Hydrologic and Climate Assessment

July 2, 2019

Photo Credit: Sam Custer – OSU Extension
ANR Educator for Darke County Extension

Photo Credit: Elizabeth Hawkins – OSU Extension
Field Specialist, Agronomic Systems

Aaron B. Wilson
STATE CLIMATE OFFICE OF OHIO (SCOOG)
DEPARTMENT OF EXTENSION - CFAES
BYRD POLAR & CLIMATE RESEARCH CENTER
DEPARTMENT OF GEOGRAPHY
Temperature Differences Compared to Average (1981-2010)

7-Day
Departure from Normal Temperature (F)
6/25/2019 – 7/1/2019

30-Day
Departure from Normal Temperature (F)
5/2/2019 – 6/30/2019

60-Day
Departure from Normal Temperature (F)
6/1/2019 – 6/30/2019

Generated 7/1/2019 at HPRCC using provisional data. NOAA Regional Climate Centers

Generated 7/2/2019 at HPRCC using provisional data. NOAA Regional Climate Centers
This Week’s Precipitation

Multi-sensor Precipitation: Observed (inches)
7-Day Period Ending the Morning of 7/2/2019

7-Day
Percent of Normal Precipitation (%)
6/25/2019 – 7/1/2019

Precipitation data from NWS AHPS: https://water.weather.gov/precip

Generated 7/2/2019 at HPRC using provisional data.
NOAA Regional Climate Centers

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CoCoRaHS

Cheviot: 40.29” since Jan 1

https://cocorahs.org/

<table>
<thead>
<tr>
<th>CoCoRaHS Name</th>
<th>Total Precip (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canfield 0.5 N</td>
<td>18.01</td>
</tr>
<tr>
<td>Anna 3.1 NNW</td>
<td>16.97</td>
</tr>
<tr>
<td>Cherry Grove 0.4 NW</td>
<td>16.82</td>
</tr>
<tr>
<td>St. Marys 2.9 S</td>
<td>16.73</td>
</tr>
<tr>
<td>Mogadore 4.7 SE</td>
<td>16.31</td>
</tr>
<tr>
<td>Amelia 0.3 SSW</td>
<td>16.30</td>
</tr>
<tr>
<td>Highland Hills 0.8 W</td>
<td>16.19</td>
</tr>
<tr>
<td>Shaker Heights 0.6 SW</td>
<td>16.09</td>
</tr>
<tr>
<td>Lexington 0.9 NW</td>
<td>15.71</td>
</tr>
<tr>
<td>Ripley 0.9 SSE</td>
<td>15.64</td>
</tr>
</tbody>
</table>

Since May 1
Precipitation Differences Compared to Average (1981-2010)

30-Day

Percent of Normal Precipitation (%)
6/1/2019 – 6/30/2019

60-Day

Percent of Normal Precipitation (%)
5/2/2019 – 6/30/2019

Generated 7/1/2019 at HPRCC using provisional data.
Soil Moisture

Calculated Soil Moisture Ranking Percentile
JUL 01, 2019

Ensemble-Mean – Current Total Column Soil Moisture Anomaly (mm)
NCEP NLDAS Products Valid: JUN 27, 2019

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Average streamflow compared to historical streamflow for the day of the year.
Evaporative Demand Drought Index

EDDI can offer early warning of agricultural drought, hydrologic drought, and fire-weather risk by providing near-real-time information on the emergence or persistence of anomalous evaporative demand in a region. A particular strength of EDDI is in capturing the precursor signals of water stress at weekly to monthly timescales, which makes EDDI a strong tool for preparedness for both flash droughts and ongoing droughts.

Image provided by the NOAA/ESRL Physical Sciences Division, Boulder, Colorado, from their web site at: https://www.esrl.noaa.gov/psd/.
Weather for the Week Ahead
6-10 Day Outlook

Highs: 82-85°F; Lows: 61-65°F; Precip: 0.80-1.05” (per week)
July 2019 Outlook
Ag Highlights

• 4.5 days suitable for fieldwork for the week ending June 20 – Best of the Season!

• Cut first cutting of hay, plant soybeans, spray for weeds, and apply much needed fertilizer; wheat harvest (not great shape)

Drought Monitor: None

Climate Recap: Dry conditions in the NW and SW and warm

The week ahead: Summer pattern; Scattered storms, locally heavy rain, warm and humid at times
CLIMATE SMART:
Farming with Weather Extremes
Thursday July 18, 2019 | 8:30 a.m. – 3:00 p.m.
Der Dutchman | 445 S. Jefferson Ave, Plain City, Ohio 43064

Planting season 2019 has tested the limits of resilience for many of us across Ohio. How anomalous has the weather been? Does this fit current trends? How likely are we to experience this again? Join us as we discuss climate impacts on farming in Ohio, water management, price and production risk, and a whole lot more!

Current Agenda
8:30 Arrival & Continental Breakfast
9:10 Welcome
9:15 Opening Remarks (Gary Pietrznik, OARDC Associate Dean for Research and Graduate Education)
9:25 Ohio’s Changing Climate (Aaron Wilson, OSU Extension Research Scientist and Climate Specialist)
10:15 Water Management (Jeff Hattey, Professor OSU SENR)
11:05 Break
11:20 Price and Production Risk (Ben Brown, Assistant Professor of Professional Practice in Agricultural Risk Management OSU AEDE)
12:10 Lunch, Networking, & Vendors
1:00 Keynote: Nebraska Flooding Spring 2019 (Tyler Williams, University of Nebraska-Lincoln Cropping Systems Extension Educator)
2:00 Farmer Panel Discussion (Fred Yoder, Paul Pullins, Corey Hendricks, and Liza and Bennett Masselman)
2:55 Program Close and Evaluation

Contact Information:
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RSVP HERE: go.osu.edu/climatesmart
Free to Attend! RSVP by July 11 to guarantee lunch!

https://youtu.be/a2ra042TOME
Partners and Additional Information

• SCOO’s Website: https://climate.osu.edu

• NOAA’s National Climatic Data Center: www.ncdc.noaa.gov
  • Monthly climate reports (U.S. & Global): www.ncdc.noaa.gov/sotc/

• NOAA’s Climate Prediction Center: www.cpc.ncep.noaa.gov

• USDA Midwest Climate Hub: https://www.climatehubs.oce.usda.gov/hubs/midwest

• Climate Portal: www.climate.gov

• U.S. Drought Portal: www.drought.gov

• National Drought Mitigation Center: https://drought.unl.edu/

• Midwest Regional Climate Center: https://mrcc.isws.illinois.edu

• Community Collaborative Rain Snow Hail Network (CoCoRaHS): https://cocoRaHS.org

• Intro Song: “Lazy Afternoon” by Dan Lebowitz