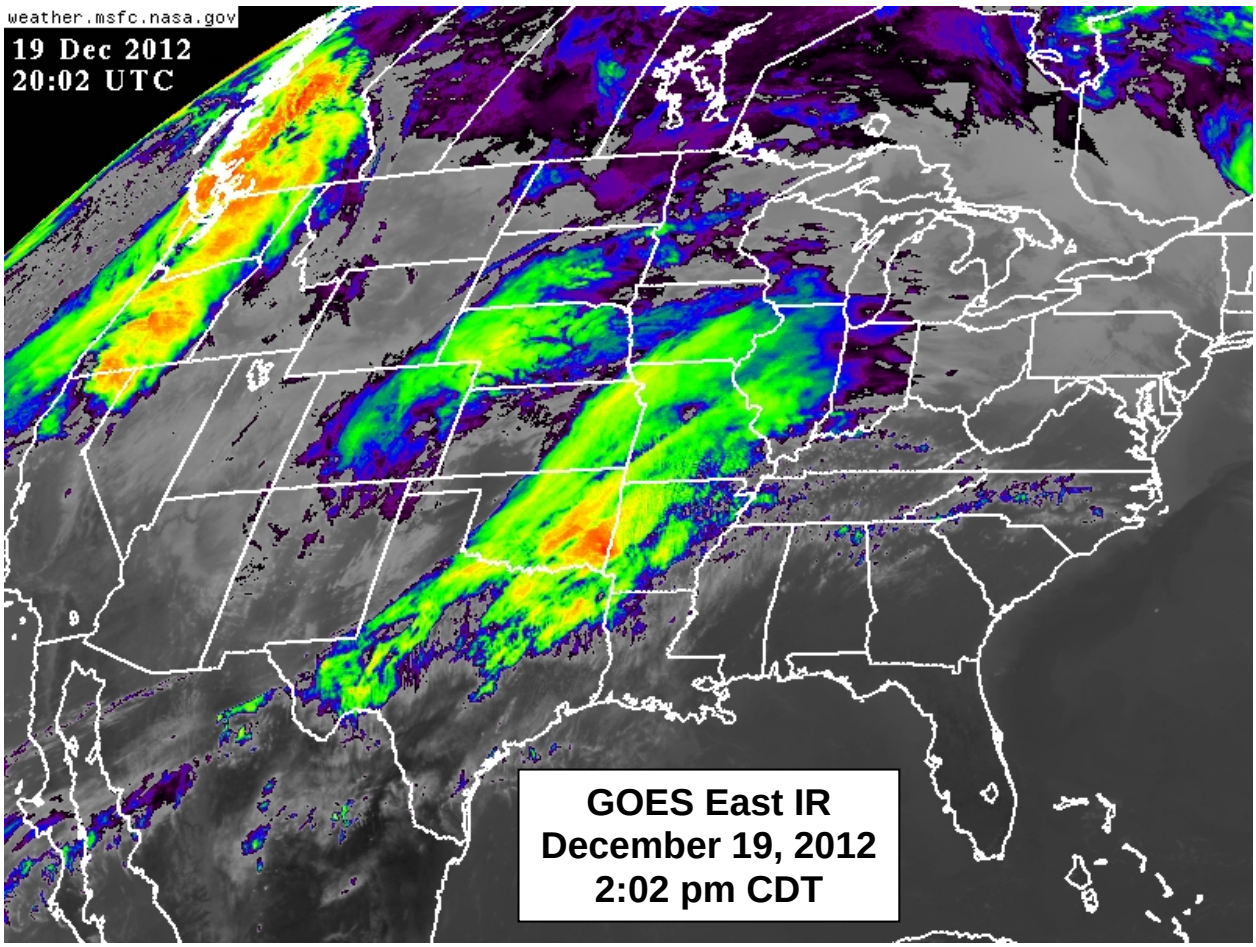
Valid for December 20, 2012 - March 31, 2013
Released December 20, 2012

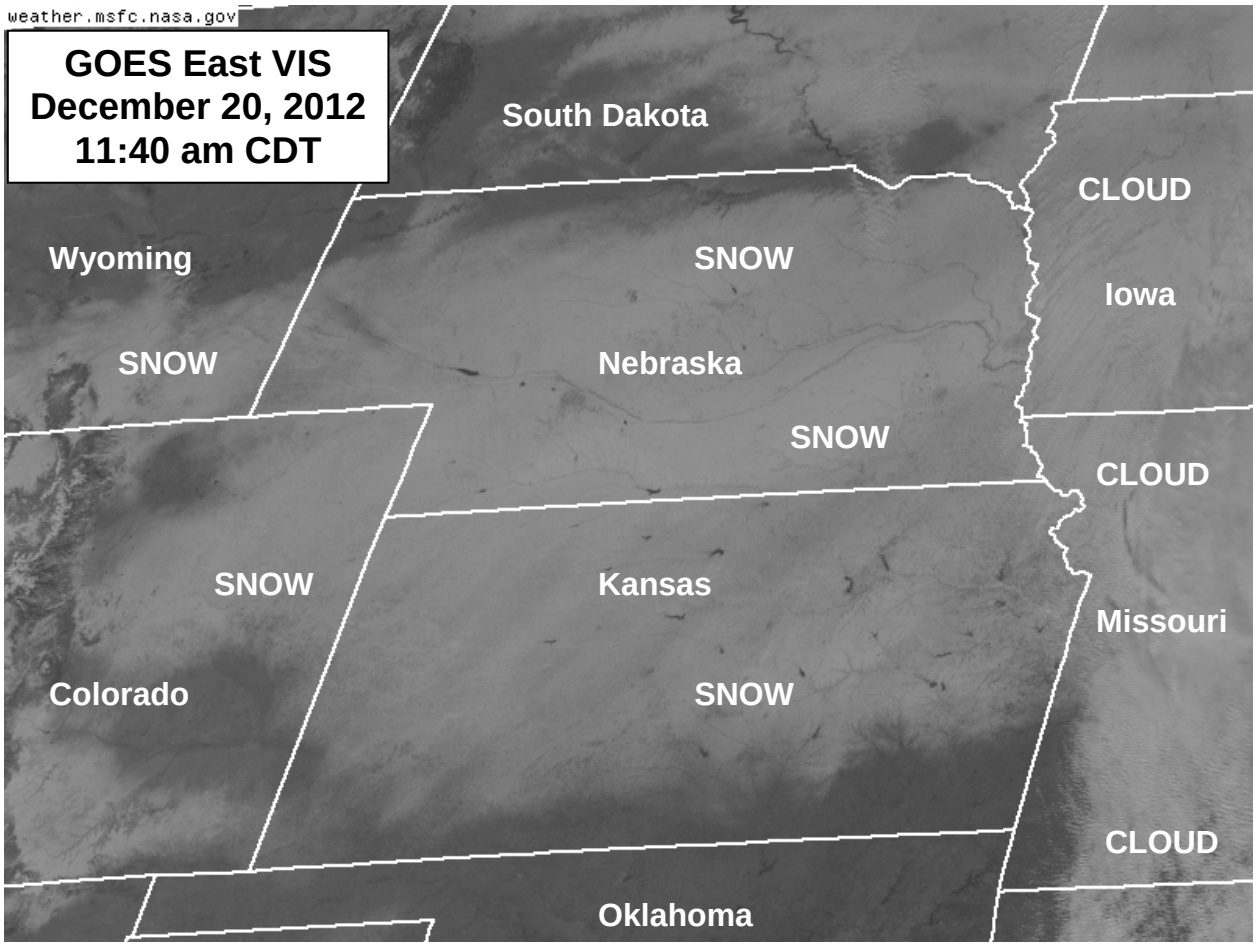


K E Y :

- **Drought to persist or intensify**
- **Drought ongoing, some improvement**
- **Drought likely to improve, impacts ease**
- **Drought development likely**

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.


weather.msfc.nasa.gov
19 Dec 2012
20:02 UTC
GOES East IR
December 19, 2012
2:02 pm CDT


weather.msfc.nasa.gov
GOES East VIS
December 20, 2012
11:40 am CDT
South Dakota
CLOUD
Wyoming
SNOW
Iowa
SNOW
Nebraska
SNOW
CLOUD
SNOW
Kansas
Missouri
Colorado
SNOW
CLOUD
Oklahoma

National Weather Data for Selected Cities

Weather Data for the Week Ending December 22, 2012

Data Provided by Climate Prediction Center

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS TEMP. °F		NUMBER OF DAYS 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
AL	BIRMINGHAM	60	41	70	26	51	6	2.20	1.25	1.45	3.88	126	46.73	89	88	44	0	1	2	2
	HUNTSVILLE	58	39	68	24	49	7	3.14	1.92	2.46	4.49	113	49.94	89	81	59	0	2	3	2
	MOBILE	68	43	74	27	55	3	1.05	0.09	0.45	1.52	46	67.14	103	88	50	0	2	4	0
	MONTGOMERY	66	42	75	28	54	6	3.06	1.99	1.67	3.94	109	40.35	76	83	44	0	1	3	3
AK	ANCHORAGE	13	-3	18	-12	5	-12	0.00	-0.23	0.00	1.55	212	21.20	135	69	50	0	7	0	0
	BARROW	-5	-20	4	-28	-12	-1	0.00	0.00	0.00	0.08	800	6.28	156	80	69	0	7	0	0
	FAIRBANKS	-31	-44	-19	-48	-38	-32	0.00	-0.17	0.00	0.00	0	9.45	94	***	***	0	7	0	0
	JUNEAU	25	12	34	3	18	-11	0.19	-1.05	0.19	3.37	89	61.89	109	85	66	0	7	1	0
	KODIAK	28	18	35	16	23	-7	0.38	-1.36	0.36	1.74	34	54.03	74	63	53	0	7	2	0
	NOME	6	-12	16	-30	-3	-11	0.22	0.01	0.22	0.42	59	18.57	114	76	67	0	7	1	0
AZ	FLAGSTAFF	35	12	45	-3	24	-6	0.36	0.03	0.24	1.80	154	14.61	66	92	53	0	6	2	0
	PHOENIX	64	45	71	39	54	0	0.08	-0.11	0.07	0.86	148	4.26	54	62	42	0	0	2	0
	PRESCOTT	46	23	56	15	34	-3	0.28	0.00	0.21	0.97	111	10.61	56	86	42	0	7	3	0
	TUCSON	64	40	71	31	52	1	0.32	0.08	0.20	0.98	151	7.70	65	76	41	0	1	2	0
AR	FORT SMITH	63	34	71	26	48	8	0.90	0.20	0.90	1.36	52	32.55	76	79	43	0	3	1	1
	LITTLE ROCK	63	37	70	28	50	7	0.38	-0.62	0.38	2.78	78	39.43	79	89	39	0	2	1	0
CA	BAKERSFIELD	61	36	67	28	48	1	0.14	-0.02	0.12	0.53	118	4.29	70	72	50	0	2	3	0
	FRESNO	59	39	66	32	49	4	0.38	0.09	0.30	1.22	149	9.16	86	80	62	0	1	2	0
	LOS ANGELES	62	49	68	44	55	-2	0.27	-0.12	0.21	0.68	61	6.75	54	66	49	0	0	3	0
	REDDING	48	34	58	25	41	-4	4.17	3.14	2.04	7.68	251	34.08	107	89	75	0	3	5	3
	SACRAMENTO	54	39	60	30	47	2	1.56	1.04	0.83	4.22	265	19.22	113	89	48	0	2	3	1
	SAN DIEGO	62	48	70	42	55	-2	0.09	-0.19	0.05	1.88	244	6.32	62	71	52	0	0	3	0
	SAN FRANCISCO	57	45	60	36	51	2	1.05	0.42	0.60	3.53	189	18.75	98	73	62	0	0	4	1
	STOCKTON	54	40	56	31	47	2	1.05	0.67	0.59	3.38	286	12.67	96	86	70	0	1	3	1
CO	ALAMOSA	24	-16	34	-27	4	-12	0.10	0.04	0.09	0.61	321	5.39	76	84	63	0	7	2	0
	CO SPRINGS	46	17	60	4	32	3	0.02	-0.06	0.02	0.14	64	7.98	46	54	21	0	7	1	0
	DENVER INTL	44	19	51	7	31	2	0.02	-0.04	0.02	0.07	39	9.92	74	59	28	0	7	1	0
	GRAND JUNCTION	29	11	43	-5	20	-8	0.54	0.43	0.40	0.80	267	4.28	49	93	68	0	7	3	0
	PUEBLO	48	14	56	-3	31	1	0.04	-0.04	0.04	0.24	104	4.94	40	66	38	0	7	1	0
CT	BRIDGEPORT	47	37	57	32	42	8	1.57	0.81	0.61	2.55	107	39.22	91	83	66	0	1	5	1
	HARTFORD	43	33	56	27	38	8	2.23	1.46	0.81	2.41	96	36.29	81	86	65	0	4	5	3
DC	WASHINGTON	55	41	62	35	48	9	0.98	0.31	0.61	1.30	62	30.72	80	82	55	0	0	4	1
DE	WILMINGTON	52	37	60	30	44	8	1.78	1.04	0.83	2.57	109	34.96	84	90	60	0	2	5	2
FL	DAYTONA BEACH	74	49	82	37	62	2	0.12	-0.47	0.10	1.43	78	41.71	86	95	43	0	0	2	0
	JACKSONVILLE	71	43	79	30	57	3	0.41	-0.16	0.27	1.55	89	52.66	102	90	42	0	1	2	0
	KEY WEST	78	69	82	52	73	1	0.00	-0.47	0.00	0.66	46	46.99	123	82	62	0	0	0	0
	MIAMI	78	62	83	48	70	0	0.02	-0.45	0.02	0.39	25	86.82	150	86	48	0	0	1	0
	ORLANDO	77	52	83	41	64	2	0.09	-0.41	0.08	0.83	51	40.64	85	88	48	0	0	2	0
	PENSACOLA	69	47	75	32	58	4	1.02	0.18	0.60	1.25	47	65.78	104	83	51	0	1	4	1
	TALLAHASSEE	70	40	80	26	55	2	1.20	0.31	0.70	2.12	79	58.16	94	85	39	0	2	3	1
	TAMPA	75	54	80	43	64	1	0.61	0.10	0.61	0.78	48	54.56	124	86	47	0	0	1	1
	WEST PALM BEACH	78	59	84	43	69	1	0.00	-0.60	0.00	1.11	47	78.72	130	84	55	0	0	0	0
GA	ATHENS	58	39	68	30	48	4	2.34	1.53	1.32	3.03	121	34.53	74	82	55	0	1	3	2
	ATLANTA	57	42	68	31	50	5	1.83	1.03	1.18	2.74	103	33.84	69	73	53	0	1	3	2
	AUGUSTA	63	38	72	27	51	5	1.07	0.36	0.58	1.81	91	33.21	76	86	56	0	3	3	1
	COLUMBUS	64	42	70	29	53	5	1.91	0.95	0.78	2.48	81	32.46	69	84	40	0	1	3	3
	MACON	63	39	71	29	51	4	1.68	0.81	0.99	2.01	76	29.55	68	90	45	0	2	3	1
	SAVANNAH	68	43	76	30	56	5	0.43	-0.20	0.24	0.89	51	39.19	81	86	52	0	1	2	0
HI	HILO	78	66	81	63	72	0	4.08	1.94	1.50	5.87	72	84.79	68	***	***	0	0	7	3
	HONOLULU	81	70	83	68	75	0	0.00	-0.65	0.00	0.00	0	8.57	49	78	69	0	0	0	0
	KAHULUI	80	67	82	62	74	1	0.09	-0.60	0.03	0.17	9	5.15	29	81	71	0	0	5	0
	LIHUE	77	70	79	68	74	1	0.36	-0.70	0.18	4.30	130	41.13	108	79	71	0	0	5	0
ID	BOISE	43	30	49	18	36	6	0.06	-0.22	0.05	0.94	98	11.27	96	56	43	0	3	2	0
	LEWISTON	46	34	53	28	40	7	0.00	-0.22	0.00	0.84	117	15.41	124	69	50	0	2	0	0
	POCATELLO	36	17	42	9	26	1	0.24	0.02	0.21	0.95	132	10.22	84	82	62	0	7	2	0
IL	CHICAGO/O'HARE	41	29	49	17	35	8	1.35	0.83	1.26	2.75	152	27.45	77	87	76	0	5	3	1
	MOLINE	37	23	48	5	30	4	1.63	1.15	1.32	2.57	160	27.15	72	90	78	0	5	2	1
	PEORIA	41	26	51	10	34	7	0.98	0.47	0.53	1.87	102	26.96	76	91	73	0	4	3	1
	ROCKFORD	37	26	48	10	32	8	1.38	0.95	1.27	2.47	158	23.32	65	88	78	0	6	3	1
	SPRINGFIELD	44	27	52	12	35	5	0.85	0.30	0.71	2.71	143	29.49	84	95	71	0	6	2	1
IN	EVANSVILLE	53	34	60	19	43	8	0.38	-0.37	0.36	1.70	64	31.35	72	80	59	0	3	2	0
	FORT WAYNE	43	33	53	21	38	10	0.93	0.33	0.80	1.61	79	27.99	78	95	76	0	3	3	1
	INDIANAPOLIS	43	30	56	13	37	6	0.60	-0.05	0.53	1.96	88	37.39	93	93	76	0	3	4	1
	SOUTH BEND	42	32	51	21	37	9	1.37	0.70	0.98	2.61	114	33.87	87	88	76	0	3	4	1
IA	BURLINGTON	40	24	53	9	32	5	0.02	-0.42	0.02	0.85	53	23.23	62	94	69	0	5	1	0
	CEDAR RAPIDS	33	20	42	4	26	3	0.13	-0.17	0.07	0.54	48	23.54	71	98	81	0	7	2	0
	DES MOINES	35	21	42	10	28	4	0.98	0.71	0.78	1.67	170	26.01	76	86	76	0	7	2	1
	DUBUQUE	31	19	44	-1	25	3	0.99	0.65	0.56	2.18	172	23.89	68	93	84	0	7	4	1
	SIOUX CITY	31	17	42	3	24	3	0.07	-0.04	0.04	1.15	256	23.59	92	89	79	0	7	2	0
	WATERLOO	30	16	40	1	23	2	0.71	0.50	0.49	1.53	180	23.86	73	93	81	0	7	3	0
KS	CONCORDIA	43	24	55	13	33	3	0.08	-0.09	0.05	0.47	78	23.53	84	83	60	0	6	2	0
	DODGE CITY	50	24	56	17	37	5	0.07	-0.10	0.07	0.40	77	17.61	80	78	36	0	6	1	0
	GOODLAND	45	16	56	3	30	1	0.10	0.03	0.10	0.14	61	9.16	47	74	55	0	7	1	0
	TOPEKA	45	26	59	13	36	5	0.36	0.07	0.28	0.63	59	22.90	65	84	60	0	6	2	0

Based on 1971-2000 normals

***** Not Available**

Weather Data for the Week Ending December 22, 2012

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS TEMP. °F		NUMBER OF DAYS 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 JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	WICHITA	53	25	61	15	39	6	0.03	-0.25	0.02	0.18	19	24.88	83	84	47	0	5	2	0
KY	JACKSON	49	37	59	26	43	5	1.20	0.26	0.56	5.16	165	50.74	105	87	59	0	3	4	1
	LEXINGTON	48	35	61	20	42	6	1.86	0.96	1.03	5.47	192	41.54	93	91	74	0	3	3	2
	LOUISVILLE	52	37	64	21	44	7	1.02	0.22	0.59	5.68	213	44.23	102	85	59	0	3	3	1
	PADUCAH	56	34	62	19	45	9	0.57	-0.38	0.57	2.47	75	28.61	59	88	49	0	4	1	1
LA	BATON ROUGE	70	44	77	30	57	5	2.57	1.41	1.72	5.53	152	66.83	109	94	39	0	1	4	2
	LAKE CHARLES	71	44	79	32	58	5	1.68	0.69	1.64	3.10	98	70.29	126	93	43	0	1	2	1
	NEW ORLEANS	70	48	79	37	59	4	0.45	-0.64	0.35	3.64	99	66.79	106	85	52	0	0	4	0
	SHREVEPORT	70	40	77	29	55	7	0.43	-0.57	0.23	1.40	43	47.41	95	85	40	0	2	2	0
ME	CARIBOU	32	19	39	-6	25	10	1.30	0.58	0.61	2.53	114	38.44	105	89	77	0	7	5	1
	PORTLAND	40	28	53	19	34	7	5.58	4.65	3.49	6.52	217	52.69	118	90	70	0	5	6	2
MD	BALTIMORE	53	38	59	32	45	9	1.37	0.63	0.84	1.70	74	36.01	88	85	60	0	1	4	1
MA	BOSTON	45	36	52	30	40	6	2.24	1.41	0.80	3.29	126	34.09	82	91	69	0	1	4	3
	WORCESTER	39	30	53	25	35	7	2.18	1.35	1.03	3.29	125	42.07	88	93	71	0	5	5	2
MI	ALPENA	38	28	46	24	33	10	1.21	0.82	0.91	2.47	198	27.53	99	93	75	0	5	4	1
	GRAND RAPIDS	42	32	49	26	37	10	1.25	0.69	0.93	2.48	121	33.48	92	89	69	0	3	4	1
	HOUGHTON LAKE	36	27	43	24	32	9	0.79	0.42	0.51	2.39	194	32.80	117	96	86	0	6	4	1
	LANSING	41	31	49	24	36	10	0.85	0.40	0.60	1.64	99	28.08	91	88	72	0	4	3	1
	MUSKEGON	41	33	49	28	37	9	1.66	1.10	1.36	2.75	142	31.30	97	83	71	0	3	4	1
	TRAVERSE CITY	38	31	47	25	35	9	1.42	0.84	1.19	2.54	140	31.41	96	94	71	0	6	5	1
MN	DULUTH	26	13	34	2	19	6	0.06	-0.09	0.03	1.27	179	33.03	107	87	77	0	7	3	0
	INT'L FALLS	21	7	33	-7	14	7	0.08	-0.05	0.05	1.02	204	25.04	105	91	84	0	7	3	0
	MINNEAPOLIS	28	17	34	9	23	5	0.04	-0.15	0.02	0.93	129	28.88	99	90	77	0	7	2	0
	ROCHESTER	29	17	37	4	23	7	3.87	3.68	2.23	4.91	646	27.98	90	84	80	0	7	6	2
	ST. CLOUD	24	12	34	0	18	4	0.00	-0.14	0.00	1.21	252	24.70	92	91	72	0	7	0	0
MS	JACKSON	67	40	76	26	54	7	1.71	0.53	1.52	4.18	111	64.97	120	90	40	0	2	3	1
	MERIDIAN	65	38	73	25	52	4	1.45	0.29	1.05	3.99	107	57.66	101	95	53	0	2	3	1
	TUPELO	61	38	68	24	50	7	1.48	0.10	1.15	4.38	100	47.06	87	89	54	0	2	3	1
MO	COLUMBIA	49	26	58	16	37	6	0.26	-0.25	0.15	1.31	69	30.32	76	91	63	0	6	2	0
	KANSAS CITY	43	27	55	13	35	4	0.79	0.46	0.44	1.23	100	22.17	59	84	59	0	4	2	0
	SAINT LOUIS	50	30	60	20	40	7	0.45	-0.14	0.31	1.72	79	32.02	84	80	65	0	4	3	0
	SPRINGFIELD	55	29	62	22	42	7	0.08	-0.57	0.08	0.99	39	30.81	70	81	61	0	5	1	0
MT	BILLINGS	38	18	45	13	28	2	0.00	-0.14	0.00	0.09	23	6.96	48	65	36	0	7	0	0
	BUTTE	28	4	36	-9	16	-1	0.00	-0.11	0.00	0.24	69	8.99	71	81	43	0	7	0	0
	CUT BANK	31	10	46	1	21	0	0.00	-0.06	0.00	0.05	29	9.05	73	79	48	0	7	0	0
	GLASGOW	21	5	30	-1	13	-2	1.11	1.03	0.97	***	***	13.89	126	85	77	0	7	3	1
	GREAT FALLS	36	19	50	11	28	4	0.00	-0.14	0.00	0.24	62	12.80	88	65	38	0	7	0	0
	HAVRE	35	11	46	8	23	4	0.00	-0.11	0.00	0.18	58	12.60	112	78	66	0	7	0	0
	MISSOULA	36	20	42	11	28	5	0.23	-0.02	0.15	1.25	162	14.94	111	81	59	0	7	2	0
NE	GRAND ISLAND	38	19	52	5	28	3	1.07	0.96	1.04	1.56	318	11.43	44	86	73	0	7	2	1
	LINCOLN	35	17	50	4	26	0	0.61	0.45	0.58	1.47	233	19.10	68	90	77	0	7	2	1
	NORFOLK	34	16	47	2	25	2	0.09	-0.02	0.08	0.71	148	14.08	53	87	73	0	7	2	0
	NORTH PLATTE	41	11	50	2	26	1	0.05	-0.03	0.05	0.13	50	9.80	50	88	54	0	7	1	0
	OMAHA	35	19	41	7	27	2	0.91	0.74	0.81	1.55	221	22.31	74	87	75	0	7	3	1
	SCOTTSBLUFF	46	13	54	1	29	4	0.08	-0.03	0.08	0.09	24	6.82	42	77	46	0	7	1	0
	VALENTINE	43	15	57	10	29	6	0.04	-0.02	0.02	0.23	105	10.62	55	88	52	0	7	2	0
NV	ELY	33	10	39	-18	21	-4	0.93	0.83	0.47	1.34	479	11.85	122	76	65	0	7	4	0
	LAS VEGAS	52	36	57	30	44	-2	0.00	-0.08	0.00	0.49	213	5.30	123	58	41	0	2	0	0
	RENO	47	27	54	16	37	4	0.36	0.17	0.33	1.34	220	5.00	69	63	52	0	5	3	0
	WINNEMUCCA	41	21	50	5	31	2	0.15	-0.02	0.11	1.03	198	5.16	64	69	48	0	7	2	0
NH	CONCORD	38	27	51	22	33	8	2.14	1.51	1.03	3.17	152	37.26	101	94	69	0	5	5	2
NJ	NEWARK	50	38	57	32	44	9	2.09	1.33	0.89	2.87	115	34.15	76	84	65	0	1	5	1
NM	ALBUQUERQUE	43	21	47	14	32	-3	0.00	-0.10	0.00	0.09	32	5.43	59	71	36	0	7	0	0
NY	ALBANY	41	31	52	25	36	9	1.63	1.06	0.59	2.79	146	35.73	96	87	70	0	4	5	2
	BINGHAMTON	38	30	42	24	34	8	2.29	1.64	1.02	3.93	176	38.07	101	90	80	0	4	6	2
	BUFFALO	44	34	57	28	39	10	0.94	0.11	0.32	2.51	91	31.65	80	90	65	0	3	6	0
	ROCHESTER	44	34	55	27	39	10	1.33	0.74	0.39	2.18	111	32.73	99	91	70	0	4	6	0
	SYRACUSE	43	32	48	24	37	9	2.64	1.99	0.85	4.88	209	32.42	83	90	67	0	3	6	3
NC	ASHEVILLE	51	34	63	27	42	4	1.64	0.92	0.92	1.89	80	42.19	92	83	58	0	4	4	2
	CHARLOTTE	57	39	67	27	48	4	1.22	0.53	0.67	1.46	69	31.31	74	82	51	0	1	3	1
	GREENSBORO	55	38	63	26	47	7	0.74	0.08	0.34	0.94	45	34.99	83	81	52	0	1	3	0
	HATTERAS	61	48	67	39	55	6	1.37	0.37	0.55	3.35	112	54.61	97	91	63	0	0	4	2
	RALEIGH	60	40	68	31	50	8	0.70	0.04	0.42	1.16	57	39.01	93	79	54	0	1	3	0
	WILMINGTON	64	44	72	35	54	6	0.48	-0.34	0.29	1.43	56	47.28	85	90	54	0	0	4	0
ND	BISMARCK	22	7	31	-10	14	-1	0.11	0.03	0.09	0.49	181	14.75	88	92	82	0	7	3	0
	DICKINSON	27	5	37	-2	16	-2	0.00	-0.06	0.00	0.19	86	10.35	64	88	65	0	7	0	0
	FARGO	22	9	29	-4	16	4	0.05	-0.06	0.05	0.19	54	15.85	76	83	74	0	7	1	0
	GRAND FORKS	19	11	27	0	15	5	0.07	-0.04	0.06	0.28	80	17.06	88	91	77	0	7	2	0
	JAMESTOWN	19	7	27	-8	13	0	0.03	-0.05	0.03	0.07	27	12.88	70	89	76	0	7	1	0
	WILLISTON	20	2	32	-7	11	-1	0.06	-0.05	0.05	0.33	89	12.96	93	90	81	0	7	2	0
OH	AKRON-CANTON	45	34	58	19	40	10	1.01	0.36	0.45	3.14	145	36.86	98	85	73	0	2	6	0
	CINCINNATI	46	34	61	23	40	6	1.18	0.46	0.84	4.53	194	37.56	90	88	76	0	3	4	1
	CLEVELAND	44	34	57	23	39	9	1.23	0.56	0.34	2.91	124	43.60	115	89	70	0	2	5	0
	COLUMBUS	46	37	61	23	42	9	1.50	0.88	0.87	4.30	201	35.87	95	88	74	0	2	4	1
	DAYTON	44	33	58	24	38	7	0.98	0.31	0.80	2.75	124	31.57	82	93	76	0	3	4	1
	MANSFIELD	43	33	58	20	38	9	1.18	0.48	0.72	2.91	121	39.21	93	94	71	0	4	4	1

Based on 1971-2000 normals

***** Not Available**

Weather Data for the Week Ending December 22, 2012

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS TEMP. °F		NUMBER OF DAYS 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 JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	TOLEDO	43	33	54	23	38	10	1.08	0.51	0.87	1.71	88	29.90	92	89	71	0	5	4	1
	YOUNGSTOWN	43	32	56	25	38	8	1.37	0.74	0.53	3.71	169	43.60	117	88	73	0	5	7	1
OK	OKLAHOMA CITY	60	32	66	24	46	7	0.00	-0.41	0.00	0.24	18	29.04	82	73	25	0	4	0	0
	TULSA	61	33	70	20	47	8	0.00	-0.50	0.00	0.14	8	28.02	67	72	38	0	2	0	0
OR	ASTORIA	49	37	53	34	43	1	5.86	3.58	2.42	12.47	165	89.19	139	87	75	0	0	7	3
	BURNS	34	12	39	-9	23	-2	0.31	0.03	0.26	1.16	133	9.75	96	83	74	0	7	3	0
	EUGENE	47	35	52	31	41	2	3.02	1.22	1.11	6.32	104	49.06	101	94	83	0	2	6	3
	MEDFORD	44	32	50	28	38	0	1.69	1.07	0.53	5.17	244	26.37	150	96	69	0	4	7	2
	PENDLETON	48	32	56	26	40	7	0.14	-0.16	0.11	0.94	90	14.19	115	67	50	0	4	3	0
	PORTLAND	48	37	51	34	42	2	2.71	1.46	1.17	6.35	153	49.22	139	92	82	0	0	7	2
	SALEM	47	36	52	31	41	1	2.37	0.96	1.09	6.15	130	53.20	139	95	84	0	1	7	2
PA	ALLENTOWN	48	35	56	26	41	10	2.36	1.64	1.34	3.30	138	40.00	91	84	67	0	2	5	1
	ERIE	46	36	60	30	41	9	1.61	0.79	0.52	3.48	125	38.35	92	86	72	0	3	7	1
	MIDDLETOWN	47	35	52	27	41	8	1.74	1.04	0.84	2.61	110	44.01	111	89	63	0	3	3	2
	PHILADELPHIA	52	38	60	32	45	8	2.00	1.28	1.18	2.82	123	34.33	84	82	60	0	1	5	1
	PITTSBURGH	46	35	56	25	40	8	1.46	0.85	0.81	4.11	200	40.32	109	88	66	0	4	5	2
	WILKES-BARRE	44	34	50	27	39	8	2.10	1.56	1.33	3.11	166	37.13	101	86	68	0	3	6	1
	WILLIAMSPORT	45	34	48	27	40	10	2.58	1.97	1.00	3.83	186	34.45	85	91	69	0	2	5	3
RI	PROVIDENCE	46	35	55	31	41	8	1.86	0.95	0.68	3.50	120	39.13	87	89	64	0	2	4	1
SC	BEAUFORT	67	44	73	36	55	5	0.50	-0.19	0.32	1.21	61	34.32	71	85	41	0	0	4	0
	CHARLESTON	68	44	75	35	56	6	0.66	-0.06	0.48	1.33	63	41.74	83	83	42	0	0	2	0
	COLUMBIA	63	41	72	30	52	6	0.66	-0.09	0.42	1.54	71	40.78	87	82	48	0	1	3	0
	GREENVILLE	57	40	68	27	49	6	2.03	1.18	1.18	2.32	89	35.36	72	84	47	0	2	3	2
SD	ABERDEEN	21	5	30	-8	13	-2	0.02	-0.05	0.02	0.65	342	14.54	73	86	77	0	7	1	0
	HURON	25	11	32	0	18	0	0.02	-0.04	0.02	1.04	473	19.58	94	92	78	0	7	1	0
	RAPID CITY	43	12	54	6	28	4	0.00	-0.08	0.00	0.08	36	11.23	68	75	32	0	7	0	0
	SIOUX FALLS	26	9	31	-2	18	0	0.26	0.18	0.17	1.07	289	17.11	70	91	79	0	7	2	0
TN	BRISTOL	50	32	58	22	41	5	1.07	0.33	0.51	2.34	98	44.49	110	94	61	0	5	5	1
	CHATTANOOGA	56	40	65	25	48	6	2.18	1.16	1.28	3.44	101	48.66	92	88	62	0	1	3	2
	KNOXVILLE	54	38	63	23	46	6	2.74	1.75	1.21	3.98	126	51.47	110	84	56	0	2	3	2
	MEMPHIS	63	40	71	28	51	8	0.27	-0.97	0.24	1.83	43	35.01	66	82	49	0	2	3	0
	NASHVILLE	58	38	66	22	48	8	0.73	-0.26	0.50	2.49	75	43.61	93	77	48	0	2	2	1
TX	ABILENE	66	38	77	27	52	7	0.00	-0.30	0.00	0.00	0	23.14	99	49	29	0	2	0	0
	AMARILLO	60	28	67	21	44	8	0.00	-0.13	0.00	0.19	56	11.98	62	56	16	0	7	0	0
	AUSTIN	73	37	84	22	55	3	0.42	-0.13	0.42	0.46	27	34.76	106	62	29	0	3	1	0
	BEAUMONT	71	45	80	32	58	4	1.22	0.05	1.11	5.44	152	62.80	108	96	45	0	1	4	1
	BROWNSVILLE	79	55	85	46	67	6	0.00	-0.22	0.00	0.33	42	21.40	79	83	48	0	0	0	0
	CORPUS CHRISTI	78	50	87	29	64	6	0.00	-0.39	0.00	0.03	3	18.80	59	65	41	0	1	0	0
	DEL RIO	72	40	85	31	56	4	0.00	-0.16	0.00	0.03	6	13.86	77	60	34	0	1	0	0
	EL PASO	56	33	63	27	45	0	0.00	-0.17	0.00	0.09	18	6.03	66	49	23	0	4	0	0
	FORT WORTH	69	41	79	25	55	9	0.00	-0.59	0.00	0.39	22	29.69	88	65	22	0	2	0	0
	GALVESTON	70	53	76	41	61	3	1.29	0.54	1.19	2.30	94	46.63	109	94	55	0	0	3	1
	HOUSTON	73	45	81	32	59	6	1.66	0.86	1.58	2.08	80	41.54	89	79	46	0	1	2	1
	LUBBOCK	60	27	66	16	44	5	0.00	-0.14	0.00	0.16	37	10.91	59	54	23	0	6	0	0
	MIDLAND	64	32	76	19	48	4	0.00	-0.14	0.00	0.00	0	12.72	87	47	24	0	3	0	0
	SAN ANGELO	70	36	83	19	53	7	0.00	-0.21	0.00	0.01	2	21.78	106	52	21	0	2	0	0
	SAN ANTONIO	72	41	82	27	57	5	0.04	-0.40	0.04	0.11	8	39.14	121	77	27	0	2	1	0
	VICTORIA	75	47	82	28	61	6	1.19	0.64	1.18	1.25	72	27.93	71	73	44	0	1	2	1
	WACO	72	37	83	19	55	7	0.00	-0.63	0.00	0.32	16	31.84	98	68	40	0	3	0	0
	WICHITA FALLS	63	33	71	24	48	6	0.00	-0.39	0.00	0.28	24	19.48	69	60	31	0	3	0	0
UT	SALT LAKE CITY	41	25	55	20	33	3	0.08	-0.17	0.05	0.81	100	12.08	75	80	45	0	6	2	0
VT	BURLINGTON	39	29	48	18	34	10	0.98	0.53	0.46	2.03	126	34.67	98	86	70	0	4	6	0
VA	LYNCHBURG	51	35	62	30	43	6	0.95	0.25	0.70	0.98	44	28.15	67	85	58	0	3	3	1
	NORFOLK	60	44	64	36	52	8	1.39	0.72	0.67	1.54	77	45.40	102	86	55	0	0	4	1
	RICHMOND	59	39	64	30	49	9	0.98	0.29	0.47	1.20	58	34.90	81	84	51	0	1	4	0
	ROANOKE	51	38	64	33	45	7	0.69	0.08	0.49	0.73	37	31.06	75	74	55	0	0	3	0
	WASH/DULLES	52	35	58	29	44	9	0.96	0.30	0.51	1.16	54	33.91	83	84	60	0	4	3	1
WA	OLYMPIA	44	32	46	26	38	0	4.19	2.47	1.08	8.74	152	58.59	120	96	88	0	4	7	4
	QUILLAYUTE	43	34	47	31	39	-1	5.86	2.65	2.66	14.13	134	116.13	119	96	87	0	1	7	3
	SEATTLE-TACOMA	45	35	47	29	40	0	2.36	1.14	0.78	5.88	143	47.29	133	87	74	0	1	7	2
	SPOKANE	37	28	42	22	32	5	0.88	0.40	0.28	2.32	142	21.06	131	94	72	0	7	6	0
	YAKIMA	38	22	46	12	30	2	0.83	0.53	0.57	1.65	176	8.84	113	85	78	0	7	5	1
WV	BECKLEY	45	32	56	19	39	5	1.18	0.51	0.46	2.08	97	43.25	106	84	70	0	2	6	0
	CHARLESTON	49	35	61	22	42	5	0.96	0.26	0.38	3.41	141	40.04	93	88	65	0	3	5	0
	ELKINS	46	29	57	19	37	5	1.02	0.28	0.51	3.35	137	45.57	101	88	61	0	5	5	1
	HUNTINGTON	49	37	60	24	43	7	1.02	0.28	0.51	2.82	118	39.03	94	86	67	0	2	4	1
WI	EAU CLAIRE	28	15	35	-1	22	5	0.29	0.10	0.21	1.49	196	23.90	75	92	68	0	7	2	0
	GREEN BAY	34	24	43	7	29	9	0.31	0.03	0.28	1.09	103	30.07	104	86	74	0	6	2	0
	LA CROSSE	30	20	37	6	25	4	0.36	0.13	0.22	1.36	146	26.06	81	92	72	0	7	3	0
	MADISON	34	22	45	3	28	6	1.54	1.20	1.17	2.53	202	26.29	81	89	77	0	6	4	1
	MILWAUKEE	38	26	47	15	32	7	2.55	2.08	2.16	3.79	230	29.21	85	88	75	0	5	4	1
WY	CASPER	38	16	48	5	27	4	0.00	-0.11	0.00	0.08	20	7.58	59	47	26	0	7	0	0
	CHEYENNE	38	15	51	0	26	-1	0.27	0.19	0.20	0.29	97	10.03	66	64	39	0	7	4	0
	LANDER	35	10	46	3	23	2	0.00	-0.11	0.00	0.07	17	6.27	47	58	23	0	7	0	0
	SHERIDAN	36	12	42	6	24	2	0.02	-0.12	0.02	0.31	72	9.34	65	74	56	0	7	1	0

Based on 1971-2000 normals

***** Not Available**

National Agricultural Summary

December 17 – 23, 2012

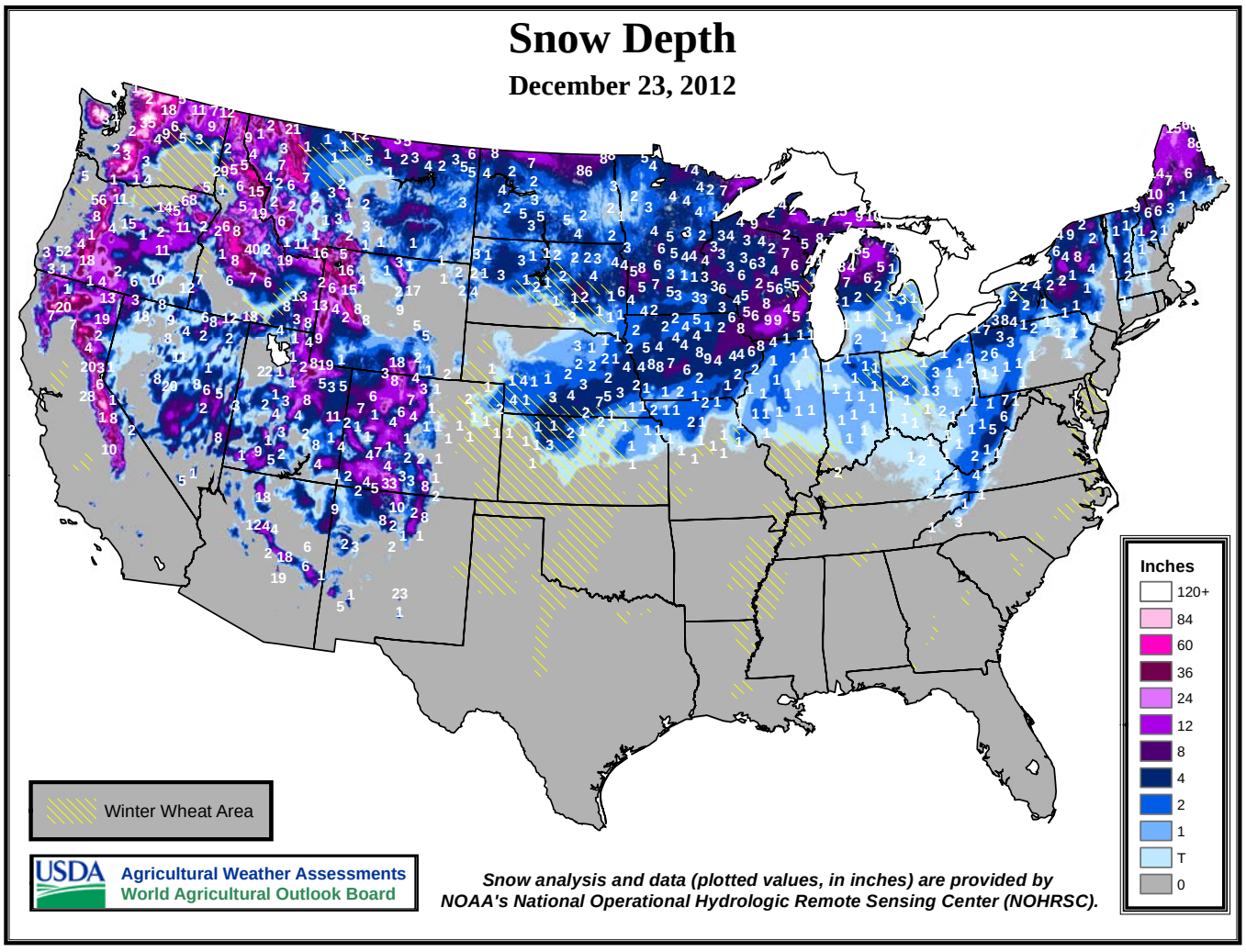
Weekly National Agricultural Summary provided by USDA/NASS

Despite a large, late-week winter storm that brought heavy snow to portions of the Midwest and Ohio Valley, temperatures throughout much of the United States were above average during the week. Most notably, portions of the Northeast and Great Lakes region recorded weekly averages more than 10°F above normal. Conversely, temperatures in the Four Corners region dipped to more than 12°F below average. While much of the Great Plains remained dry, beneficial precipitation fell across much of the country east of the Mississippi River and from the Rocky Mountains westward.

The arrival of winter brought Florida's first cold front of the season, with varied rainfall totals and temperatures dipping into the mid-20s (°F) in northern portions of the State; however, overwintered small grain crops were in need of additional moisture. Fruit and vegetable growers continued to market a variety of crops, as they prepared to check for damage done by the sub-freezing temperatures. Mostly warm weather and only light rainfall in the citrus-producing region led to heavy irrigation in most orchards. Early and mid-season oranges harvest continued at a rapid pace. Grove activity included pre-harvest mowing and other general maintenance.

Arizona recorded mostly below-average temperatures and light, widespread rainfall during the week. Despite recent improvements in moisture levels, the long-term drought effects remained severe with pastures and ranges rated in mostly very poor to fair condition. Alfalfa hay was being harvested from nearly half of the State's acreage, as sheep were turned out to graze other alfalfa fields. Fruit and vegetable growers shipped a variety of crops during the week.

California received widespread precipitation from a series of storms during the week. As a result, most small grain crops were reported in good to excellent condition, as some producers in southern portions of the State seeded their rice fields with winter crops. Fruit growers continued to prune, disc, and shred vineyards and stone fruit orchards. A variety of fruit crops were still being harvested, including table grapes, kiwi, persimmon, and pomegranate. Winter vegetables were growing well in Tulare County, while producers in Fresno County harvested broccoli, cabbage, carrots, and lettuce. Field activities included fumigation for next year's melon, onion, and tomato fields.



International Weather and Crop Summary

December 16-22, 2012

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

HIGHLIGHTS

EUROPE: Wet, mild weather maintained generally favorable conditions for winter grains and oilseeds.

WESTERN FSU: Bitter cold maintained a heightened risk for burnback and winterkill of exposed winter grains in Russia, while wind-driven snow continued to fall across western and southern portions of the region.

MIDDLE EAST: Heavy rain and high-elevation snow persisted from Turkey into northern Iran, favoring winter wheat and barley.

NORTHWEST AFRICA: Sunny skies favored winter wheat and barley establishment after a wetter-than-normal autumn.

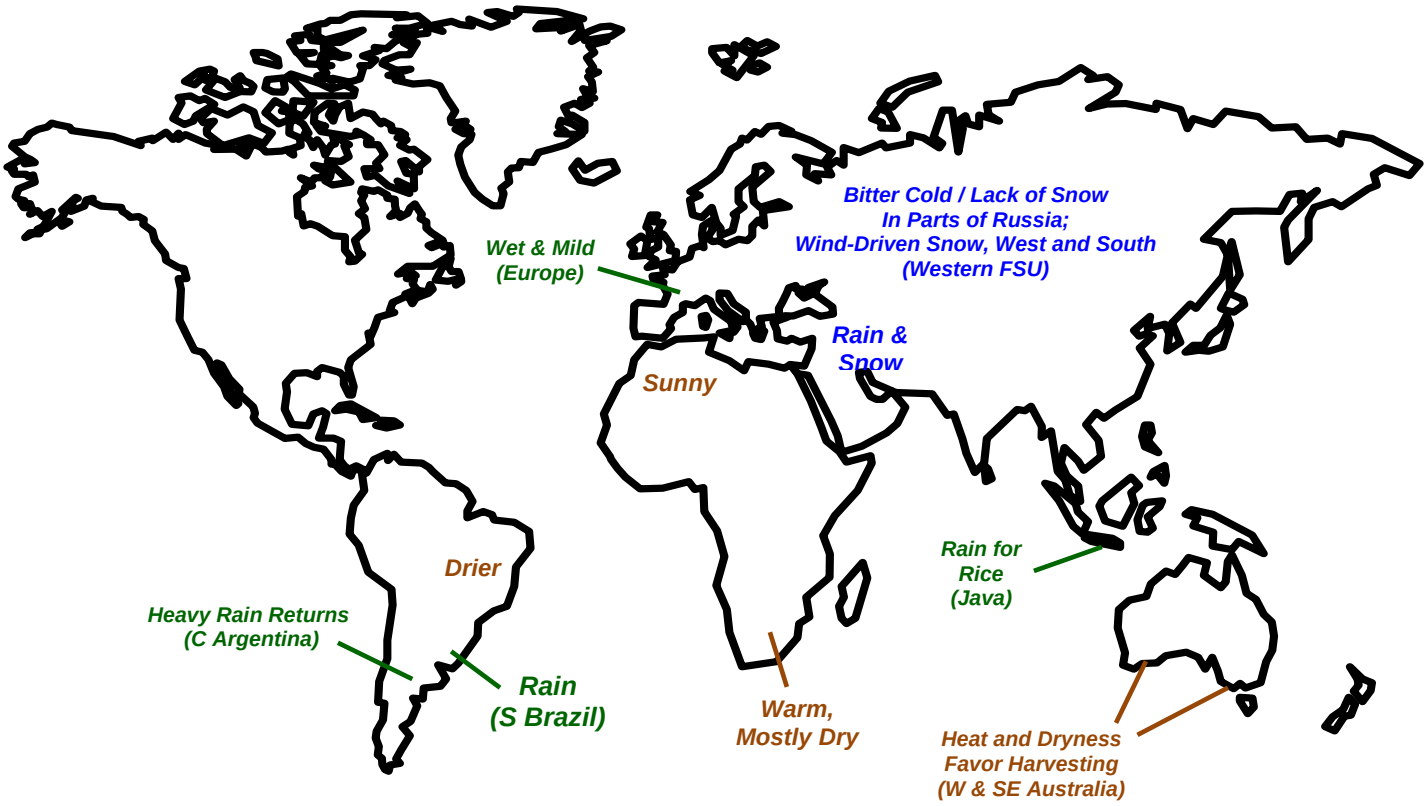
SOUTHEAST ASIA: Rain in Java, Indonesia, benefited vegetative rice.

AUSTRALIA: Hot, mostly dry weather favored winter grain harvesting in western and southeastern Australia.

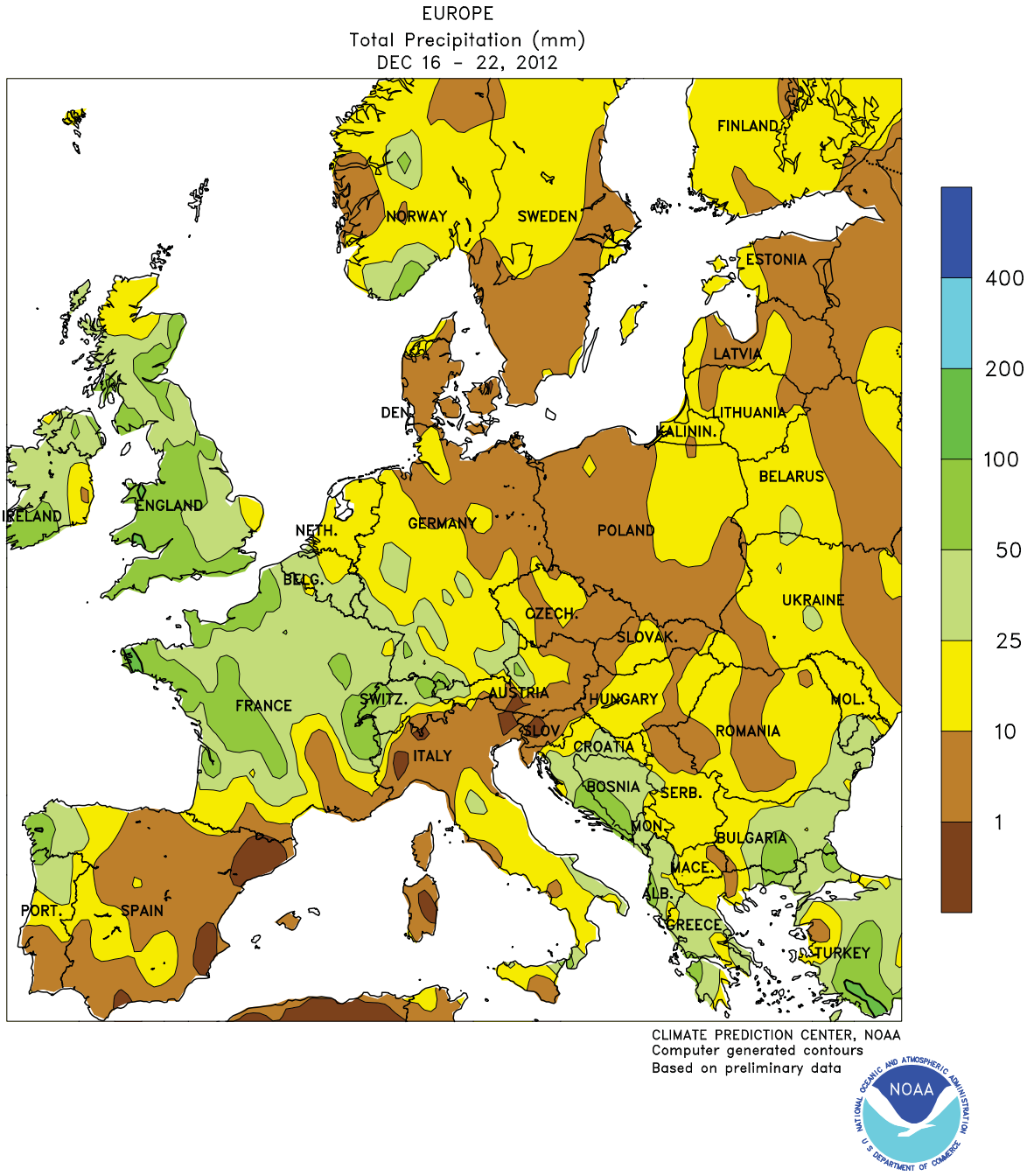
SOUTH AFRICA: Warm, mostly dry weather promoted development of rain-fed summer crops.

ARGENTINA: Heavy rain returned to central Argentina, further disrupting corn and soybean planting.

BRAZIL: Showers maintained favorable levels of moisture for soybeans in southern production areas.



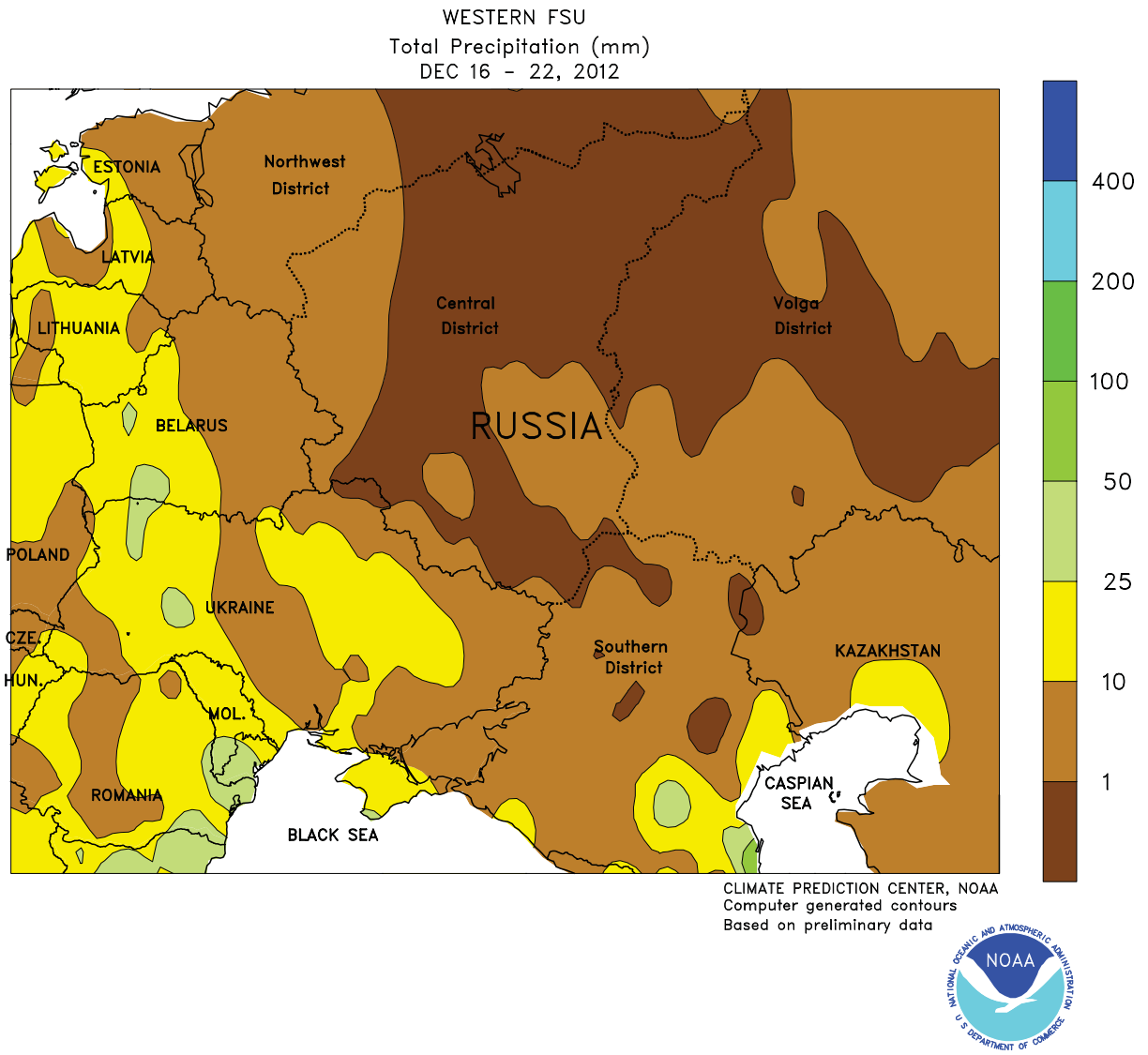
For additional information contact: mbrusberg@oce.usda.gov



EUROPE

Wet, mild weather maintained generally favorable conditions for winter grains and oilseeds. After last week's cold, snowy weather, milder weather in central and eastern Europe melted much of the region's protective snow cover. A fresh blanket of snow fell on this region by week's end, however, offering recently exposed crops renewed protection from potential incursions of bitter cold. Meanwhile, a series of Atlantic storms maintained periods of locally heavy rain (10-75 mm) from France and the United Kingdom into southern Italy and the Balkans. The rain boosted soil moisture reserves for dormant winter crops in northern and southeastern Europe and favored vegetative winter wheat in Italy and along the Mediterranean Coast. Light to moderate showers (2-10 mm) also fell across the Iberian Peninsula, where the winter growing season has featured consistent rainfall for emerging to vegetative winter wheat and barley.

For additional information contact: mbrusberg@oce.usda.gov



WESTERN FSU

Bitter cold weather persisted, threatening exposed winter grains in central and eastern growing areas. A strong artic high pressure area remained entrenched over central and northern Europe, maintaining bitter cold weather (locally more than 10°C below normal) over much of the region. Wind-driven snow fell in Belarus, Ukraine, and southern portions of the Southern District in Russia, affording dormant winter crops generally sufficient insulation from the elements. However, some elevated fields may have been swept clear by the strong winds, causing some exposure to burnback and winterkill. Farther east, winter wheat remained exposed to the arctic blast in the southern Volga (-25 to -20°C) and northern Southern Districts (-21 to -18°C), likely resulting in additional burnback and winterkill.

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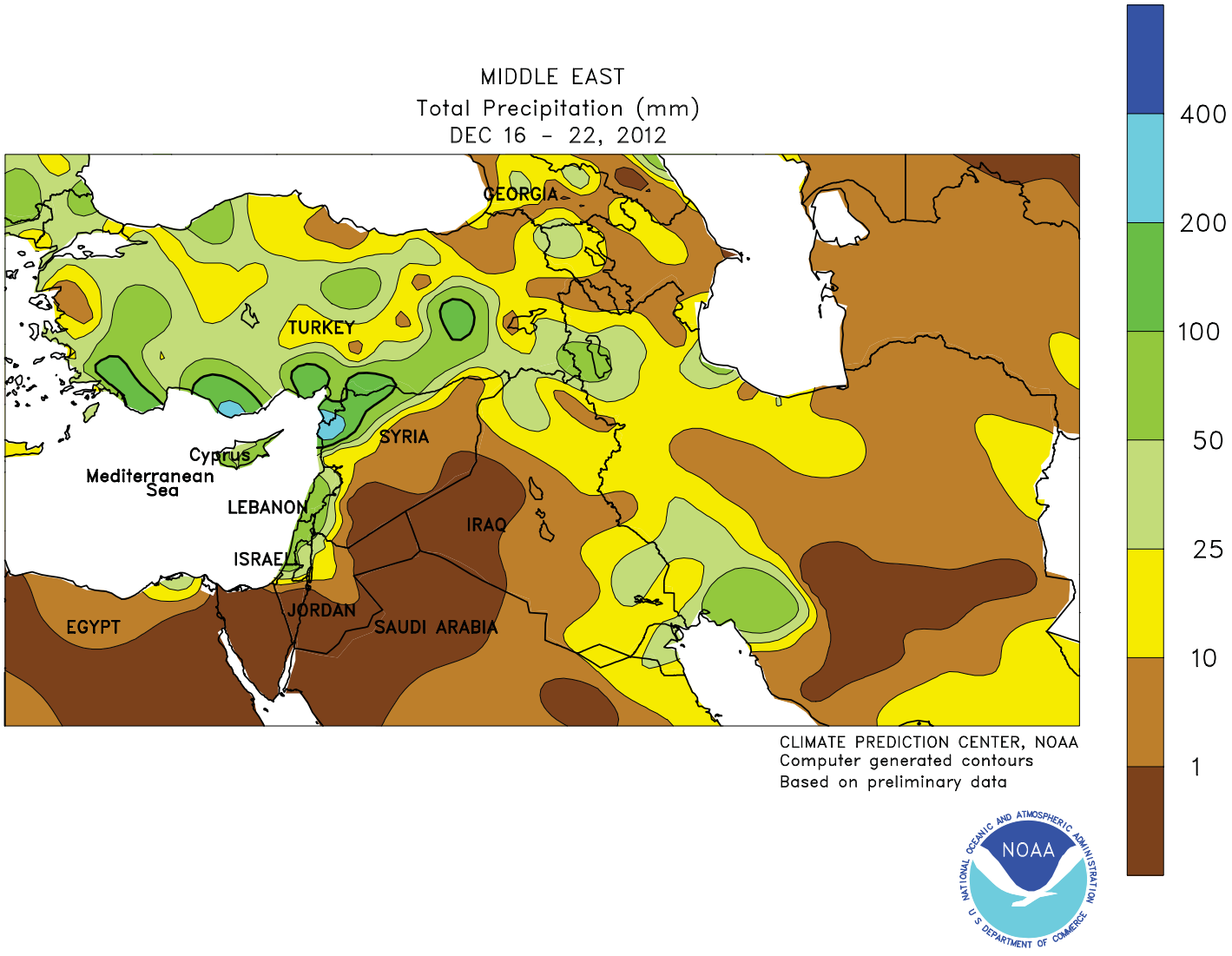

MIDDLE EAST

Stormy weather persisted across the region, maintaining favorable prospects for vegetative winter grains. Locally heavy rain and mountain snow (25-200 mm liquid equivalent) in Turkey boosted moisture reserves for wheat and barley, while increasingly heavy downpours (30-200 mm, locally more) favored vegetative winter grains from Syria into northern Jordan. In Iraq and Iran, light to moderate rain and snow (5-50 mm liquid equivalent) arrived in northern winter wheat and barley districts, maintaining favorable winter crop prospects. Seasonably colder weather (weekly average temperatures below 5°C) ushered winter grains into dormancy from central Turkey into western and northern Iran, while crops added vegetative growth across the southern half of the region.

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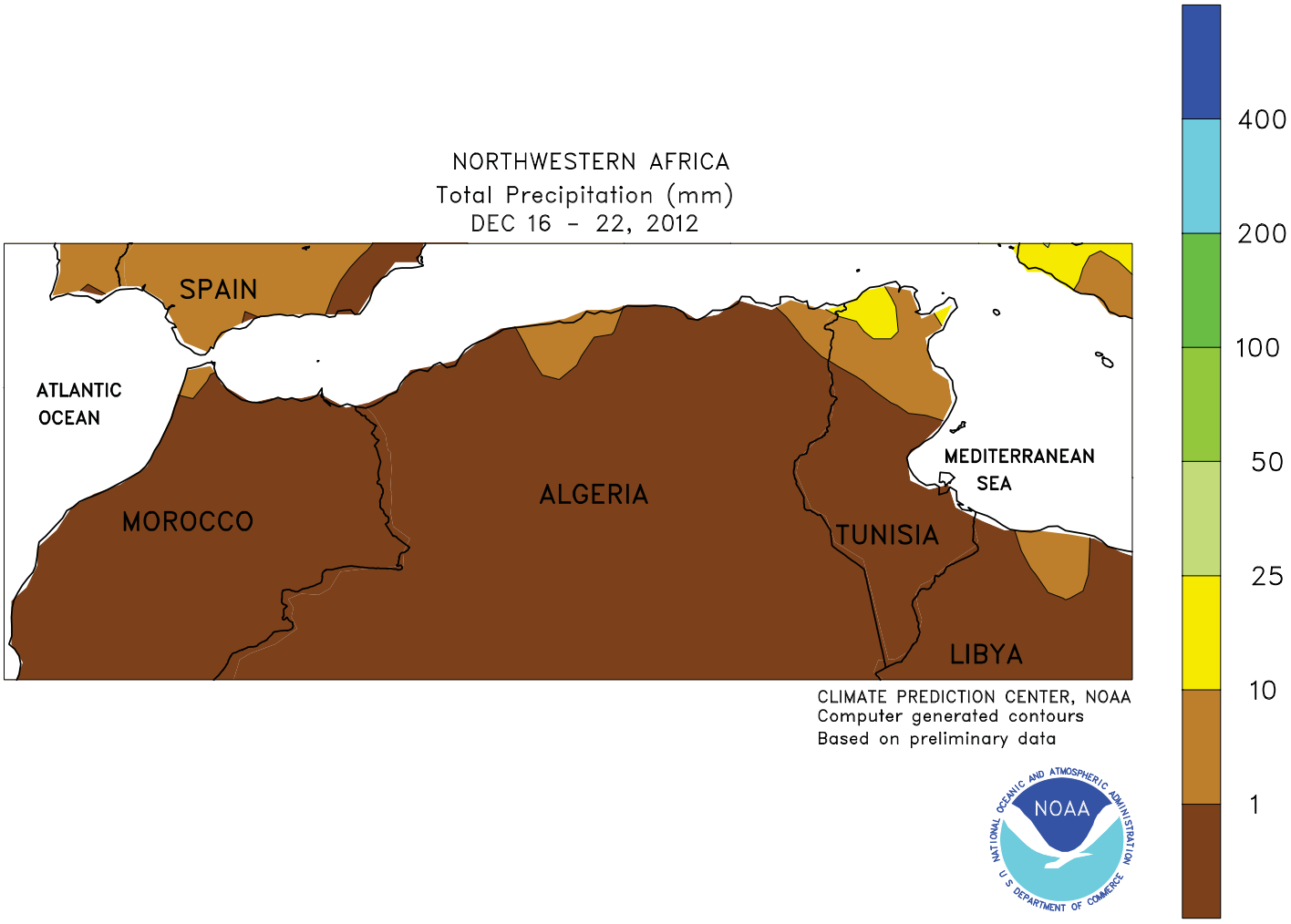

NORTHWEST AFRICA

Dry weather continued across the region, promoting winter grain development. After an exceptionally wet autumn (200-300 percent of normal) in western growing areas, a second week of sunny skies promoted fieldwork and crop development. Light showers (2-10 mm) were reported in northeastern Algeria and northern Tunisia, maintaining favorable soil moisture for winter wheat and barley. Temperatures averaged up to 4°C above normal, accelerating crop growth following an extended spell of cooler-than-normal weather.

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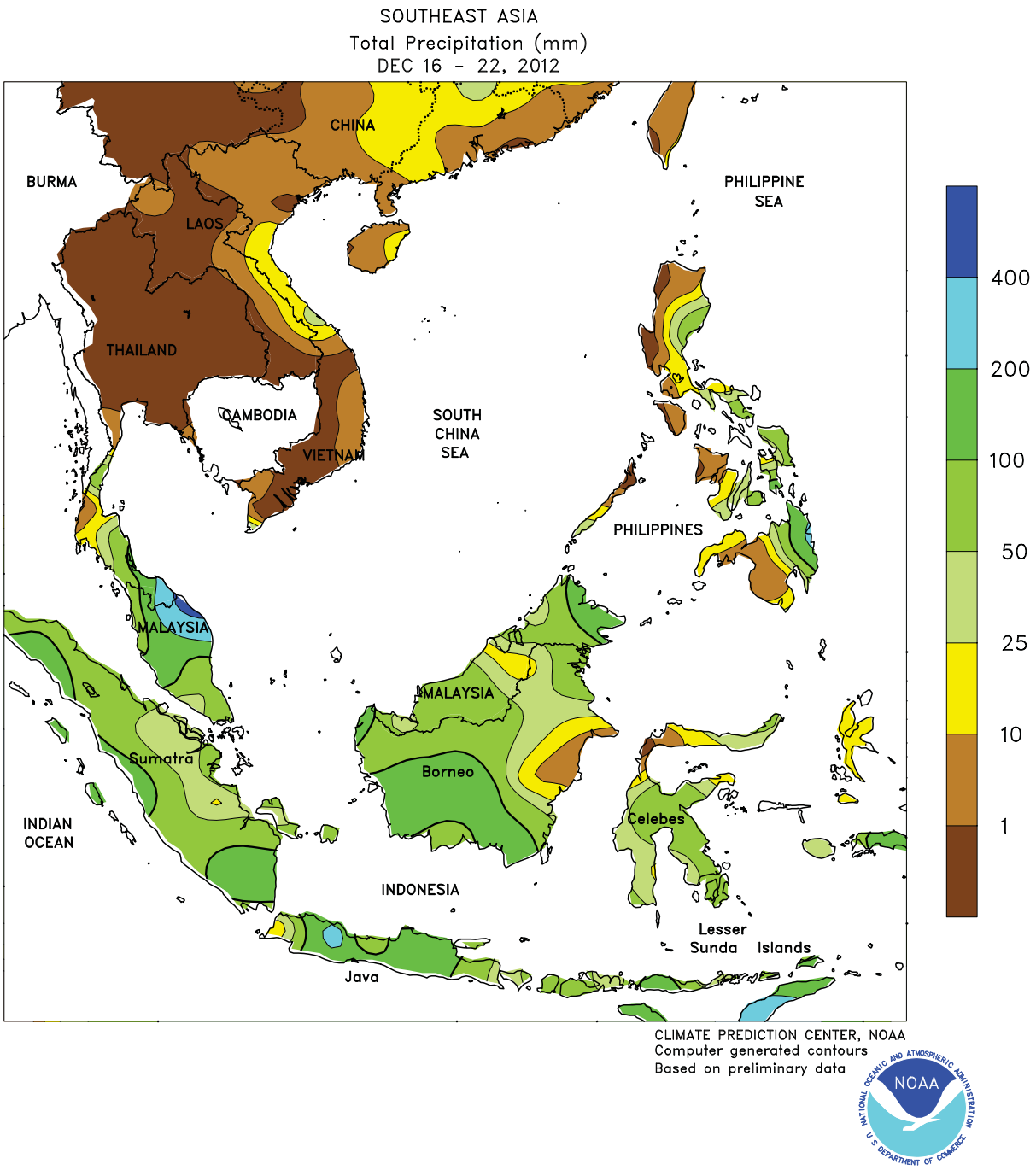

SOUTHEAST ASIA

Showers (50-100 mm) in western Java, Indonesia, maintained favorable moisture conditions for vegetative rice as seasonal (since November 1) rainfall totals remained near normal. In central Java, however, a relatively dry week (rainfall locally below 25 mm) increased seasonal deficits for rice, and more consistent rain is needed to ensure normal crop development. Meanwhile in eastern Java, showers increased as the monsoon became established (nearly 3 weeks behind schedule). Weekly rainfall totals over 50 mm provided a significant boost to moisture supplies and improved prospects for rice in this part of Java. Elsewhere in the region, seasonably wet weather (50-100 mm, locally in excess of 200 mm) prevailed in the eastern Philippines, slowing some harvest activities but maintaining favorable moisture supplies for winter rice and corn. In Vietnam, winter-spring rice transplanting continued under excellent moisture conditions.

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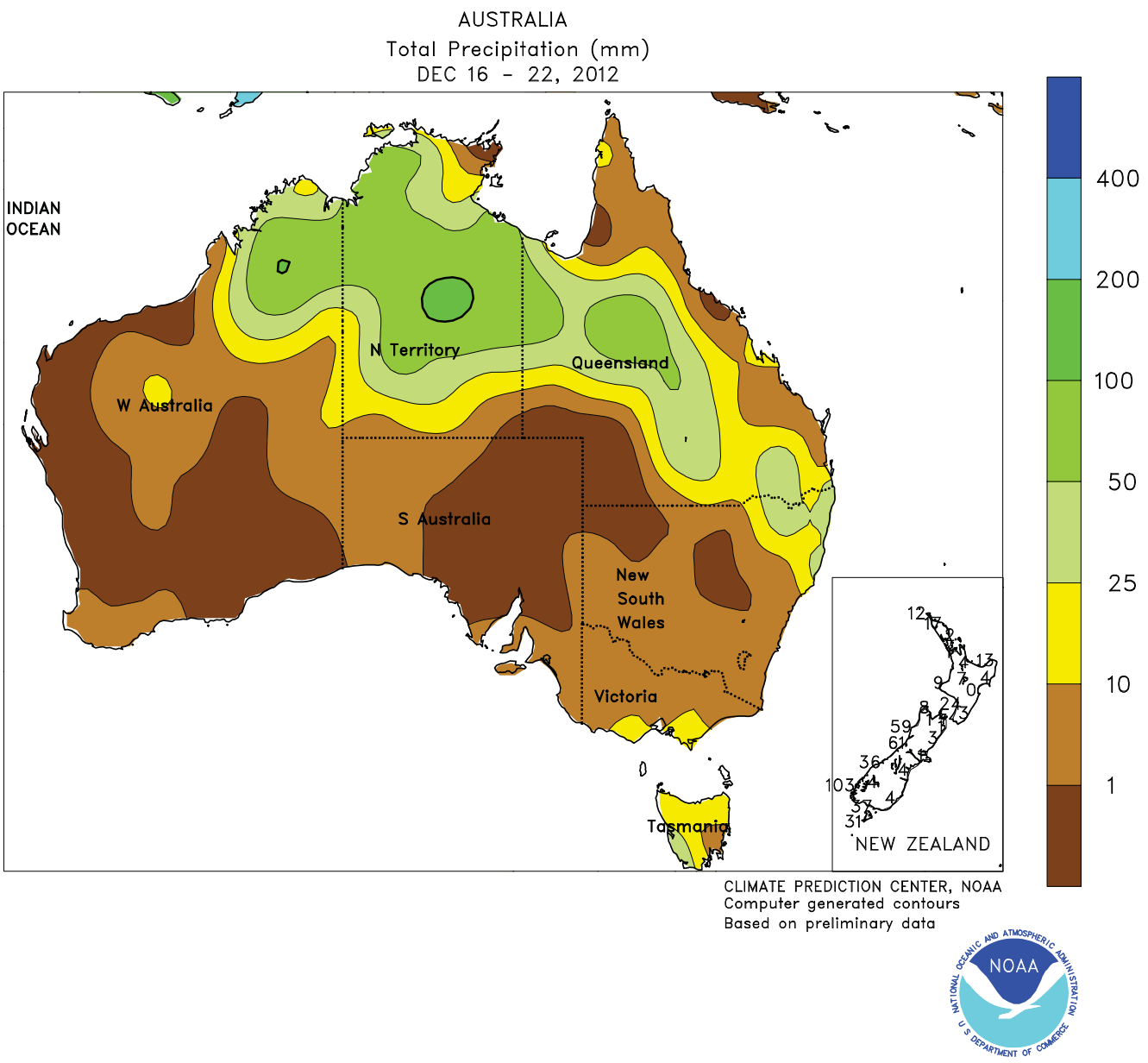

AUSTRALIA

In western and southeastern Australia, hot, mostly dry weather favored winter grain harvesting, allowing fieldwork to progress without delay. Elsewhere in the wheat belt, scattered showers (5-25 mm) aided vegetative cotton and sorghum in northern New South Wales and southern Queensland. The continuing showers further benefited dry land summer crops while helping to ease irrigation requirements. Temperatures in eastern Australia averaged about 1 to 3°C above normal, with maximum temperatures generally in the middle to upper 30s degrees C. In southern and western Australia, temperatures averaged near normal.

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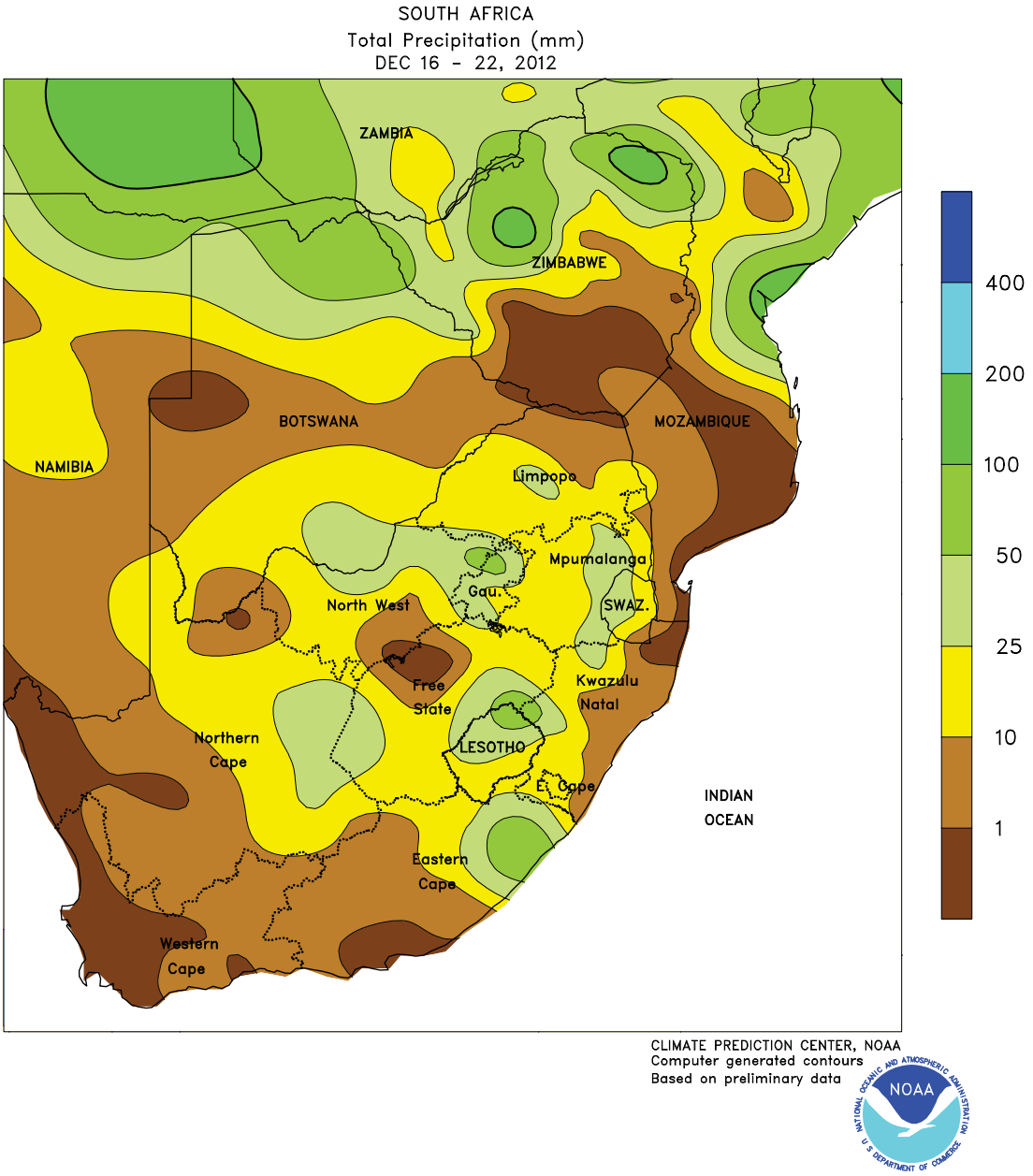

SOUTH AFRICA

Warm, mostly dry weather promoted summer crop development. Throughout the region, rainfall tapered off from last week's above-normal totals, with most locations recording less than 25 mm. Amounts were below 10 mm across much of the corn belt (North West to Mpumalanga), with weekly average temperatures averaging near to slightly above normal; daytime highs ranged from the upper 20s (degrees C) in the east to the lower 30s farther west. Similar conditions prevailed in KwaZulu-Natal, fostering growth of sugarcane. Despite the drier weather, conditions were overall favorable for rain-fed summer crops in major eastern commercial production areas following recent weeks of beneficial rain. Elsewhere, scattered showers (5-35 mm) boosted irrigation reserves in eastern sections of Northern and Eastern Cape. Otherwise, mostly dry, warmer-than-normal weather (weekly temperatures averaging up to 5°C above normal, with daytime highs approaching 40°C in the warmest locations) dominated the Cape Provinces, spurring rapid growth of irrigated crops.

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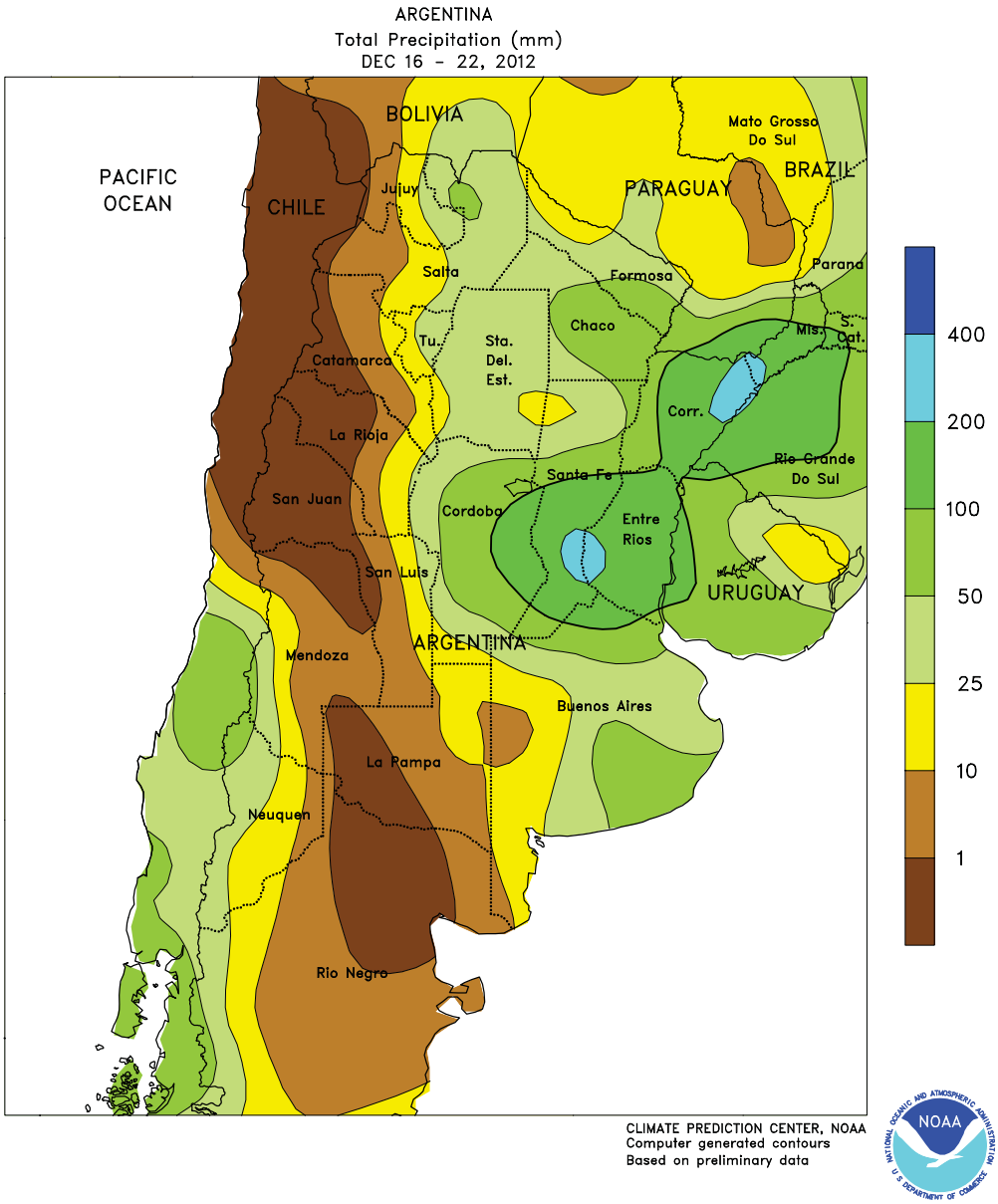

ARGENTINA

Heavy rain returned to key production areas of central Argentina, maintaining a slow planting pace for corn and soybeans. Rainfall in excess of 100 mm (locally more than 200 mm) was concentrated over a large area stretching from eastern Cordoba through Entre Rios, reaching into the northeast (Corrientes and Misiones). Most other areas recorded 25 to 100 mm, including most northern agricultural delegations. However, a second week of drier weather improved prospects for fieldwork in La Pampa and western Buenos Aires. Cooler conditions accompanied the wetness in central Argentina, with weekly temperatures averaging up to 2°C below normal; however, a drying trend at week's end pushed daytime highs into the lower 30s (degrees C) over most of the region. Warmer weather prevailed across the north, with weekly average temperatures up to 3°C above normal and daytime highs reaching the 40s for several days before the onset of the rain. Most areas would welcome drier weather to enable the completion of corn and soybean harvesting and to improve conditions of unharvested winter grains. According to Argentina's Ministry of Agriculture, corn and soybeans were 74 and 77 percent planted, respectively, as of December 20, an increase of only 4 percentage points from the previous week for both crops. Winter wheat was 58 percent harvested, an increase of 13 points from last week but 11 points behind last year.

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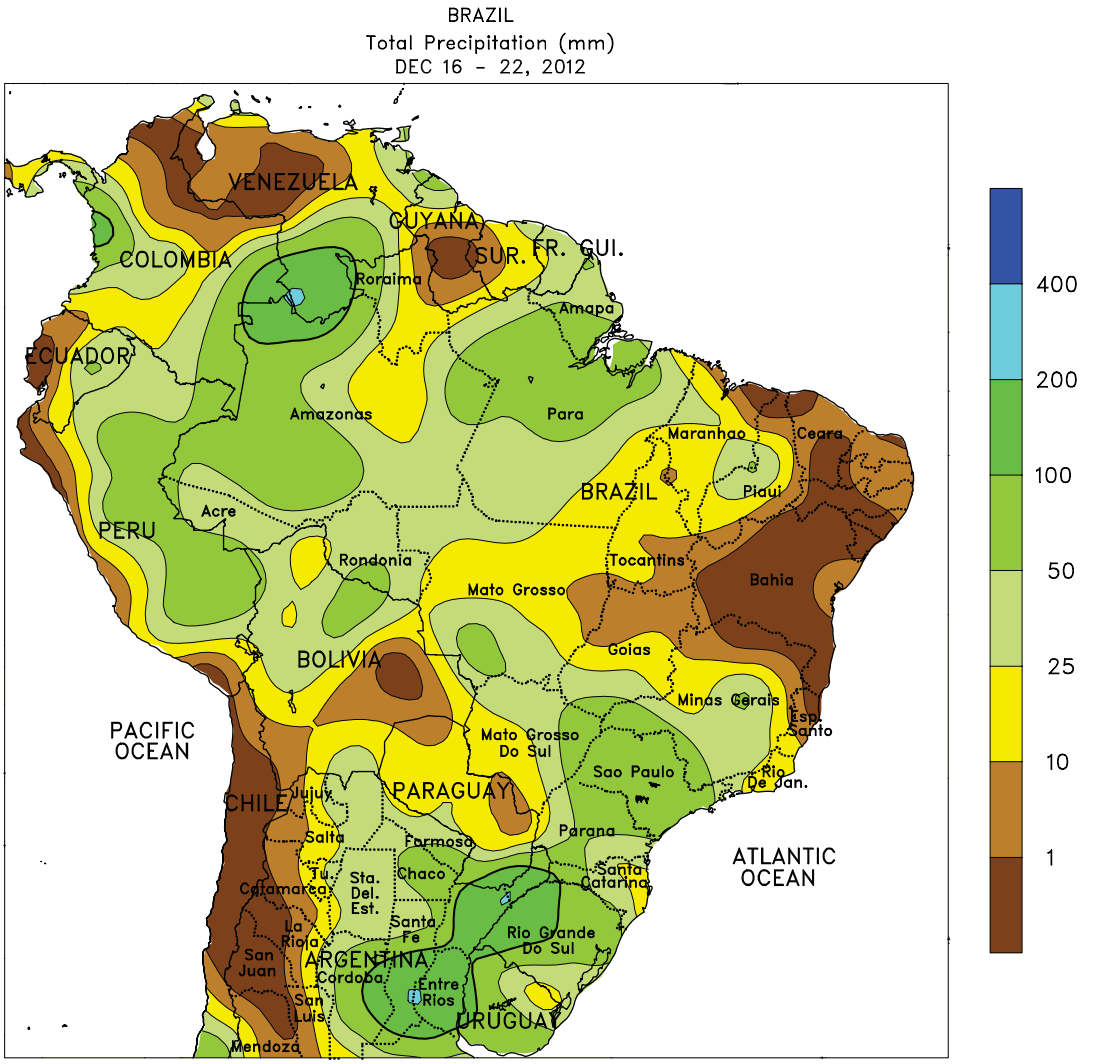

BRAZIL

Unseasonably heavy rain maintained generally favorable levels of moisture for crops throughout the south. Rainfall totaled 25 to 100 mm as far north as the southern production areas of Mato Grosso, Goias, and Minas Gerais. Crops benefiting from the moisture included soybeans, corn, sugarcane, and coffee. In addition, weekly temperatures averaging 2 to 3°C above normal (daytime highs in the lower 30s degrees C) promoted summer crop growth in the absence of stressful heat. In contrast to the southern wetness, mostly dry weather dominated a large section of the northeastern interior, extending from northeastern Mato Grosso to the eastern coast; this included key soybean and cotton areas of western Bahia, Tocantins, Maranhao, and Piaui, some of which recorded rainfall below 10 mm. Unseasonable warmth (weekly temperatures averaging 2-4°C above normal, with daytime highs in the middle and upper 30s degrees C) accompanied the dryness in interior agricultural areas, reducing moisture for summer row crops. Temperatures were more seasonable along the east coast, however, where the dry weather aided harvesting of sugarcane and cocoa.

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Volume 99

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International Charts (major crop areas)

National Tabulations

International Tabulation

***w** = weekly, **m** = monthly, **s** = seasonal (published every March, June, September, and December for the preceding 3 months)

Special Features

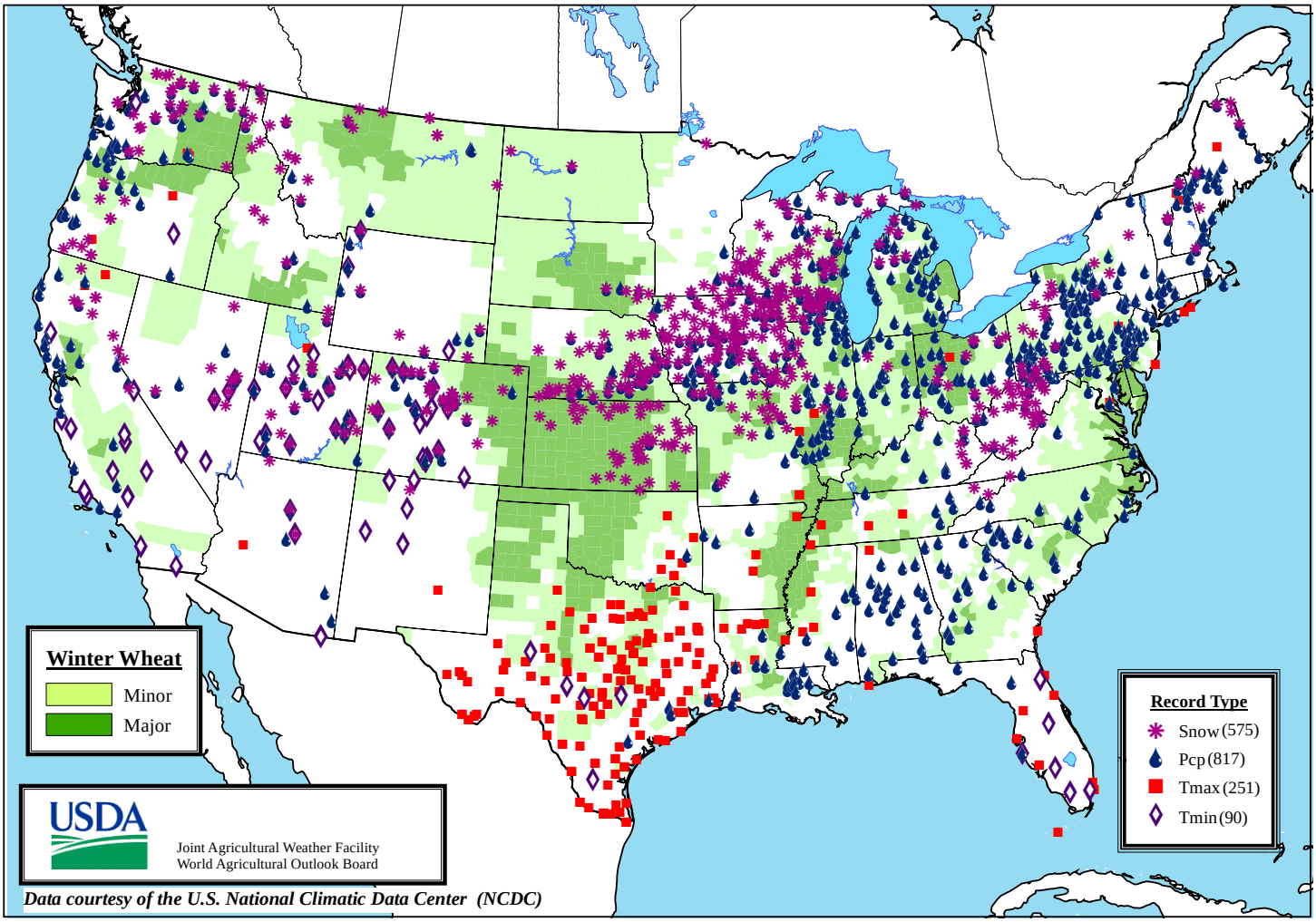
U.S. Satellite Images and Charts/Tabulations:

U.S. Summaries:

International Summaries:

Daily Weather Records (ASOS & COOP)

December 16-22, 2012



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