

Production Estimates and Crop Assessment Division
Foreign Agricultural Service, USDA

Current U.S. Crop Conditions April 2001

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FSA-FAS Center for Remote Sensing Analysis



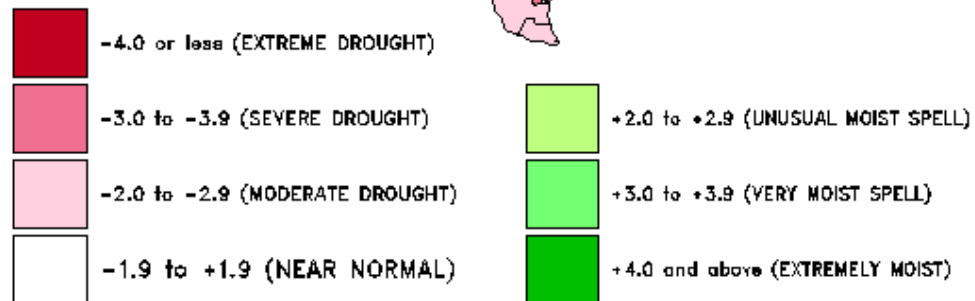
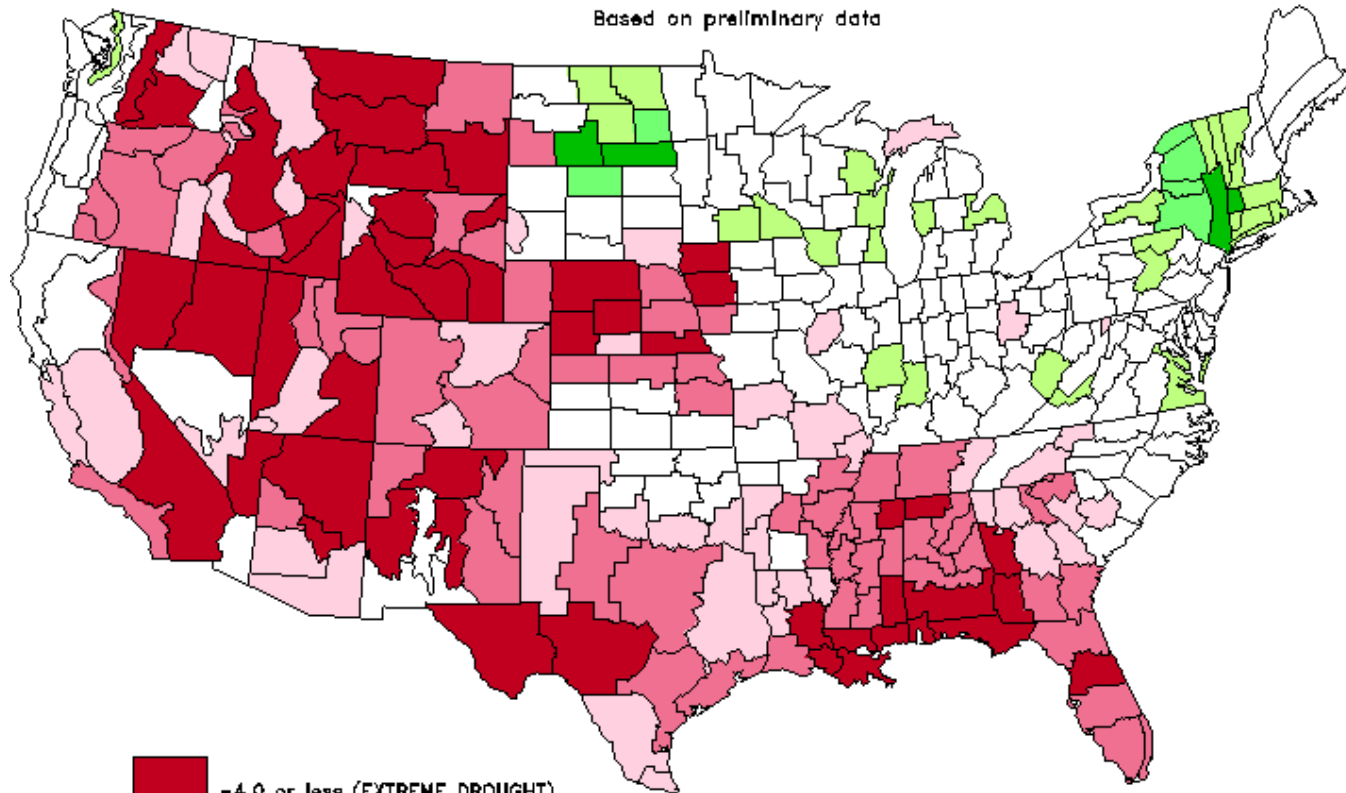
Current U.S. Crop Situation – Palmer Drought Index

- Palmer Drought indices from September 2, 2000, November 11, 2000, and April 14, 2001 are included here to show how drought and flood situations have developed since last fall across the United States.
- Drought has continued across Florida and the Pacific Northwest, intensifying in both areas due to below-normal winter precipitation.
- Drought in the southeastern states, north of Florida, saw relief due to heavy precipitation during February and March 2001.
- The Southern Plains, especially Texas, received heavy and frequent precipitation from the last third of October to April. Growth of winter grains, grasses, pastures, and natural vegetation is abundant across all but far west Texas. Winter grains in much of Kansas, Oklahoma, and the Texas High Plains are in poor condition due to poor establishment during early Fall 2000.
- Drought continues from northernmost California and across the Pacific Northwest. While currently soil moisture is adequate across California, irrigation reserves are below normal.

DROUGHT SEVERITY INDEX BY DIVISION (LONG TERM PALMER)

SEP 2, 2000

Based on preliminary data

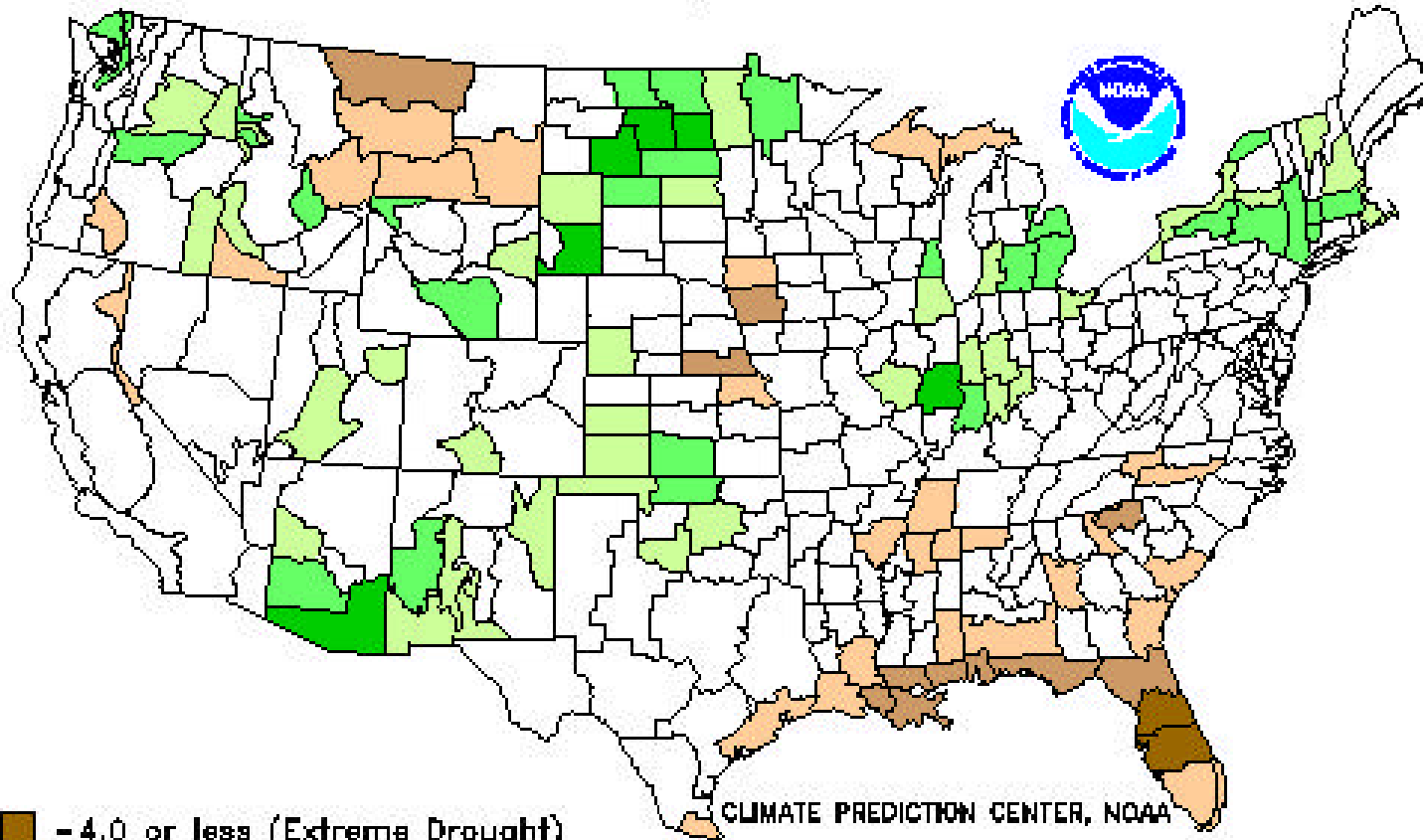


CLIMATE PREDICTION CENTER, NOAA

Drought Severity Index by Division

Weekly Value for Period Ending 11 NOV 2000

Long Term Palmer



- -4.0 or less (Extreme Drought)
- -3.0 to -3.9 (Severe Drought)
- -2.0 to -2.9 (Moderate Drought)
- -1.9 to +1.9 (Near Normal)

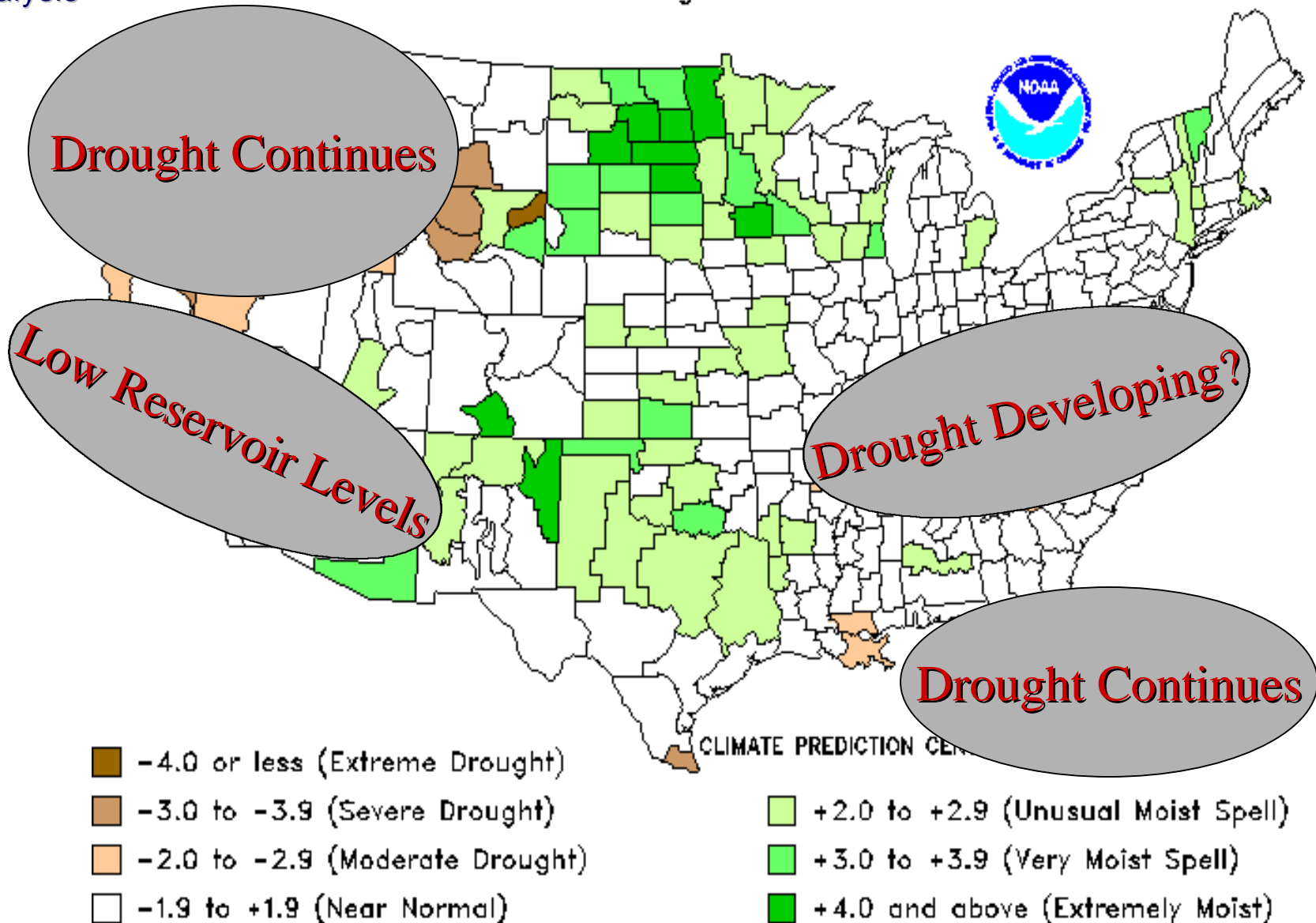
- +2.0 to +2.9 (Unusual Moist Spell)
- +3.0 to +3.9 (Very Moist Spell)
- +4.0 and above (Extremely Moist)

Drought Severity Index by Division

Weekly Value for Period Ending 14 APR 2001

Long Term Palmer

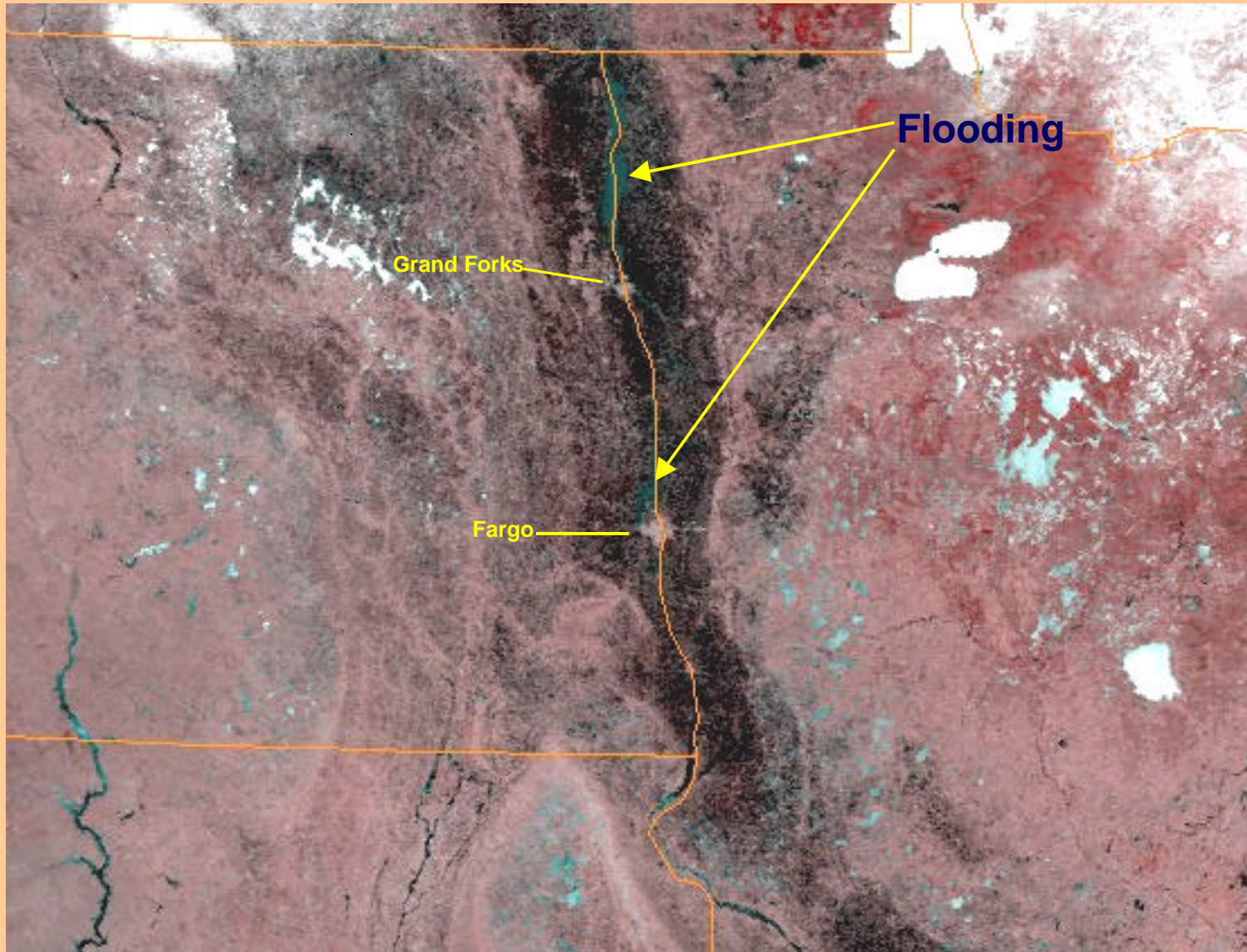
Annotations by FSA-FAS
Center for Remote Sensing
Analysis



Current U.S. Crop Situation – North Dakota

- Red River of the North – The April 17, 2001 NOAA 16 satellite image shows visible flooding from Grand Forks to Winnipeg. “Dark blue” indicates flood waters. The “black” area of the Red River Valley and surrounding area shows “saturated soils.” Planting conditions for spring grains (barley, spring wheat, durum, and oats) will be difficult and delayed, much like 1999. A NOAA 14 satellite image taken from April 22, 1997, two days after the Red River crested at Fargo, is included for comparison. The magnitude of this year’s Red River flood is much less than the 1997 “Flood of the Century.”
- As well as being very wet, soil temperatures are very cold in North Dakota. Further causing planting delays. Graphs of Cass County and Grand Forks County cumulative temperatures are included. Note that 2001 is the coldest year. Last year was a warm and dry spring, facilitating early planting.

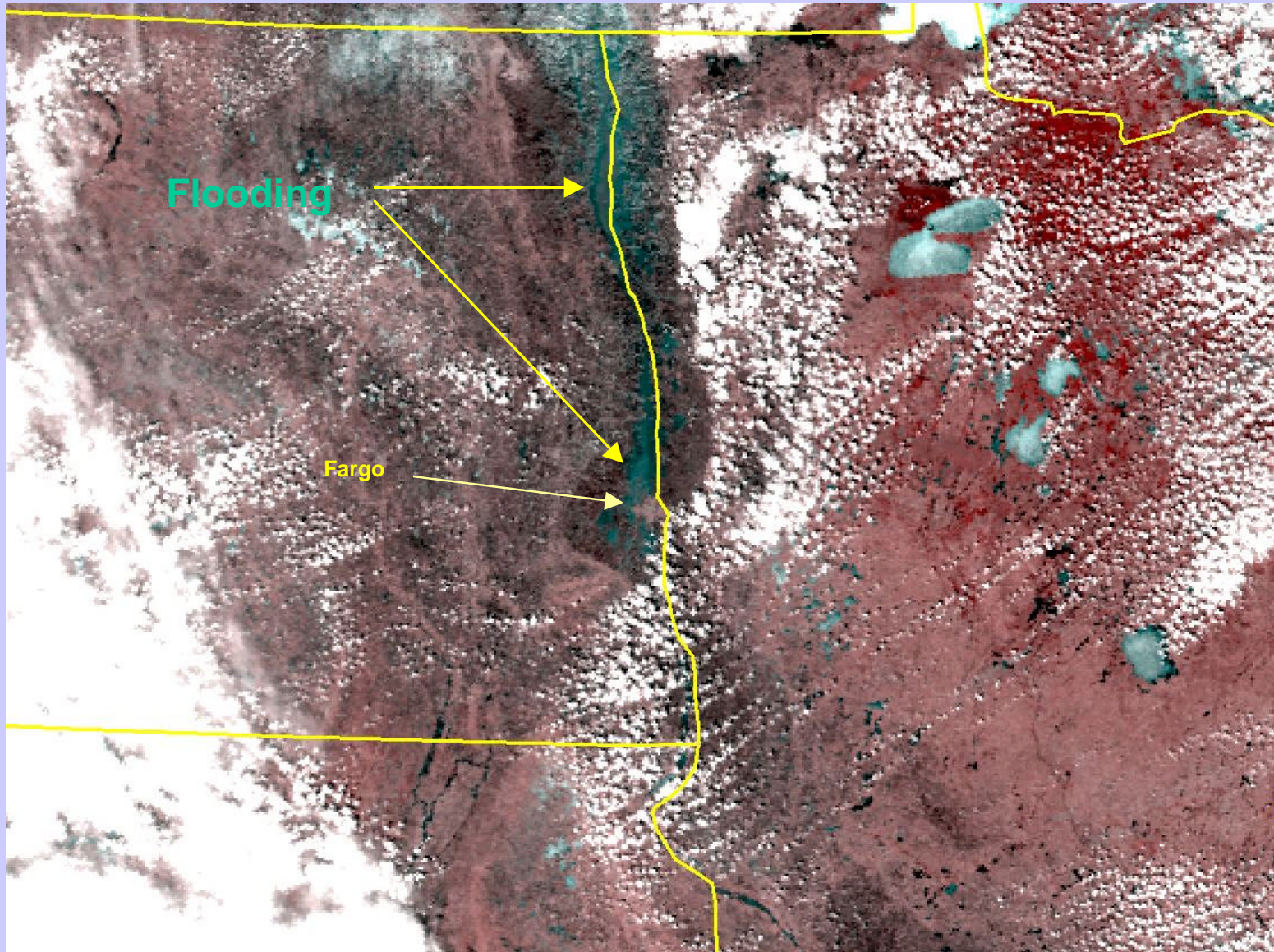
Northern Plains



NOAA 16, Ch. 2, 1, 1 = RGB

April 17, 2001

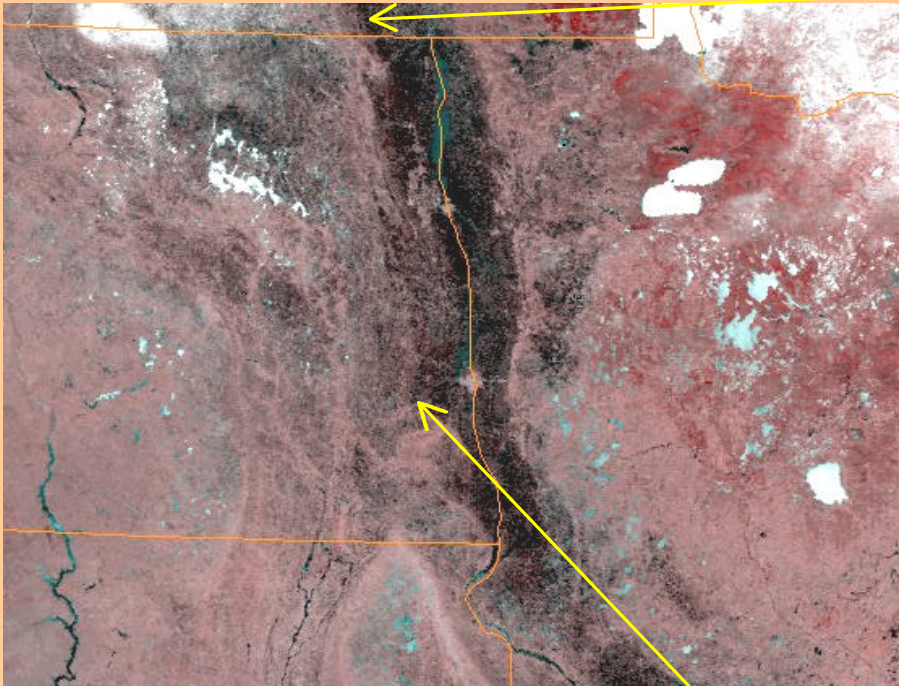
Northern Plains



NOAA 14, Ch. 2, 1, 1 = RGB

April 22, 1997

Northern Plains



April 17, 2001

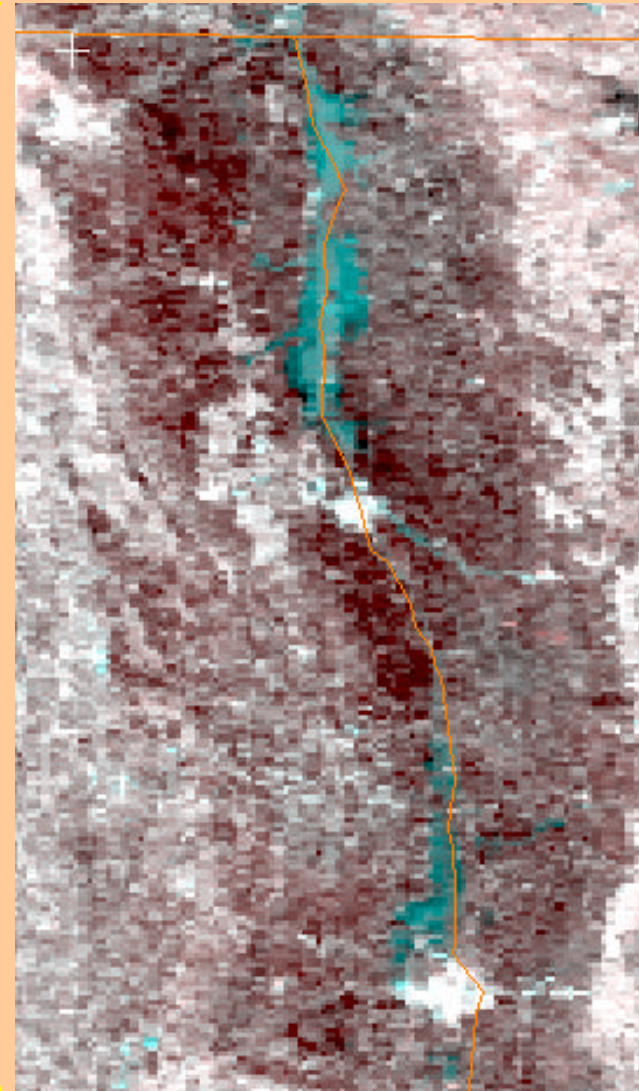
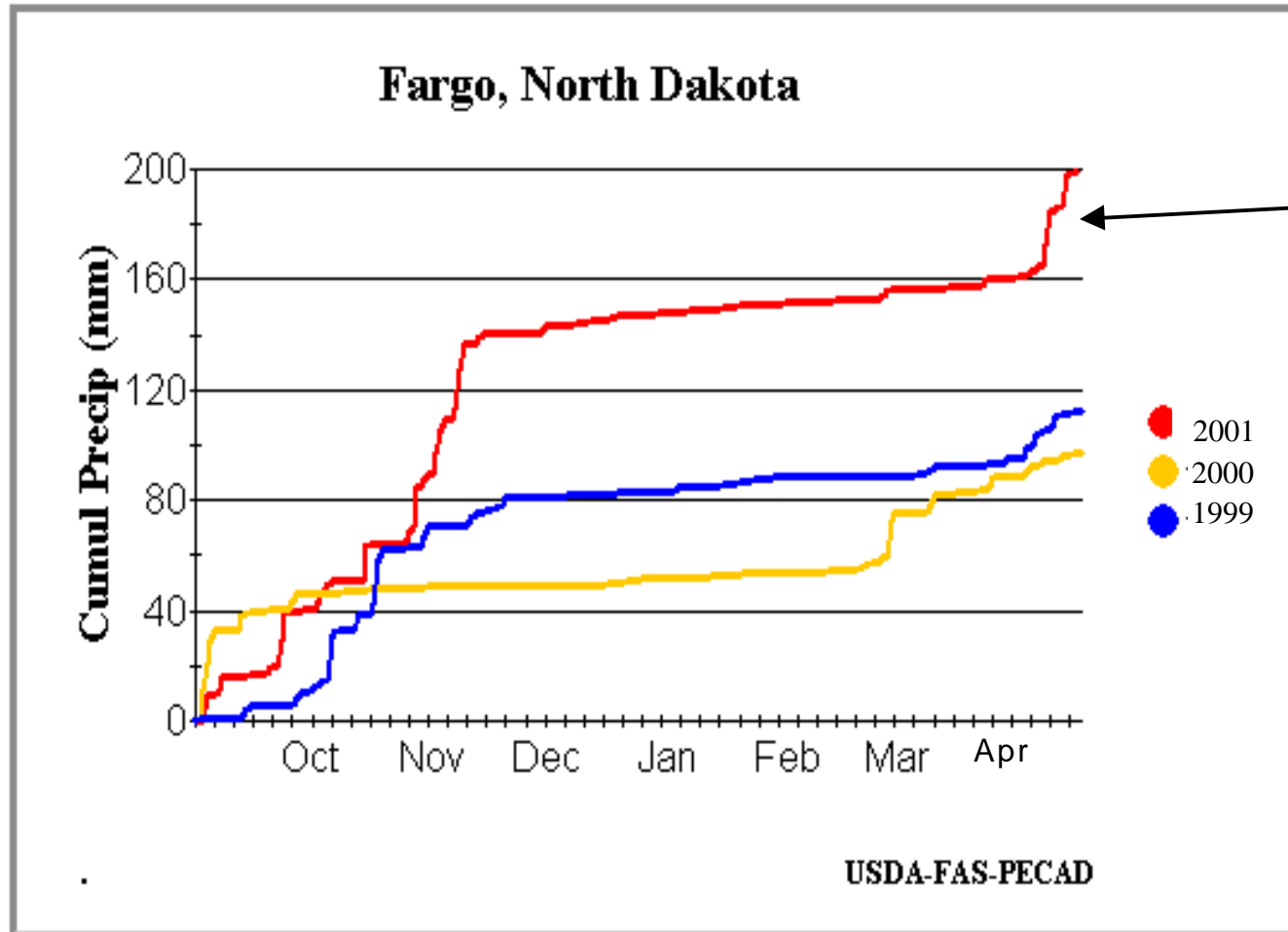
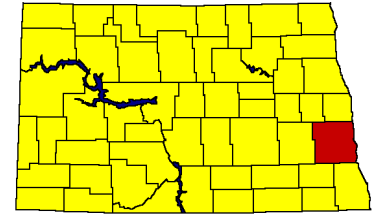


Image enhanced to show standing water.

NOAA 16, Ch. 2, 1, 1 = RGB

Fargo, North Dakota



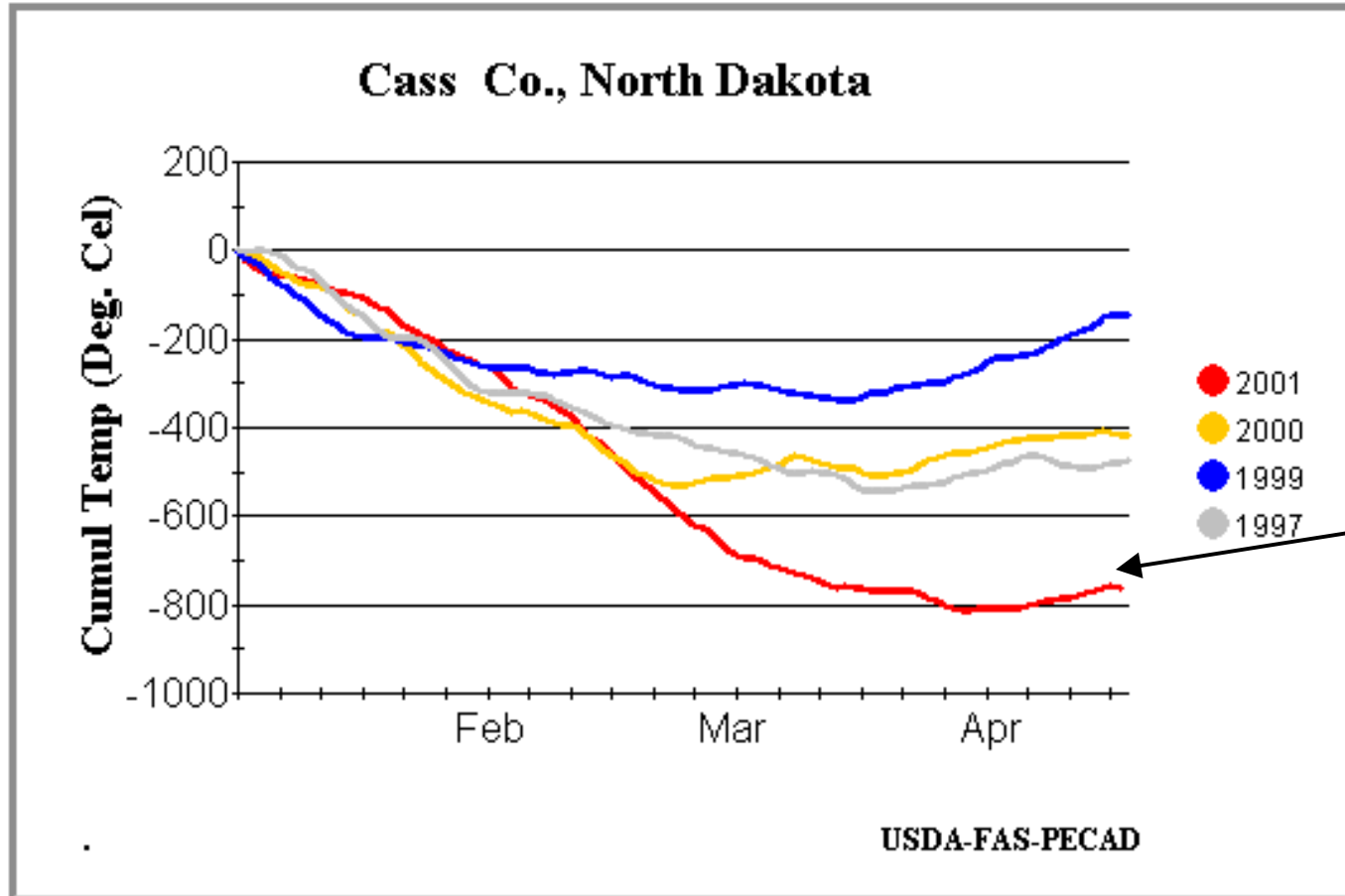
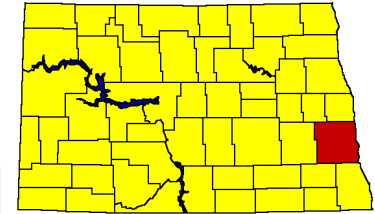
Compounded
flooding problem.

Date Range
Sep 1 – Apr 15

Cumulative Precipitation Comparison

Data Source: U.S. Air Force Gridded Data
25.4 millimeters = 1 inch

Cass Co., North Dakota

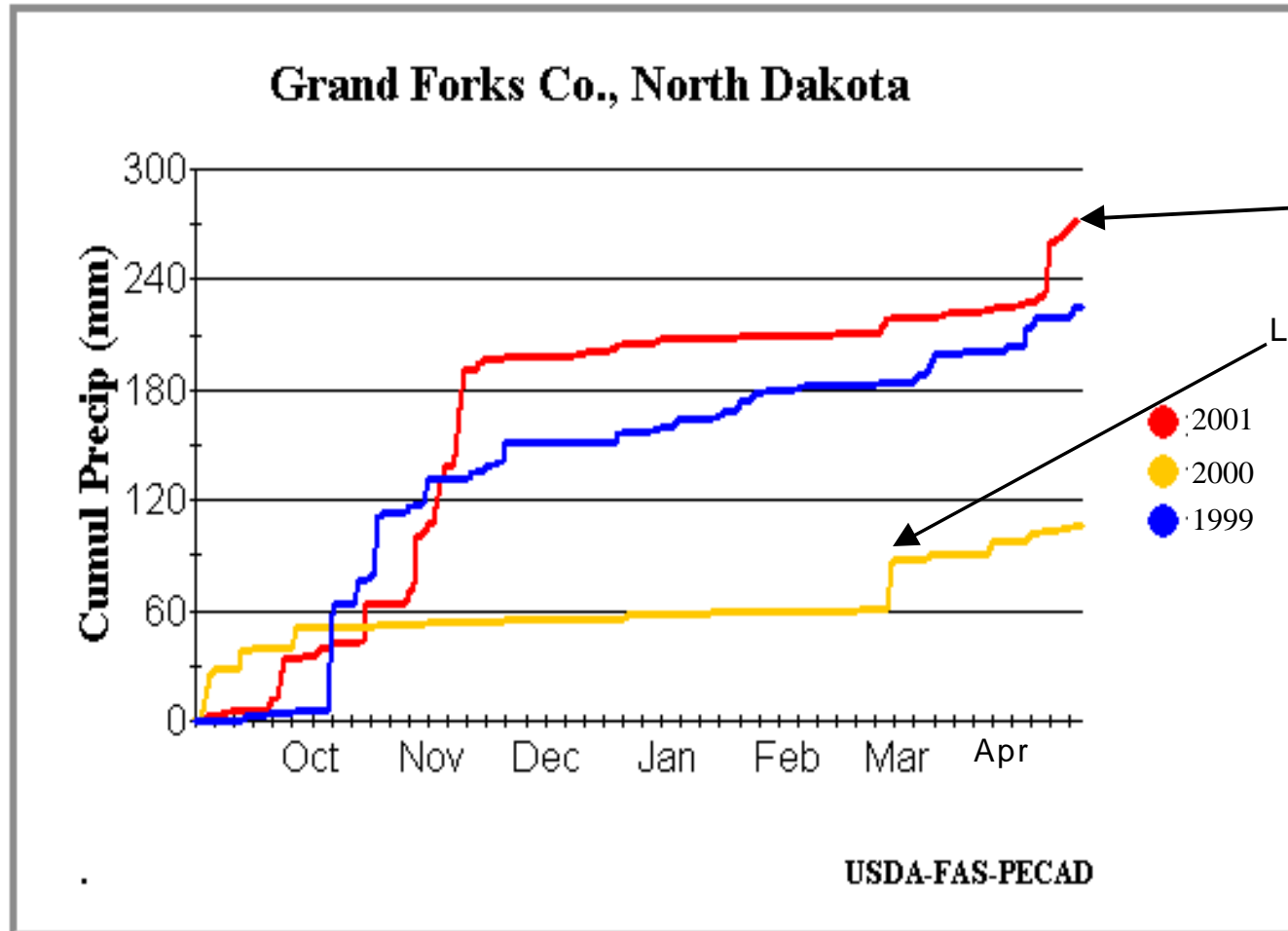
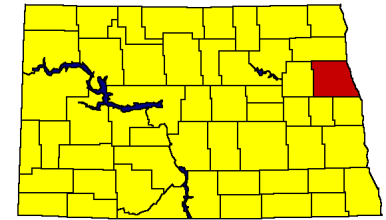


Poor Planting Prospects

Data Source: U.S. Air Force Gridded Data

Cumulative Temperature Comparison

Grand Forks, North Dakota



Compounded flooding problem.

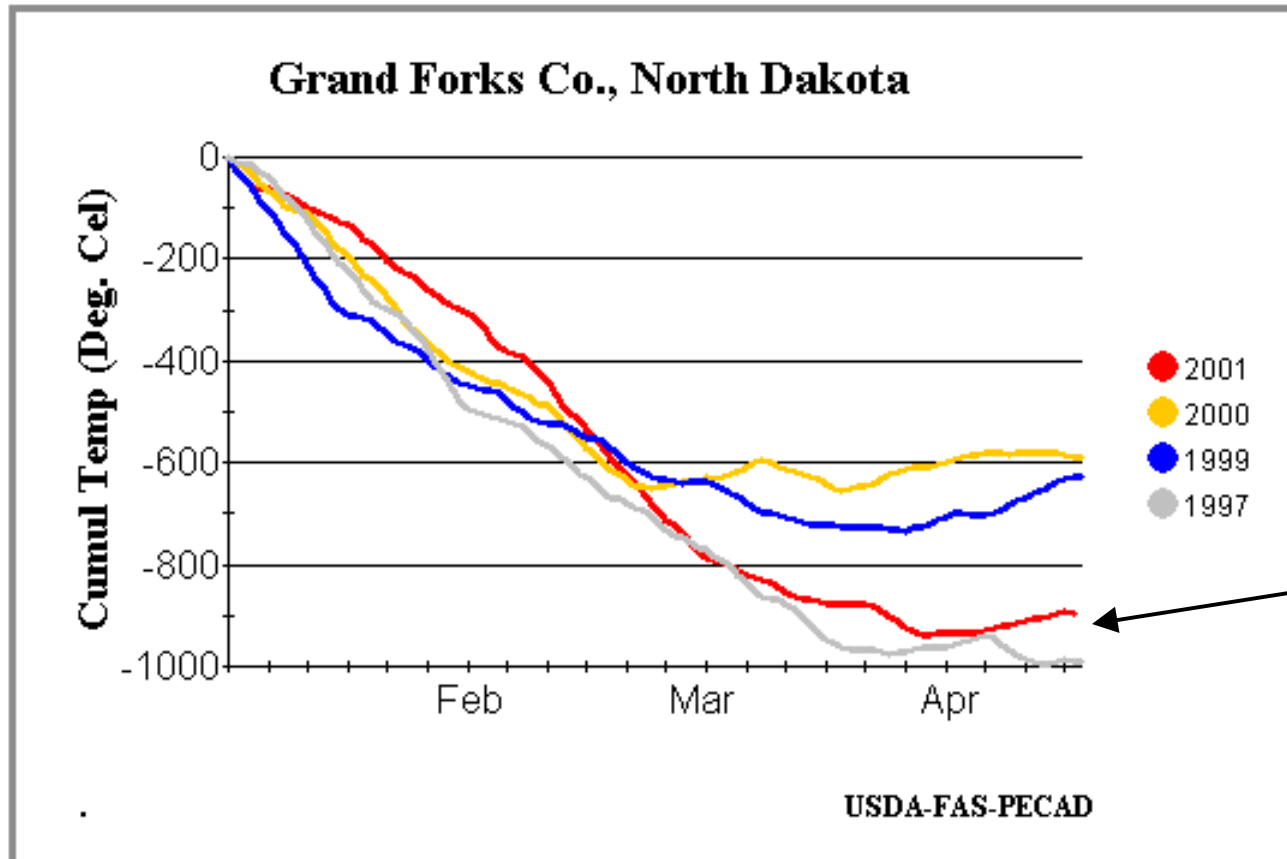
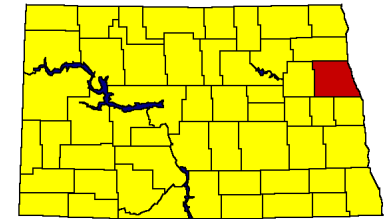
Last year, drought year!

Date Range
Sep 1 – Apr 15

Cumulative Precipitation Comparison

Data Source: U.S. Air Force Gridded Data
25.4 millimeters = 1 inch

Grand Forks Co., North Dakota



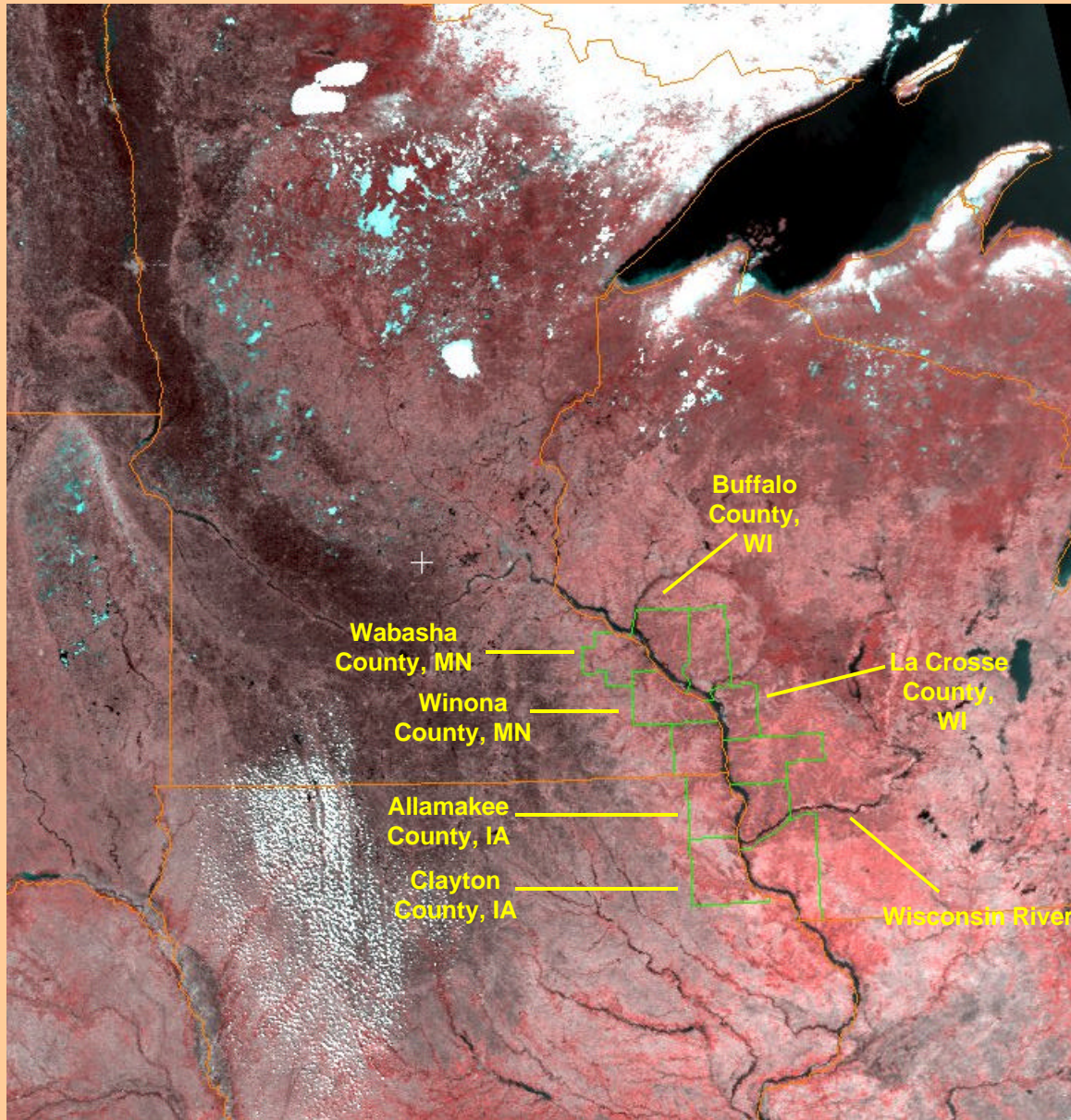
Data Source: U.S. Air Force Gridded Data

Cumulative Temperature Comparison

Current U.S. Crop Situation – Upper Mississippi Valley

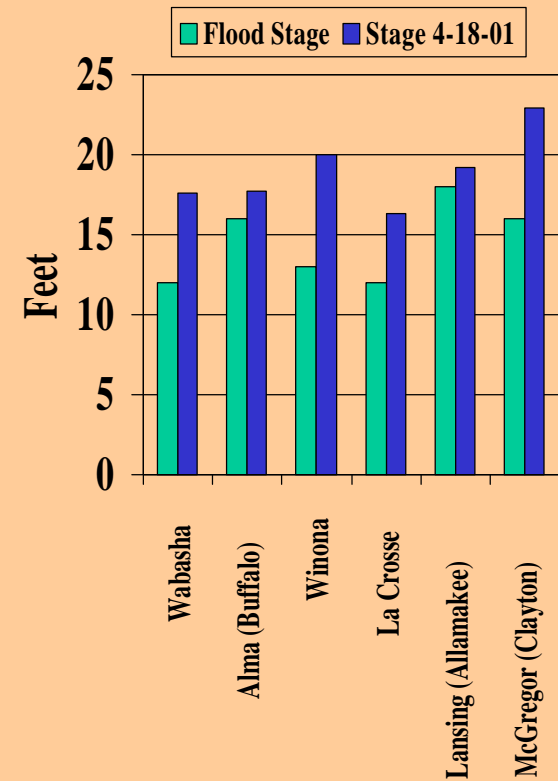
- A NOAA 16 satellite image of Minnesota, western Wisconsin, and Iowa illustrates current flood conditions along the Mississippi River and its tributaries. Above-normal winter 2000/2001 snow and frequent recent rainfall have left soils saturated and stream flow at or near flood levels.
- A river level chart from April 18, 2001 (data provided by National Weather Service,) is included to illustrate the intensity and threat of flooding. Note all the cities from Wabasha, Minnesota to Clayton, Iowa are above flood stage.
- McGregor, Iowa (Clayton county) current stage is higher than upriver points due to the additional heavy flow from the Wisconsin river. This river is barely visible in the scene from the previous year.
- Current weather (April 19, 2001) indicates more rain for this region.

Upper Mississippi River 2001



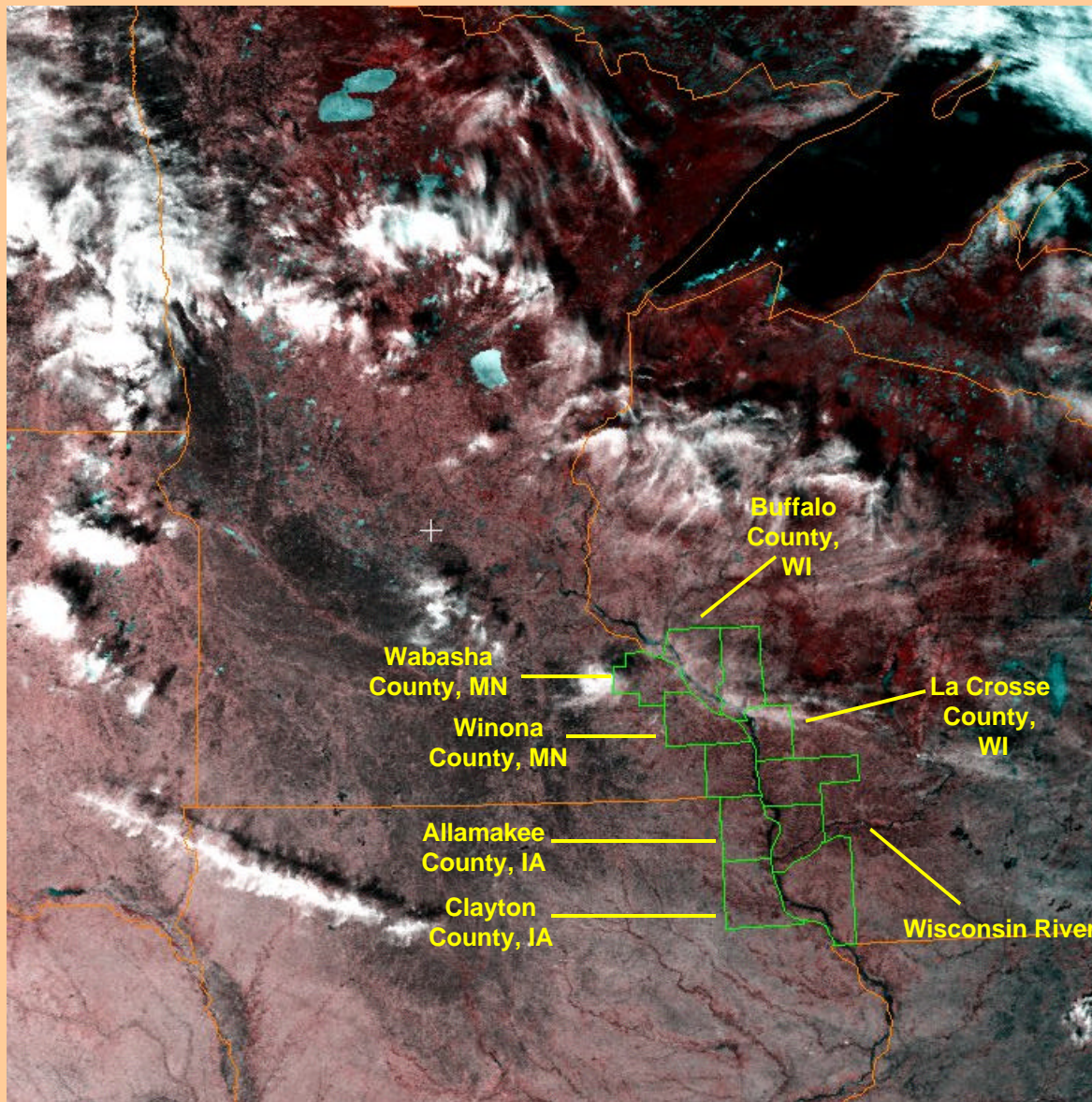
NOAA 16, Ch. 2, 1, 1 = RGB

April 17, 2001



Data Source: National Weather Service,
River Flood Statement 04-18-2001

Upper Mississippi River 2000



- Upper Mississippi river basin in early Spring 2000 is not as full of water as in April 2001.

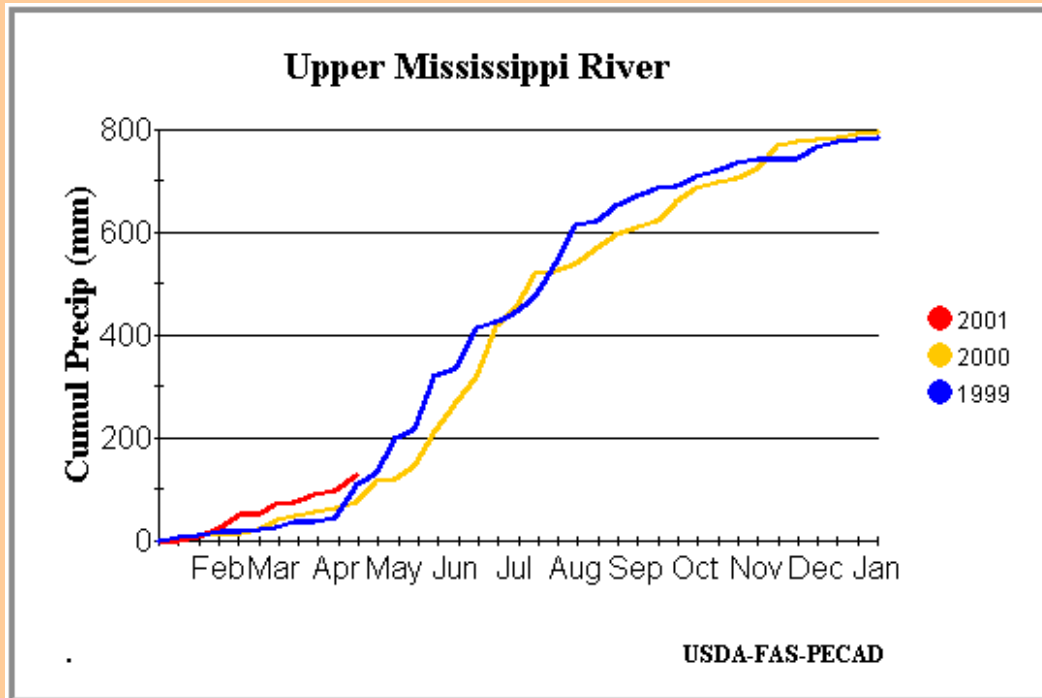
- The Wisconsin river is hard to discern at this resolution but it is readily visible in the April 2001 scene.

- Generally, the March 2000 scene is darker than the April 2001 scene due to the later date of the 2001 scene.

NOAA 14, Ch. 2, 1, 1 = RGB

March 04, 2000

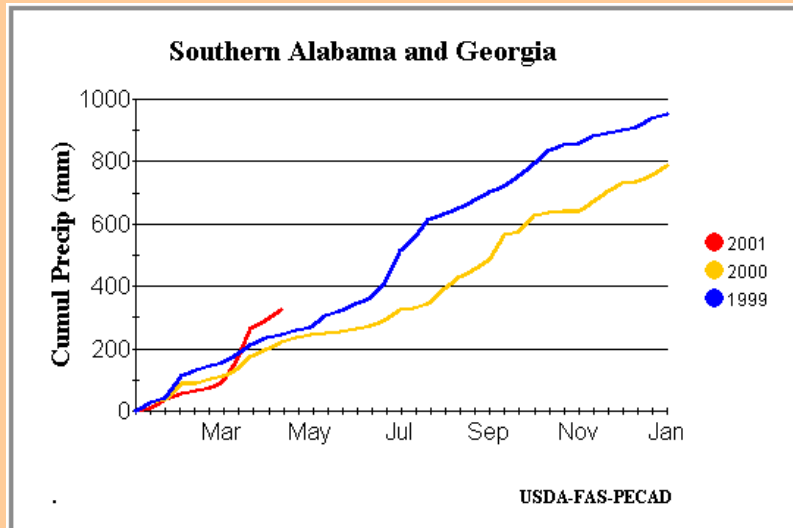
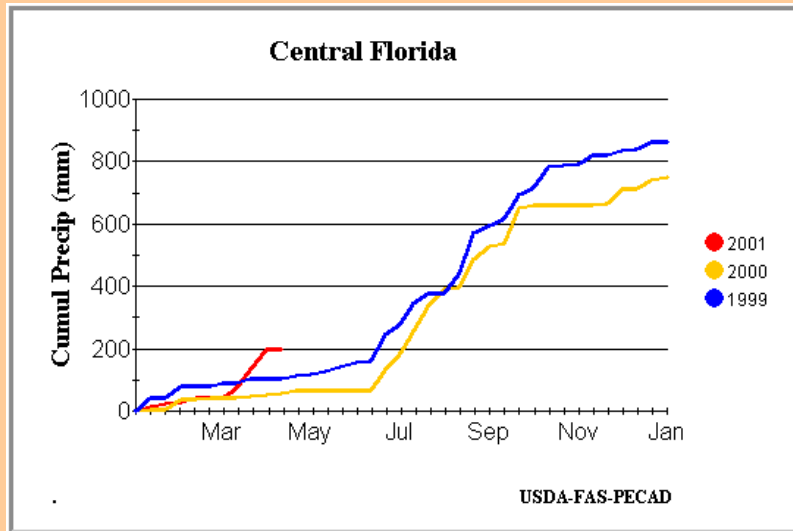
Upper Mississippi River Chart



- More than adequate precipitation in the upper Mississippi river valley as exacerbated flooding conditions.
- Above normal winter 2000/2001 snow, and frequent recent rainfall has left soils saturated and stream flow at or near flood levels

Data Source: National Weather Service,
River Flood Statement 04-18-2001

Southeastern States



- Long-term drought in Central Florida persists but recent rains help the situation. More rain is needed.
- Southern Alabama and Georgia drought alleviated by winter rains. Better start than previous two years.

Data Source: National Weather Service,
River Flood Statement 04-18-2001

World Meteorological Stations (WMO)