Precipitation (in)
6/23/2017 - 7/6/2017

Generated 7/7/2017 at HPRCC using provisional data.
Regional Climate Centers
Northern Rockies & Plains region

MT, WY, ND, SD, NE

- June 2017: 8th driest on record, similar years 1936 and 1988

- May-June 2017: 8th driest on record, driest since 2006

- April-June 2017: 22nd driest on record, driest since 2006

- 6 northeast MT locations driest June on record. 12 locations driest April-June on record.
Departure from Normal Temperature (F)
6/23/2017 - 7/6/2017
Northern Rockies & Plains region
MT, WY, ND, SD, NE

- June 2017: 25th warmest. 2016 was warmer. Similar years: 1910, 1970

- April-June 2017: 26th warmest. 2016 was warmer. Similar years: 1926, 2001

- Feb-June 2017: 10th warmest on record. 2012 and 2016 were the record warmest in this region
Soil Moisture

July 4, 2017

Percentile for this time of year, compared to 1916-2004 average

Source:
University of Washington
http://www.hydro.washington.edu/forecast/monitor/
USGS Monthly Average Streamflow

June 2017

https://waterwatch.usgs.gov/index.php?id=mv0ld_dry
SD Grassland Fire Danger: Sat, Jul 8, 2017

https://www.weather.gov/unr/rfd
North Dakota Adjective Fire Danger

http://wfas.net/index.php/north-dakota-fire-danger-rating
7-day Total Precipitation Forecast

http://www.wpc.ncep.noaa.gov/qpf/day1-7.shtml
U.S. Monthly Drought Outlook
Drought Tendency During the Valid Period

Valid for July 2017
Released June 30, 2017

Author:
Rich Tinker
NOAA/NWS/NCEP/Climate Prediction Center

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

Legend:
- Brown: Drought persists
- Light Brown: Drought remains but improves
- Olive Green: Drought removal likely
- Dark Green: Drought development likely
For more information

- SDSU Extension: igrow.org
- NDSU Agriculture & Extension: https://www.ag.ndsu.edu/ndsuag/
- SD Drought Dashboard: climate.sdstate.edu/tools/dashboard
- National Weather Service: weather.gov
- Climate Prediction Center: http://www.cpc.ncep.noaa.gov/
- High Plains Regional Climate Center: hprcc.unl.edu
- This recording will be found at: https://www.drought.gov/drought/calendar/events/northern-plains-drought-webinar-july-7
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Ongoing and potential impacts from the drought conditions

Ryan Buetow
NDSU Area Extension Specialist/Cropping Systems
Weather conditions

• Very little rainfall
  – Extremely variable
  – Dickinson, ND has received 2.98 inches since April 15\textsuperscript{th}
  – Some farmers nearby have received nearly 2 inches during single rain events

• Heavy winds

• Warm temperatures
Crop conditions

- Early planted crops were in soil for long time before receiving moisture
  - Contributed to inconsistency within fields
- Frost events
- Insect issues
- Some fields look surprisingly decent
  - Variable
- Crops matured faster than usual and are very short
Murphy’s Law

• Anything that can go wrong, will go wrong
Frost-damaged corn near Zeeland

Greg Endres
Area Extension Specialist/Cropping Systems
NDSU Carrington Research Extension Center
Impacts

• Many small grain fields being baled or grazed
• Reduction in fertilizer and herbicide sales
• Ranchers in need of forages and fresh water
  – Issues with nitrates
  – Many selling off large portions of herd
Looking forward

- There are some crops that still look okay
  - Differing soil types and rainfall amounts
  - Early planting helped some
  - If we don’t receive rain soon that optimism won’t last long
- High heat in forecast and lack of moisture will result in heavy yield losses
- Shortage of forages come fall?
- This is not a new issue for this region
Questions?

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