


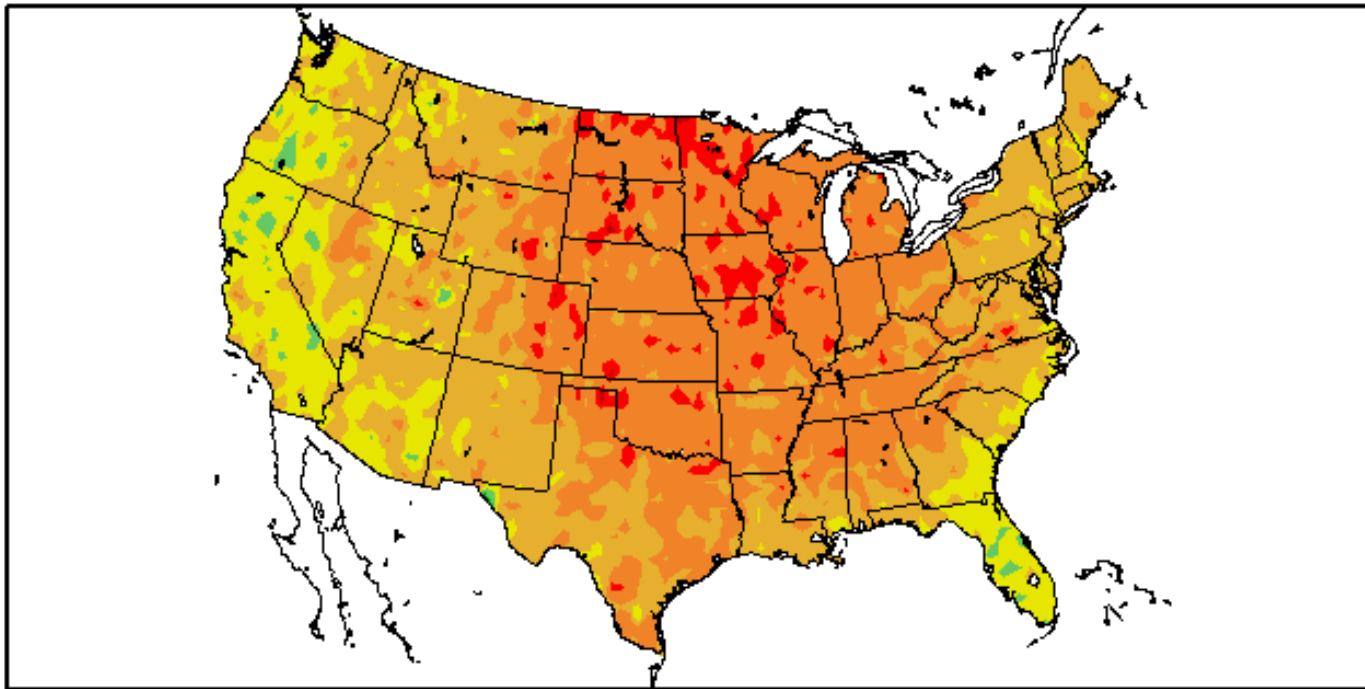
Nebraska Climate Update

A photograph of a weather station in a grassy field under a dark, stormy sky. The station is a metal tower with various instruments, including a wind anemometer and a rain gauge, mounted on top. The field is a mix of green and brown grass, and there are rolling hills in the background. The sky is a deep, dark blue, suggesting an approaching storm.

Nebraska State Climate Office
School of Natural Resources
University of Nebraska – Lincoln
nsc0.unl.edu | mesonet.unl.edu

Fall Recap (Sep – Nov, 2016)

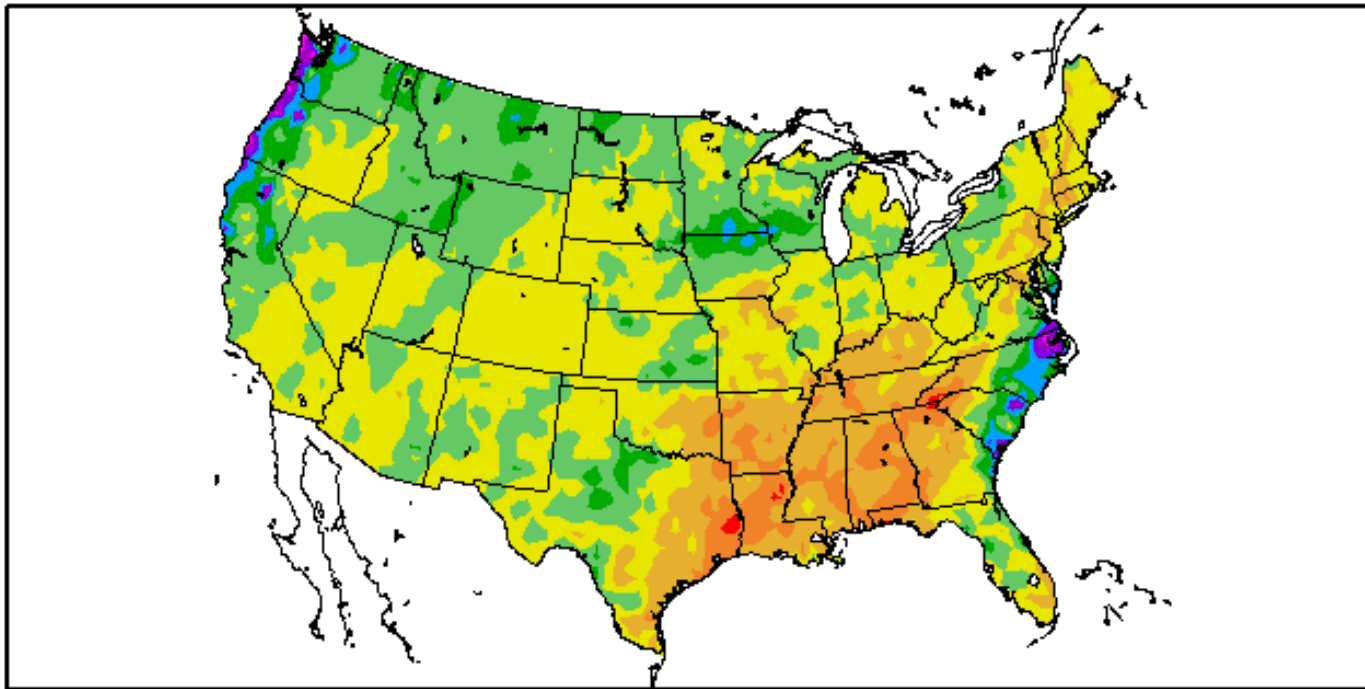
Departure from Normal Temperature (F)
9/1/2016 – 11/30/2016



- Warmth prevails across contiguous U.S.
- Nebraska average temp ranked **2nd warmest on record** (54.8°F, +4.8°)

Fall Recap (Sep – Nov, 2016)

Departure from Normal Precipitation (in)
9/1/2016 – 11/30/2016



- Mixed pattern across U.S.
- Nebraska was dry overall (4.23", -0.72)

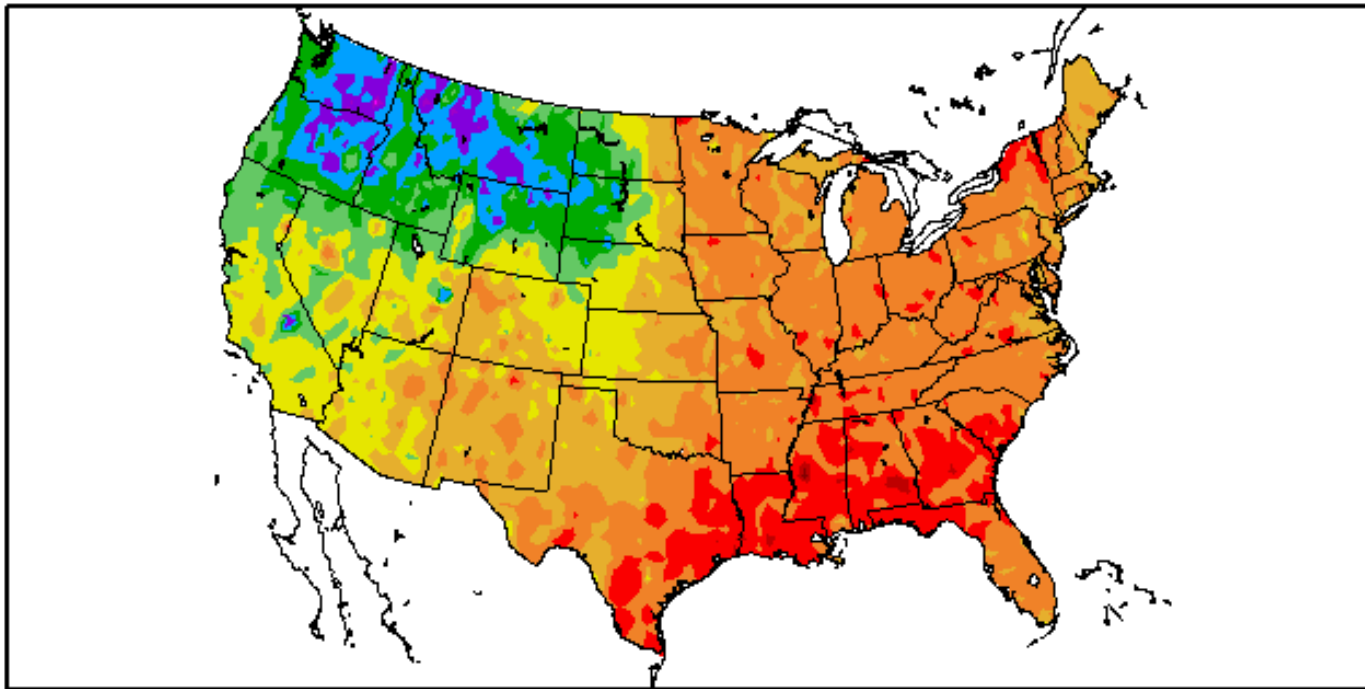
Fall Agricultural Impacts (Sep – Nov, 2016)

- Very warm fall, late freeze.
- Spring wheat diseases developed southern Nebraska.
- Most of the state received below normal moisture increasing concerns about poor soil moisture recharge.

- Expansive drought areas southeast and south central U.S.
- Aggressive moisture southern Minnesota and northern Iowa.

Winter Recap (Dec – Feb, 2017)

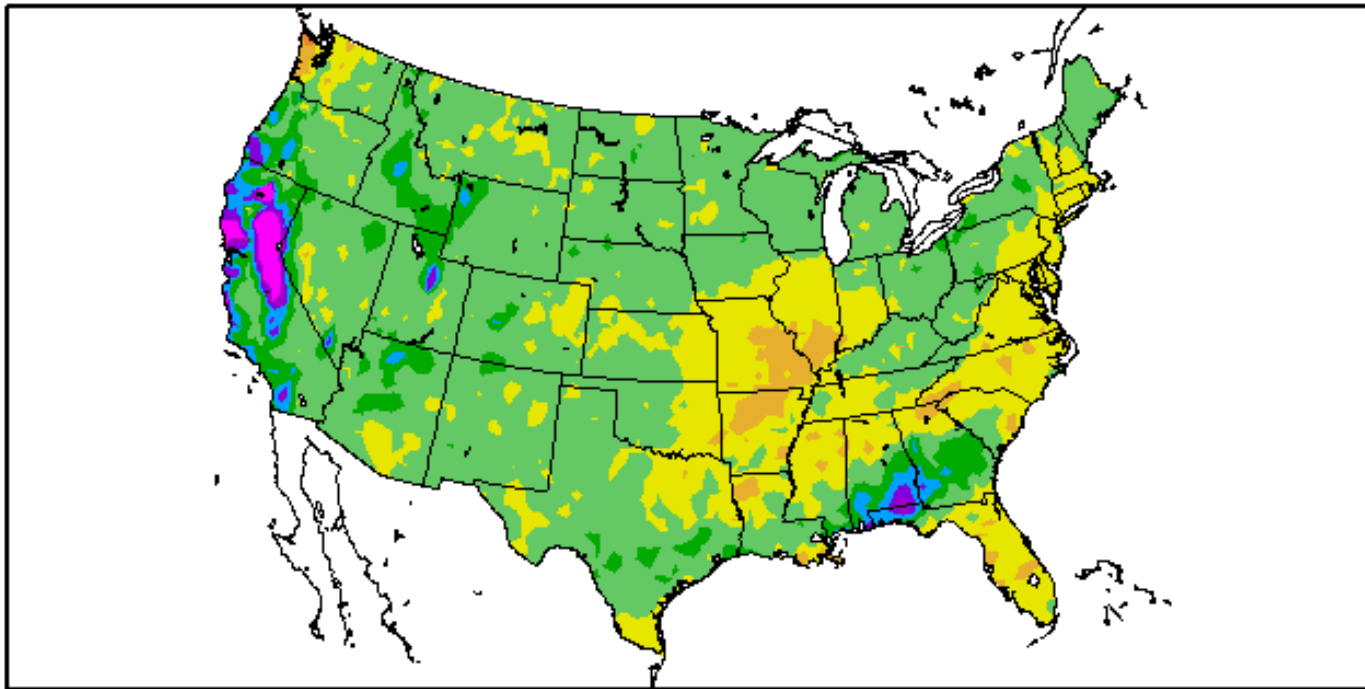
Departure from Normal Temperature (F)
12/1/2016 – 2/28/2017



- Distinct temperature pattern for contiguous U.S.
- Nebraska in transition zone, cool in Panhandle, warm in central, east

Winter Recap (Dec - Feb, 2017)

Departure from Normal Precipitation (in)
12/1/2016 - 2/28/2017



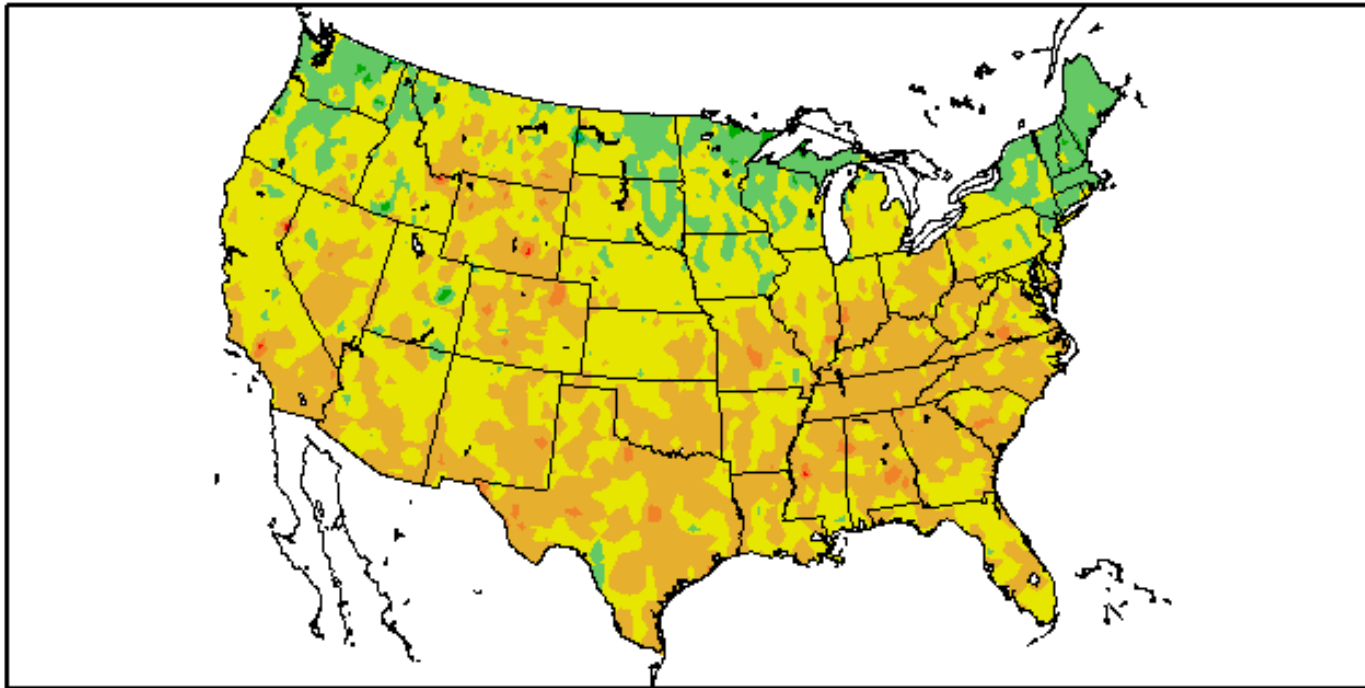
- Wet for much of U.S.
- Nebraska mostly **wetter** than normal (2.55", +0.90)

Winter Agricultural Impacts (Dec – Feb, 2017)

- Very cold start to the winter across northwestern Nebraska averaging 6-8 F below normal. Warm second half. Little significant cold for remainder of the state.
- Heavy December moisture in liquid form on unfrozen ground made up some of the fall moisture losses and decreased soil moisture deficits.
- Northern 1/3 of state had above normal snowfall, below normal southern 2/3 (record low snowfall south of I-80).
- Late winter warmth raised concerns about early dormancy break.

Spring Recap (Mar - May, 2017)

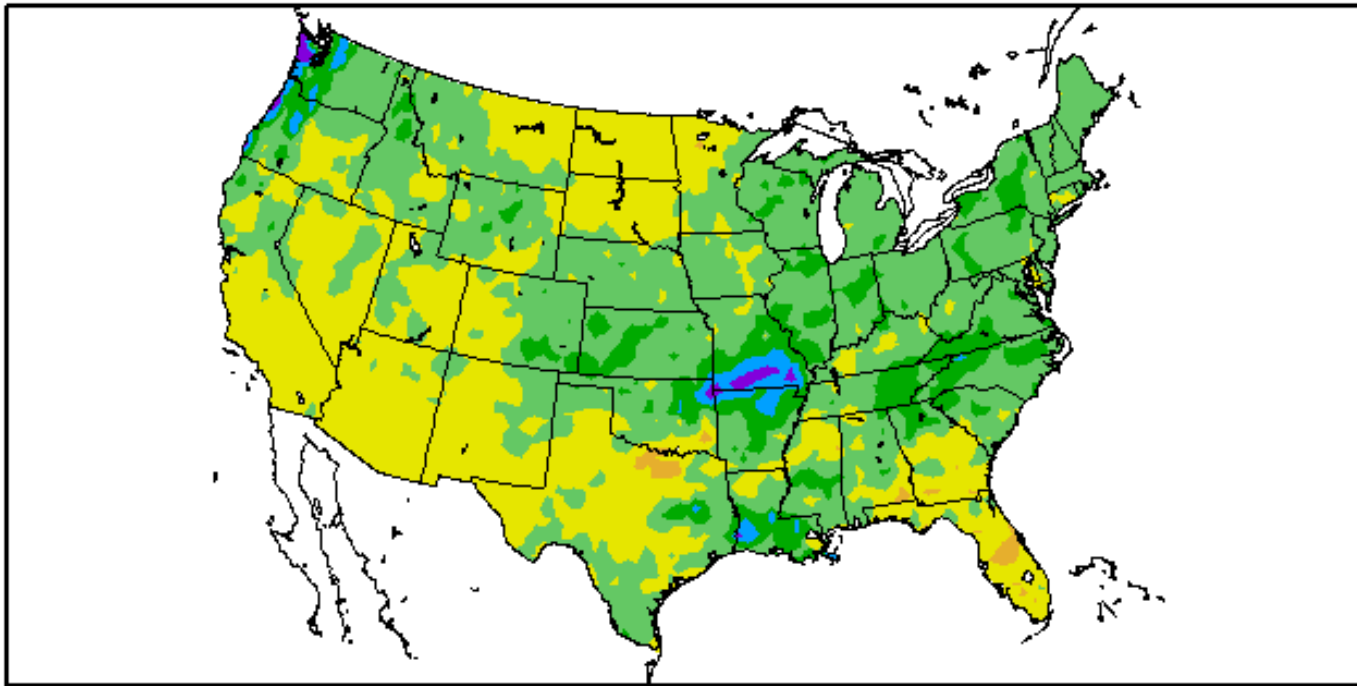
Departure from Normal Temperature (F)
3/1/2017 - 5/31/2017



- Warmth for much of U.S.
- Nebraska slightly **warmer** than normal (49.6°F, **+1.2**)

Spring Recap (Mar - May, 2017)

Departure from Normal Precipitation (in)
3/1/2017 - 5/31/2017



- Mixed pattern across U.S.
- Nebraska in above normal category (8.90", +1.29)

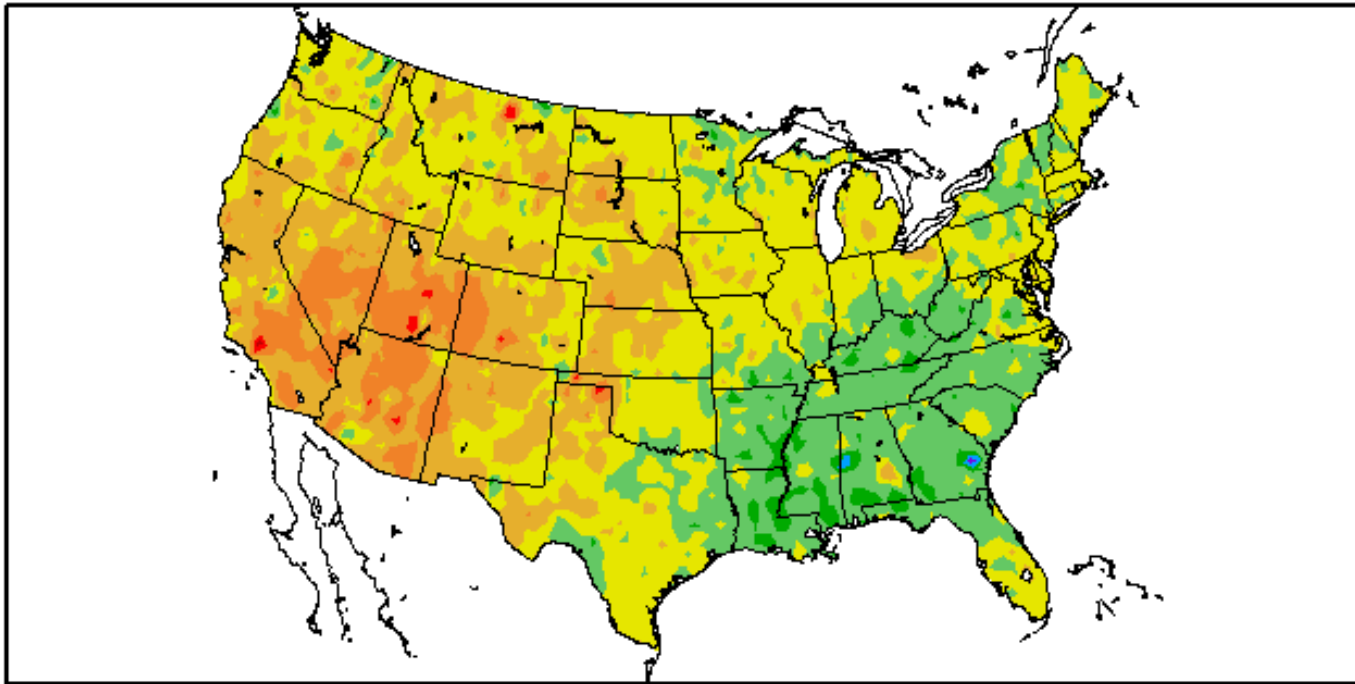


Spring Agricultural Impacts (Mar – May, 2017)

- Very warm and dry through early April. Stormy and cold developed at beginning of corn planting season → delays and replant (especially northeast).
- GDD accumulations from 4/15, 5/1, and 5/15 all show the southern and eastern half of the state above normal. Average is 2%, with McCook at 4%. Below normal for remainder of the state. Highest departures in northern Panhandle at 4% behind (all 3 dates).
- GDD departures don't consider the impact of planting delays.

June Recap

Departure from Normal Temperature (F)
6/1/2017 – 6/30/2017

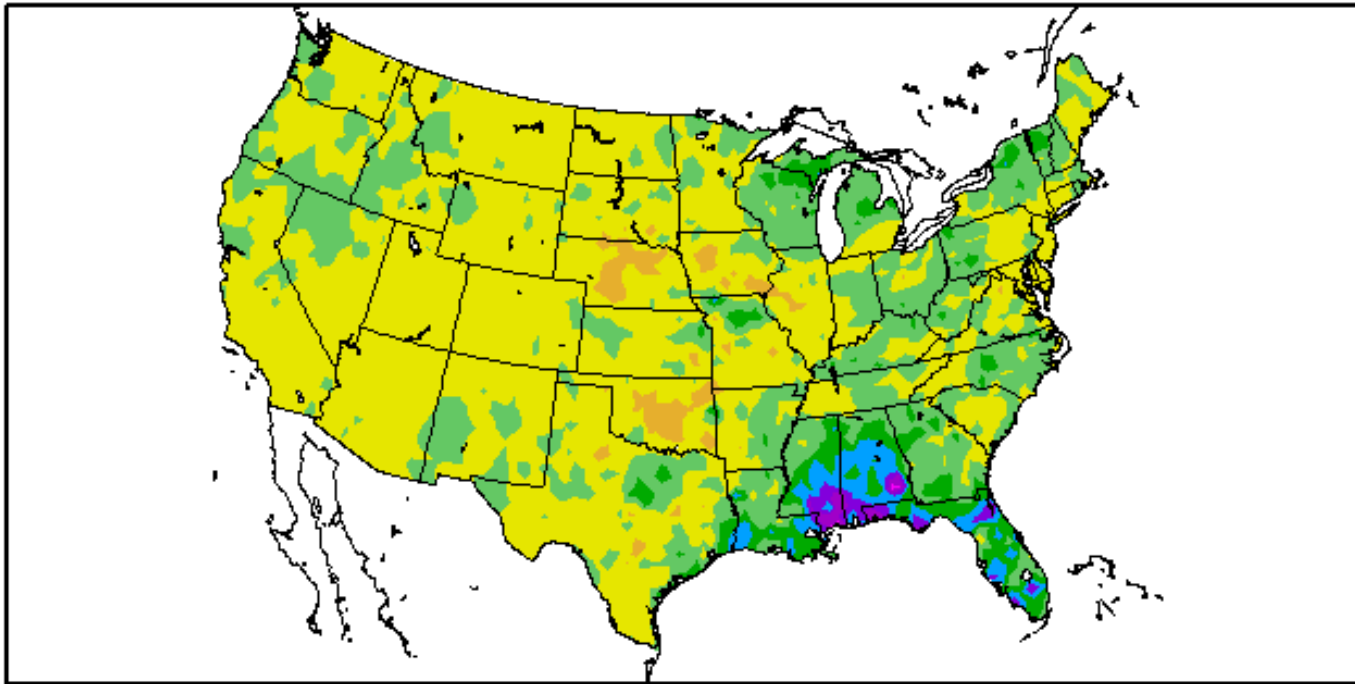


- Cool in southeast U.S., warmth dominates elsewhere.
- Nebraska was **warm** overall (70.7°F, **+2.1**)



June Recap

Departure from Normal Precipitation (in)
6/1/2017 – 6/30/2017



- Mixed pattern across U.S.
- Nebraska was dry overall (1.44", -2.31), ranks as 2nd driest on record.



June Agricultural Impacts

- Well above normal temps, below normal moisture common during June. Hardest hit northeast through west central with departures exceeding 3 inches.
- High temps first half of June hard on late planted and replanted crops. Root development impacted by baking soils (like 2016) as roots struggled to supply water to plants.
- Cattle stress has been moderate past 2 weeks, with occasional index values exceeding 115° F.

Current Agricultural Impacts

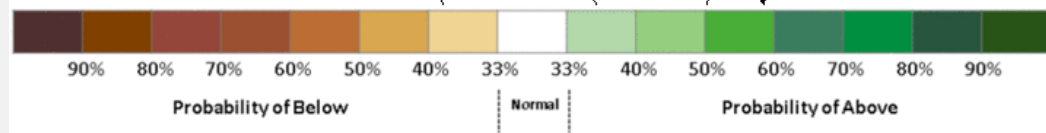
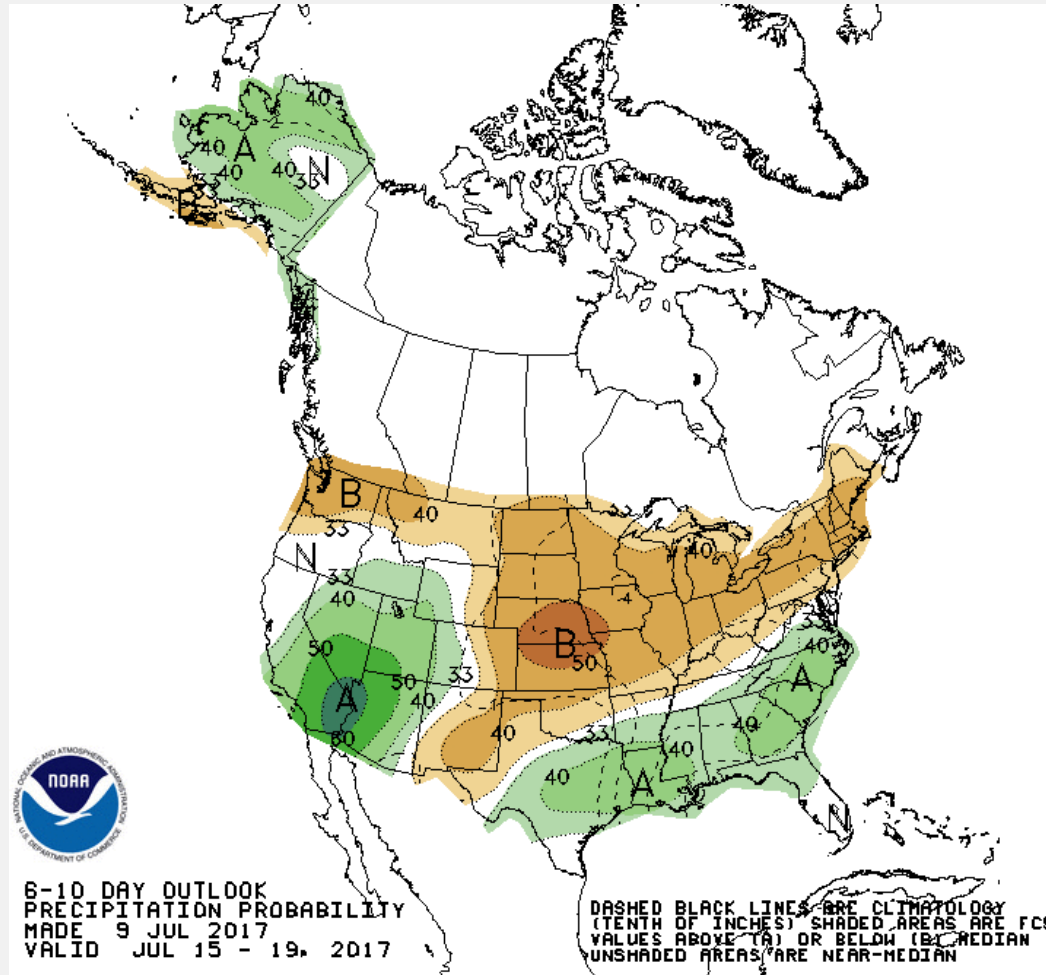
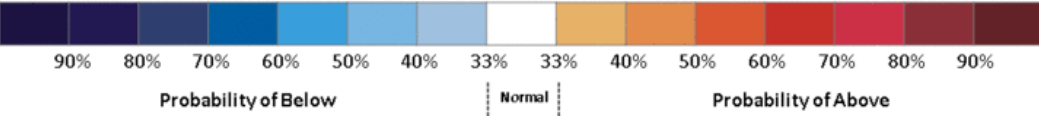
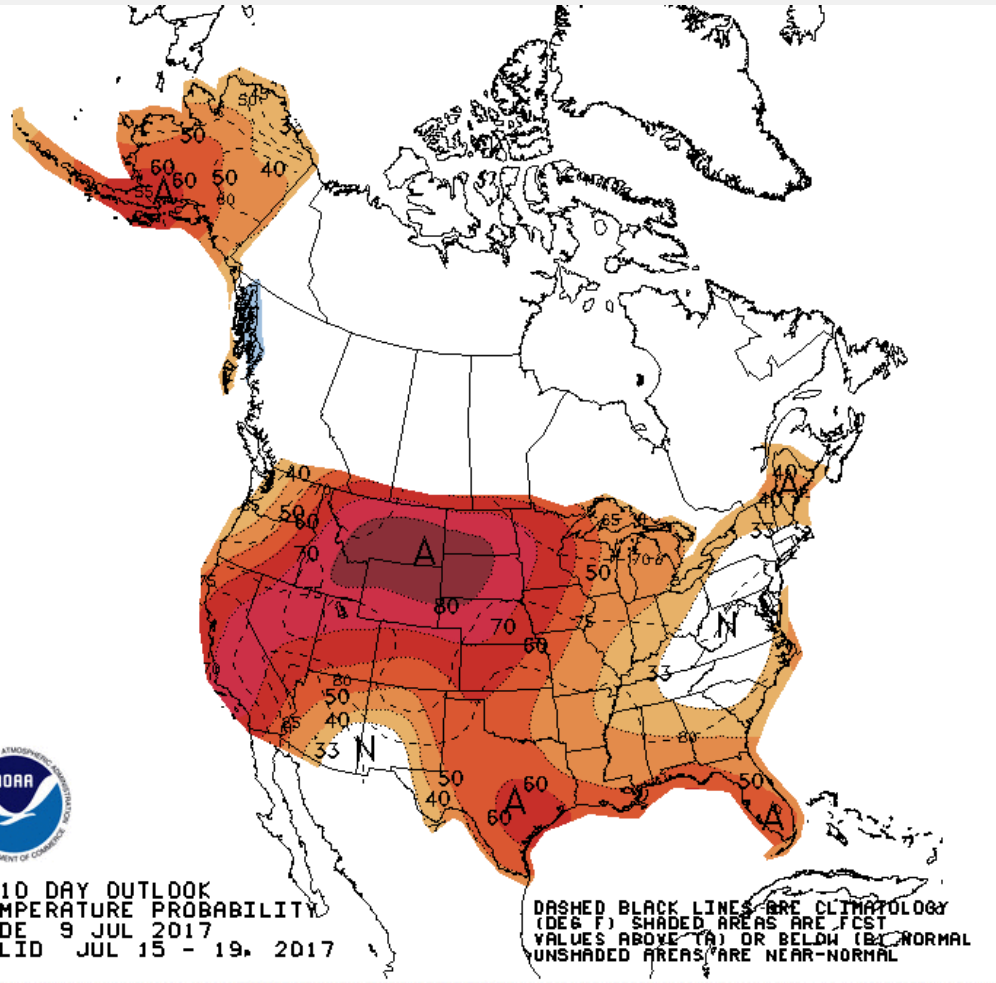
- Cattle stress values approaching 120° F possible at times this week due to 90's coupled with dew points in the 70s.
- Greatest stress reported right now is for sandier soils and pivot corners. Reproduction beginning, so heat/moisture. stress going forward will determine potential impact to yields.
- Wind increasing ET which increase soil moisture loss.

Going Forward

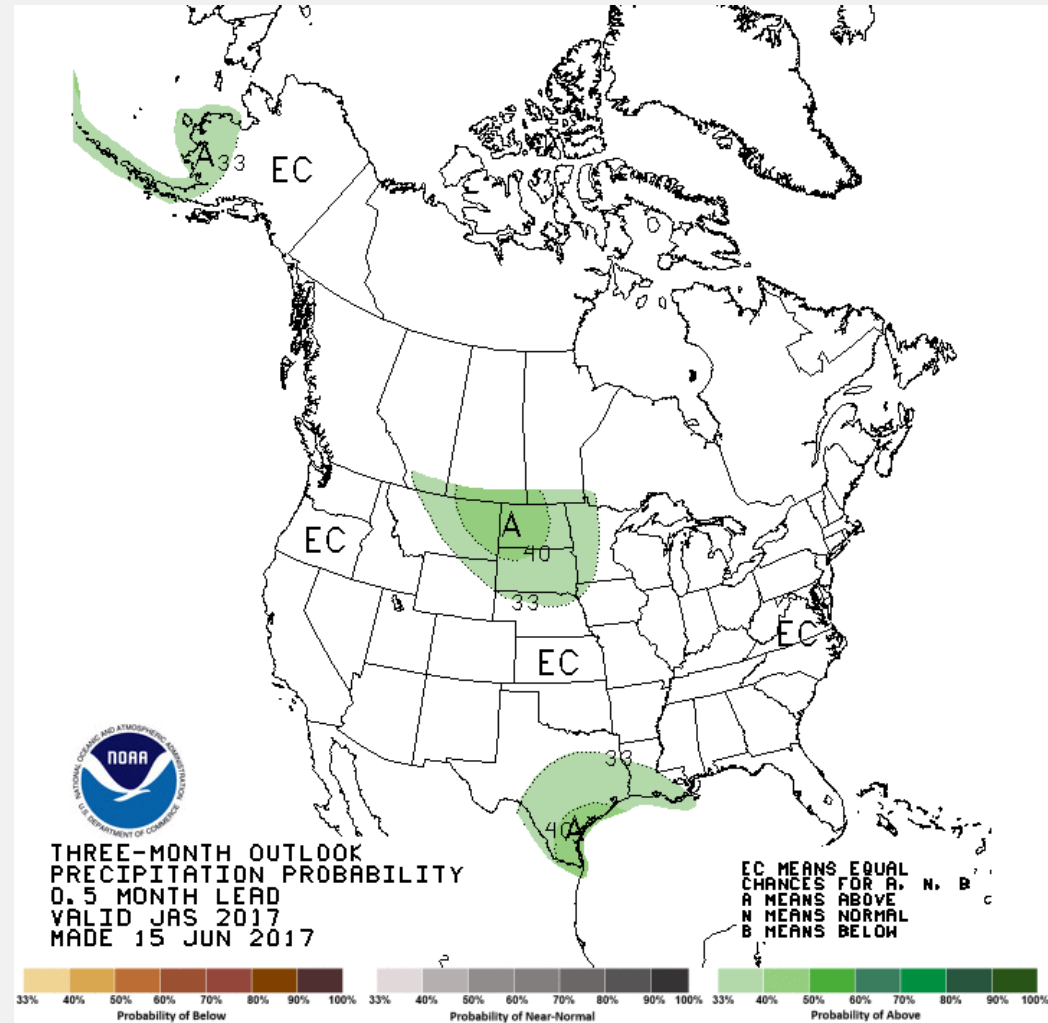
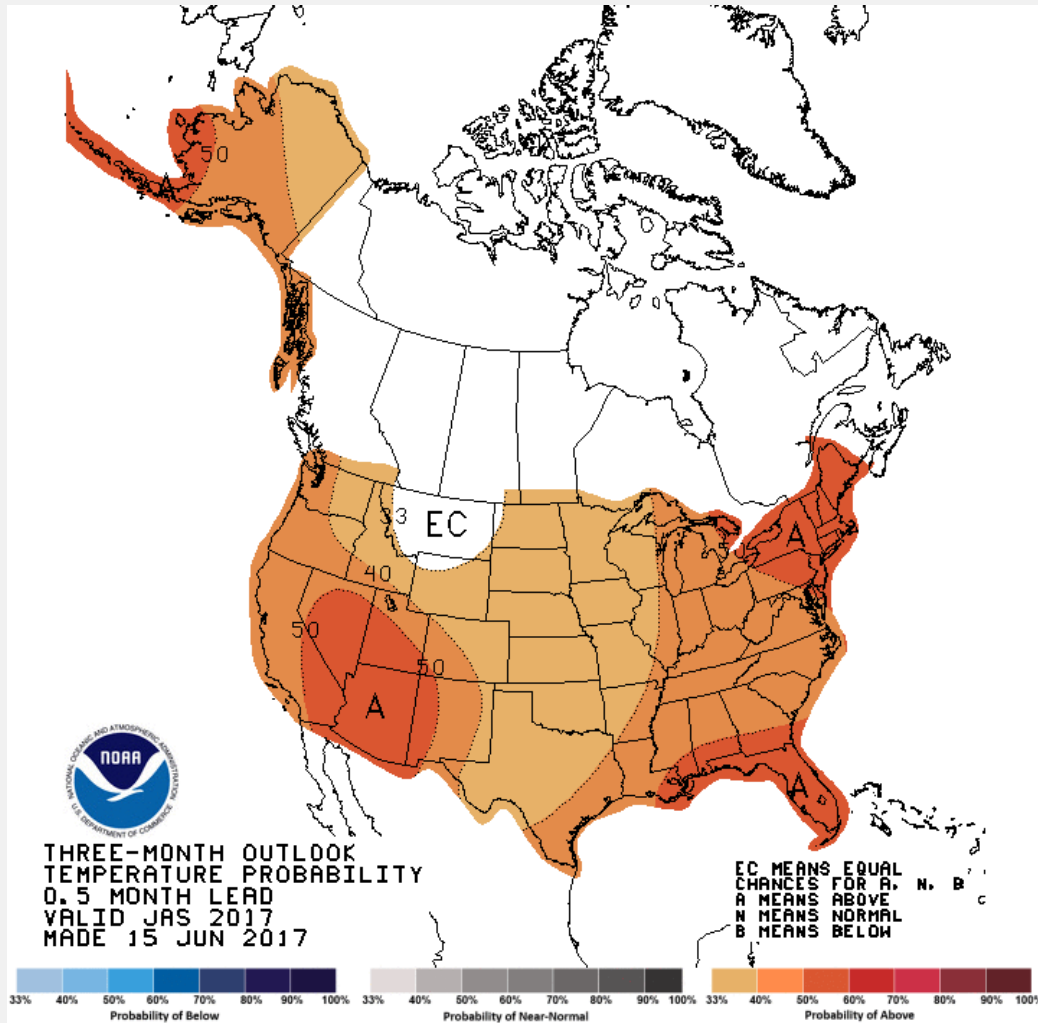
Climate Prediction Center Outlooks:

- Continuation of warmth and dryness for all of Nebraska in near-term.
- Seasonal (JAS) climate outlooks calling for increased chance for warmth statewide, wet pocket in Northern Plains that stretches into northern Nebraska.

Going Forward



Going Forward



Questions?

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School of Natural Resources at the University of Nebraska-Lincoln

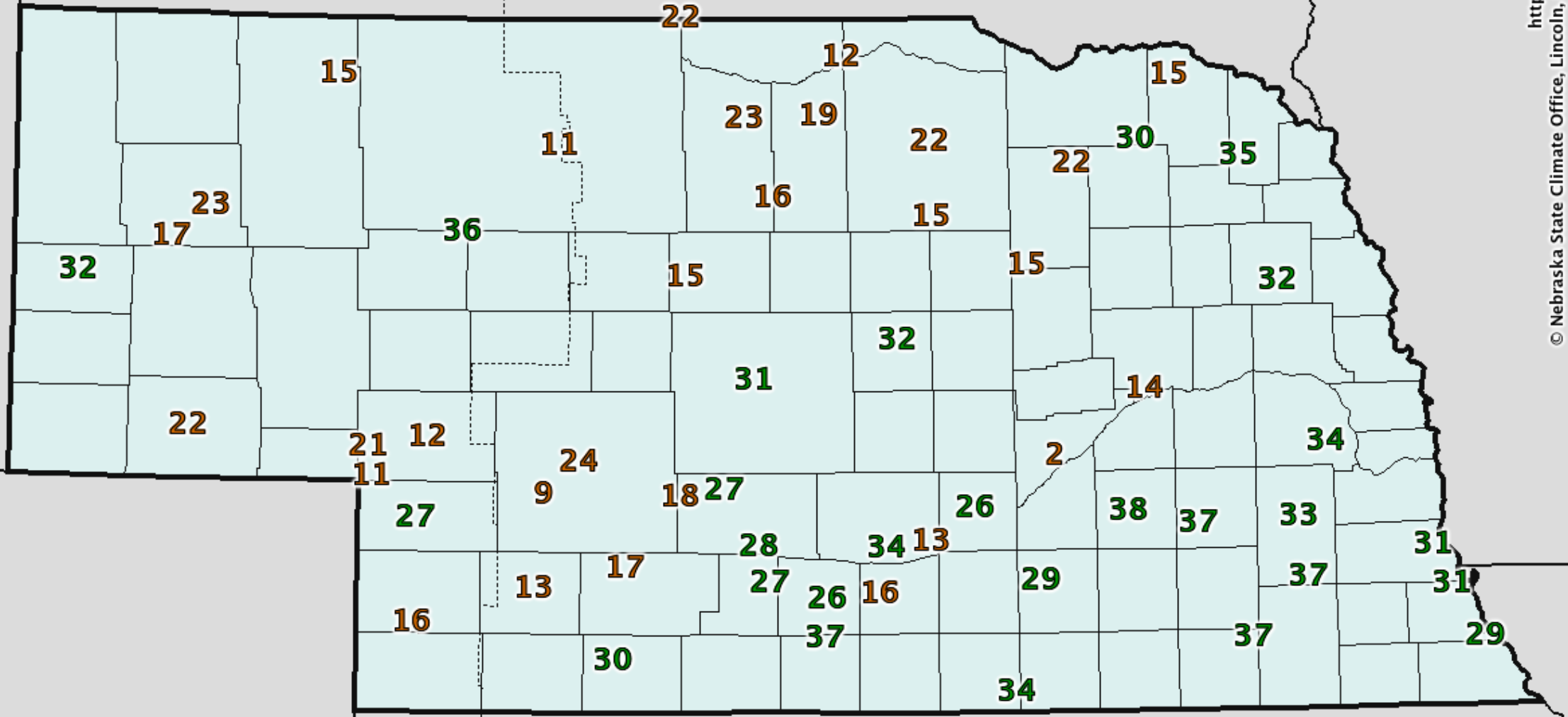
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[@mshulski3](https://twitter.com/mshulski3)

Ave. Est. 100cm Soil Moisture (% of Total Volume)

Sun, 2017-07-09



Generated 2017-07-10 04:11 CDT

Extras

