Nebraska Climate Update Climate Assessment Response Committee

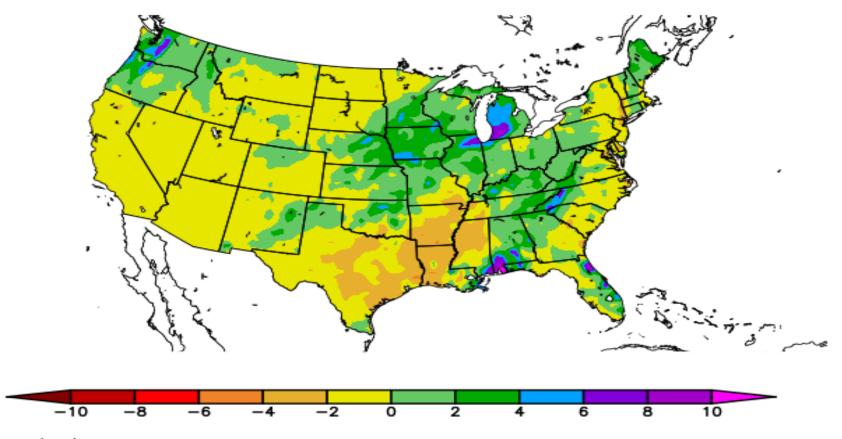
Allen Dutcher Agricultural Extension Climatologist Nebraska State Climate Office

Growing Season Highlights

- March Warm Statewide. Precipitation above normal west, below normal east
- April warm Statewide. Precipitation above normal east, mixed bag west
- May Warm east, cool west. Precipitation above normal east, mixed bag west
- June warm statewide. Precipitation dry west, wet east
- July warm and wet statewide.
- August cool statewide. Precipitation wet west, dry east.
- September warm statewide. Precipitation wet west, dry east
- October warm and wet statewide.

Fall Recharge Moisture Trend

Departure from Normal Precipitation (in) 10/1/2017 - 10/27/2017

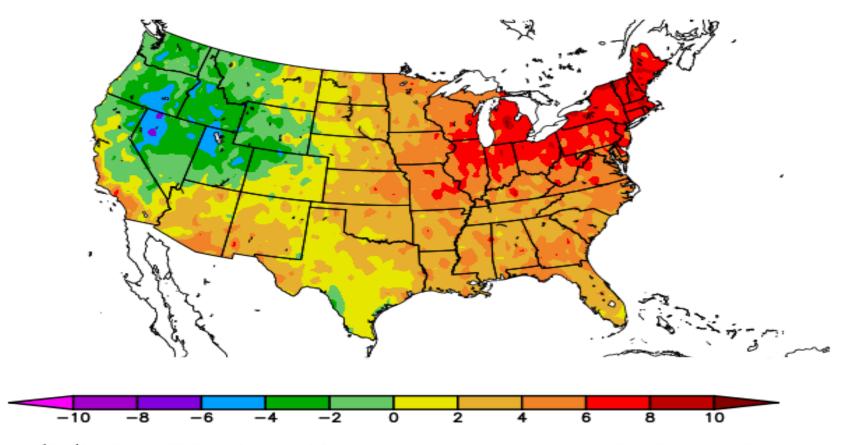


Generated 10/28/2017 at HPRCC using provisional data.

NOAA Regional Climate Centers

Fall Temperature Trend

Departure from Normal Temperature (F) 10/1/2017 - 10/27/2017



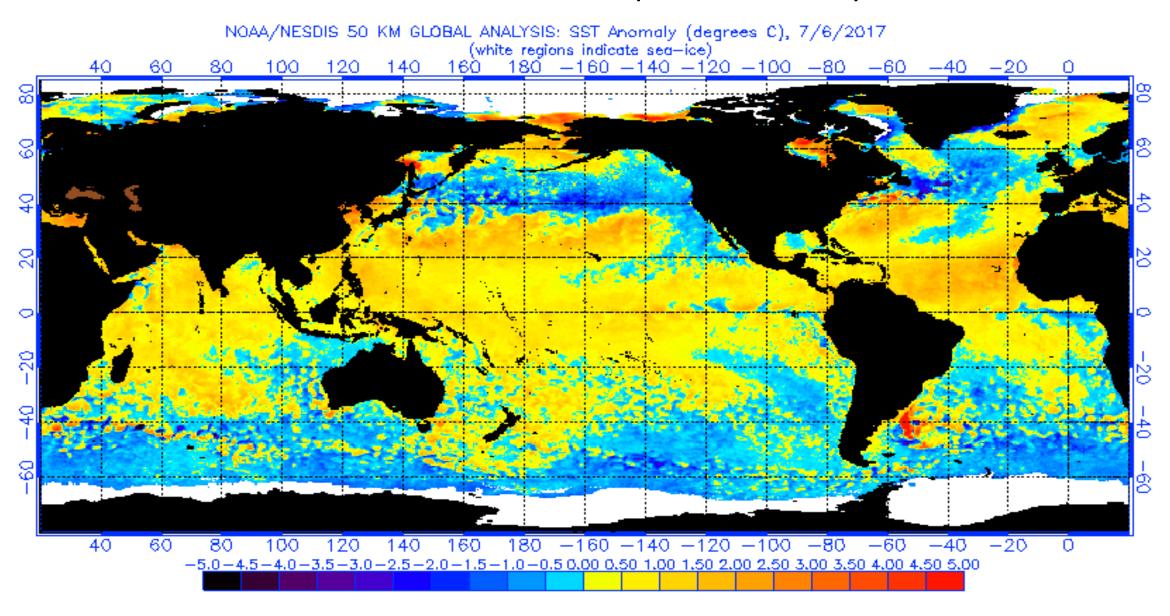
Generated 10/28/2017 at HPRCC using provisional data.

NOAA Regional Climate Centers

Growing Season Crop Concerns

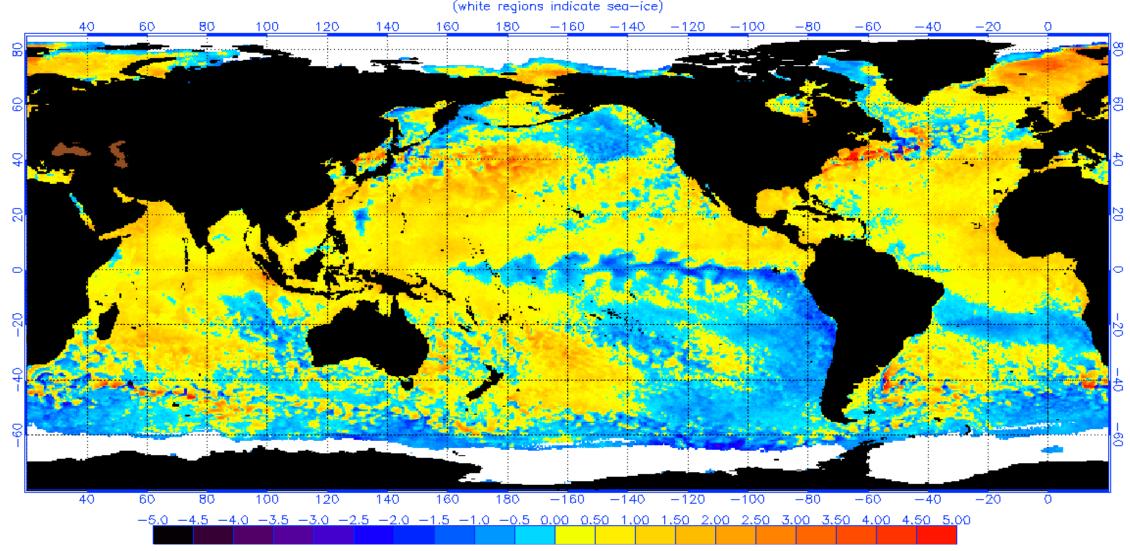
- Significant Planting delays, crop starts out behind in GDD accumulations
- Soil Moisture Recharge
- Mudded in crops (northeast), potential for compaction issues
- Return of heat, stress on young corn plants
- Dicamba
- Heat and dryness impact on pollination
- Grain fill for corn during August, maturity concerns
- Warm September, crops gain ground, wet west aids late season irrigation, White Mold.
- Harvest delays, extreme wind leads to dropped ears
- Some reports of below normal hay season west central.
- Delayed wheat planting, concerns if planted too late and how it will impact stand emergence
- Soil Moisture recharge is off to a fantastic start
- This fall storm pattern bringing in more frequent shots of cold air than last fall

Global SST Anomalies (Past 4 Months)



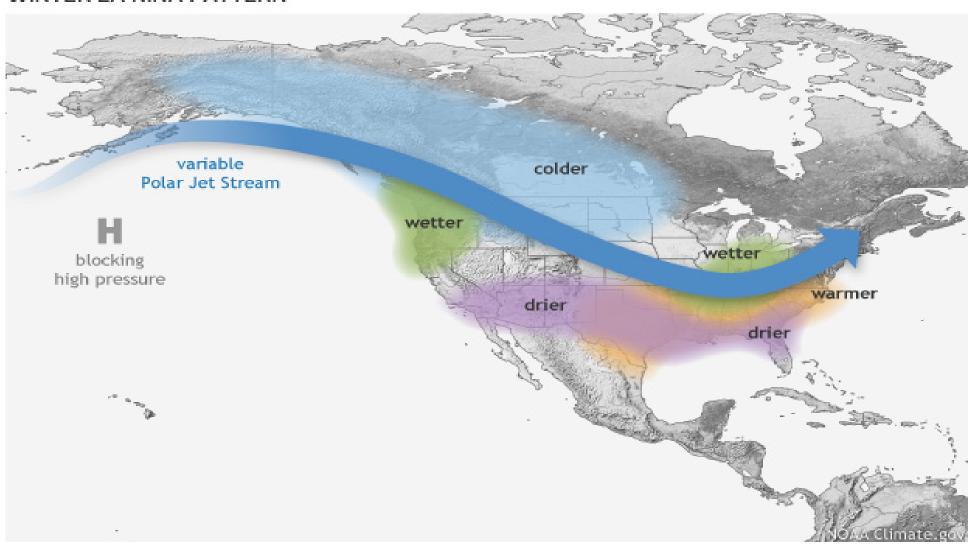
Global SST Departures (Current)

NOAA/NESDIS 50 KM GLOBAL ANALYSIS: SST Anomaly (degrees C), 10/26/2017 (white regions indicate sea-ice)

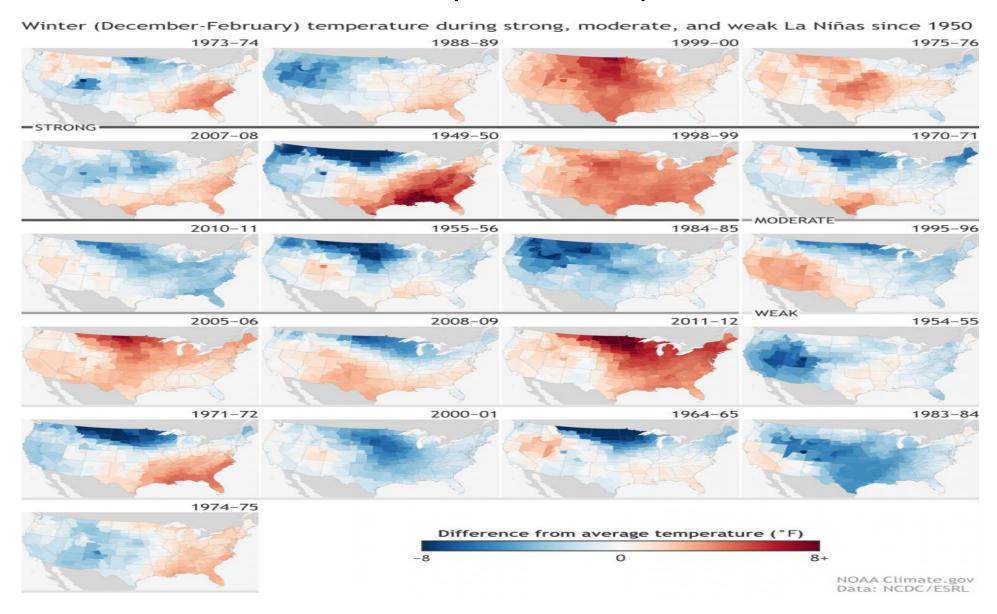


Mean La Nina Winter Jet Stream Response

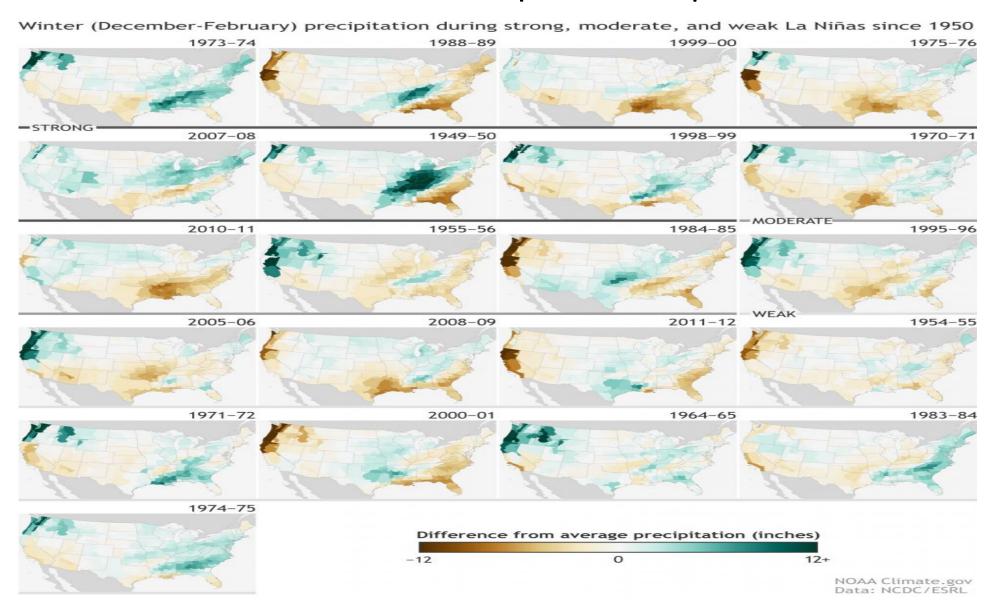
WINTER LA NIÑA PATTERN



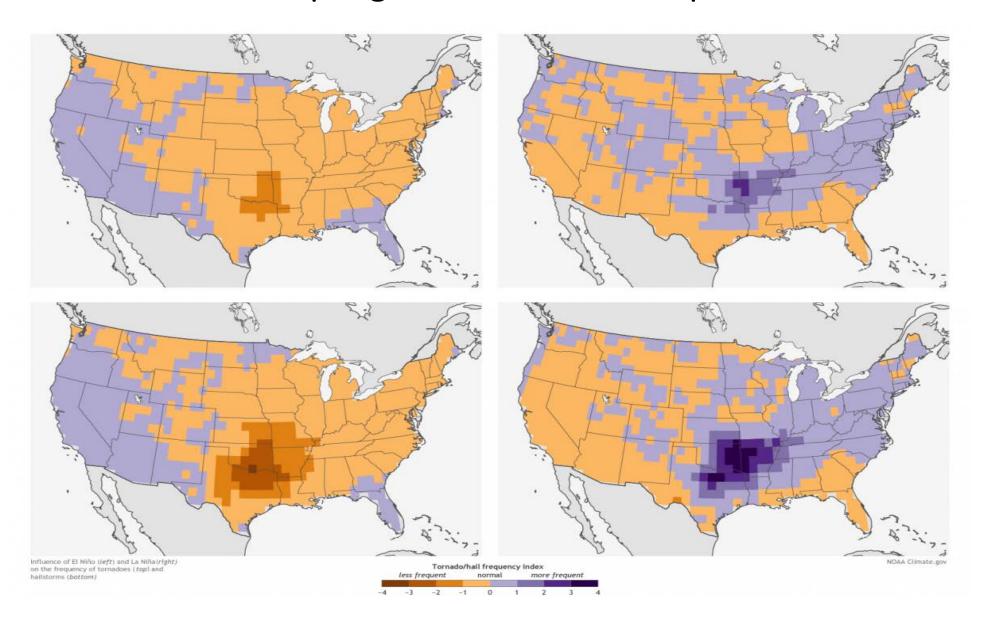
La Nina Temperature Response



La Nina Winter Precipitation Response



ENSO Spring Severe Weather Response



Concerns Going Forward

- Was our wet fall period a lucky break or signs of things to come
- How much of a moderating influence will current soil moisture levels have on air temperatures as we approach winter.
- How strong will La Nina get and what will be the mean jet stream pattern
- Will there be recovery in the northern Plains drought signature
- Will the southern Plains experience dry and warm conditions through the winter and develop a drought signal
- What will be the mean storm pattern this winter
- Will this La Nina end quickly or hang on later than current models suggest



