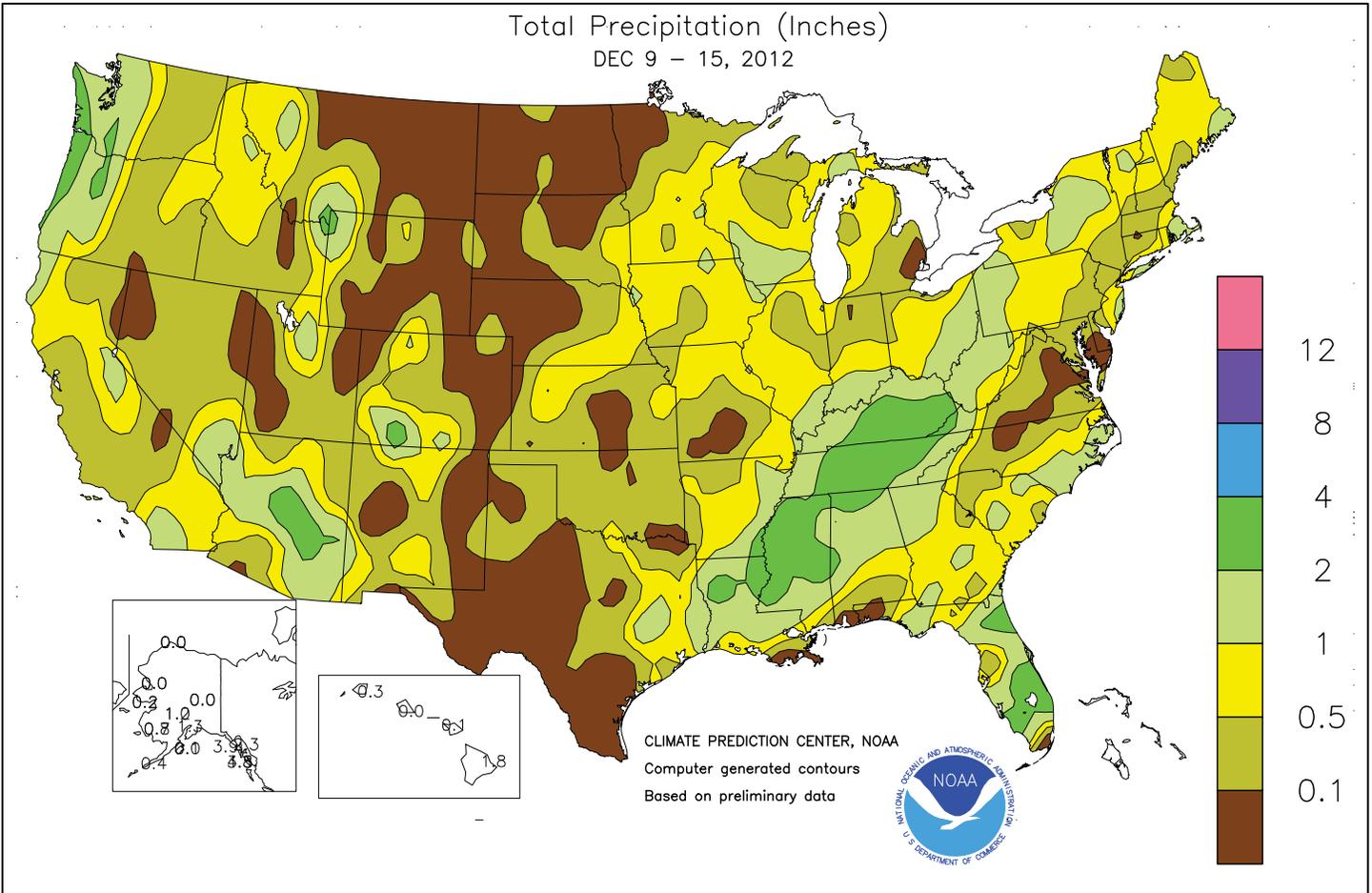


WEEKLY WEATHER AND CROP BULLETIN



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 9 - 15, 2012

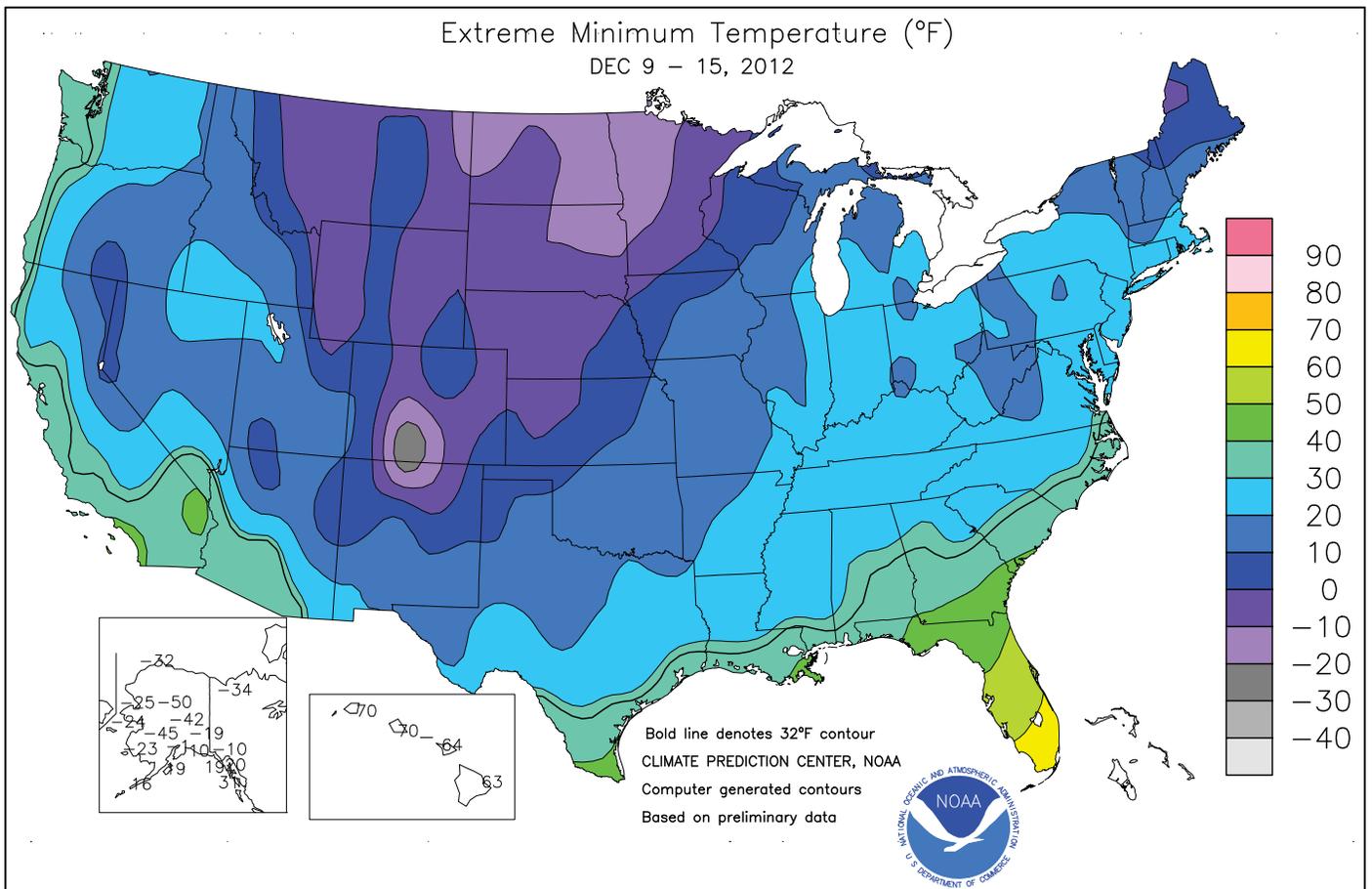
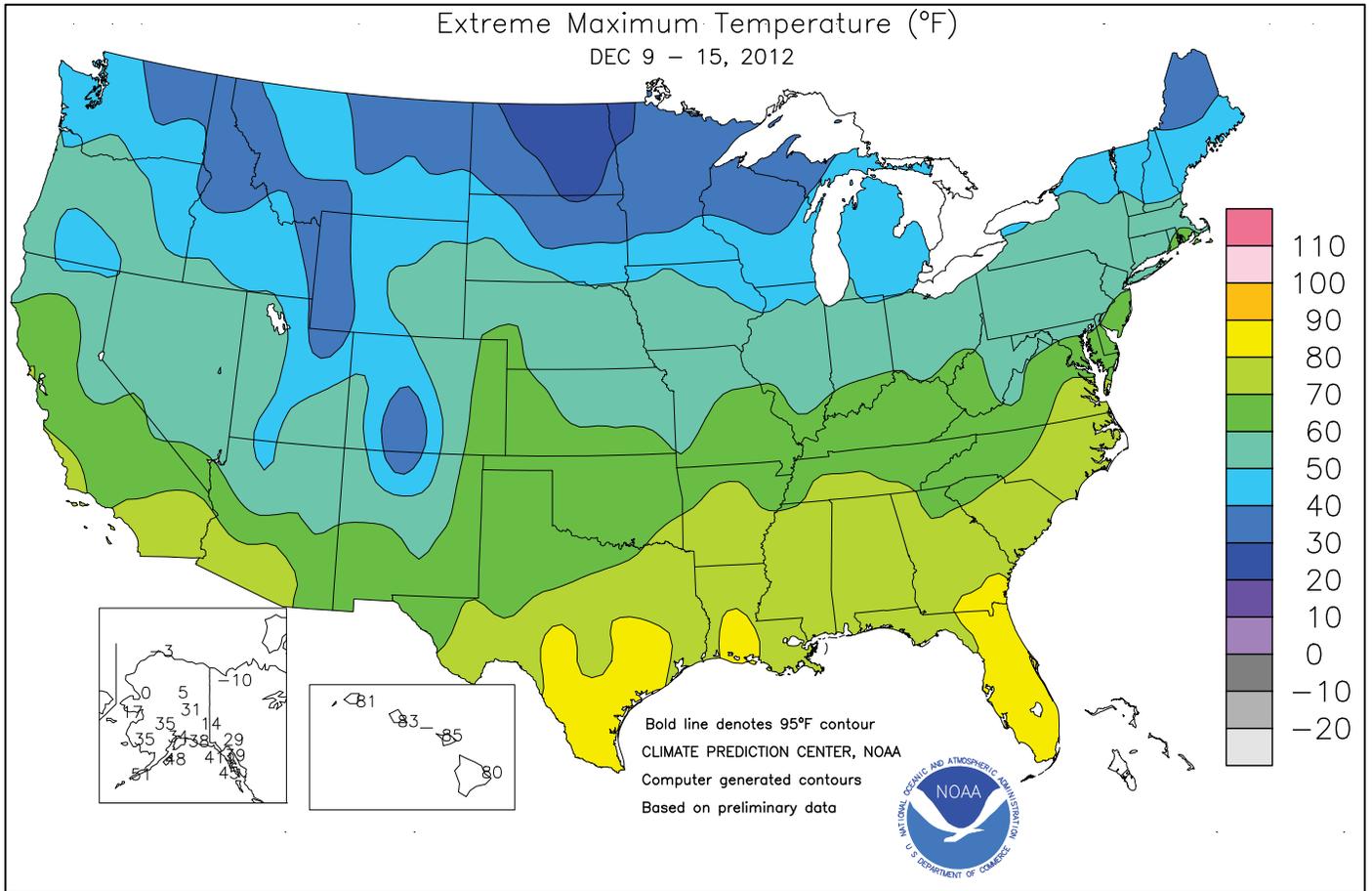
Highlights provided by USDA/WAOB

An active weather pattern led to widespread precipitation and limited drought relief in several regions, including the **central and southern Plains, Midwest, Southeast, and Southwest**. Some of the heaviest rain, locally 2 to 4 inches, fell early in the week across the **interior Southeast**. Parts of **Florida's peninsula** also received substantial rainfall, slowing fieldwork but reducing irrigation demands for citrus and winter crops. Farther north, widespread precipitation fell across the **Midwest** early in the week and again at week's end. The first round

(Continued on page 3)

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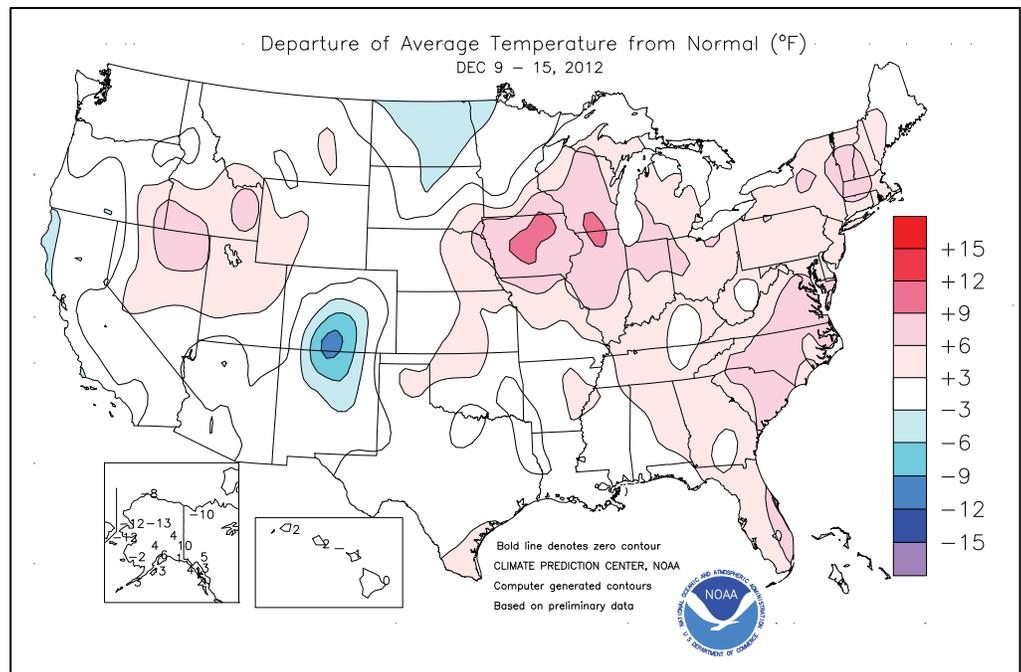
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(Continued from front cover)

of precipitation included heavy snow (locally more than a foot) in the **upper Midwest**, while the majority of the latter event fell as rain. Meanwhile on the **central and southern Plains**, late-week showers provided much-needed moisture for drought-stressed pastures, rangeland, and winter wheat. Although the **Plains'** rainfall was mostly light, scattered totals in excess of a half-inch were observed. Elsewhere, unsettled weather finally shifted into the **Southwest**, where the winter wet season had started poorly. Mid-December precipitation totals locally topped 2 inches in the **Four Corners States**. Periodic rain and snow showers also affected the **Northwest**, although precipitation was generally light. Despite an early- to mid-week cold snap, near- to above-normal temperatures covered the majority of the nation. In fact, weekly readings averaged as much as 10°F above normal in parts of the **western Corn Belt**. The coldest conditions, relative to normal, were observed in the **southern Rockies** and the **far upper Midwest**.

Early in the week, the first significant snow storm of the season blanketed the **upper Midwest**. December 9-10 snowfall totals ranged from 10 to 16 inches in several locations, including **Eau Claire, WI** (14.7 inches), and **Minneapolis-St. Paul, MN** (10.6 inches). Snow started earlier on the **northern Plains**, where December 7-10 amounts in **South Dakota** reached 10.8 inches in **Aberdeen** and 9.9 inches in **Huron**. The vast majority of the **upper Midwestern** snow fell on December 9, when daily-record totals included 12.5 inches in **Eau Claire** and 10.5 inches in **Minneapolis-St. Paul**. Meanwhile, heavy rain and locally severe thunderstorms swept across the **South**. Record-setting rainfall amounts for December 9 reached 1.85 inches in **College Station, TX**; 1.83 inches in **Hot Springs, AR**; and 1.49 inches in **Jackson, KY**. The following day, record-setting totals for December 10 climbed to 3.56 inches in **Gainesville, FL**, and 2.65 inches in **Vicksburg, MS**. By mid-week, a second round of rain overspread the **lower Southeast**, where **Melbourne, FL** (0.91 inch on December 12) received a daily-record amount. During the second half of the week, heavy precipitation developed in the **Southwest**. **San Diego, CA** (1.56 inches), collected a record-setting rainfall total for December 13. In **Nevada**, **Las Vegas** netted consecutive daily-record amounts on December 13-14, totaling 0.49 inch. On December 13, **Las Vegas** experienced its 25th day with thunder in 2012, just a day shy of its all-time record (26 days in 1938). Elsewhere, record-setting snowfall totals for December 14 included 3.0 inches in **Alamosa, CO**, and 2.8 inches in **Ely, NV**. **Flagstaff, AZ**, was buried by 20.3 inches of snow on December 14-15, including a daily-record total of 11.7 inches on the latter date. Toward week's end, beneficial precipitation, mostly rain, overspread the **Plains** and **Midwest**. Daily-record precipitation totals were established in locations such as **Garden City, KS** (0.53 inch on December 14), and **Sioux City, IA** (0.96 inch on December 15). By the end of the week, Chicago, IL, set a record for its longest



period without measurable snow (286 days from March 5 - December 15; previously, 280 days from March 1 - December 5, 1994), and approached a record for its latest measurable snowfall (previously, December 16, 1965). Elsewhere in **Illinois**, **Rockford** tied a record for its longest stretch without measurable snow (previously, 286 days from March 3 - December 13, 1922).

Warmth prevailed early in the week across the **lower Southeast**, where record-setting highs for December 10 reached 86°F in **Vero Beach, FL**, and 80°F in **Mobile, AL**. The following day, additional records in **Florida** included 86°F in **West Palm Beach** and 85°F in **Miami**. In contrast, cold air settled across the **Rockies** and **Plains**. Record-breaking lows for December 10 plunged to -24°F in **Alamosa, CO**, and -3°F in **Santa Fe, NM**. The next day, **McAlester, OK** (13°F), tallied a record-tying low for December 11. Cool conditions lingered through mid-week, when **Waco, TX** (18°F on December 12), posted a daily-record low. By week's end, warmth returned to the **Deep South**. In **Texas**, daily-record highs for December 15 soared to 85°F in **Brownsville** and 83°F in **Victoria**.

Stormy weather across roughly the **southern half of Alaska** contrasted with increasingly frigid conditions across northern parts of the state. Weekly snowfall totaled 28.9 inches in **Valdez**, aided by a daily-record amount of 13.8 inches on December 9. Other **Alaskan** daily-record snowfall amounts included 8.6 inches (on December 12) in **Anchorage** and 4.8 inches (on December 11) in **Bethel**. **Fairbanks** collected 18.2 inches of snow from December 9-14, but also reported a 73-degree temperature plunge—from 31°F on the morning of December 13 to -42°F during the evening of December 15. Elsewhere on the 15th, **Bettles** (-50°F) posted a daily-record low. Farther south, mostly dry weather returned to **Hawaii's western islands** and persisted elsewhere in the state. Aside from **Lihue, Kauai**, which received 3.85 inches (157 percent of normal) during the first half of the month, December 1-15 rainfall totals at the state's major airport observation sites ranged from 0.01 inch (1 percent of normal) at **Honolulu, Oahu**, to 1.50 inches (25 percent) at **Hilo**, on the **Big Island**.

National Weather Data for Selected Cities

Weather Data for the Week Ending December 15, 2012

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				
																90 AND ABOVE	82 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
AL BIRMINGHAM	60	40	69	30	50	3	1.58	0.63	1.58	1.68	79	44.53	86	89	56	0	1	1	1	
HUNTSVILLE	60	38	72	27	49	5	1.32	0.07	1.28	1.35	49	46.80	86	82	63	0	2	2	1	
MOBILE	65	42	80	33	53	0	0.33	-0.69	0.33	0.47	20	66.09	103	85	63	0	0	1	0	
AK MONTGOMERY	65	44	77	33	54	4	0.87	-0.28	0.87	0.88	35	37.29	71	88	54	0	0	1	1	
ANCHORAGE	29	19	34	-1	24	6	1.26	1.01	1.04	1.55	310	21.20	137	90	83	0	7	5	1	
BARROW	-12	-24	-3	-32	-18	-8	0.00	0.00	0.00	0.08	800	6.28	156	83	72	0	7	0	0	
FAIRBANKS	8	-11	31	-42	-2	3	0.00	-0.16	0.00	0.00	0	9.45	95	83	81	0	7	0	0	
JUNEAU	37	29	39	20	33	3	2.31	1.10	0.66	3.18	125	61.70	111	93	88	0	3	7	2	
KODIAK	40	28	48	19	34	3	0.05	-1.60	0.05	1.36	39	53.65	75	81	55	0	6	1	0	
NOME	5	-10	17	-24	-2	-11	0.19	-0.03	0.09	0.20	40	18.35	114	81	60	0	7	3	0	
AZ FLAGSTAFF	42	15	50	8	28	-3	1.44	1.05	0.86	1.44	171	14.25	65	82	42	0	7	3	2	
PHOENIX	68	47	72	41	57	2	0.78	0.59	0.41	0.78	200	4.18	54	50	36	0	0	3	0	
PRESCOTT	50	27	56	19	38	0	0.69	0.41	0.33	0.69	117	10.33	56	74	33	0	5	3	0	
TUCSON	65	40	73	32	52	0	0.66	0.45	0.38	0.66	161	7.38	64	48	35	0	1	2	0	
AR FORT SMITH	57	30	68	20	44	2	0.36	-0.46	0.18	0.46	24	31.65	75	82	32	0	4	3	0	
LITTLE ROCK	59	34	72	25	46	2	1.68	0.56	1.52	2.40	94	39.05	80	88	41	0	5	3	1	
CA BAKERSFIELD	57	40	65	34	49	2	0.25	0.11	0.15	0.39	130	4.15	69	89	71	0	0	2	0	
FRESNO	59	42	65	34	50	5	0.33	0.08	0.33	0.84	156	8.78	84	92	78	0	0	1	0	
LOS ANGELES	63	51	68	44	57	-1	0.14	-0.21	0.08	0.41	57	6.48	54	82	60	0	0	3	0	
REDDING	54	36	71	27	45	-1	0.49	-0.47	0.39	3.51	173	29.91	97	80	65	0	3	2	0	
SACRAMENTO	55	36	62	31	46	0	0.25	-0.25	0.21	2.66	249	17.66	107	93	60	0	2	2	0	
SAN DIEGO	64	53	71	50	58	0	1.79	1.55	1.56	1.79	365	6.23	63	84	55	0	0	3	1	
SAN FRANCISCO	57	45	66	40	51	1	0.24	-0.34	0.12	2.48	200	17.70	96	82	69	0	0	2	0	
STOCKTON	56	36	63	30	46	0	0.29	-0.07	0.14	2.33	291	11.62	91	100	86	0	2	4	0	
CO ALAMOSA	29	-13	33	-24	8	-10	0.51	0.45	0.20	0.51	364	5.29	75	87	72	0	7	4	0	
CO SPRINGS	41	14	56	-3	27	-2	0.12	0.04	0.12	0.12	86	7.96	47	73	35	0	7	1	0	
DENVER INTL	45	17	58	2	31	1	0.05	-0.01	0.04	0.05	38	9.90	74	69	26	0	7	2	0	
GRAND JUNCTION	40	22	56	10	31	2	0.23	0.15	0.18	0.26	130	3.74	43	73	49	0	7	3	0	
PUEBLO	40	9	52	-8	25	-6	0.20	0.14	0.19	0.20	133	4.90	40	81	62	0	7	2	0	
CT BRIDGEPORT	49	34	54	27	41	5	0.50	-0.24	0.35	0.98	60	37.65	89	86	62	0	4	3	0	
HARTFORD	47	29	53	22	38	6	0.03	-0.75	0.03	0.18	10	34.06	77	87	59	0	5	1	0	
DC WASHINGTON	54	40	63	30	47	6	0.25	-0.41	0.17	0.32	23	29.74	79	80	53	0	1	2	0	
DE WILMINGTON	51	34	58	25	43	5	0.45	-0.29	0.31	0.79	49	33.18	81	90	58	0	4	3	0	
FL DAYTONA BEACH	74	60	80	56	67	6	1.27	0.69	0.86	1.31	105	41.59	87	100	74	0	0	3	1	
JACKSONVILLE	70	54	81	46	62	6	0.91	0.36	0.82	1.14	97	52.25	103	98	73	0	0	3	1	
KEY WEST	80	73	83	68	77	5	0.00	-0.45	0.00	0.66	69	46.99	124	93	78	0	0	0	0	
MIAMI	82	70	85	64	76	6	0.13	-0.37	0.07	0.37	33	86.80	151	94	72	0	0	2	0	
ORLANDO	78	61	83	56	70	7	0.68	0.17	0.56	0.74	65	40.55	86	97	72	0	0	3	1	
PENSACOLA	65	47	78	39	56	1	0.09	-0.74	0.08	0.23	13	64.76	104	90	65	0	0	2	0	
TALLAHASSEE	67	50	79	40	58	4	0.92	0.08	0.87	0.92	51	56.96	94	91	74	0	0	2	1	
TAMPA	75	61	81	54	68	4	0.14	-0.38	0.12	0.17	15	53.95	124	94	70	0	0	3	0	
GA WEST PALM BEACH	82	68	86	63	75	6	1.02	0.30	0.53	1.11	63	78.72	131	89	66	0	0	3	1	
ATHENS	60	41	72	28	50	4	0.68	-0.10	0.68	0.69	41	32.19	70	89	67	0	1	1	1	
ATLANTA	60	43	71	36	51	5	0.85	0.03	0.85	0.91	49	32.01	66	80	60	0	0	1	1	
AUGUSTA	63	42	77	30	52	4	0.72	0.09	0.71	0.74	58	32.14	75	94	71	0	1	2	1	
COLUMBUS	64	47	74	38	56	6	0.57	-0.40	0.55	0.57	27	30.55	66	87	53	0	0	2	1	
MACON	63	43	75	30	53	4	0.28	-0.55	0.16	0.33	19	27.87	65	96	58	0	1	2	0	
SAVANNAH	66	50	80	42	58	6	0.46	-0.09	0.33	0.46	41	38.76	81	89	68	0	0	3	0	
HI HILO	79	66	80	63	72	0	1.79	-0.71	0.59	1.79	30	80.71	66	***	***	0	0	7	1	
HONOLULU	82	72	83	70	77	2	0.00	-0.62	0.00	0.00	0	8.57	51	77	67	0	0	0	0	
KAHULUI	82	68	85	64	75	1	0.08	-0.55	0.03	0.08	6	5.06	30	79	67	0	0	6	0	
LIHUE	79	72	81	70	76	2	0.30	-0.75	0.14	3.94	175	40.77	110	76	70	0	0	4	0	
ID BOISE	42	31	49	25	37	6	0.27	-0.03	0.24	0.88	129	11.21	98	90	72	0	5	3	0	
LEWISTON	39	30	44	25	35	1	0.01	-0.21	0.01	0.84	168	15.41	127	93	82	0	5	1	0	
POCATELLO	38	25	48	15	32	6	0.07	-0.15	0.06	0.71	142	9.98	83	87	68	0	7	2	0	
IL CHICAGO/O'HARE	44	30	50	24	37	8	0.55	-0.02	0.34	1.40	109	26.10	74	85	61	0	5	2	0	
MOLINE	43	25	51	16	34	6	0.65	0.14	0.40	0.94	83	25.52	69	85	62	0	6	3	0	
PEORIA	44	28	51	17	36	6	0.65	0.07	0.58	0.89	67	25.98	74	87	60	0	6	2	1	
ROCKFORD	43	28	50	19	36	10	0.55	0.06	0.36	1.09	97	21.94	62	90	69	0	5	2	0	
SPRINGFIELD	48	32	57	22	40	8	0.70	0.10	0.52	1.86	140	28.64	83	82	56	0	3	3	1	
IN EVANSVILLE	52	32	65	22	42	5	0.74	-0.10	0.67	1.32	69	30.97	73	84	57	0	5	2	1	
FORT WAYNE	45	28	52	21	36	6	0.30	-0.35	0.24	0.68	48	27.06	77	91	68	0	5	2	0	
INDIANAPOLIS	48	31	56	23	39	6	0.65	-0.06	0.52	1.36	86	36.79	93	87	59	0	5	2	1	
SOUTH BEND	44	30	51	24	37	7	0.27	-0.46	0.14	1.24	77	32.50	85	82	65	0	5	4	0	
IA BURLINGTON	44	26	53	16	35	6	0.58	0.08	0.47	0.83	72	23.21	63	86	55	0	6	3	0	
CEDAR RAPIDS	42	23	50	12	33	8	0.38	0.03	0.32	0.41	49	23.41	71	90	59	0	6	3	0	
DES MOINES	45	24	54	15	35	9	0.69	0.38	0.47	0.69	97	25.03	73	74	55	0	6	2	0	
DUBUQUE	40	24	48	13	32	8	1.00	0.60	0.67	1.19	128	22.90	66	86	73	0	6	2	1	
SIoux CITY	42	17	53	3	29	5	0.97	0.83	0.96	1.08	318	23.52	92	76	61	0	7	2	1	
WATERLOO	41	22	51	13	32	9	0.78	0.52	0.60	0.82	130	23.15	71	87	63	0	6	2	1	
KS CONCORDIA	48	21	57	3	35	4	0.37	0.19	0.32	0.39	91	23.45	84	73	47	0	6	2	0	
DODGE CITY	50	21	63	2	36	2	0.33	0.16	0.25	0.33	94	17.54	80	73	31	0	5	2	0	
GOODLAND	48	13	61	0	31	1	0.04	-0.02	0.03	0.04	25	9.06	46	62	39	0	7	2	0	
TOPEKA	49	25	58	14	37	4	0.27	-0.06	0.21	0.27	35	22.54	64	69	45	0	5	3	0	

Based on 1971-2000 normals</

Weather Data for the Week Ending December 15, 2012

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 JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
KY WICHITA	51	25	61	12	38	3	0.15	-0.15	0.15	0.15	22	24.85	84	69	42	0	4	1	0
KY JACKSON	52	33	61	24	43	4	2.34	1.34	1.21	3.96	181	49.54	105	90	52	0	4	3	2
LEXINGTON	51	30	60	20	40	3	1.56	0.65	0.86	3.61	185	39.68	91	91	69	0	5	3	2
LOUISVILLE	54	34	66	25	44	5	1.52	0.68	1.27	4.66	249	43.21	101	87	54	0	4	3	1
LA PADUCAH	53	31	65	21	42	4	1.32	0.26	1.21	1.90	81	28.04	59	91	52	0	5	2	1
LA BATON ROUGE	66	41	79	30	54	1	1.47	0.31	1.46	2.96	119	64.26	107	95	52	0	2	2	1
LA LAKE CHARLES	67	44	80	32	56	2	0.48	-0.50	0.48	1.42	66	68.61	125	88	51	0	1	1	0
LA NEW ORLEANS	67	48	80	39	57	1	0.33	-0.83	0.32	3.19	123	66.34	108	84	65	0	0	2	0
LA SHREVEPORT	61	37	76	26	49	0	0.96	-0.06	0.51	0.97	44	46.98	96	88	40	0	4	4	1
ME CARIBOU	29	10	37	2	19	1	0.51	-0.18	0.51	1.23	82	37.14	104	88	70	0	7	1	1
ME PORTLAND	43	25	47	19	34	5	0.39	-0.55	0.39	0.94	45	47.11	108	87	51	0	5	1	0
MD BALTIMORE	52	35	61	25	44	6	0.28	-0.44	0.19	0.33	21	34.64	86	87	63	0	3	2	0
MA BOSTON	48	34	60	29	41	5	0.64	-0.19	0.50	1.05	58	31.85	78	78	53	0	3	2	1
MA WORCESTER	45	30	58	26	38	8	0.53	-0.30	0.28	1.11	62	39.89	85	83	52	0	5	3	0
MI ALPENA	35	24	42	17	30	4	0.68	0.29	0.38	1.26	147	26.32	96	87	67	0	7	3	0
MI GRAND RAPIDS	43	28	50	22	35	6	0.47	-0.18	0.34	1.23	83	32.23	90	86	59	0	7	4	0
MI HOUGHTON LAKE	34	22	42	13	28	3	0.46	0.07	0.24	1.60	184	32.01	116	90	74	0	7	4	0
MI LANSING	41	27	48	19	34	6	0.27	-0.25	0.14	0.79	66	27.23	89	86	62	0	7	3	0
MI MUSKOGON	42	31	50	24	37	7	0.80	0.19	0.57	1.09	80	29.64	94	81	66	0	4	4	1
MI TRAVERSE CITY	38	26	48	22	32	4	0.43	-0.15	0.27	1.12	90	29.99	94	88	60	0	7	4	0
MN DULUTH	27	8	36	1	18	2	1.10	0.89	0.63	1.21	216	32.97	108	85	79	0	7	6	1
MN INT'L FALLS	20	1	33	-14	11	1	0.82	0.67	0.76	0.94	254	24.96	106	88	76	0	7	2	1
MN MINNEAPOLIS	34	16	43	2	25	5	0.82	0.61	0.42	0.89	171	28.84	100	93	75	0	6	2	0
MN ROCHESTER	35	18	41	0	26	7	0.73	0.50	0.37	1.04	179	24.11	78	82	70	0	6	3	0
MN ST. CLOUD	27	6	36	-8	17	1	1.12	0.98	0.63	1.21	356	24.70	92	92	70	0	6	4	1
MS JACKSON	64	37	76	26	51	3	1.05	-0.14	1.05	2.47	96	63.26	119	90	48	0	4	1	1
MS MERIDIAN	62	37	74	27	50	0	1.43	0.26	1.42	2.54	99	56.21	101	94	76	0	3	2	1
MS TUPELO	60	36	71	25	48	4	1.37	-0.03	1.22	2.90	97	45.58	86	87	67	0	4	3	1
MO COLUMBIA	49	27	61	16	38	5	0.44	-0.16	0.38	1.05	75	30.06	77	81	44	0	5	3	0
MO KANSAS CITY	47	26	55	14	37	4	0.44	0.05	0.28	0.44	49	21.38	57	75	41	0	4	3	0
MO SAINT LOUIS	52	30	65	23	41	6	0.65	-0.03	0.35	1.27	80	31.57	84	78	50	0	5	3	0
MO SPRINGFIELD	50	28	62	16	39	2	0.10	-0.69	0.08	0.91	48	30.73	70	81	55	0	5	2	0
MT BILLINGS	36	21	40	5	28	1	0.02	-0.11	0.02	0.09	35	6.96	49	86	56	0	7	1	0
MT BUTTE	28	9	37	-7	18	0	0.08	-0.03	0.05	0.24	100	8.99	72	90	63	0	7	2	0
MT CUT BANK	35	12	40	-8	23	1	0.00	-0.06	0.00	0.05	42	9.05	74	82	50	0	7	0	0
MT GLASGOW	26	11	33	3	19	2	0.04	-0.02	0.02	***	***	12.78	117	90	85	0	7	3	0
MT GREAT FALLS	37	18	43	-8	28	3	0.02	-0.11	0.02	0.24	96	12.80	88	77	49	0	7	1	0
MT HAVRE	35	13	39	-4	24	4	0.01	-0.10	0.01	0.18	90	12.60	113	81	72	0	7	1	0
MT MISSOULA	32	19	40	6	25	1	0.03	-0.22	0.01	1.02	196	14.71	112	93	82	0	7	3	0
NE GRAND ISLAND	46	18	54	1	32	5	0.49	0.34	0.37	0.49	129	10.36	40	79	45	0	7	2	0
NE LINCOLN	46	18	56	5	32	4	0.86	0.67	0.69	0.86	187	18.49	66	75	50	0	7	2	1
NE NORFOLK	43	17	53	-1	30	5	0.58	0.43	0.49	0.62	168	13.99	53	77	51	0	7	2	0
NE NORTH PLATTE	45	7	54	-9	26	-1	0.08	0.00	0.08	0.08	44	9.75	50	83	36	0	7	1	0
NE OMAHA	46	20	54	5	33	6	0.62	0.41	0.61	0.64	119	21.40	72	77	49	0	6	2	1
NE SCOTTSBLUFF	44	14	61	2	29	3	0.00	-0.11	0.00	0.01	4	6.74	42	73	49	0	7	0	0
NE VALENTINE	41	14	60	-6	28	3	0.16	0.10	0.15	0.19	112	10.58	55	81	56	0	7	2	0
NV ELY	40	21	49	11	31	5	0.25	0.17	0.18	0.41	228	10.92	113	78	60	0	6	3	0
NV LAS VEGAS	57	42	61	37	49	2	0.49	0.41	0.29	0.49	327	5.30	125	61	43	0	0	2	0
NV RENO	47	25	64	19	36	2	0.01	-0.18	0.01	0.98	239	4.64	66	81	58	0	7	1	0
NV WINNEMUCCA	43	26	54	20	35	5	0.15	-0.02	0.11	0.88	251	5.01	64	88	63	0	7	3	0
NH CONCORD	42	22	46	15	32	4	0.44	-0.21	0.33	1.03	71	35.12	97	92	53	0	7	3	0
NJ NEWARK	51	36	58	28	43	5	0.24	-0.54	0.18	0.78	45	32.06	72	82	55	0	3	3	0
NM ALBUQUERQUE	47	25	54	17	36	-1	0.09	0.01	0.06	0.09	50	5.43	59	58	28	0	6	2	0
NY ALBANY	44	26	51	19	35	5	0.52	-0.08	0.44	1.16	87	34.10	93	89	57	0	5	2	0
NY BINGHAMTON	40	27	51	23	34	5	0.71	0.00	0.58	1.64	104	35.78	96	85	65	0	6	5	1
NY BUFFALO	43	29	53	27	36	5	0.77	-0.10	0.46	1.57	81	30.71	79	89	63	0	6	4	0
NY ROCHESTER	44	30	53	26	37	6	0.27	-0.36	0.16	0.85	62	31.40	96	83	65	0	6	2	0
NY SYRACUSE	45	31	57	25	38	8	1.26	0.52	1.09	2.24	133	29.78	77	88	60	0	5	2	1
NC ASHEVILLE	55	34	66	23	45	5	0.22	-0.51	0.22	0.25	15	40.55	90	86	62	0	2	1	0
NC CHARLOTTE	59	41	69	23	50	5	0.21	-0.45	0.10	0.24	17	30.09	72	87	51	0	1	3	0
NC GREENSBORO	58	40	65	25	49	7	0.03	-0.63	0.03	0.20	14	34.25	83	77	47	0	2	1	0
NC HATTERAS	62	48	71	35	55	4	1.37	0.44	0.64	1.98	99	53.24	96	98	75	0	0	4	2
NC RALEIGH	61	42	72	27	51	7	0.40	-0.23	0.28	0.46	34	38.31	93	86	58	0	3	4	0
NC WILMINGTON	65	47	75	37	56	6	0.87	0.06	0.64	0.95	54	46.80	85	96	68	0	0	4	1
ND BISMARCK	25	5	33	-10	15	-2	0.26	0.18	0.20	0.38	200	14.64	88	88	76	0	7	5	0
ND DICKINSON	27	8	34	-10	18	-1	0.15	0.08	0.14	0.19	119	10.35	64	92	74	0	7	2	0
ND FARGO	25	5	38	-9	15	1	0.04	-0.07	0.03	0.14	58	15.80	76	78	58	0	7	2	0
ND GRAND FORKS	17	0	28	-13	9	-4	0.02	-0.09	0.01	0.21	88	16.99	88	87	71	0	7	2	0
ND JAMESTOWN	20	4	26	-10	12	-3	0.01	-0.07	0.01	0.04	22	12.85	70	90	72	0	7	1	0
ND WILLISTON	26	7	33	-12	16	2	0.07	-0.04	0.05	0.27	104	12.90	93	94	86	0	7	3	0
OH AKRON-CANTON	47	29	57	22	38	6	0.78	0.09	0.41	2.13	140	35.85	97	82	64	0	4	2	0
OH CINCINNATI	50	29	61	20	39	3	1.18	0.44	1.10	3.35	207	36.38	89	89	65	0	5	2	1
OH CLEVELAND	48	30	56	23	39	7	0.43	-0.31	0.24	1.68	101	42.37	114	85	57	0	4	3	0
OH COLUMBUS	49	30	58	23	40	5	0.83	0.15	0.70	2.80	184	34.37	93	84	63	0	4	3	1
OH DAYTON	49	30	58	22	39	6	0.42	-0.28	0.41	1.77	114	30.59	80	87	60	0	5	2	0
OH MANSFIELD	47	29	56	21	38	7	0.77	0.01	0.64	1.73	101	38.03	91	89	59	0	5	3	1

Based on 1971-2000 normals

*** Not Available

Weather Data for the Week Ending December 15, 2012

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 01	PCT. NORMAL SINCE JAN 01	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP		
																90 AND ABOVE	32 AND BELOW	0.1 INCH OR MORE	5.0 INCH OR MORE	
OK TOLEDO	43	27	48	19	35	4	0.29	-0.33	0.23	0.63	46	28.82	90	88	60	0	5	3	0	
OK YOUNGSTOWN	46	28	56	20	37	5	0.95	0.25	0.67	2.34	150	42.23	115	84	63	0	6	3	1	
OK OKLAHOMA CITY	52	30	63	18	41	1	0.24	-0.17	0.24	0.24	27	29.04	83	71	30	0	4	1	0	
OR TULSA	53	32	64	20	42	1	0.09	-0.50	0.08	0.14	10	28.02	68	60	41	0	4	2	0	
OR ASTORIA	49	37	51	32	43	0	2.57	0.16	0.60	6.61	125	83.33	134	95	90	0	1	7	2	
OR BURNS	38	23	52	15	30	4	0.20	-0.08	0.17	0.85	144	9.44	96	90	78	0	7	3	0	
OR EUGENE	47	38	51	30	42	2	0.68	-1.25	0.24	3.30	77	46.04	98	98	90	0	1	5	0	
OR MEDFORD	43	32	51	27	38	0	0.29	-0.38	0.15	3.48	232	24.68	145	94	81	0	2	3	0	
OR PENDLETON	42	30	51	24	36	2	0.15	-0.18	0.06	0.80	110	14.05	117	95	80	0	4	4	0	
OR PORTLAND	47	40	52	35	43	2	1.03	-0.29	0.32	3.64	125	46.51	136	94	89	0	0	5	0	
OR SALEM	46	38	51	31	42	1	0.84	-0.67	0.29	3.78	114	50.83	138	97	92	0	1	4	0	
PA ALLENTOWN	47	29	50	21	38	5	0.47	-0.28	0.36	0.94	56	37.64	87	90	73	0	5	3	0	
PA ERIE	46	31	56	26	39	5	0.48	-0.41	0.24	1.87	96	36.74	90	79	57	0	5	3	0	
PA MIDDLETOWN	47	30	50	22	38	3	0.50	-0.25	0.37	0.87	51	42.27	109	94	60	0	5	3	0	
PA PHILADELPHIA	52	37	60	30	45	6	0.42	-0.30	0.32	0.82	52	32.33	80	81	58	0	2	3	0	
PA PITTSBURGH	47	29	57	21	38	4	1.09	0.44	0.80	2.65	183	38.86	107	87	56	0	5	3	1	
PA WILKES-BARRE	44	28	52	21	36	3	0.37	-0.22	0.26	1.01	75	35.03	96	89	62	0	5	6	0	
PA WILLIAMSPORT	45	28	50	20	36	4	0.41	-0.28	0.30	1.25	86	31.87	79	91	67	0	5	2	0	
RI PROVIDENCE	50	33	62	25	41	6	1.15	0.24	1.00	1.64	82	37.27	84	82	57	0	4	3	1	
SC BEAUFORT	65	50	77	39	57	5	0.67	0.04	0.62	0.71	55	33.82	71	94	66	0	0	4	1	
SC CHARLESTON	65	49	78	38	57	6	0.67	0.00	0.55	0.67	48	41.08	83	95	70	0	0	3	1	
SC COLUMBIA	63	44	74	32	54	6	0.88	0.20	0.84	0.88	62	40.12	87	89	61	0	1	2	1	
SC GREENVILLE	60	42	70	28	51	7	0.24	-0.59	0.24	0.29	16	33.33	69	82	50	0	1	1	0	
SD ABERDEEN	24	4	30	-17	14	-4	0.06	0.00	0.04	0.63	525	14.52	73	84	78	0	7	3	0	
SD HURON	31	9	37	-10	20	0	0.30	0.23	0.21	1.02	600	19.56	95	92	77	0	7	3	0	
SD RAPID CITY	40	13	56	-2	26	1	0.00	-0.07	0.00	0.08	62	11.23	69	84	41	0	7	0	0	
SD SIOUX FALLS	36	13	46	-7	25	5	0.69	0.58	0.61	0.81	289	16.85	69	86	71	0	7	2	1	
TN BRISTOL	54	33	71	23	44	6	1.04	0.28	0.96	1.27	77	43.42	110	95	50	0	3	2	1	
TN CHATTANOOGA	58	38	72	28	48	5	1.00	-0.07	0.92	1.26	53	46.48	89	90	69	0	2	3	1	
TN KNOXVILLE	56	36	71	27	46	4	1.20	0.21	1.07	1.24	57	48.73	106	89	56	0	3	2	1	
TN MEMPHIS	59	38	70	29	49	5	1.12	-0.25	0.68	1.56	51	34.74	67	84	49	0	3	4	1	
TN NASHVILLE	57	34	70	23	45	4	1.02	-0.03	0.95	1.76	76	42.88	93	90	49	0	4	3	1	
TX ABILENE	60	35	71	21	47	1	0.00	-0.27	0.00	0.00	0	23.14	100	66	46	0	3	0	0	
TX AMARILLO	56	25	67	9	40	2	0.19	0.08	0.18	0.19	95	11.98	62	71	28	0	5	2	0	
TX AUSTIN	67	37	79	22	52	-1	0.03	-0.52	0.03	0.04	3	34.34	106	69	42	0	4	1	0	
TX BEAUMONT	67	45	79	34	56	1	0.80	-0.33	0.68	4.22	174	61.58	108	89	47	0	0	5	1	
TX BROWNSVILLE	75	59	85	46	67	5	0.02	-0.22	0.02	0.33	59	21.40	79	83	58	0	0	1	0	
TX CORPUS CHRISTI	73	54	84	35	64	5	0.01	-0.38	0.01	0.03	4	18.80	60	74	47	0	0	1	0	
TX DEL RIO	63	44	76	29	53	0	0.03	-0.14	0.03	0.03	9	13.86	78	74	47	0	1	1	0	
TX EL PASO	58	32	66	20	45	-1	0.09	-0.08	0.09	0.09	26	6.03	67	47	22	0	4	1	0	
TX FORT WORTH	60	37	74	25	48	0	0.39	-0.18	0.39	0.39	33	29.69	89	77	26	0	4	1	0	
TX GALVESTON	67	53	77	42	60	1	0.38	-0.38	0.37	1.01	59	45.34	108	88	61	0	0	2	0	
TX HOUSTON	68	45	81	32	56	2	0.25	-0.57	0.24	0.42	23	39.88	87	80	48	0	2	2	0	
TX LUBBOCK	56	26	66	11	41	1	0.16	0.02	0.14	0.16	53	10.91	60	72	42	0	5	2	0	
TX MIDLAND	59	32	65	22	46	1	0.00	-0.14	0.00	0.00	0	12.72	88	59	41	0	3	0	0	
TX SAN ANGELO	64	34	72	20	49	2	0.01	-0.20	0.01	0.01	2	21.78	107	73	37	0	3	1	0	
TX SAN ANTONIO	65	41	78	29	53	0	0.03	-0.41	0.02	0.07	7	39.10	123	83	46	0	2	2	0	
TX VICTORIA	72	45	83	27	59	3	0.05	-0.50	0.05	0.06	5	26.74	69	82	47	0	2	1	0	
TX WACO	63	36	81	17	50	1	0.32	-0.31	0.29	0.32	24	31.84	100	79	45	0	4	2	0	
TX WICHITA FALLS	55	32	65	16	44	0	0.28	-0.11	0.20	0.28	35	19.48	70	71	42	0	4	2	0	
UT SALT LAKE CITY	41	31	53	22	36	5	0.26	0.01	0.13	0.73	130	12.00	76	79	55	0	3	4	0	
VT BURLINGTON	41	25	51	16	33	6	0.44	-0.06	0.40	1.05	91	33.69	96	82	60	0	7	2	0	
VA LYNCHBURG	56	35	63	19	45	6	0.01	-0.69	0.01	0.03	2	27.20	65	80	50	0	3	1	0	
VA NORFOLK	59	44	72	32	52	7	0.11	-0.51	0.05	0.15	11	44.01	100	88	62	0	1	4	0	
VA RICHMOND	57	38	72	26	48	6	0.07	-0.59	0.07	0.22	16	33.92	80	84	64	0	3	1	0	
VA ROANOKE	55	34	63	23	45	5	0.04	-0.59	0.03	0.04	3	30.37	74	78	55	0	2	2	0	
WA WASH/DULLES	53	35	63	21	44	7	0.17	-0.52	0.16	0.20	13	32.95	82	83	61	0	3	2	0	
WA OLYMPIA	44	35	47	30	40	2	0.78	-1.04	0.23	4.55	113	54.40	116	98	94	0	2	6	0	
WA QUILLAYUTE	46	36	49	31	41	0	2.84	-0.50	1.10	8.27	113	110.27	117	98	93	0	1	6	3	
WA SEATTLE-TACOMA	44	38	46	33	41	0	1.13	-0.17	0.37	3.52	122	44.93	131	89	82	0	0	7	0	
WA SPOKANE	33	25	38	17	29	1	0.39	-0.13	0.21	1.44	125	20.18	130	99	87	0	6	5	0	
WV YAKIMA	39	26	46	19	33	4	0.06	-0.24	0.05	0.82	128	8.01	107	89	82	0	7	2	0	
WV BECKLEY	48	31	62	21	40	4	0.71	0.02	0.44	0.90	61	42.07	105	80	62	0	4	3	0	
WV CHARLESTON	53	32	63	24	42	3	1.38	0.62	0.80	2.45	144	39.08	92	91	51	0	5	4	2	
WV ELKINS	49	27	59	16	38	4	1.38	0.60	0.88	2.33	137	44.55	100	92	48	0	5	5	1	
WV HUNTINGTON	52	32	62	22	42	4	0.47	-0.28	0.38	1.80	110	38.01	94	94	58	0	4	2	0	
WI EAU CLAIRE	33	15	40	1	24	5	0.99	0.76	0.66	1.20	211	23.61	75	96	64	0	6	3	1	
WI GREEN BAY	36	22	43	15	29	6	0.60	0.28	0.33	0.78	100	29.76	104	91	69	0	7	3	0	
WI LA CROSSE	37	21	43	10	29	5	0.85	0.57	0.47	1.00	145	25.70	81	95	61	0	6	4	0	
WI MADISON	40	27	47	20	34	9	0.83	0.44	0.42	0.99	109	24.75	77	89	68	0	6	3	0	
WI MILWAUKEE	42	30	48	25	36	8	0.80	0.28	0.46	1.24	106	26.66	79	86	64	0	5	2	0	
WY CASPER	37	15	47	-6	26	2	0.01	-0.13	0.01	0.08	27	7.58	60	71	49	0	7	1	0	
WY CHEYENNE	38	16	51	2	27	-1	0.01	-0.08	0.01	0.02	9	9.76	64	63	38	0	7	1	0	
WY LANDER	37	13	46	3	25	3	0.05	-0.08	0.05	0.07	23	6.27	48	77	44	0	7	1	0	
WY SHERIDAN	35	16	42	-1	25	2	0.00	-0.14	0.00	0.29	97	9.32	65	83	67	0	7	0	0	

Based on 1971-2000 normals

*** Not Available

National Agricultural Summary

December 10 – 16, 2012

Weekly National Agricultural Summary provided by USDA/NASS

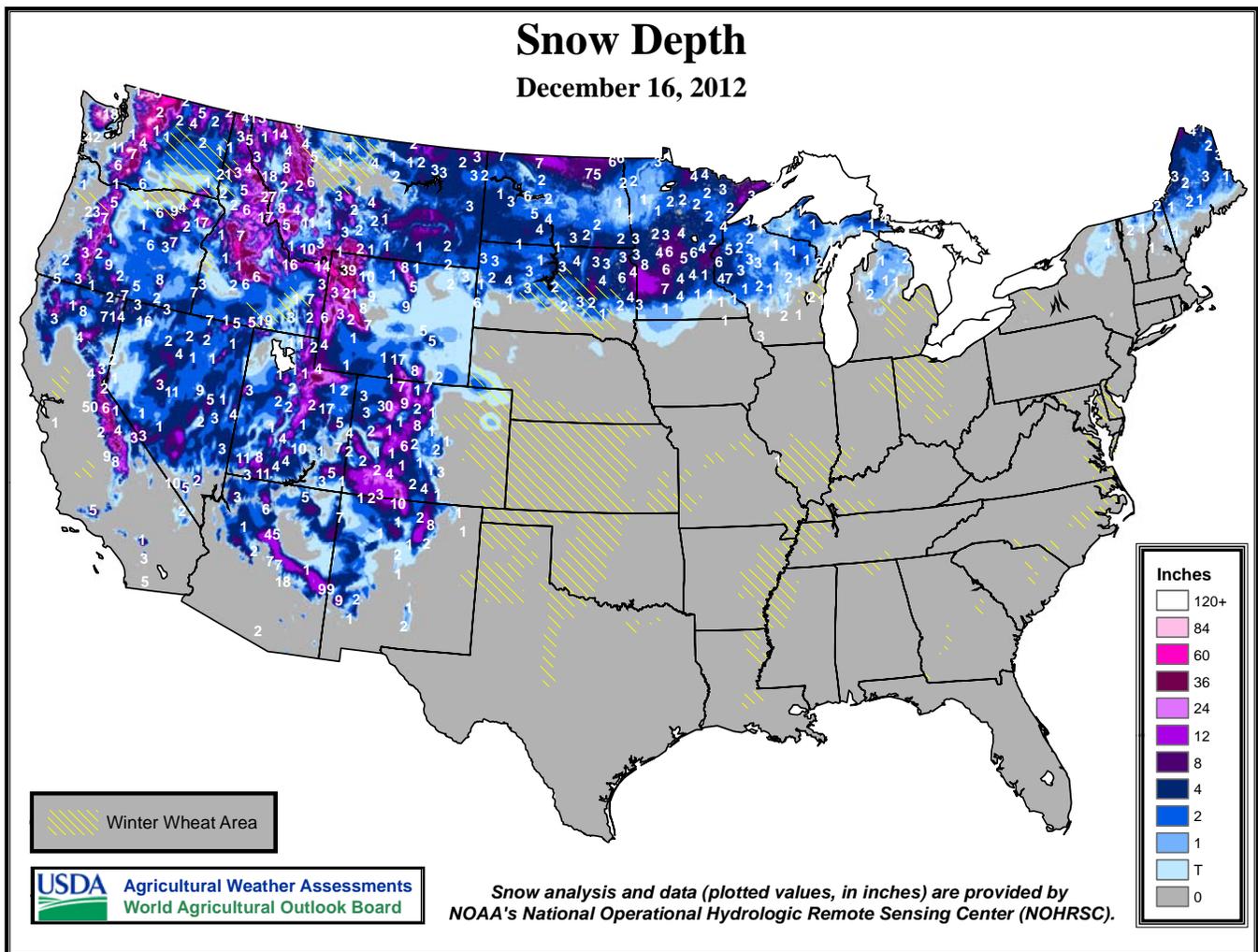
Temperatures across much of the United States were warmer than normal during the week, with portions of the Rocky Mountains and Corn Belt more than 8°F above average. Conversely, portions of Colorado and New Mexico recorded temperatures as much as 10°F below normal. Widespread moisture in the Four Corners region boosted high-elevation snow packs and provided beneficial moisture for drought-stricken pastures. Dry conditions in the Southeast favored fieldwork, as producers harvested any remaining row crops and seeded small grains during the week. Despite moisture in the central Great Plains, much of the hard red winter wheat growing area remained dry.

Despite scattered rainfall across Florida during the week, over one-third of the state was categorized as abnormally dry and in need of additional moisture. Producers in Gadsden County harvested a limited amount of cotton and seeded some winter forage during the week. In southern Florida, sugarcane harvesting continued. In portions of Florida, avocados, mangoes, and peach trees were blooming. Cool November weather in southern portions of

the state has led to delays in the winter vegetable harvest. Beneficial rain fell across the citrus-producing region during the week; however, irrigation remained heavy. Producers were busy harvesting early and mid-season oranges.

In Arizona, pasture and range conditions remained mostly (64 percent) very poor to poor, despite widespread rainfall during the week. Producers continued to harvest their remaining cotton crop—85 percent harvested by December 16. Durum wheat seeding was over one-quarter complete, while nearly one half of the state's barley crop was sown. Growers continued to ship a variety of vegetables.

California received statewide moisture during the week, as heavy rain and snow fell in some areas. Recently sown small grain crops benefited from wet fields. Late-season grapes were harvested, as many vines lost leaves and moved into dormancy. Citrus and tree fruit crops were harvested. Orchards and vineyards were being pruned. Vegetable growers planted and harvested a variety of winter crops.



International Weather and Crop Summary

December 9-15, 2012

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

HIGHLIGHTS

EUROPE: Cold, unsettled weather maintained favorable conditions for dormant winter crops.

WESTERN FSU: Bitter cold posed a risk to exposed winter grains in Russia, while snow continued to fall across western portions of the region.

MIDDLE EAST: Rain and high-elevation snow persisted in Turkey and Iran, favoring winter wheat and barley.

NORTHWEST AFRICA: Sunny skies promoted wheat and barley growth following an extended period of wet weather.

EAST ASIA: An early week cold snap helped harden wheat against extreme temperatures, while rain and snow late in the week boosted moisture reserves.

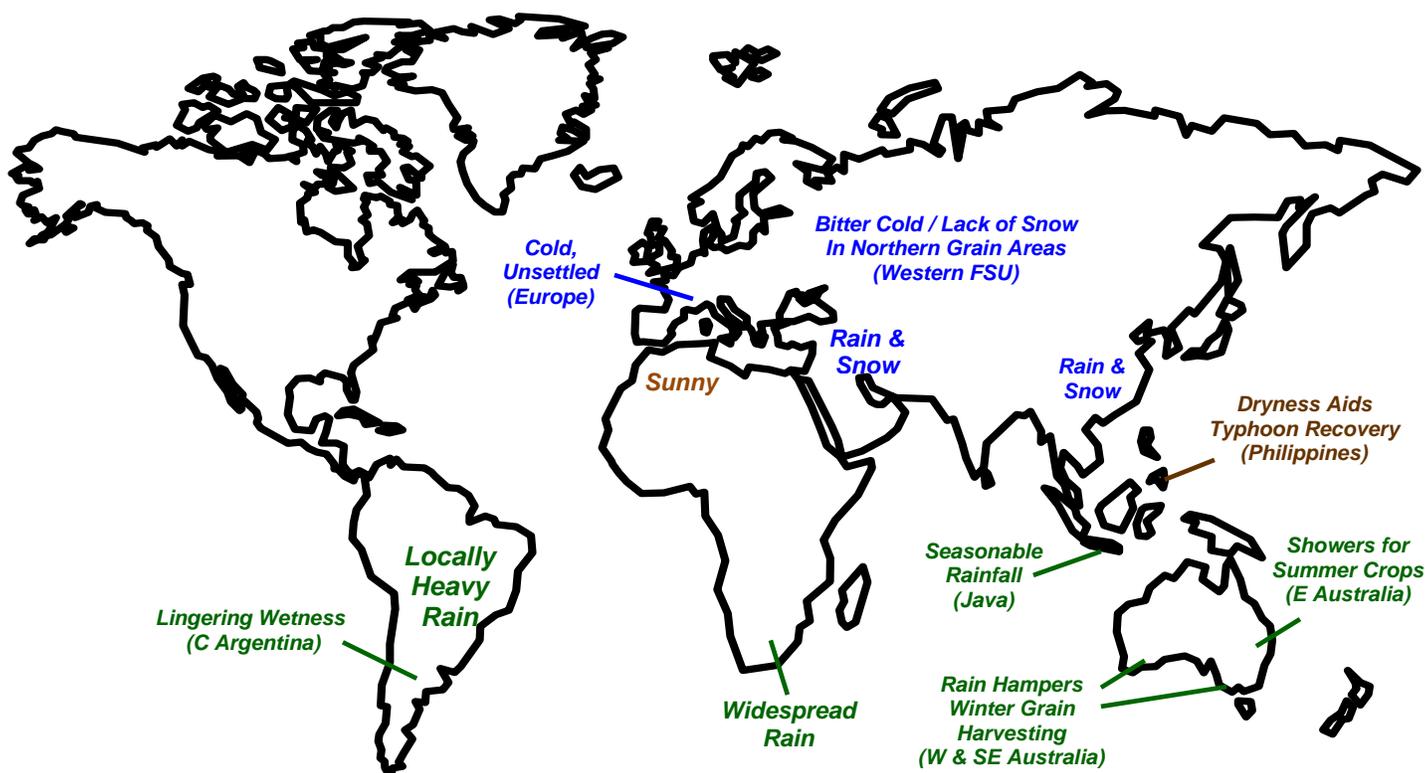
SOUTHEAST ASIA: Drier weather aided recovery efforts in the Philippines, while seasonal rainfall maintained adequate moisture supplies for rice in Java, Indonesia.

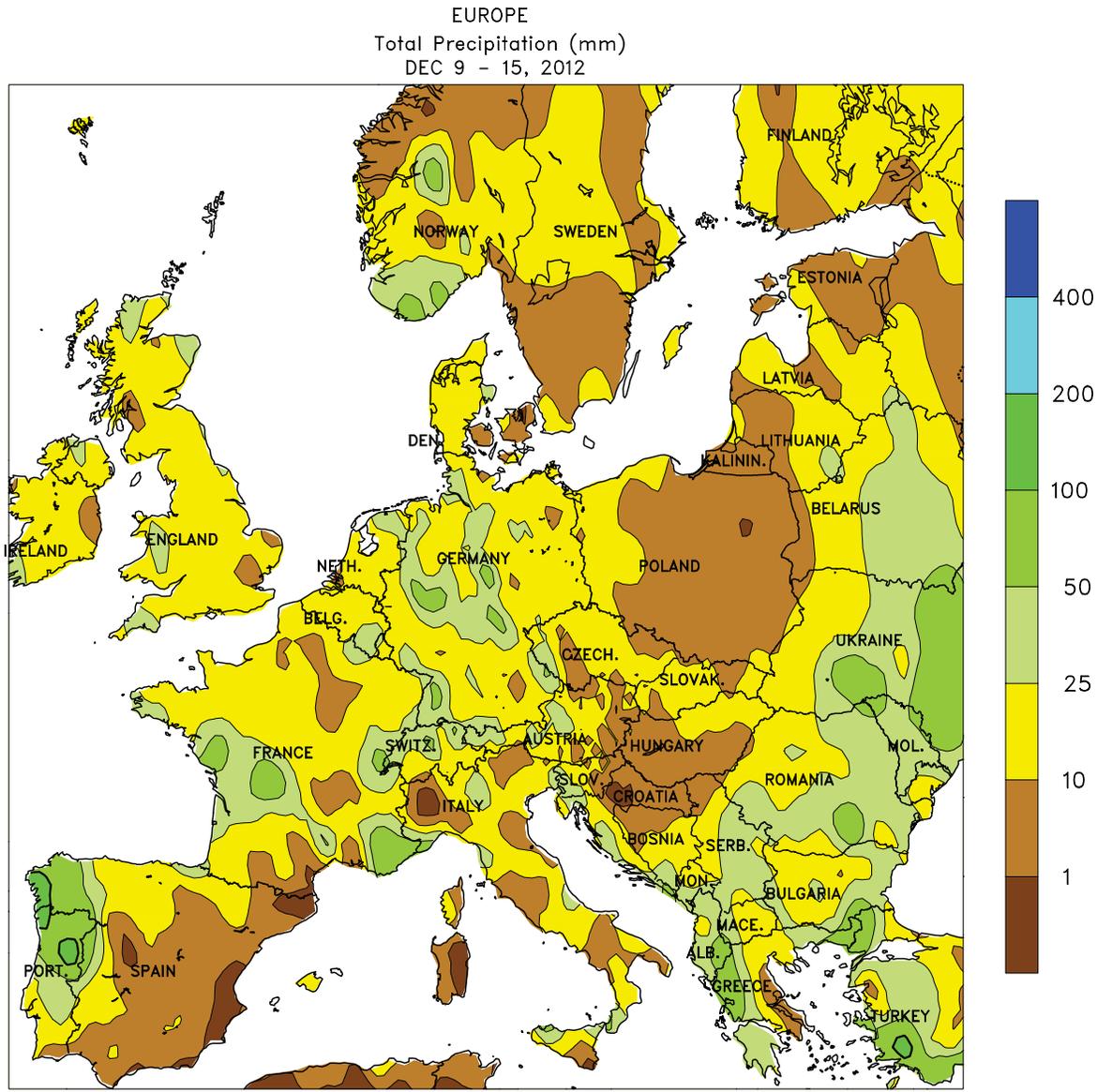
AUSTRALIA: Showers benefited summer crops in eastern Australia but hampered winter grain harvesting in western and southeastern Australia.

SOUTH AFRICA: Widespread showers benefited rain-fed summer crops.

ARGENTINA: Lingering wet conditions maintained slow rates of summer crop planting and winter grain harvesting.

BRAZIL: Widespread, locally heavy rain benefited soybeans and other crops throughout Brazil's main farming areas.





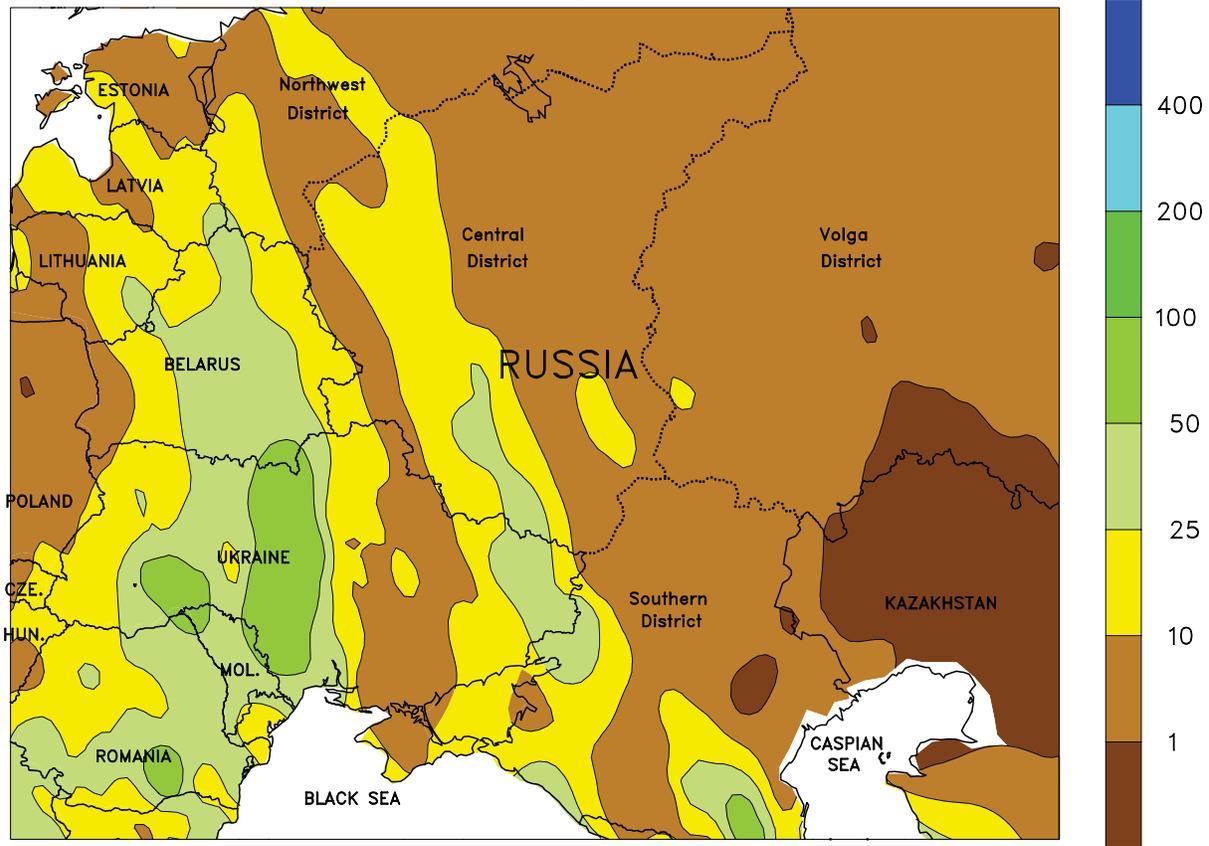
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data

EUROPE

Cold, unsettled weather persisted over much of the continent, maintaining mostly favorable conditions for winter grains and oilseeds. Early week snow changed to a mixture of snow, freezing rain, and rain (10-50 mm liquid equivalent) from northeastern France into most of eastern and southeastern Europe. The arrival of mild air toward week's end melted much of the region's snow cover, with depths averaging 2 to 10 cm across Germany, Poland, and the Balkans. Meanwhile,

widespread showers (5-40 mm) across Spain and Italy were beneficial for vegetative winter wheat. Elsewhere, locally heavy rain (up to 50 mm) in Greece hampered cotton harvesting, while 10 to 30 mm of rain in the United Kingdom maintained abundant soil moisture for dormant winter grains and oilseeds. Temperatures averaged 2 to 7°C below normal across the continent, although the coldest weather (-19 to -15°C in eastern Europe) was limited to areas with adequate snow cover.

WESTERN FSU
Total Precipitation (mm)
DEC 9 - 15, 2012



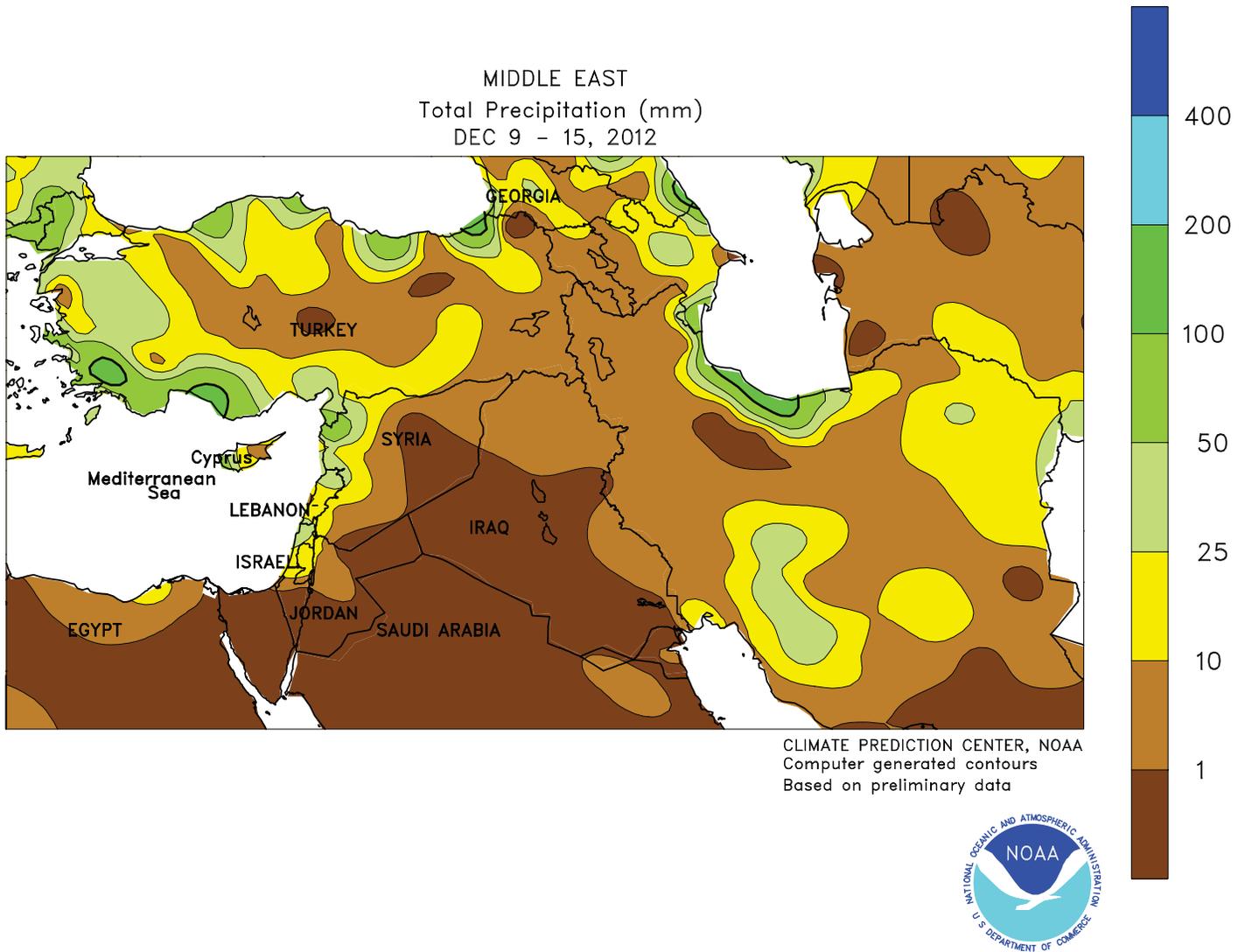
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data



WESTERN FSU

Bitter cold weather arrived, threatening exposed winter grains in central and eastern growing areas. A strong arctic high pressure system pushed the coldest air of the season in the region, with temperatures plunging to -18°C (locally as low as -20°C) in snow-free portions of the southern Volga District; the arctic blast likely caused some burnback or winterkill to winter wheat, which remained uncharacteristically devoid of a protective snowpack in

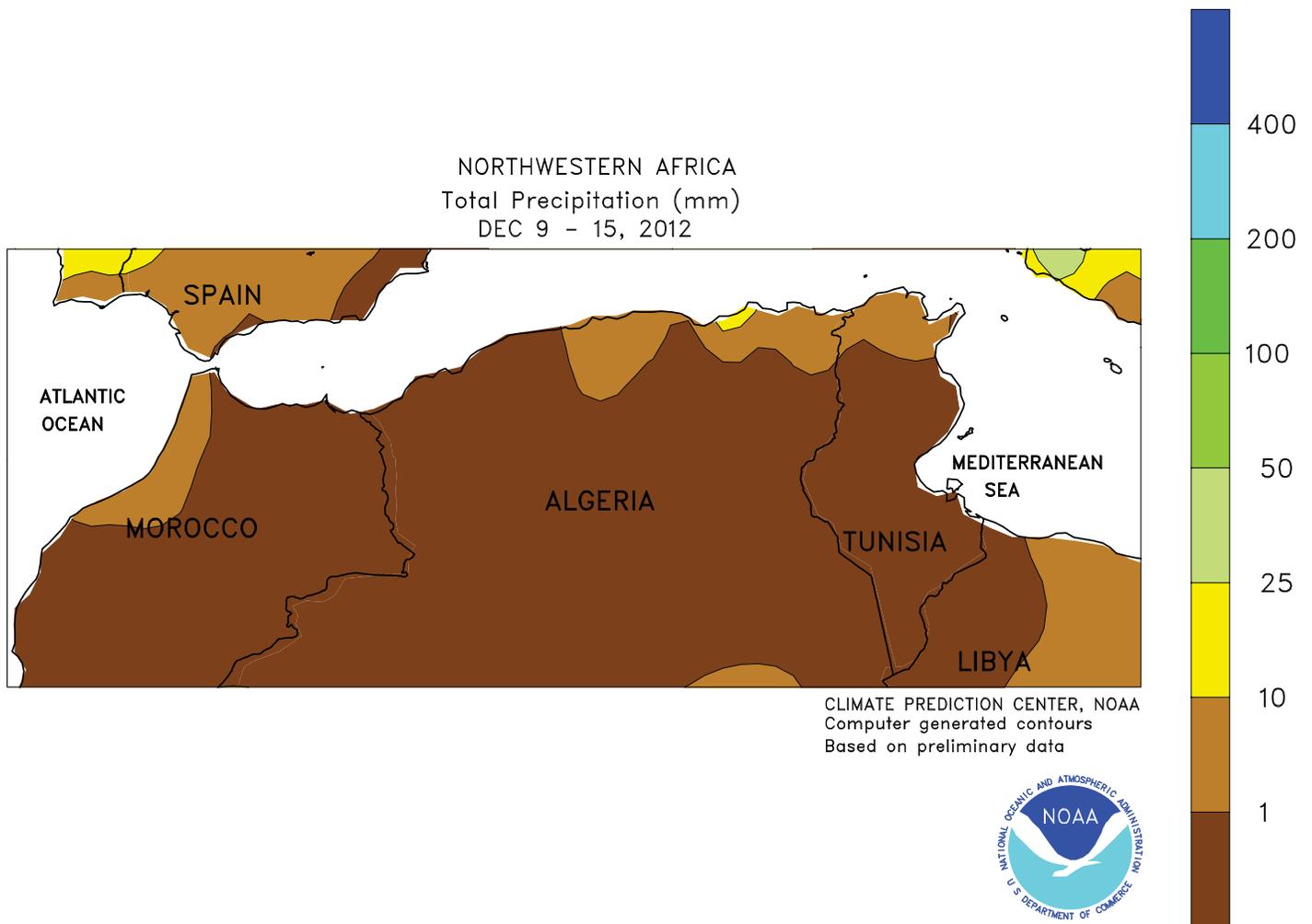
much of central and southern Russia. The bitter cold was pushing into the Southern District, and northern portions of this key winter wheat region remained exposed to the elements. In contrast, a pair of storms maintained periods of snow (mostly rain near the Black Sea Coast) across western and southern portions of the region, with locally heavy snow (more than 30 cm) reported in the western Southern District, central Ukraine, and Belarus.



MIDDLE EAST

Wet weather persisted across the region, maintaining favorable prospects for vegetative winter grains. Rain and snow (10-60 mm liquid equivalent) in Turkey boosted moisture reserves for wheat and barley, while light to moderate showers (10-45 mm) favored vegetative winter grains from Syria into northern Jordan. In Iran, light to moderate rain and high-elevation snow

(1-20 mm liquid equivalent) was reported in key northern winter wheat and barley districts, while uncharacteristically heavy rain (10-40 mm) continued to boost irrigation reserves in southern Iran. Heavy rain (locally more than 100 mm) was also reported along the Caspian Coast, likely causing localized flooding but maintaining abundant soil moisture.

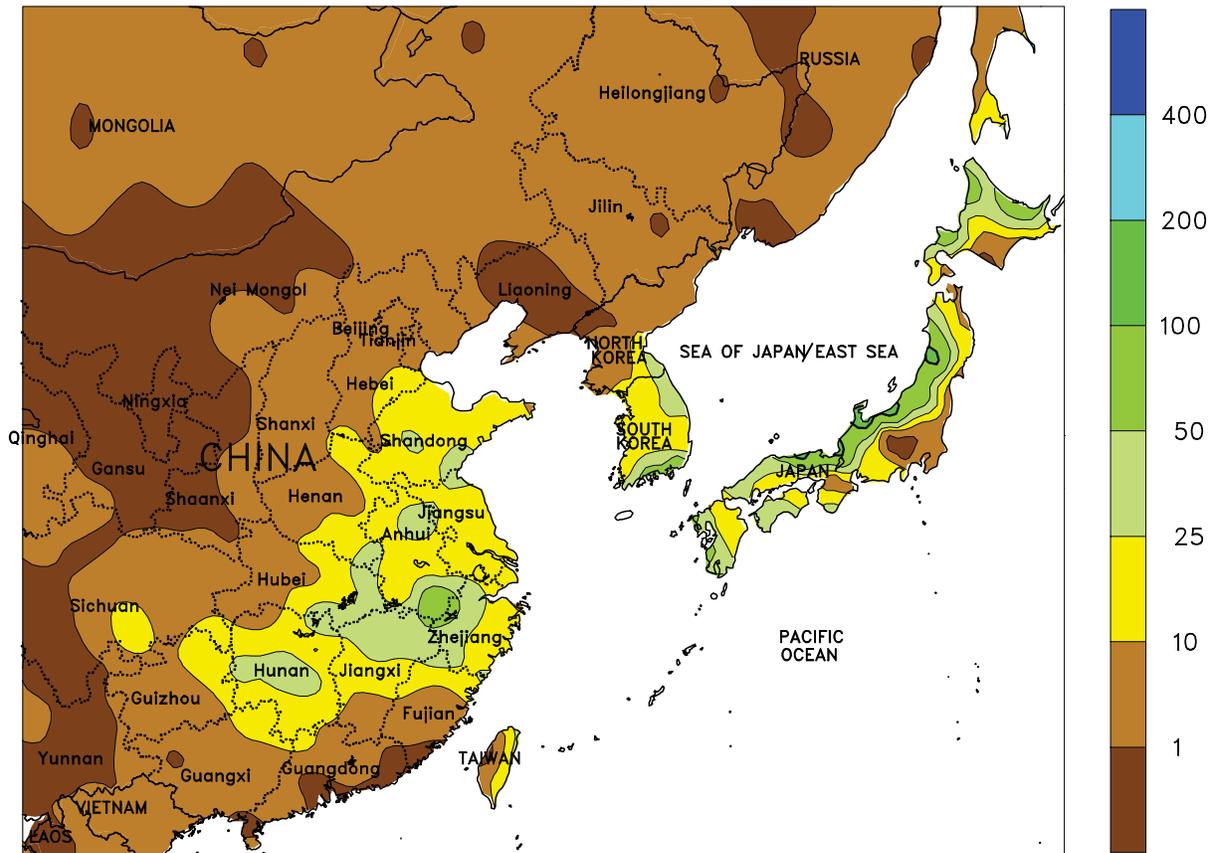


NORTHWEST AFRICA

Dry weather returned to the region, promoting winter grain development. After an exceptionally wet autumn (200-300 percent of normal) in western growing areas, the sunny skies were welcomed for fieldwork and crop development. The dry weather also favored fieldwork in northeastern Algeria and

northern Tunisia following last week's rain, although these locales have not been as wet (near-normal rainfall for the autumn) as their western neighbors. Temperatures averaged within one degree of normal for the week, with no untimely freezes reported.

EASTERN ASIA
Total Precipitation (mm)
DEC 9 - 15, 2012



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



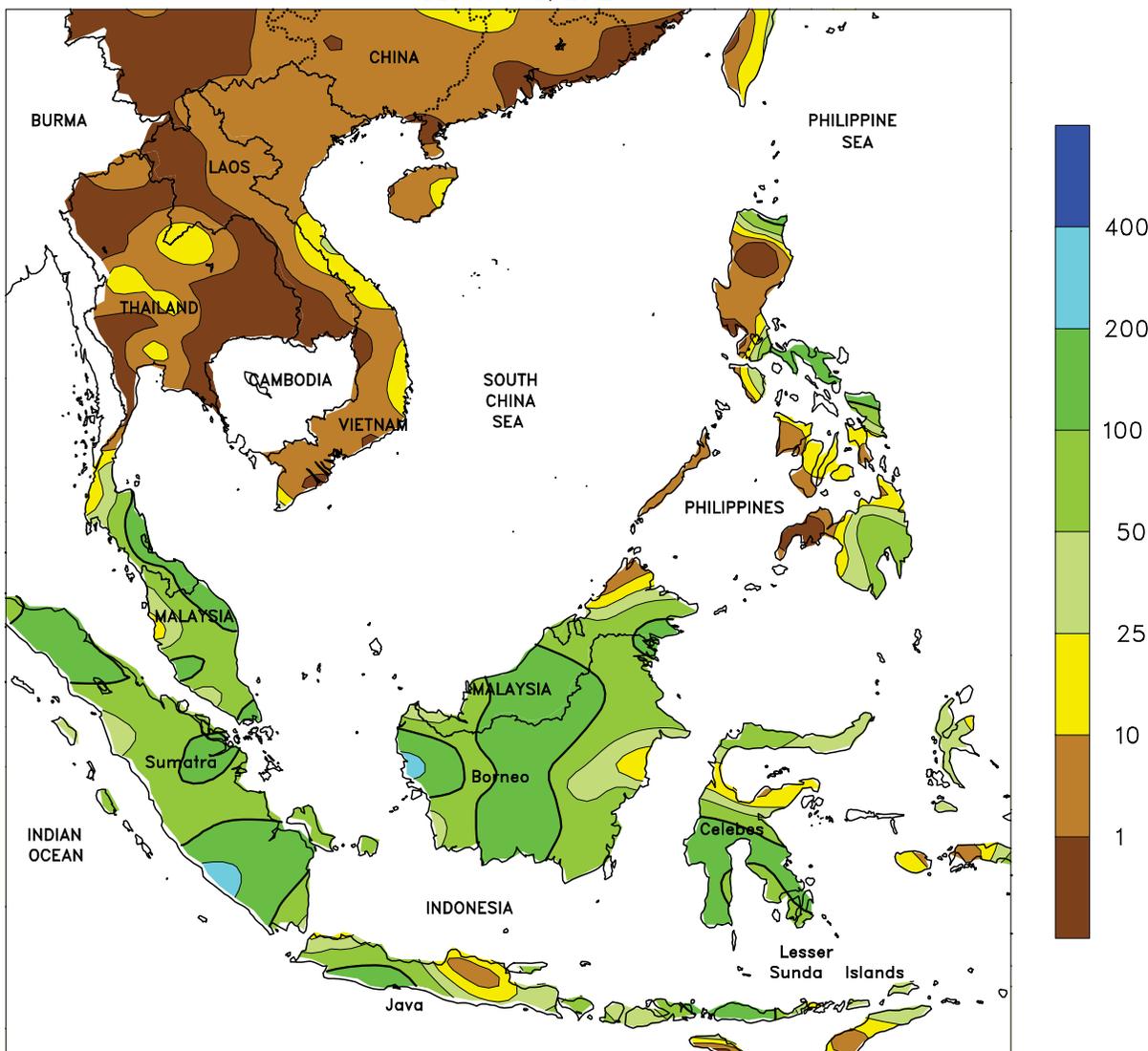
EASTERN ASIA

Cold air became more established across winter wheat areas of the North China Plain as minimum temperatures dipped below -10°C early in the week. The cold weather promoted hardening of dormant wheat and made the crop less susceptible to potentially colder weather. By week's end, light rain and snow (5-25 mm liquid equivalent) provided a beneficial boost to moisture reserves. Farther south, winter rapeseed remained vegetative in the

Yangtze Valley, with the crop in the east approaching dormancy. Periodic rainfall (5-50 mm) during the week increased moisture supplies and kept rapeseed well watered.

This is the final weekly summary of the season. Monthly summaries will continue with weekly summaries resuming in spring 2013.

SOUTHEAST ASIA
Total Precipitation (mm)
DEC 9 - 15, 2012



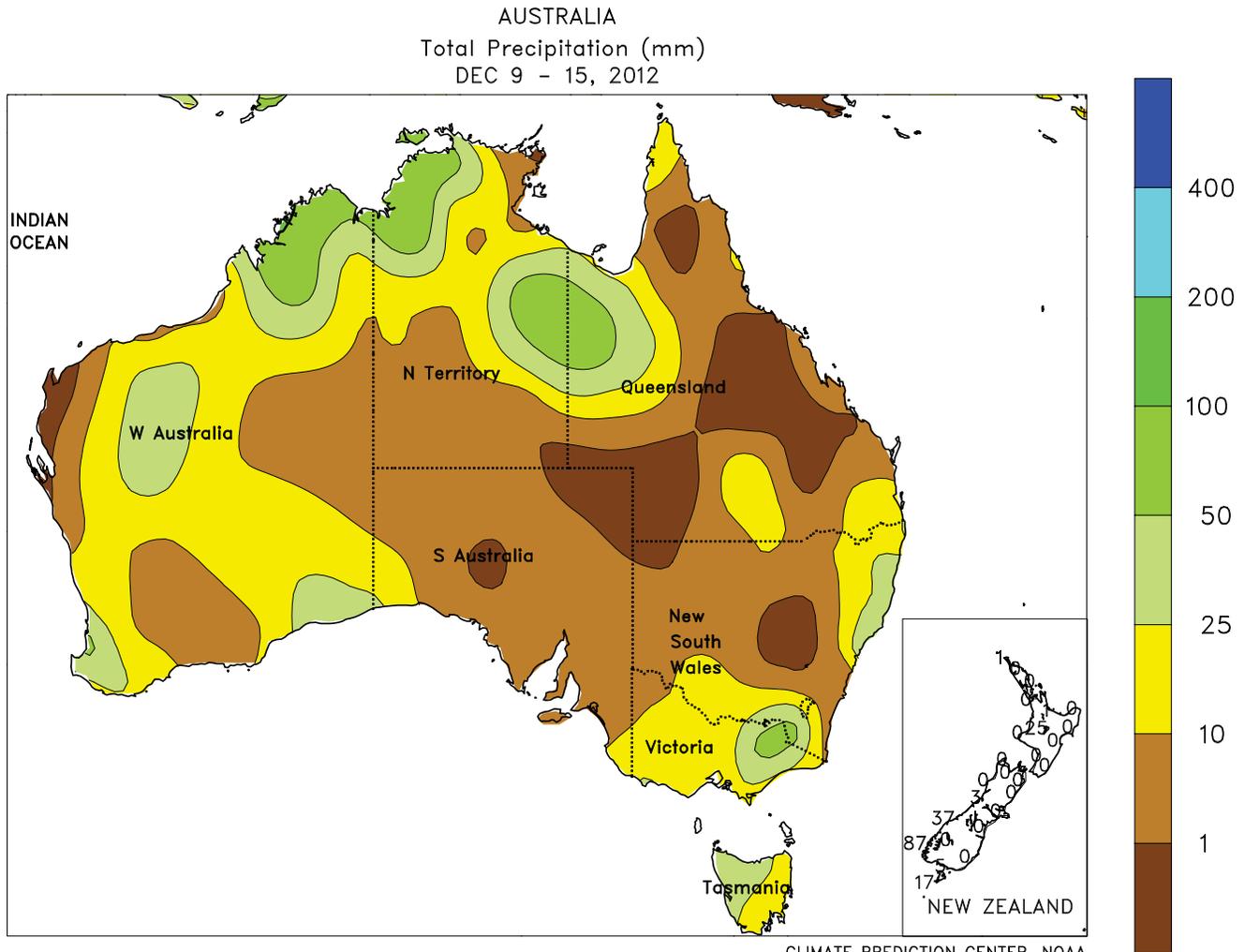
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data



SOUTHEAST ASIA

Drier weather aided recovery efforts across the southern Philippines in the wake of Super Typhoon Bopha. The remnants of Bopha meanwhile moved across the northern Philippines, producing locally heavy rainfall (100 mm or more). In Java, Indonesia, rainfall (50-100 mm) maintained favorable moisture supplies for rice in the west, while minor

rainfall deficits continued in central growing areas. In eastern Java, where monsoon rains had yet to become established, seasonal (since November 1) rainfall was 60 percent of the long-term average. Oil palm across the remainder of Indonesia and Malaysia benefited from continued consistent rainfall between 75 and 150 mm.



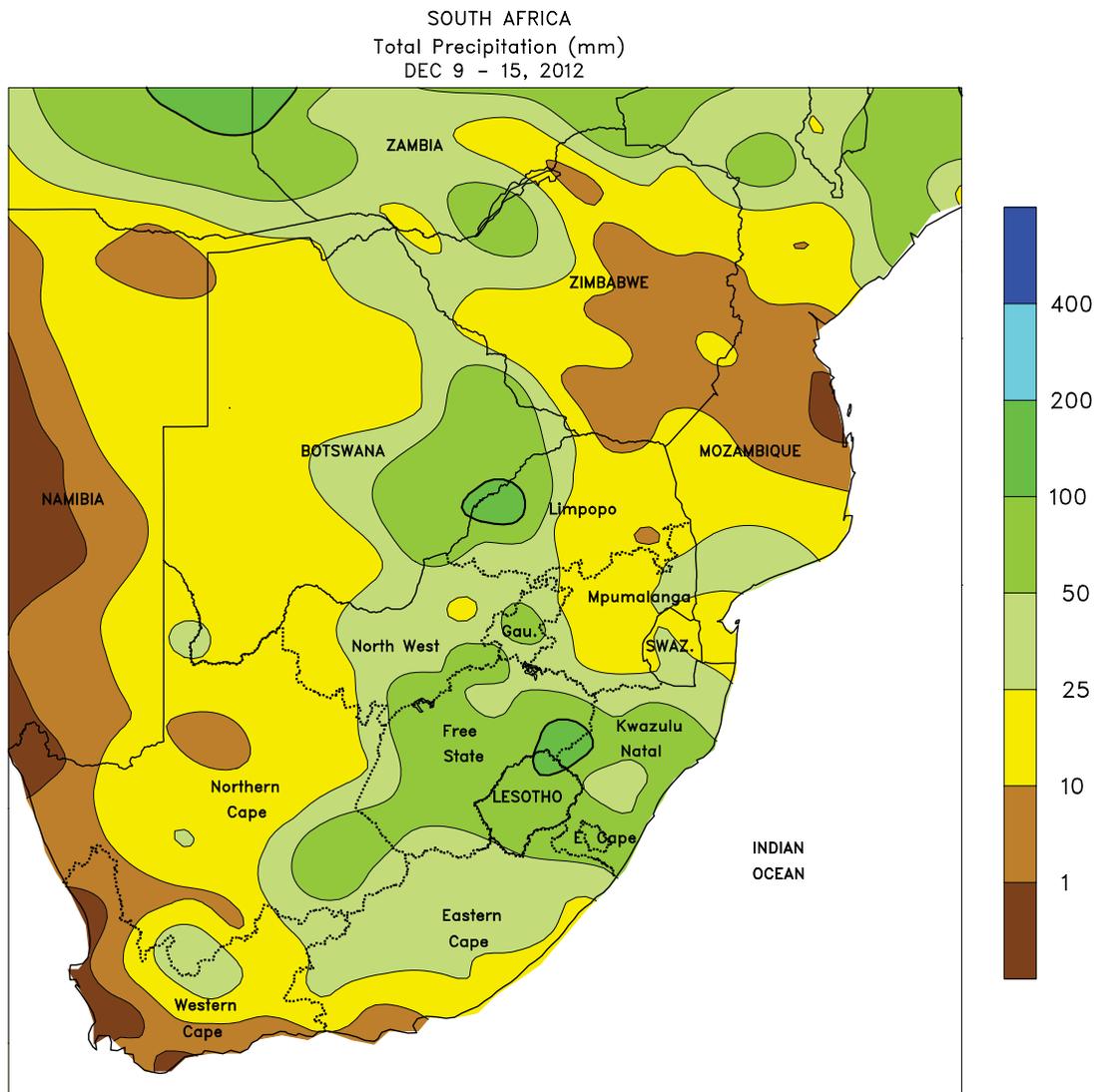
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data



AUSTRALIA

In Western Australia, unfavorably wet weather (10-25 mm or more) continued to hamper winter grain harvesting, increasing concerns about crop quality. Warmer, drier weather during the latter half of the week, however, helped fieldwork regain some momentum. In southeastern Australia, widespread showers (2-12 mm, locally more) interrupted winter crop harvesting, but the rain was generally short-lived, resulting in only temporary delays.

Farther north, scattered showers (5-15 mm, locally more) fell across northern New South Wales and southern Queensland, providing a needed boost in topsoil moisture for vegetative summer crops. Temperatures in Queensland, northern New South Wales, and Western Australia were generally seasonable. In southeastern Australia, temperatures averaged 1 to 3°C above normal, with maximum temperatures near 40°C in some areas.



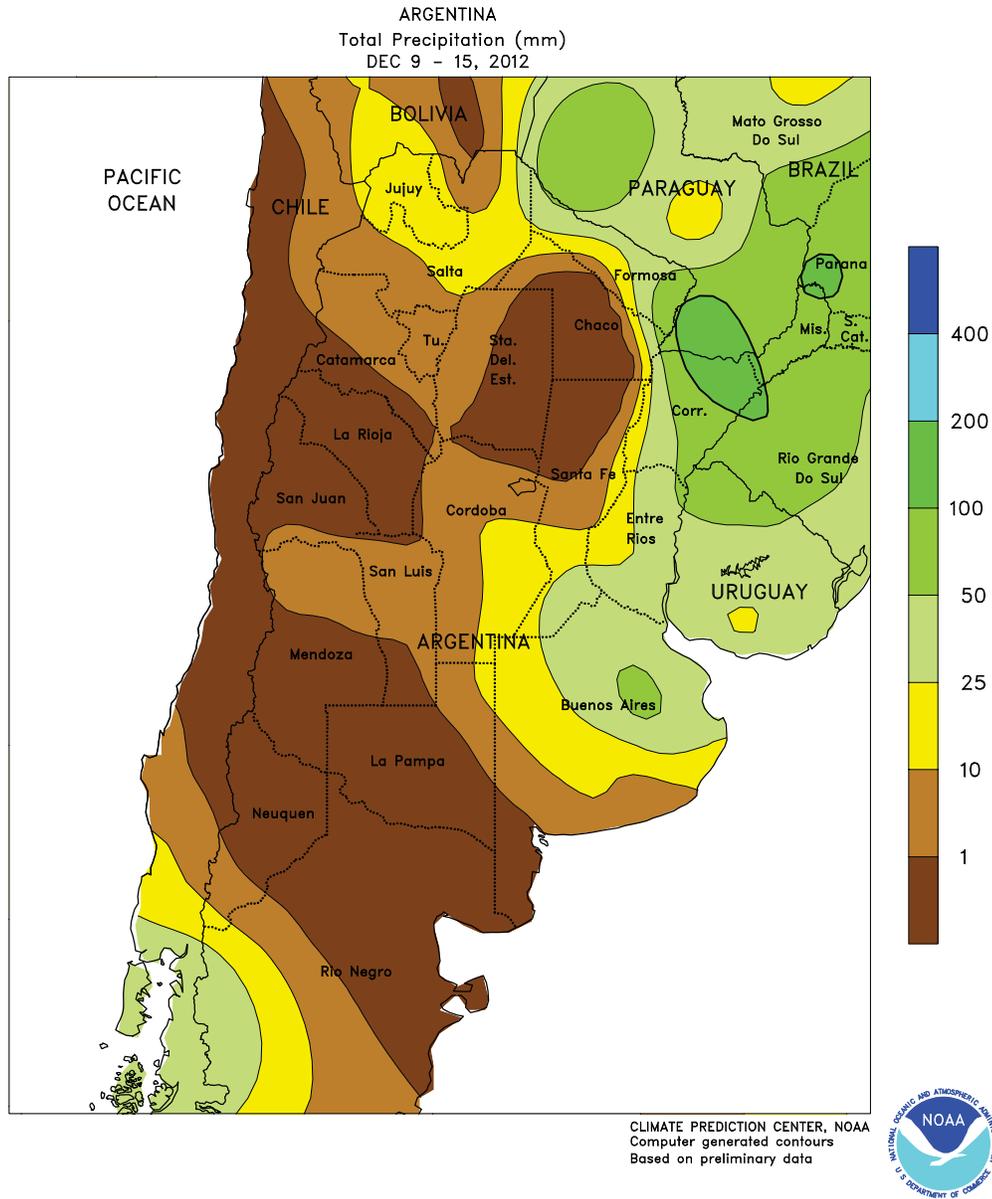
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data



SOUTH AFRICA

Widespread showers benefited rain-fed summer crops throughout most of the region. Rainfall totaled 10 to 50 mm across much of the corn belt, with the heaviest amounts concentrated in central and western areas (North West, Free State, and Gauteng). The moisture was timely for germination and establishment of crops traditionally grown during the latter portion of the planting season. Lighter rain (below 10 mm) lingered in eastern farming areas of Mpumalanga and Limpopo, where seasonal rainfall has trended below normal. Weekly average temperatures were near to slightly below normal, with daytime highs reaching

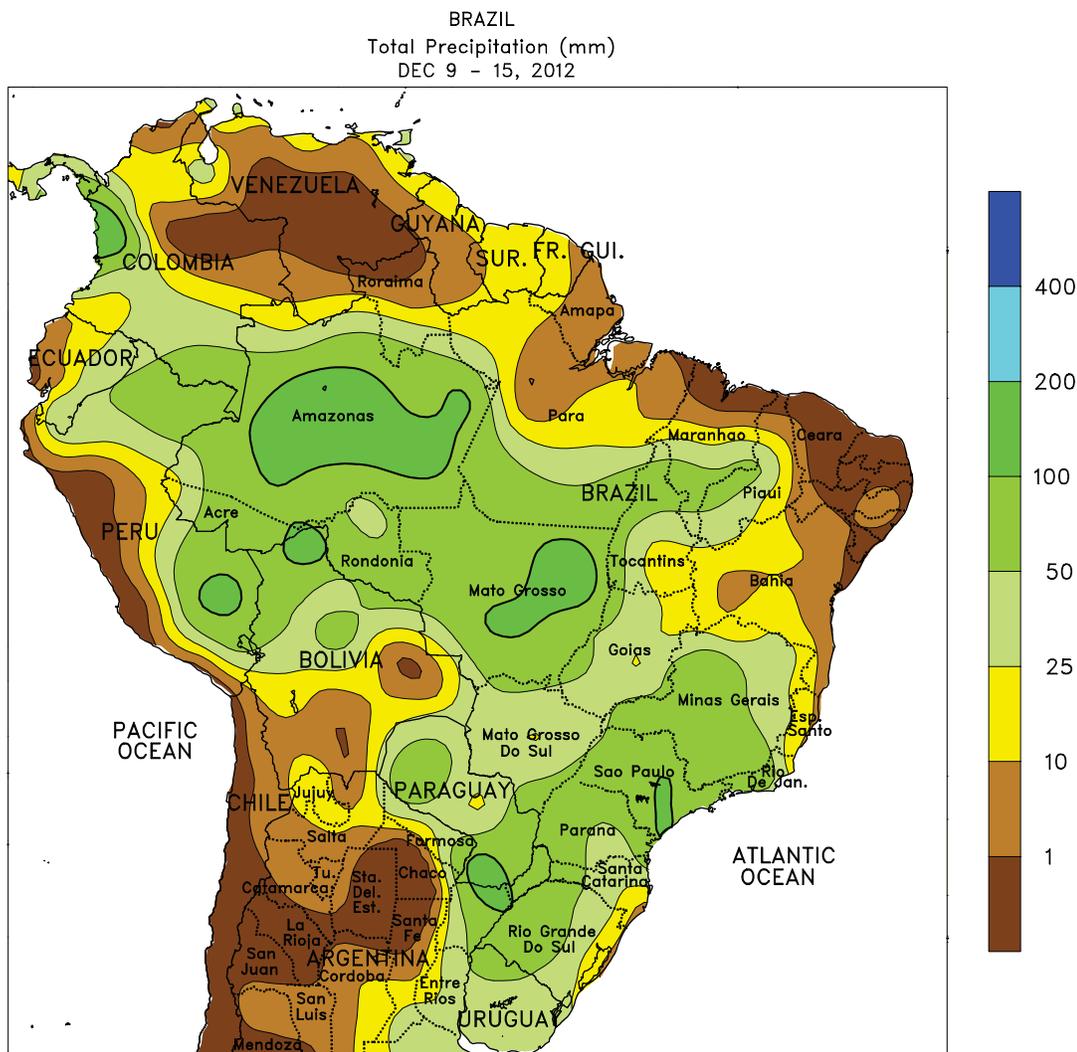
the upper 20s (degrees C) in eastern sections of the corn belt and the lower 30s farther west. Elsewhere, mild, showery weather continued in the rain-fed southern sugarcane areas of KwaZulu-Natal and, for a third week, unseasonable rain (10-50 mm) boosted irrigation reserves in climatologically drier agricultural districts of the Cape Provinces. An exception to this was in Western Cape, where mostly dry, unseasonably warm weather (weekly temperatures averaging up to 4°C above normal with daytime highs mostly in the middle and upper 30s) fostered development of irrigated tree and vine crops.



ARGENTINA

Rainfall tapered off across the region, providing varying degrees of relief from recent weeks of excessive wetness. The heaviest rain (greater than 25 mm) was concentrated over Argentina’s eastern farming areas (northeastern Buenos Aires to eastern Formosa), although moderate showers were scattered throughout other parts of the country. However, favorably drier conditions prevailed in southwestern agricultural districts (most of La Pampa and nearby locations in Buenos Aires and Cordoba) and northern production areas of Cordoba and Santa Fe that were recently inundated with heavy rain. Weekly temperatures averaged 2 to 4°C above

normal throughout the region, with daytime highs ranging from the lower 30s (degrees C) in Buenos Aires to more than 40°C in the climatologically warmer north (Santiago del Estero northward). The warmer conditions aided the drying process and sustained rapid rates of development of summer grains, oilseeds, and cotton. However, an extended period of warmth and dryness is needed to allow fields to drain in the wettest locations. According to Argentina’s Ministry of Agriculture, corn and soybeans were 70 and 73 percent planted, respectively, as of December 13. In addition, winter wheat was 45 percent harvested, down 13 points from last year.



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

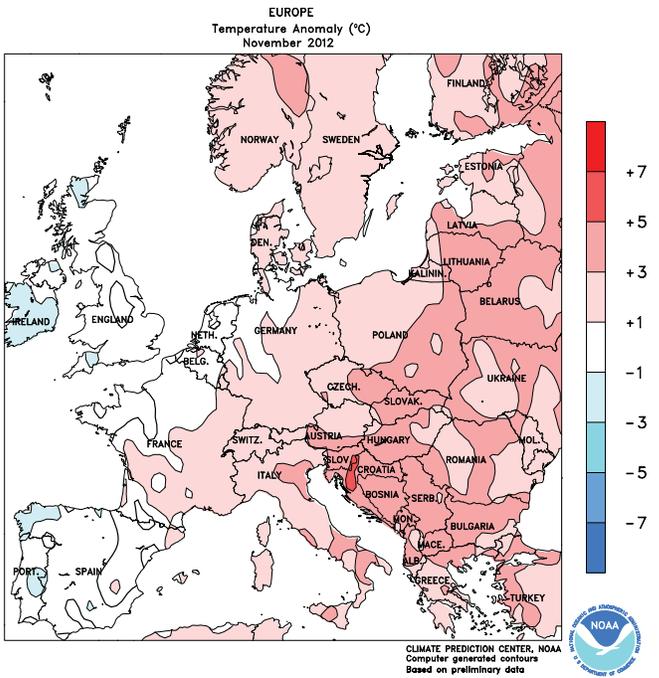
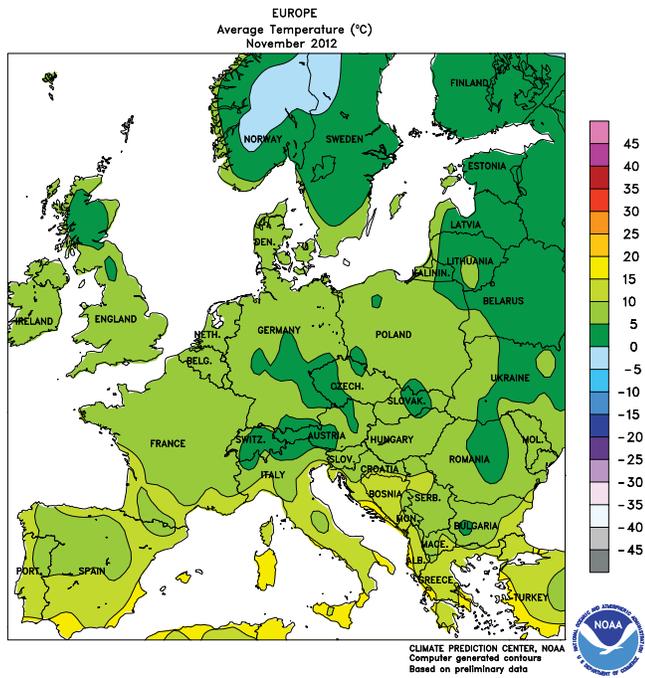
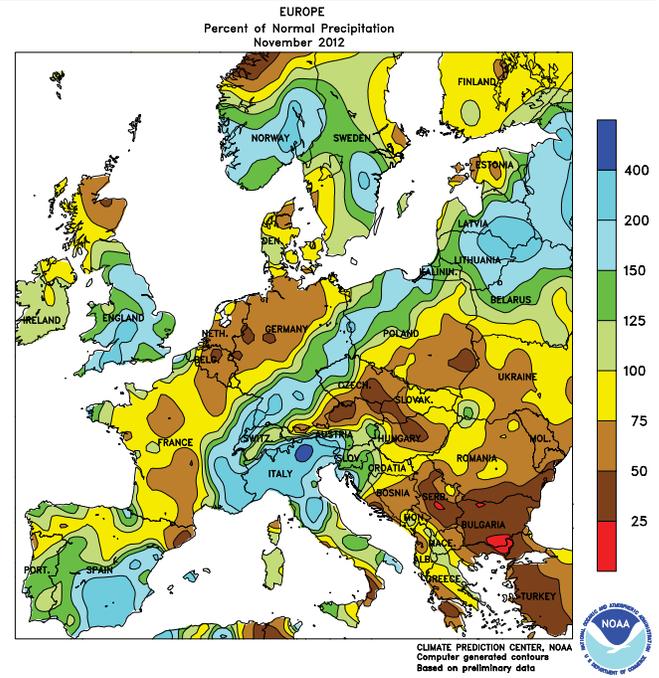
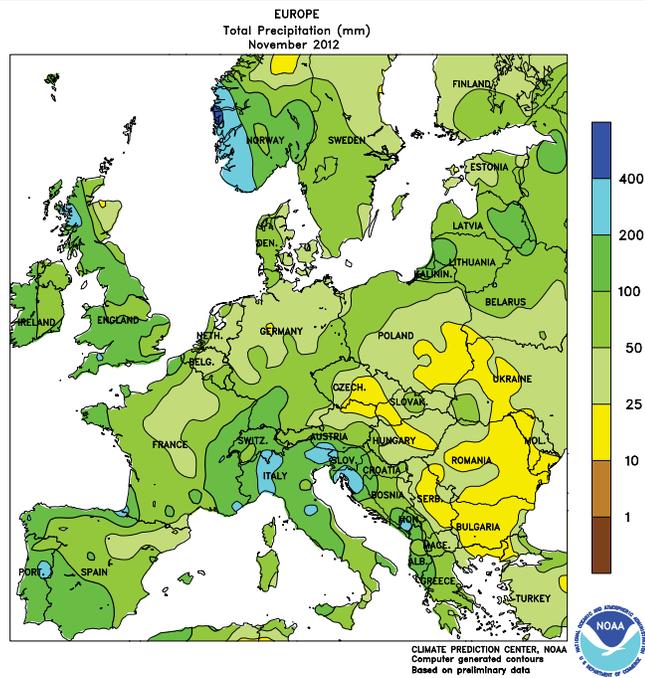


BRAZIL

Widespread, moderate to heavy showers maintained generally favorable levels of moisture for soybeans and other summer crops. Rainfall totaled more than 50 mm over large sections of southern and central Brazil, with most areas recording at least 25 mm. The rain in northern Parana and Sao Paulo ended a brief spell of dryness that reduced moisture for soybeans, corn, and sugarcane. The rain also brought some relief from unseasonable warmth (weekly temperatures averaging 3°C above normal with daytime highs reaching the middle 30s

degrees C) that maintained high crop moisture requirements during the first half of the week. Elsewhere in southern and central Brazil, weekly average temperatures were 1 to 2°C above normal, with highs reaching the lower and middle 30s on a daily basis. Seasonable dryness continued along the northeastern coast, aiding cocoa and sugarcane harvesting. However, drier conditions extended westward in the soybean and cotton areas of western Bahia, where additional rain is needed to ensure proper crop development.

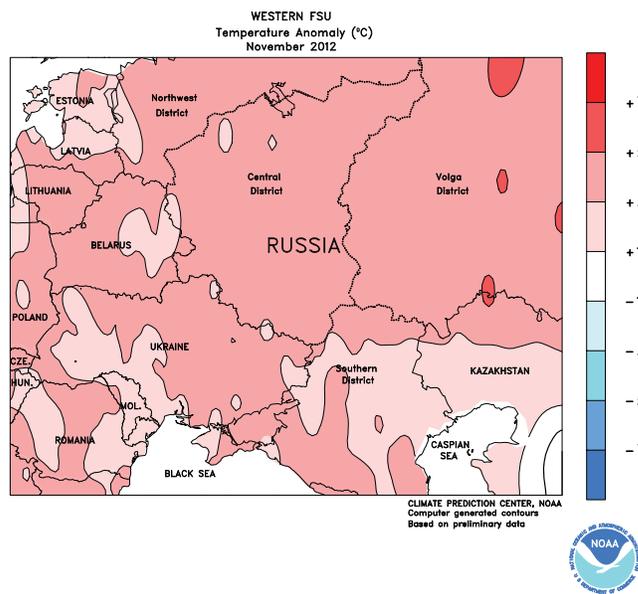
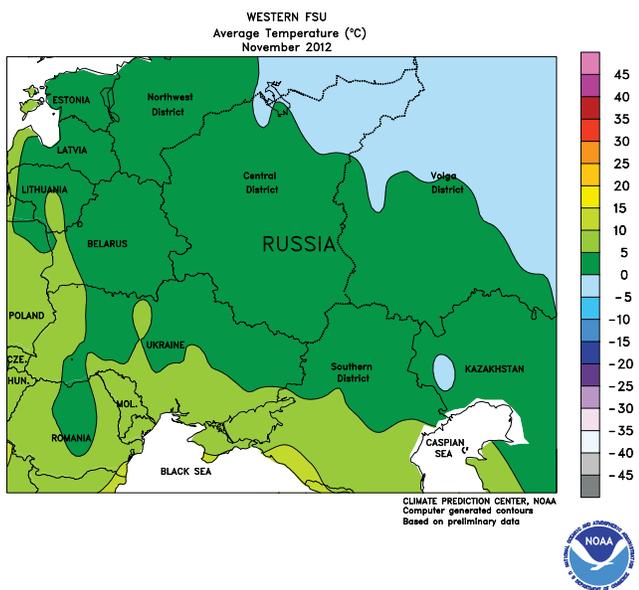
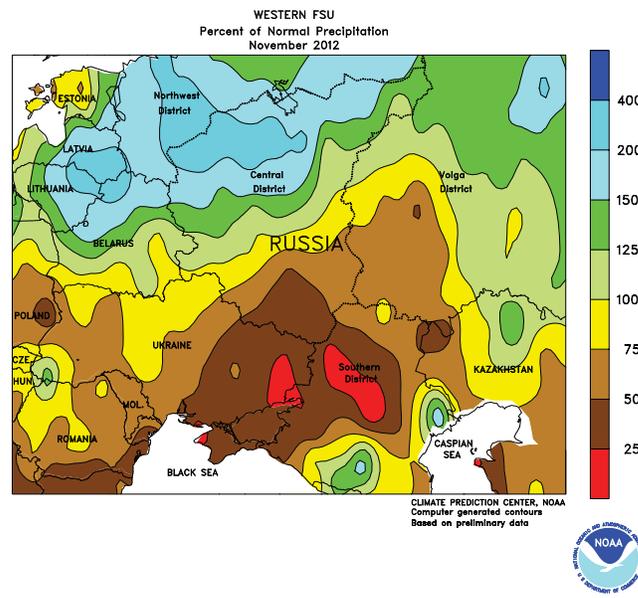
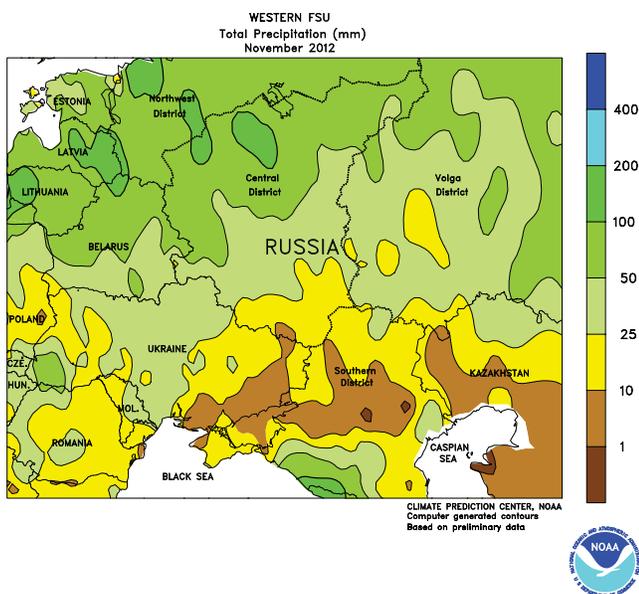
November International Temperature and Precipitation Maps



EUROPE

In November, wet conditions prevailed across much of Europe, slowing late winter crop planting in France and England but maintaining adequate to abundant soil moisture for winter grains and oilseeds. However, unfavorably dry conditions persisted in the Balkans, limiting soil moisture for winter wheat and rapeseed establishment. In Spain and Italy, locally heavy rain

supplied soil moisture for winter wheat and boosted irrigation supplies for warm-season crops. Temperatures averaged 1 to 3°C above normal during November, providing a welcome extension to the growing season in areas where planting was delayed. At month's end, winter crops were dormant in northeastern Europe but still adding vegetative growth elsewhere.

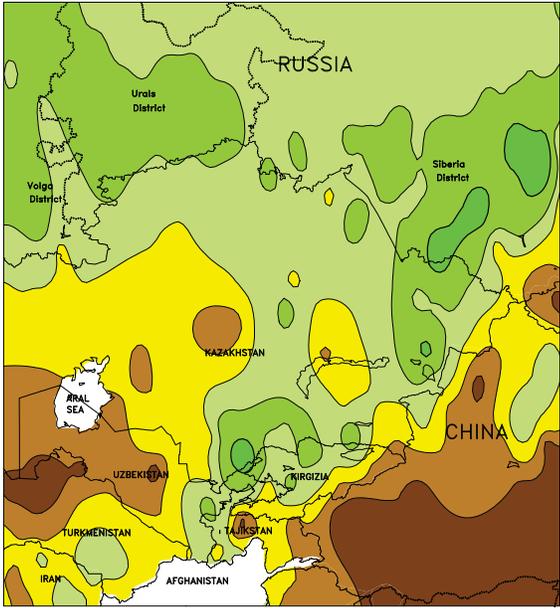


WESTERN FSU

In November, persistent drought in the south contrasted with favorable rain and snow in the north. Soil moisture remained limited for winter wheat establishment in southern-most Ukraine and Russia's Southern District due to an abnormally dry autumn (locally less than 50 percent of normal). However, a much warmer-than-normal November and early December

extended the growing season, which allowed producers to take advantage of late-month rain. Soil moisture was adequate for winter grains and oilseeds from Belarus and northern Ukraine into the Volga District. Most winter crops were devoid of a protective snow cover, which typically blankets the northern half of the region by early December.

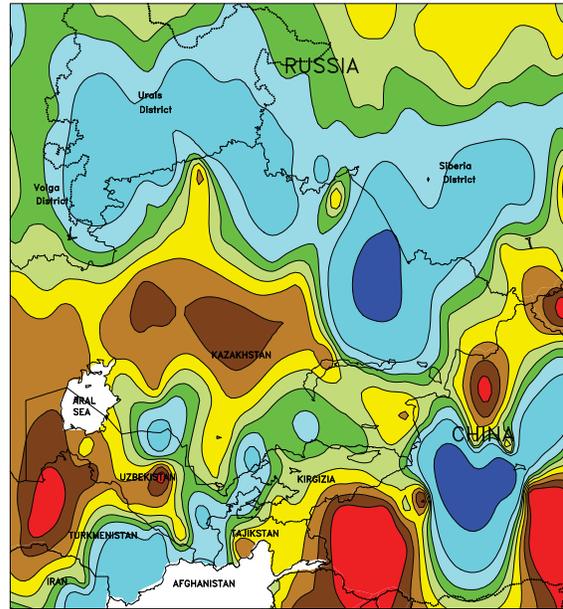
EASTERN FSU
Total Precipitation (mm)
November 2012



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



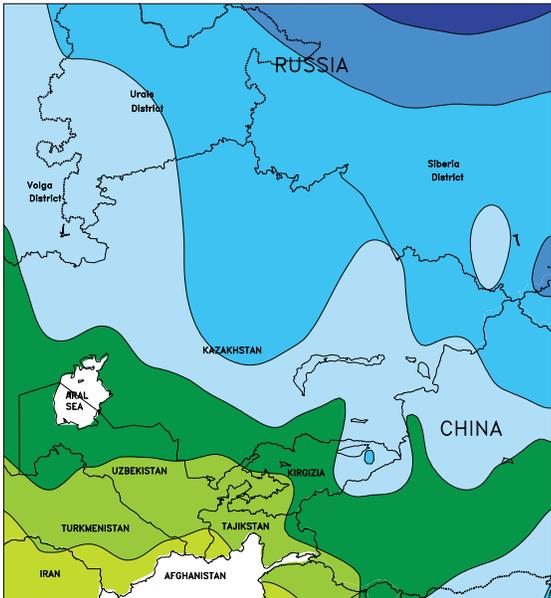
EASTERN FSU
Percent of Normal Precipitation
November 2012



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



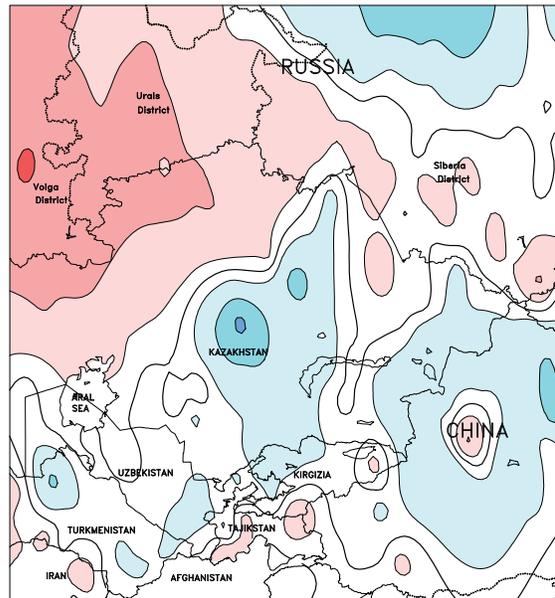
EASTERN FSU
Average Temperature (°C)
November 2012



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



EASTERN FSU
Temperature Anomaly (°C)
November 2012



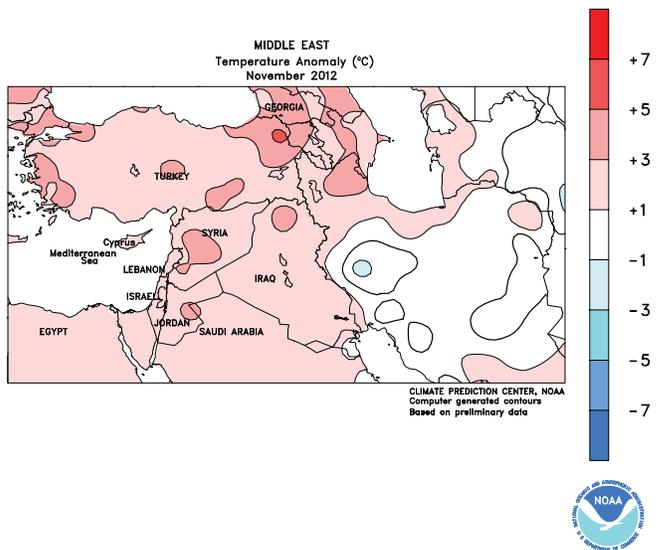
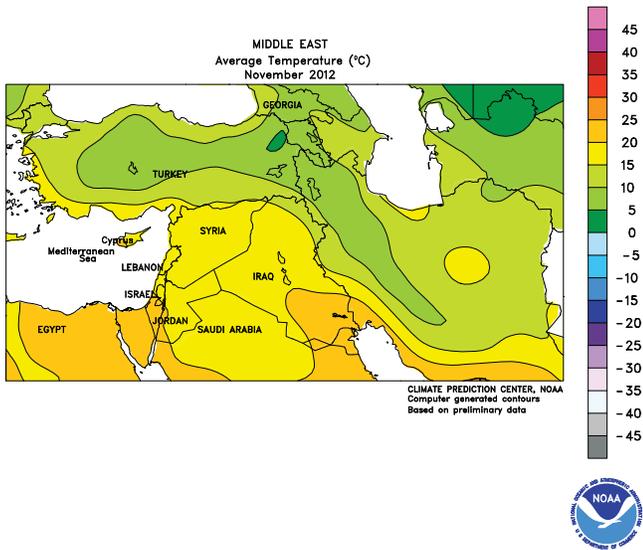
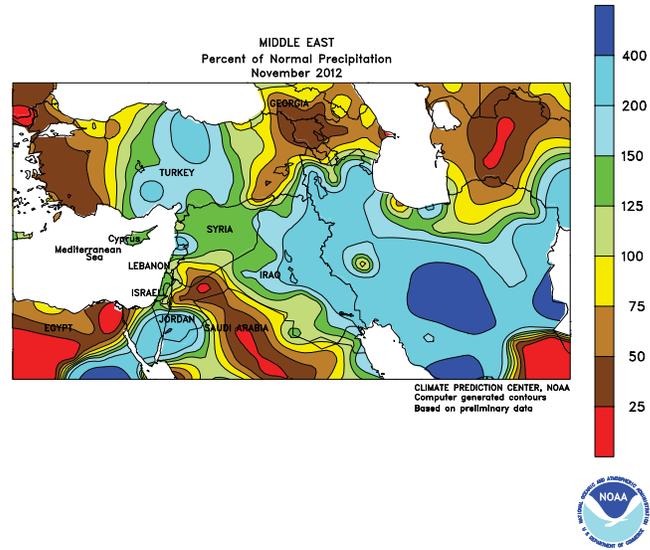
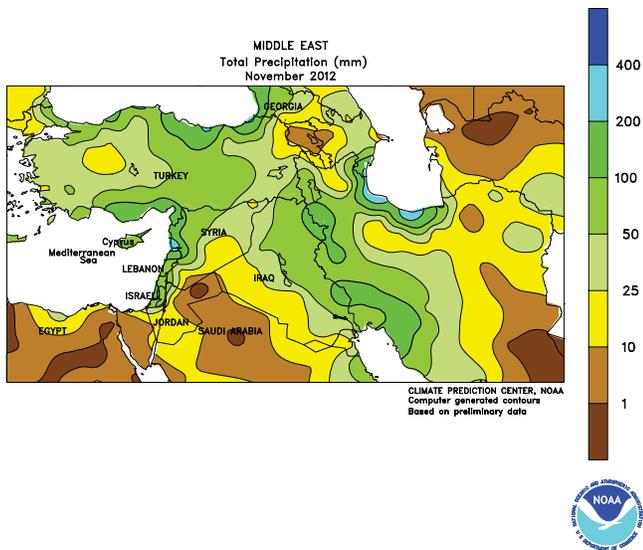
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data



EASTERN FSU

In November, above-normal precipitation recharged soil moisture in northern portions of the region but delayed late cotton harvesting in the south. Temperatures averaged 1 to

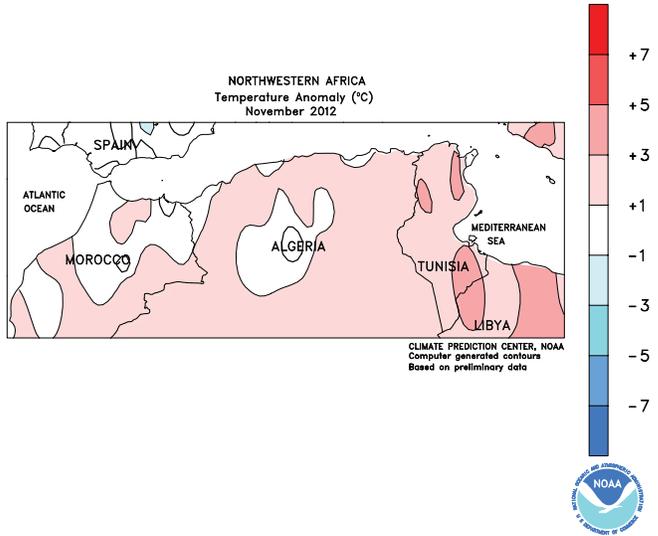
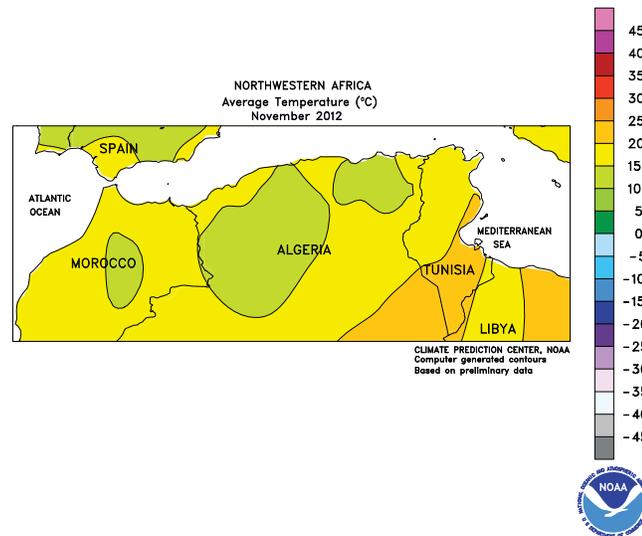
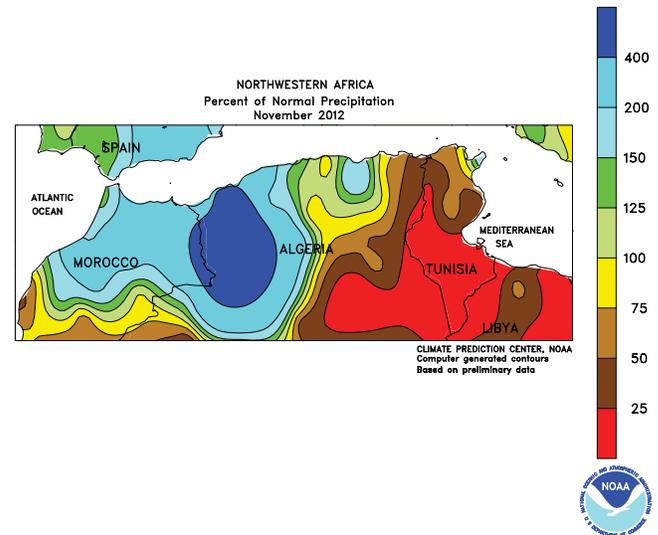
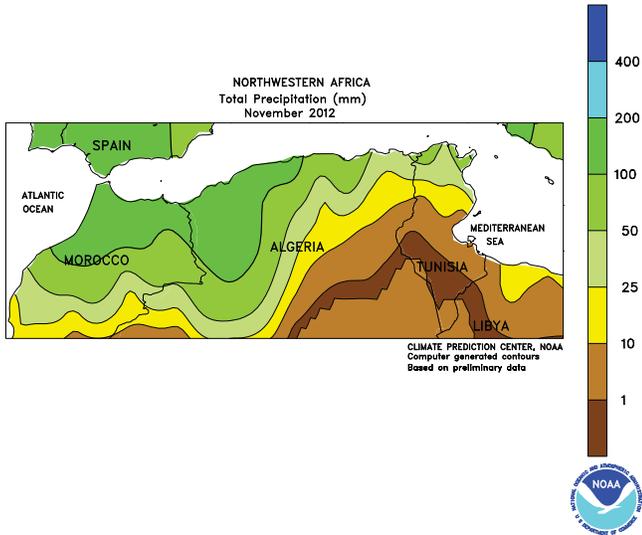
3°C above normal in the northern spring wheat belt, but seasonably colder weather accompanied an increasingly deep snowpack at month's end.



MIDDLE EAST

During November, moderate to heavy rain boosted soil moisture for winter crop establishment from central Turkey into Iran. Rainfall exceeded 200 percent of normal across southern and east-central Turkey and from eastern Iraq into much of western and southern Iran. In

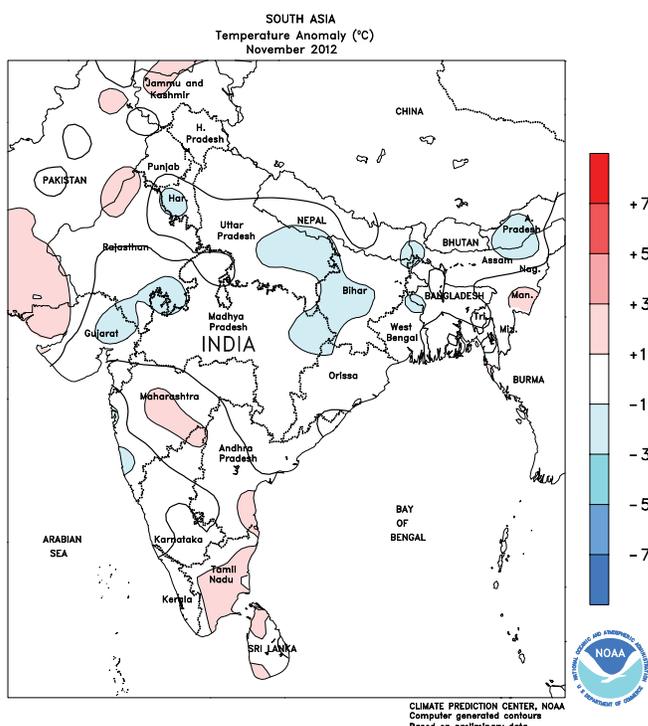
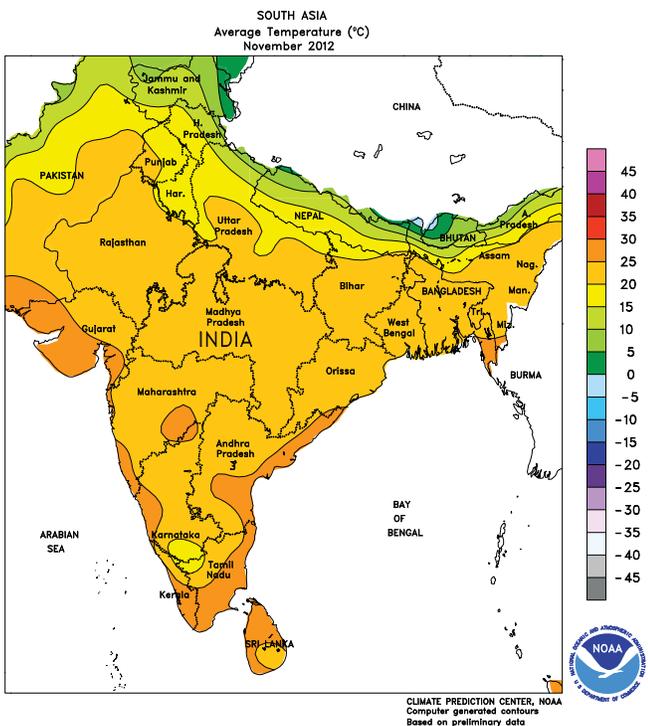
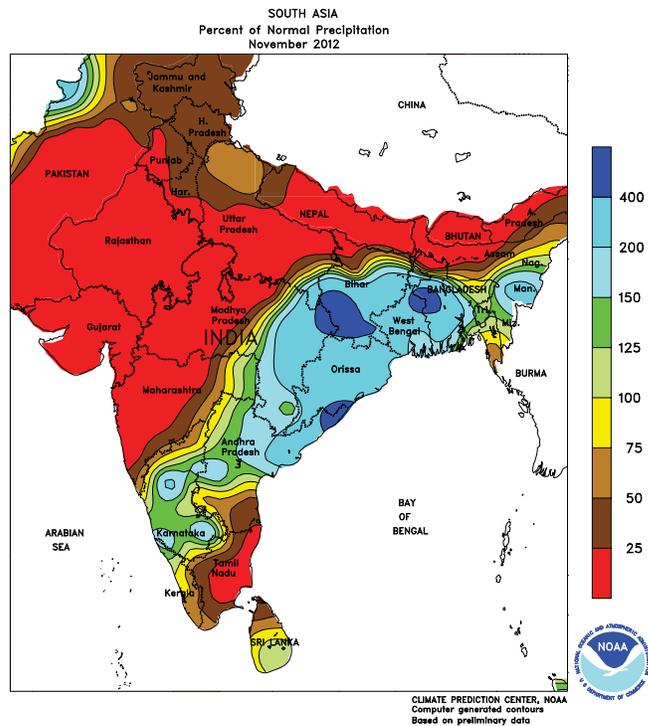
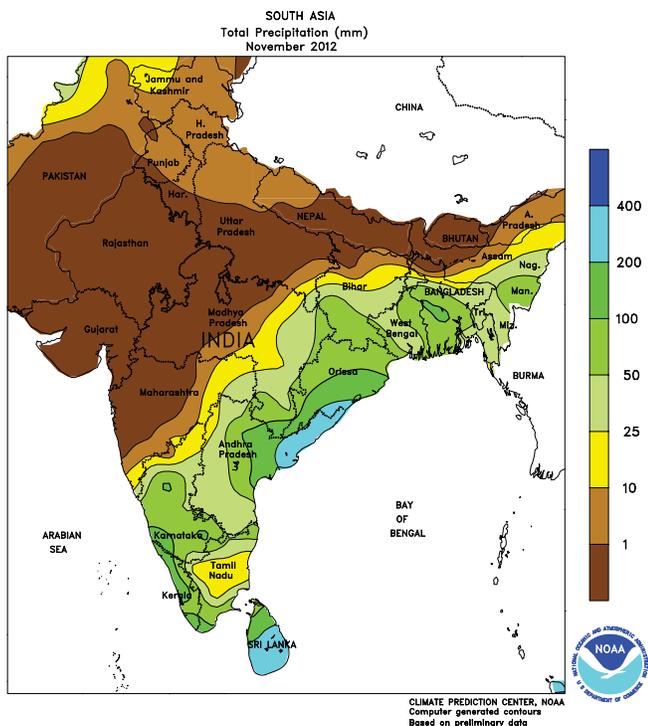
contrast, drier-than-normal conditions in western Turkey reduced moisture for winter crop establishment, although rain returned to these crop areas in early December. Warmer-than-normal weather prevented crops from going dormant.



NORTHWESTERN AFRICA

Above-normal November rainfall from Morocco into northern Algeria boosted topsoil moisture for winter grain planting and establishment. Rainfall totaled 200 to more than 300 percent of normal from northern Morocco into north-central Algeria, while a pocket of dry weather (locally

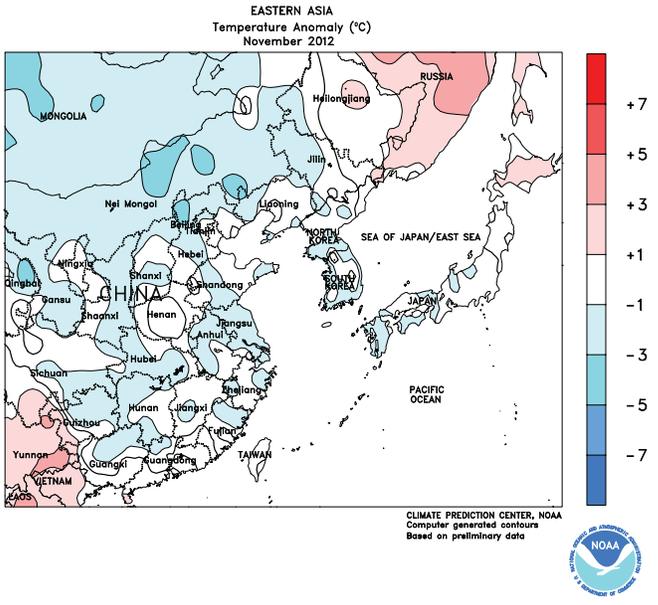
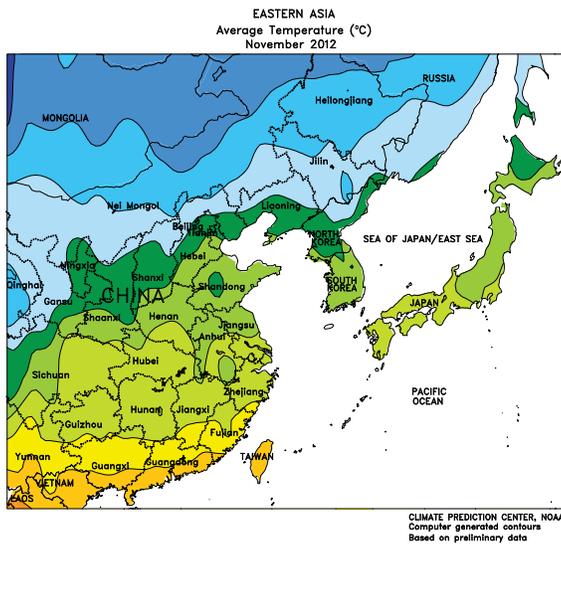
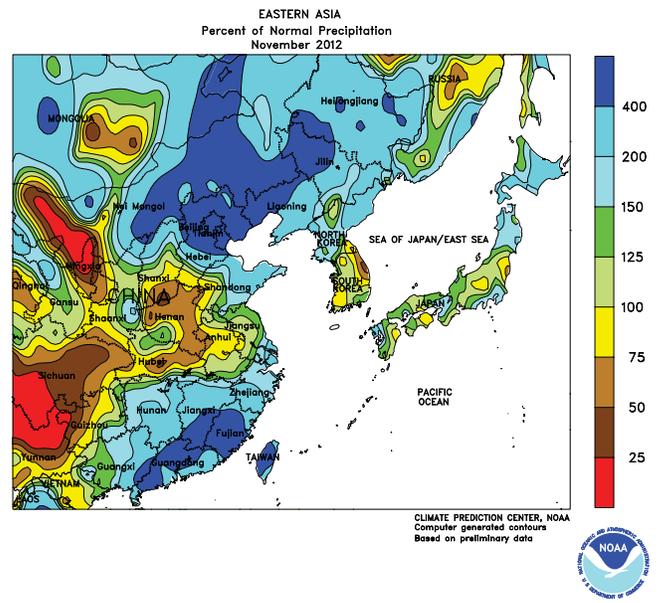
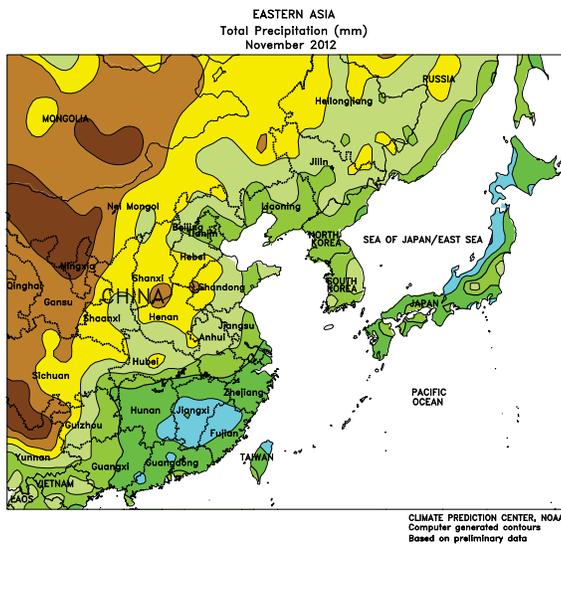
less than 50 percent of normal) was observed along the Algeria-Tunisia border. The heavy rain in central and western portions of the region may have necessitated some replanting, although the moisture was overall beneficial for winter grain prospects.



SOUTH ASIA

Summer crop harvesting in northern India was completed in November, allowing winter crop planting to advance albeit somewhat behind last year's pace. Generally warm, sunny conditions favored planting and emergence of rapeseed and wheat in the northern tier states of India. Cooler weather by

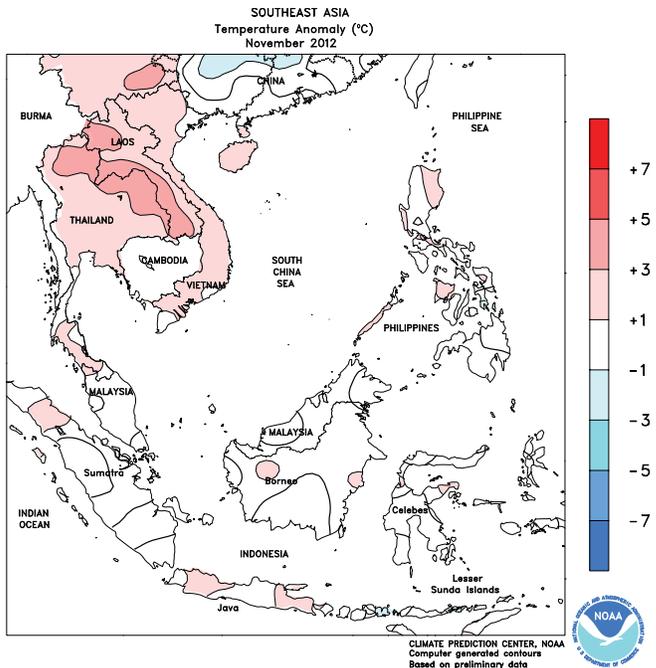
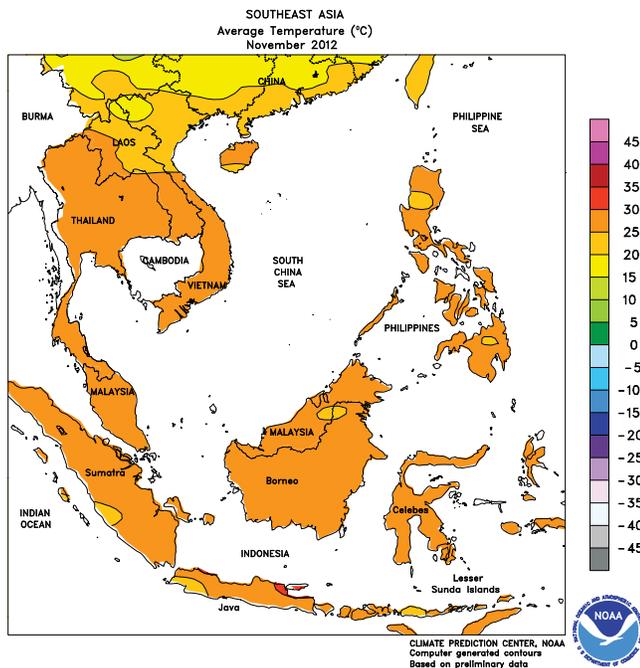
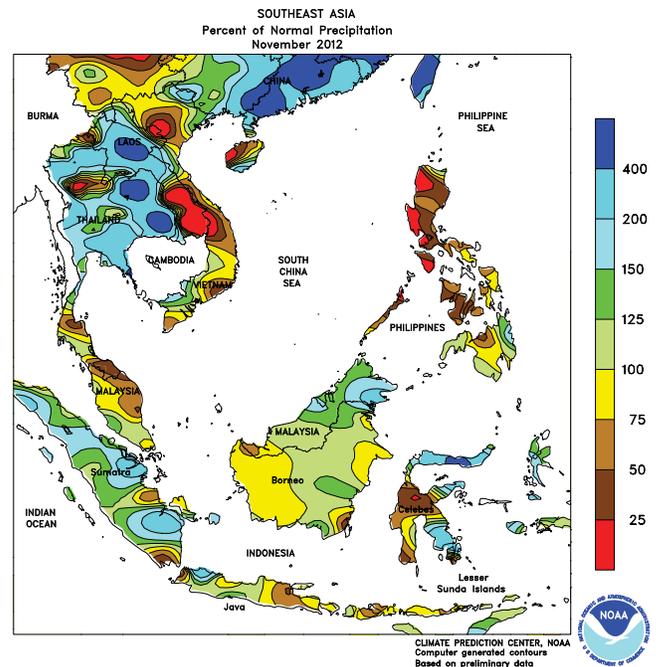
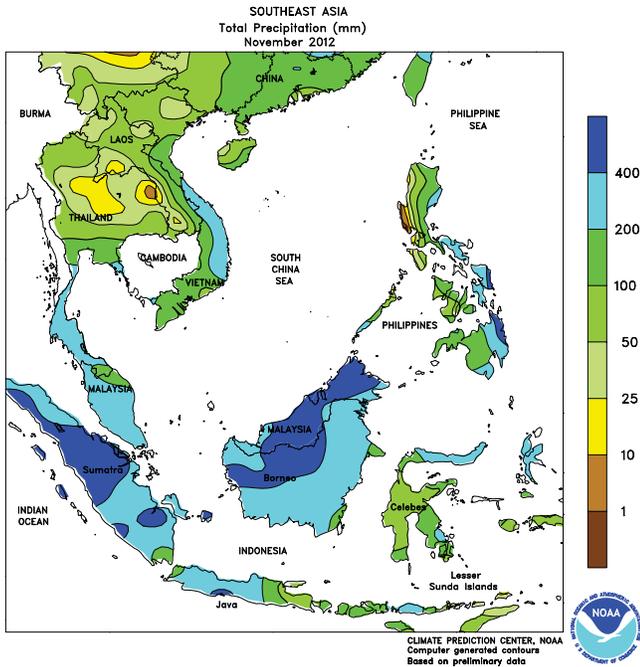
month's end favored vegetative development of the cool-season crops. Meanwhile in southern India, unseasonably heavy early month rainfall from the remnants of Tropical Cyclone Nilam provided a beneficial boost to moisture supplies for rabi crops but locally reduced yields of cotton.



EASTERN ASIA

In November, declining temperatures eased winter wheat into dormancy on the North China Plain, and by month's end, crops in northern portions were dormant. The remainder of the wheat was vegetative through the month as was winter rapeseed across the Yangtze Valley. Rainfall (15-25 mm) early in the month on the North China Plain

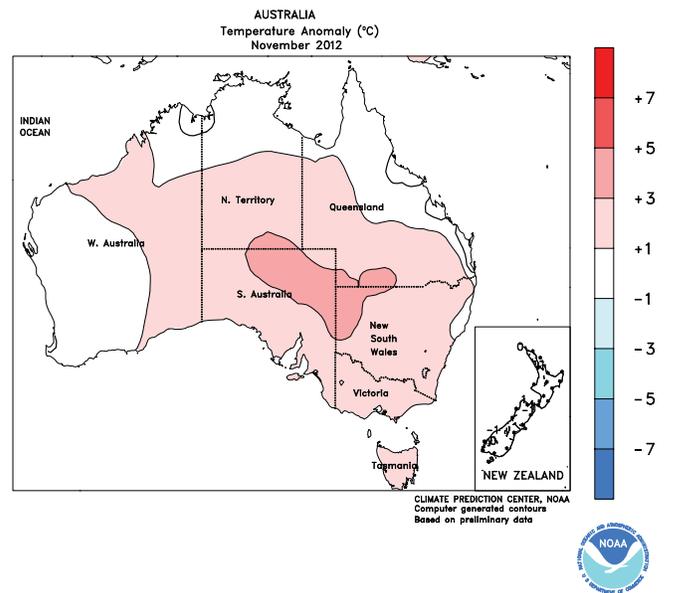
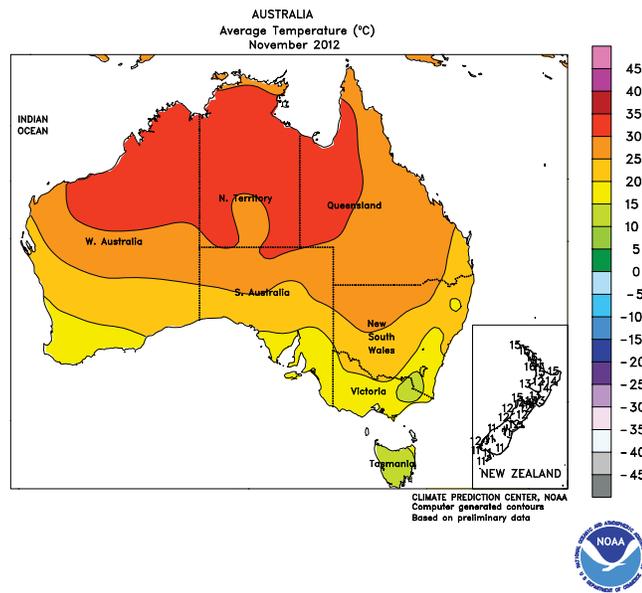
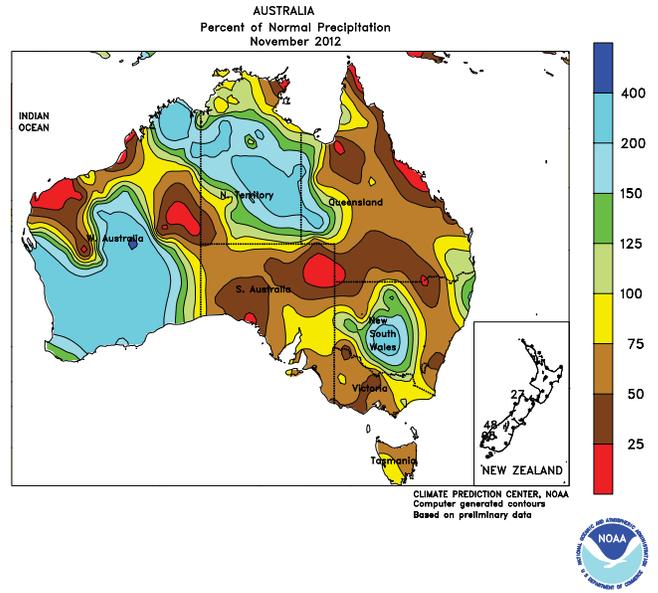
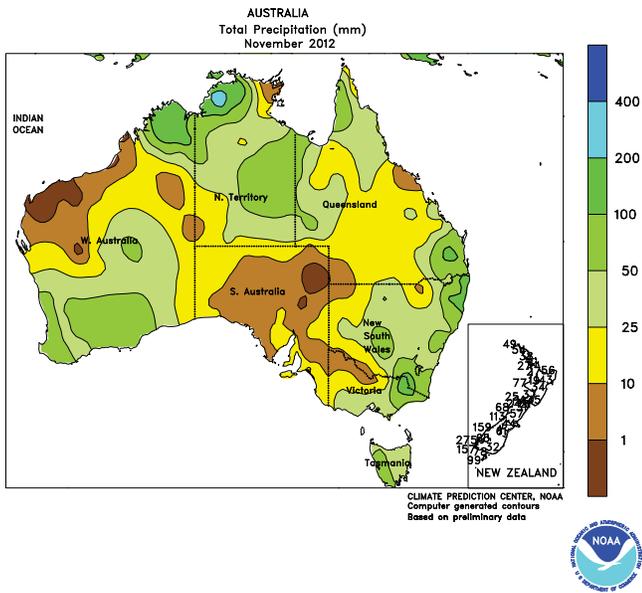
aided wheat establishment and promoted additional vegetative growth prior to the crop entering dormancy. Rainfall (25-50 mm) was below normal for winter rapeseed in the Yangtze Valley, but irrigation supplies were adequate for normal crop establishment prior to the crop entering dormancy.



SOUTHEAST ASIA

After a slow start to the rainy season, monsoon showers increased in western and central Java, Indonesia, by mid-November, and despite below-normal monthly rainfall in these areas, moisture supplies were adequate for rice development. Meanwhile, in eastern Java, the rainy season had yet to become

established by month's end, with rainfall amounts roughly half of normal. Elsewhere in the region, generally dry weather favored summer crop harvesting as well as winter crop planting in the Philippines, while winter-spring rice transplanting continued in Vietnam.

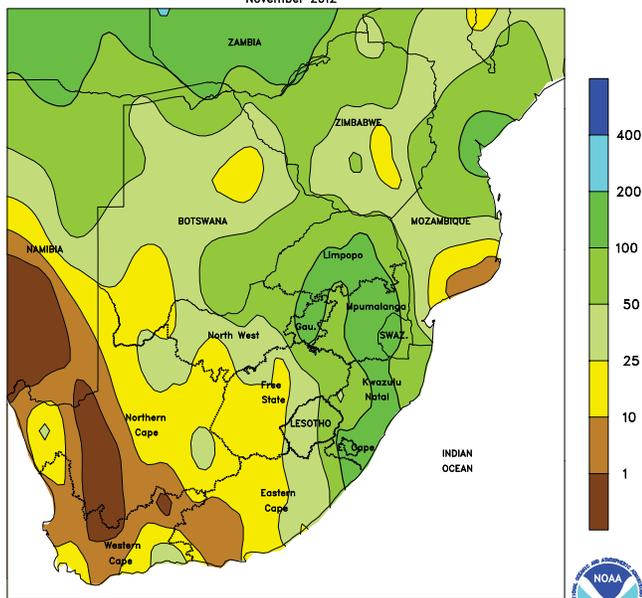


AUSTRALIA

During November, relatively cool, wet weather arrived too late in the growing season to benefit maturing winter grains and oilseeds in Western Australia. Unseasonably warm, dry weather in southern and eastern Australia hastened wheat,

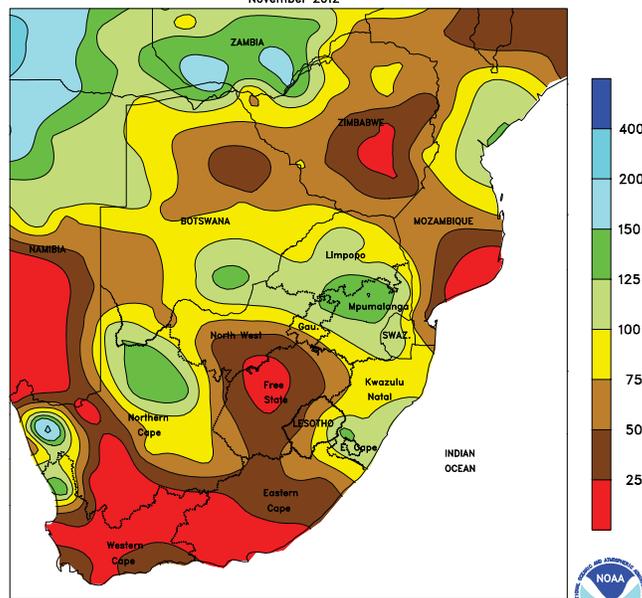
barley, and canola maturation and harvesting. Very hot weather toward month's end increased irrigation requirements for vegetative summer crops and likely stressed some dryland crops.

SOUTH AFRICA
Total Precipitation (mm)
November 2012



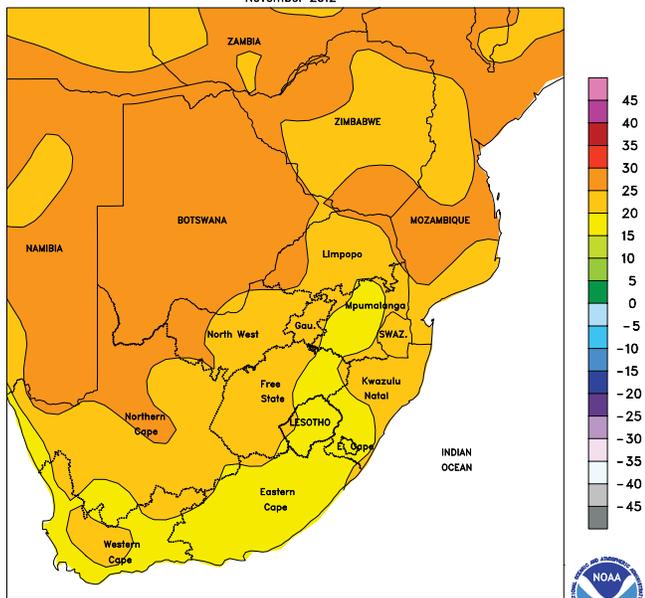
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data

SOUTH AFRICA
Percent of Normal Precipitation
November 2012



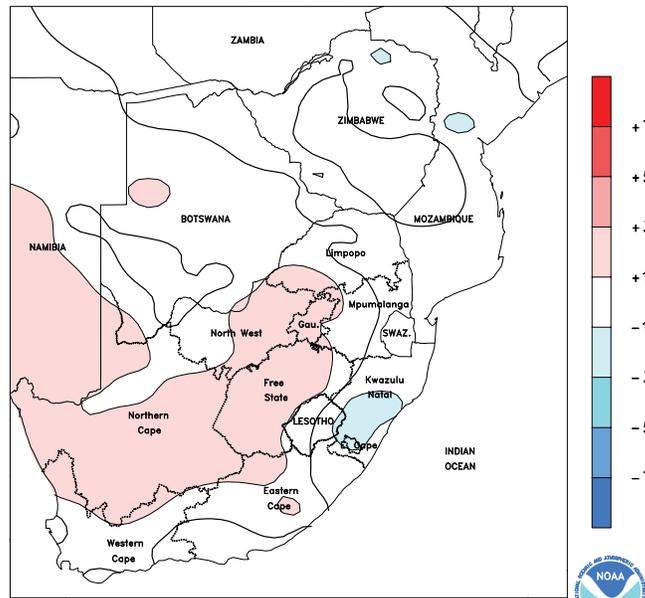
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data

SOUTH AFRICA
Average Temperature (°C)
November 2012



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

SOUTH AFRICA
Temperature Anomaly (°C)
November 2012

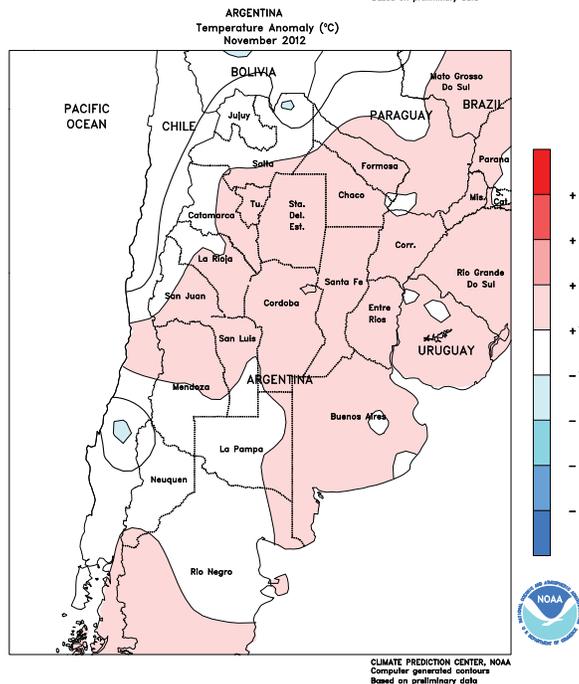
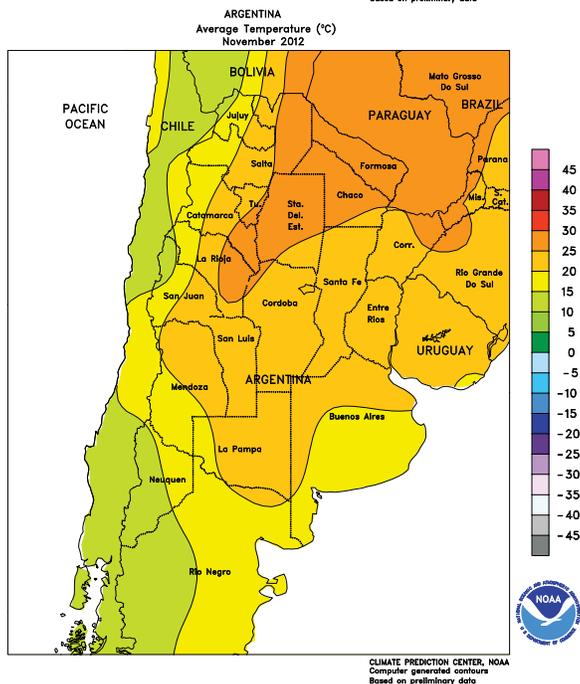
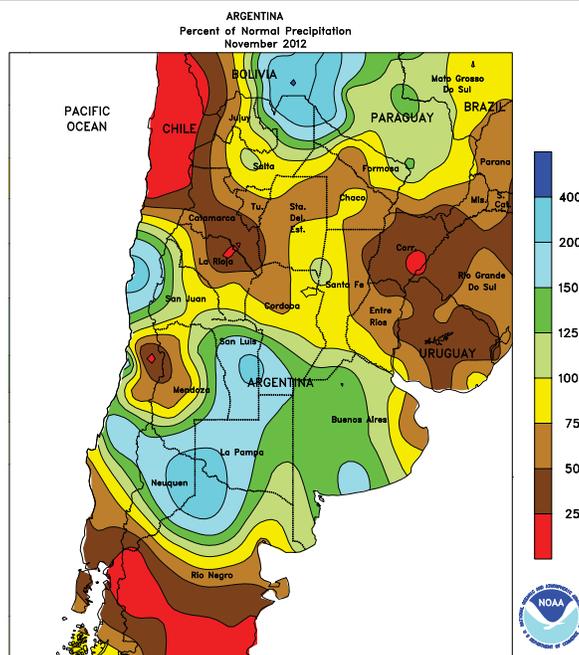
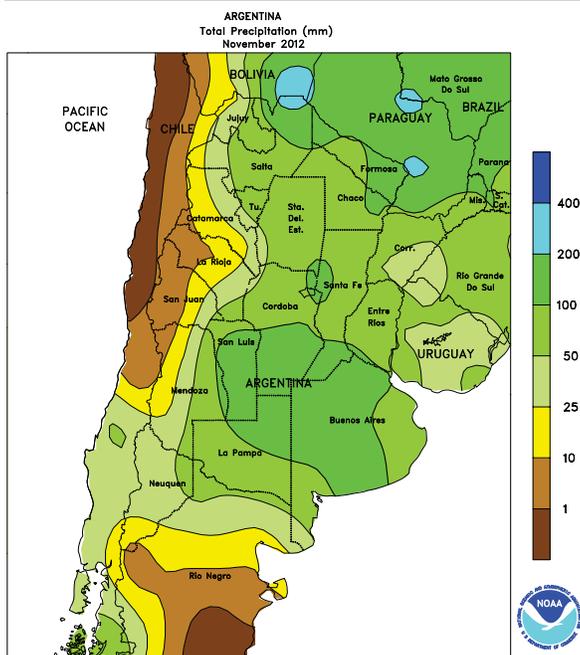


CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data

SOUTH AFRICA

November rainfall was below normal throughout most major agricultural areas. However, rainfall increased during the latter half of the month, providing timely moisture for germination and establishment of summer crops in eastern sections of the corn belt and helping to condition fields for planting in the west. Monthly average temperatures were near to above normal across the corn belt, with daytime highs reaching the middle 30s (degrees C) on several occasions in the

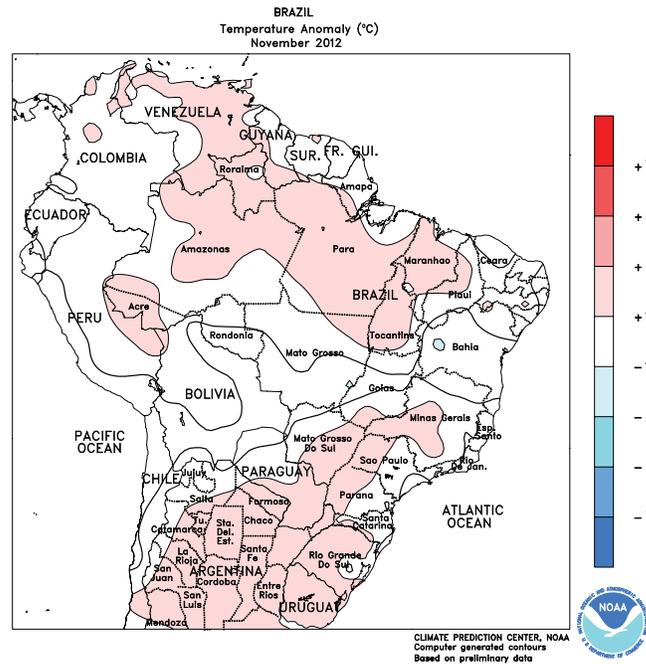
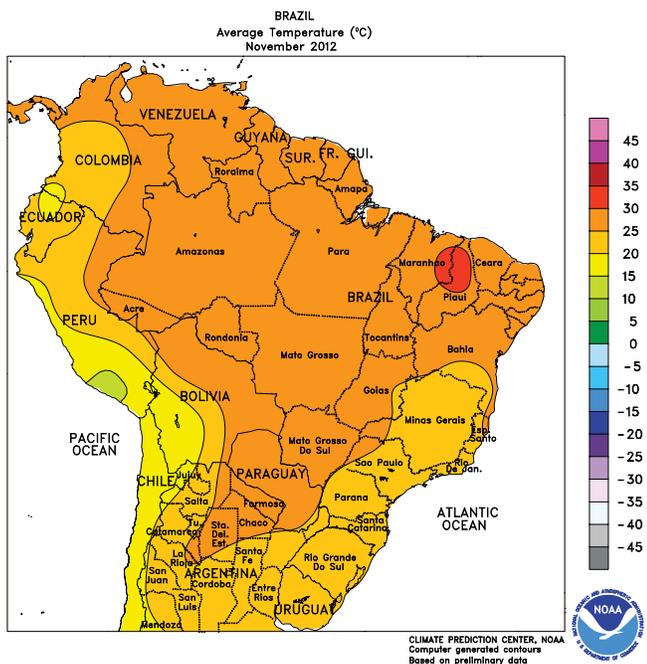
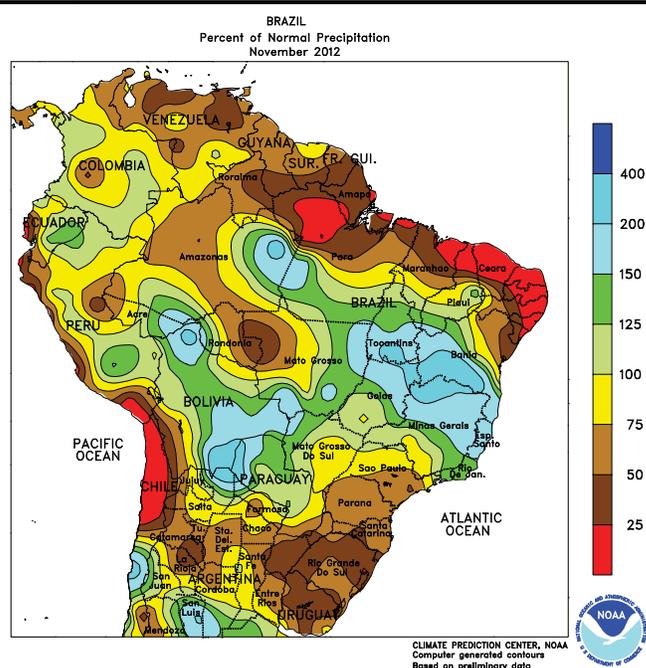
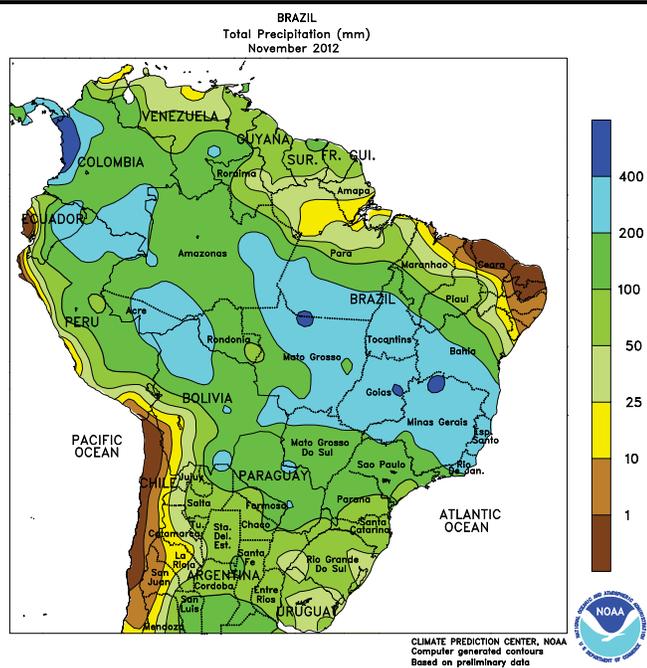
climatologically warmer west. The warmth sped summer crop germination, while aiding maturation and drydown of winter grains. Elsewhere, warm, mostly dry weather also dominated the Cape Provinces, aiding development of irrigated crops, including tree and vine crops in the main production areas of Western Cape. In contrast, near-normal rainfall benefited sugarcane in rain-fed production areas of southern KwaZulu-Natal.



ARGENTINA

During November, frequent, locally heavy rain sustained problems with excessive wetness. In central Argentina, rainfall was near to above normal, with monthly accumulations above 100 mm over large sections of Buenos Aires, northern La Pampa, and southern sections of Cordoba and Santa Fe. Although periods of drier weather allowed some fieldwork to progress, including summer crop planting and winter grain harvesting, the pace of all activities was slowed by lingering wetness. Rainfall was somewhat lighter in northern Argentina, totaling 50 to 100 mm in most

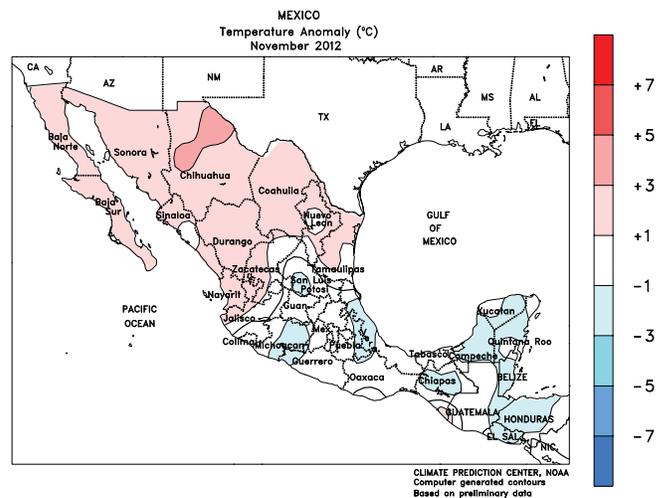
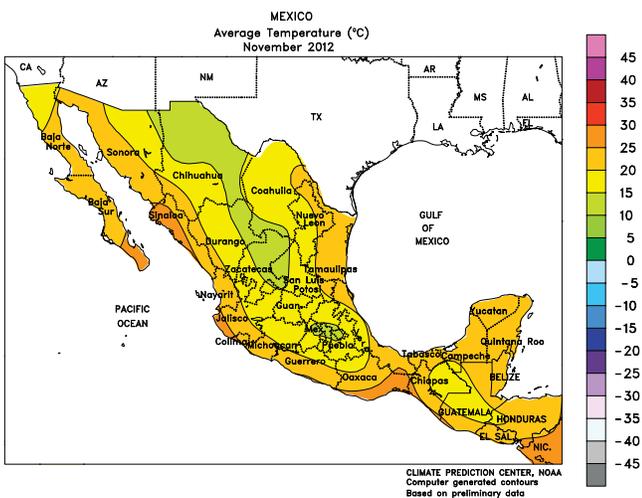
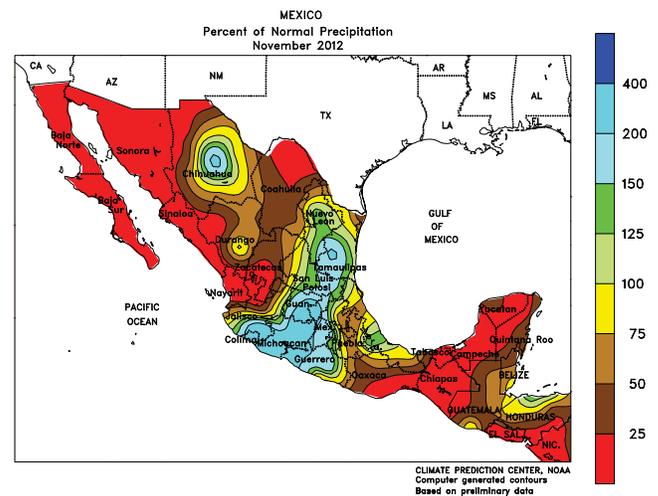
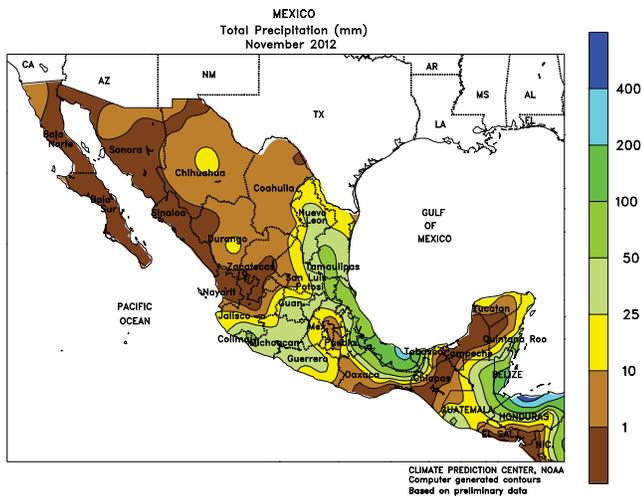
areas. The rain in eastern farming areas (northern Santa Fe and eastern sections of Chaco and Formosa) maintained adequate to abundant levels of moisture for establishment of cotton and other summer row crops but slowed fieldwork. Farther west, the moisture helped to improve long-term moisture reserves in areas that had recorded near- to below-normal rainfall in prior months. Monthly temperatures averaging 1 to 2°C above normal aided evaporative drying and promoting crop development throughout much of Argentina.



BRAZIL

In November, frequent, near- to above-normal rainfall improved prospects for soybeans, cotton, and other summer crops in key production areas of central Brazil. The moisture was particularly welcome following several months of below-normal accumulations. In contrast, drier conditions prevailed in southern Brazil, helping to alleviate problems with excessive wetness on winter grains. Rainfall totaled below 50 percent of normal (less than 50 mm total accumulation) in Rio Grande do Sul, where winter grains were especially hard hit by

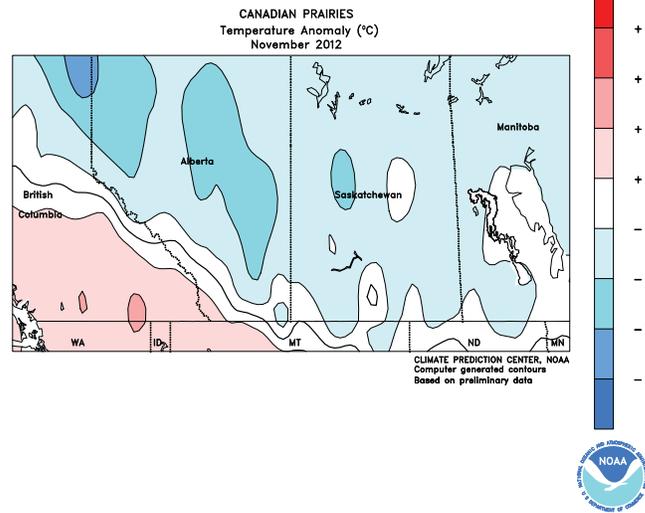
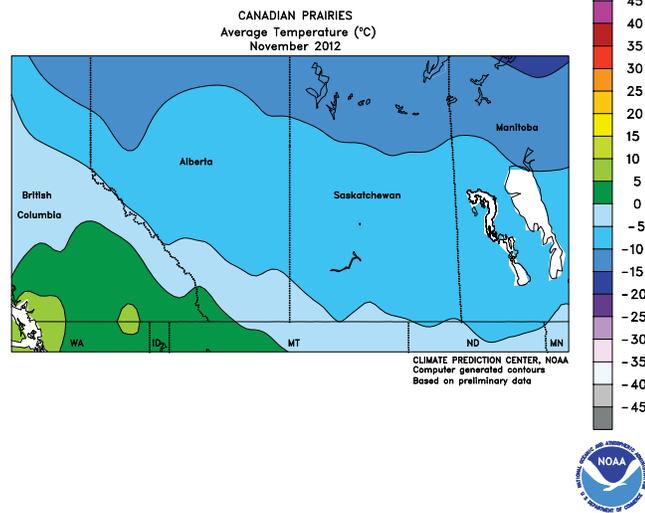
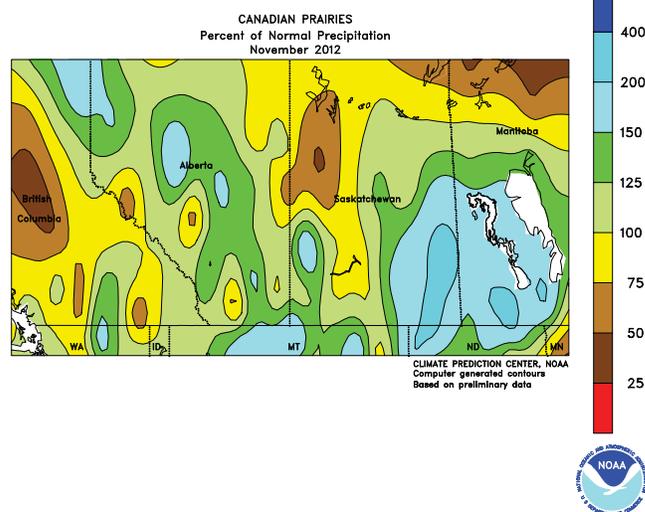
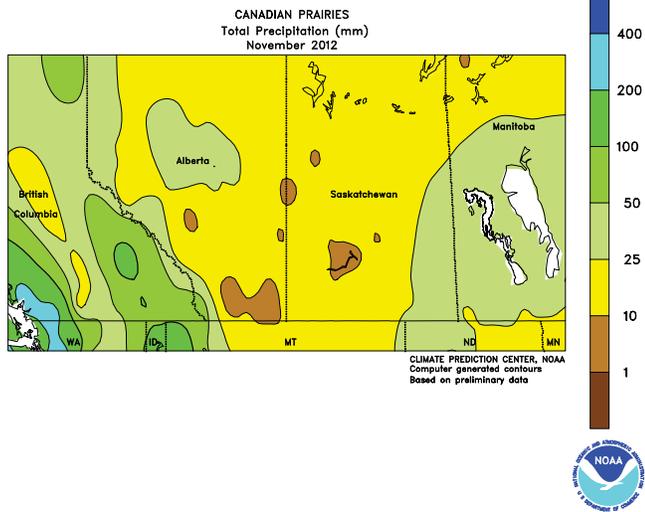
the wetness. However, the drier conditions also reduced moisture for corn and soybeans, compounded by monthly temperatures averaging up to 3°C above normal. Average temperatures elsewhere in the country's central interior ranged from near normal to more than 2°C above, fostering rapid rates of crop development. Elsewhere, mostly dry, seasonably warm weather aided sugarcane harvesting along the northeast coast, but early month showers hampered cocoa harvesting in southern Bahia.



MEXICO

Seasonably drier weather prevailed during much of November, although a few locations experienced occasional showers. Large portions of the east and south, including parts of the southern plateau and eastern rain-fed sugarcane areas, recorded monthly rainfall in excess of 25 mm; seasonably heavier accumulations (50-200 mm) continued over the southern Gulf Coast (Veracruz and Tabasco). The moisture gave a late-season boost to irrigation reserves and provided moisture for winter grains. In contrast, seasonably

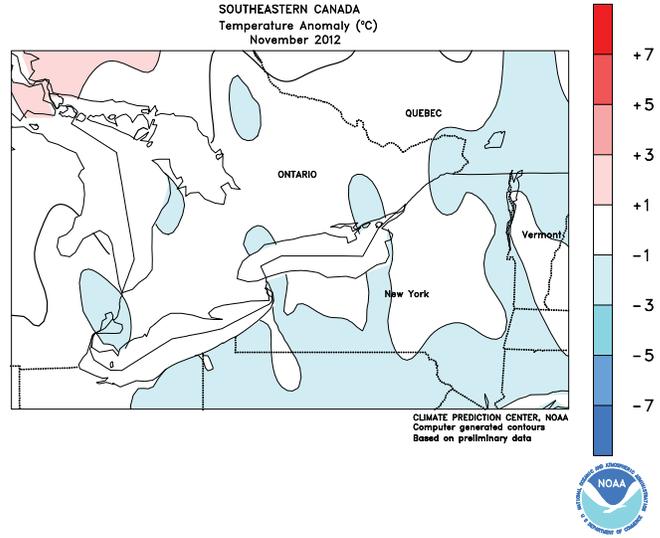
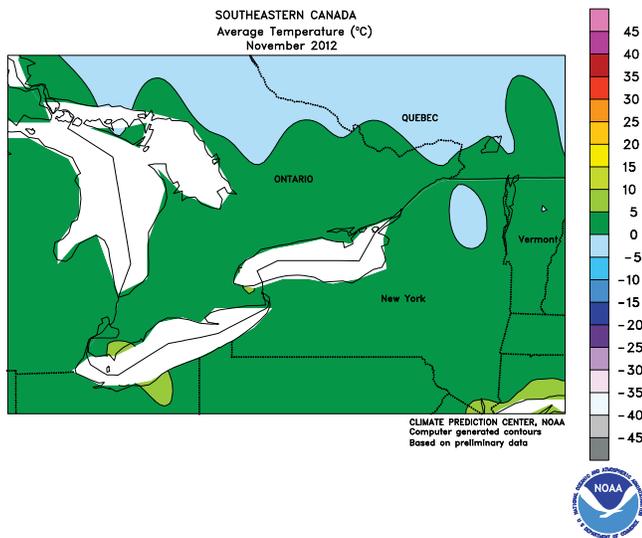
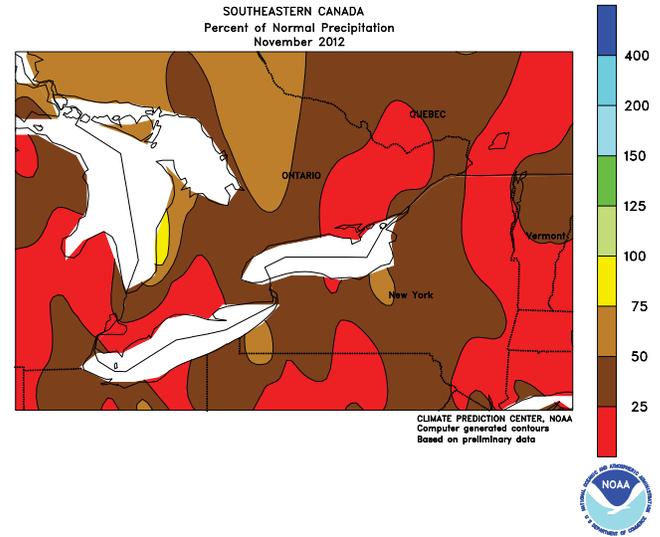
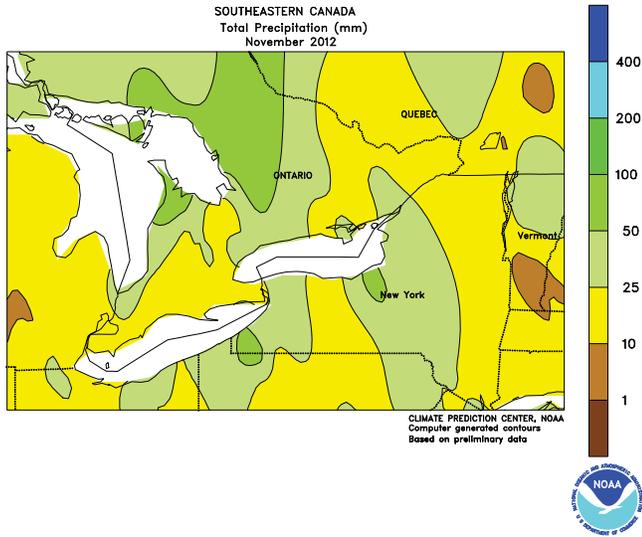
dry weather dominated the north, where monthly temperatures averaging 2 to 3°C above normal aided development of winter crops, including wheat. According to the government of Mexico, total national reservoir capacity was at 50.3 percent as of November 30, compared with 55.5 percent last year and 85.1 percent in 2010. In the northwest (Sinaloa and Sonora), total reservoir capacity was at 43.8, ahead of last year (38.8 percent) but still well behind 2010 (77.8 percent).



CANADIAN PRAIRIES

During November, most Prairie farming areas recorded above-normal precipitation. Much of the precipitation came during the first half of the month in the form of snow, offering some protection to overwintering crops as temperatures dropped below -20°C in some locations. However, the snow cover was likely patchy and light in some western areas, notably northern production areas of Alberta and Saskatchewan. Warmer conditions at mid-month melted much of the snow; a second

system brought generally lighter snow to the region during the latter half of the month, offering some protection from another cold outbreak. The exception was Alberta's Peace River Valley, which recorded heavier snow at month's end. For the month, the highest amounts of precipitation (25 mm liquid equivalent) were recorded in Manitoba, eastern Saskatchewan, and Alberta's northern production areas, in some cases reflecting twice the normal monthly precipitation.



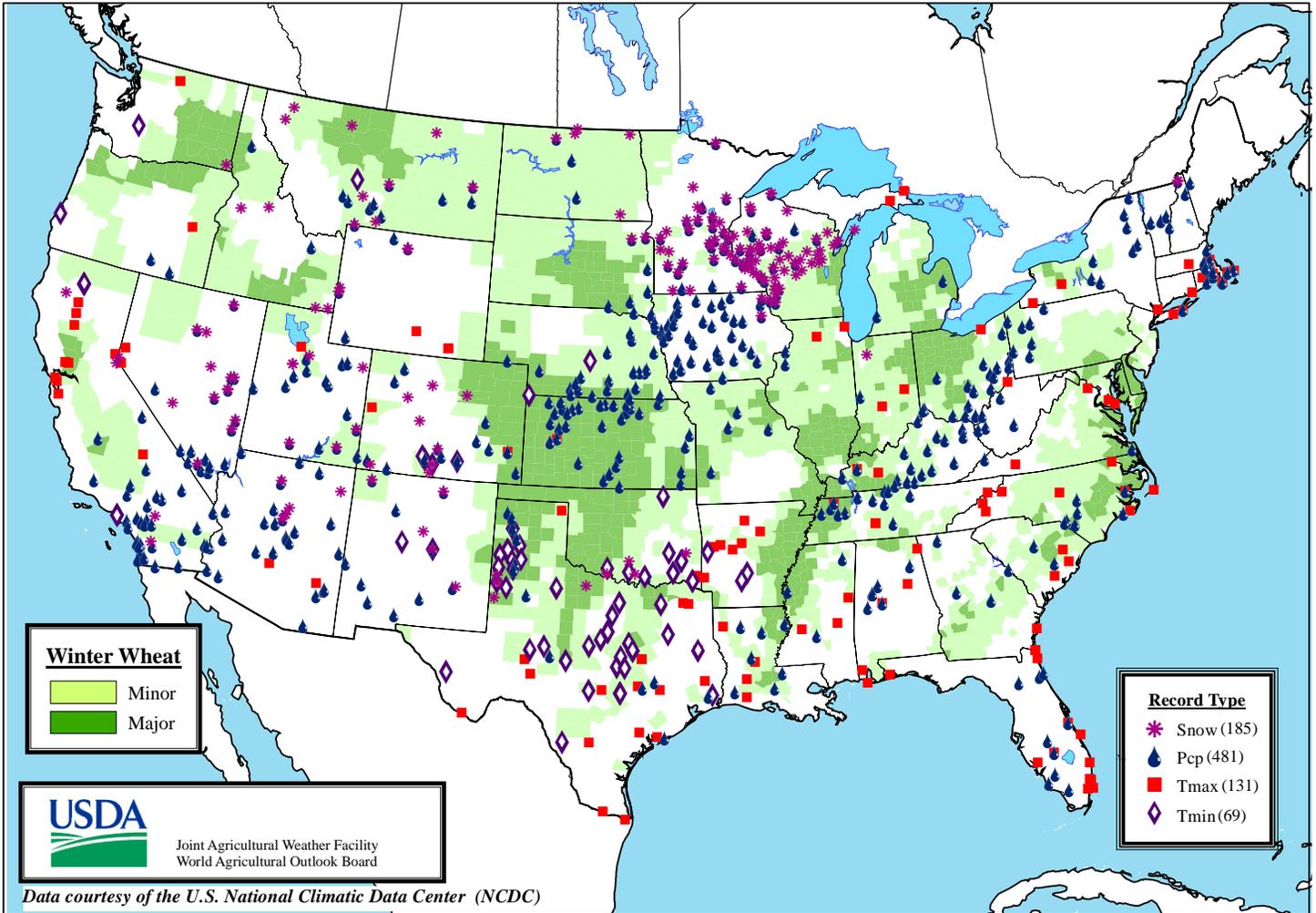
SOUTHEASTERN CANADA

Ontario and Quebec experienced much-drier-than-normal weather during November. Monthly precipitation, most of which fell as rain, totaled less than 25 mm in most areas for the entire month, or less than half of the normal amount. Monthly average temperatures were 1 to 2°C

below normal, due partly to a late-month outbreak of unseasonable cold (nighttime lows of -20 to -10°C). However, light snow accompanied the cold weather, offering overwintering wheat and pastures some protection from potential damage.

Daily Weather Records (ASOS & COOP)

December 9-15, 2012



The *Weekly Weather and Crop Bulletin* (ISSN 0043-1974) is jointly prepared by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) and the U.S. Department of Agriculture (USDA). Publication began in 1872 as the *Weekly Weather Chronicle*. It is issued under general authority of the Act of January 12, 1895 (44-USC 213), 53rd Congress, 3rd Session. The contents may be redistributed freely with proper credit.

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