

# OHIO GRAPE-WINE ELECTRONIC NEWSLETTER

Edited by: Dr. Maria Smith

July / 2019



Photo: Chardonnay, clone 37, July 2019 (Photo by Diane Kinney)

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## Summertime sizzles

It's hard to believe, but it's about time to get that bird net up, as we are just weeks away from the first harvests of early varieties.

The past several weeks have been a welcome departure from the early season rains. This has helped dry out the canopy and given plenty of time to complete important mid-season management practices in advance of veraison, including crop estimation, fruit-zone leaf removal, hedging, and, if needed, cluster thinning.

Now, as we move into the pre-harvest part of the season, monitoring ripeness and rot will be critical to making harvest decisions.

*-Maria and the V&E Team*

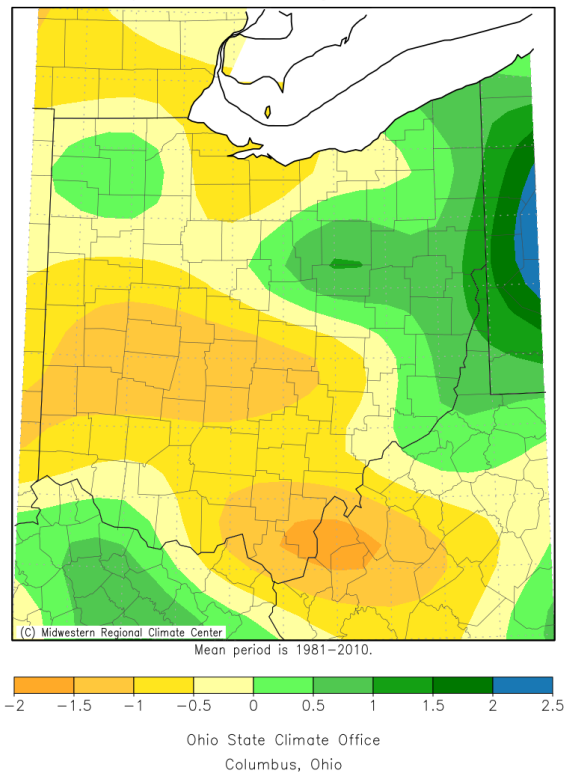
# Hitting the mid-season: state-wide updates for July 2019

By: Dr. Maria Smith

## Weather from across the state:

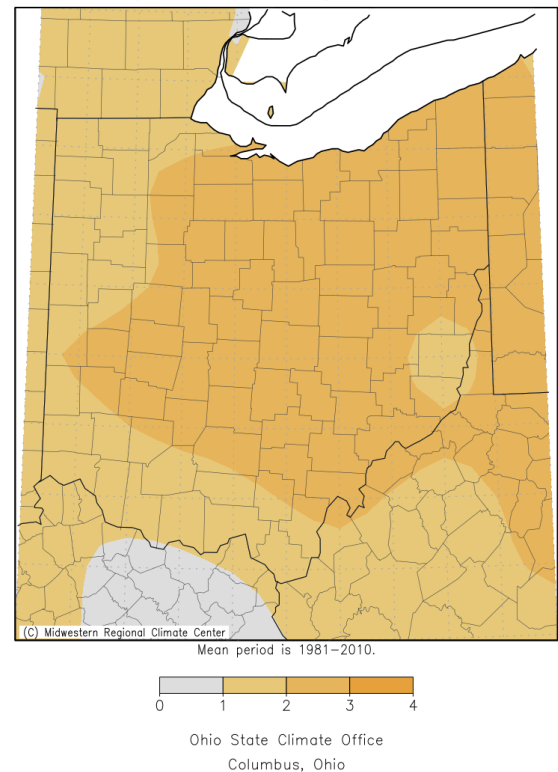
While the eastern and portions of northwestern and southwestern counties of Ohio continued to see above average rainfall throughout July (see: OARDC-Wooster July Vineyard Update), much of the rest of the state has dried out considerably from the spring and early summer (**Figure 1**). Uniformly, each county in the state has been warmer than average for July (**Figure 2**). In general, this is good from a disease management perspective (lower pressure, longer spray intervals) and time to get your mid-summer management done. However, mild droughts may be problematic for young vines during establishment, which may require periodic irrigation if soils dry out.

Accumulated Precipitation (in): Departure from Mean  
July 7, 2019 to August 5, 2019



**Figure 1.** Departure of total precipitation from the mean from 7 July 2019 through 5 August 2019. Figure from <https://climate.osu.edu/climate-maps-ohio>.

Average Temperature (°F): Departure from Mean  
July 6, 2019 to August 4, 2019



**Figure 2.** Average temperature departure from the mean from 6 July 2019 through 4 August 2019. Figure from <https://climate.osu.edu/climate-maps-ohio>.

# State updates continued

## Some common threads among site visits:

Approximately 15 vineyards were visited in July with several notable issues arising in the past month, including disease, nutrient deficiencies, and, 2-4 D drift injury.

- When disease signs show up in the fruit this time of year, curative action is difficult. The best offense against diseases is using a good defense, which involves developing and implementing an adequately protective spray program and applying best canopy management practices for your varieties. If you have diseased fruit, the best course of action at this point is to continue your spray program through post-harvest to protect the leaves and shoots and practice good vineyard sanitation by removing and destroying infected fruit (and other infected tissues later when pruning). This will help decrease inoculum levels for the next season.
- Nutrient deficiencies often begin appearing around mid-summer following the energy intensive periods of bloom and fruit set. In order to correct any deficiencies, vine nutrient status should be assessed, ideally within 30 to 100 days following bloom, via petiole sampling in addition to soil sampling. In particular this season, one of the most pervasive deficiency symptoms I have been noticing has been potassium (K). There are two very good online articles that address K deficiencies at <https://psuwineandgrapes.wordpress.com/tag/potassium-deficiency/> and [https://www.ares.vaes.vt.edu/content/dam/ares\\_vaes\\_vt\\_edu/alson-h-smith/grapes/viticulture/extension/news/vit-notes-2016/kinvitandeno.pdf](https://www.ares.vaes.vt.edu/content/dam/ares_vaes_vt_edu/alson-h-smith/grapes/viticulture/extension/news/vit-notes-2016/kinvitandeno.pdf).
- 2-4 D drift injury has been one of the most concerning means of crop loss thus far in 2019. Based on reports, drift injury seems to have coincided with late plantings of corn and soy following heavy spring rains. Currently, little is known about best management practices following drift injury. It has been suggested that removing symptomatic portions of shoots early before translocation begins to the roots may decrease overall levels of 2-4 D within the plant and, therefore, minimize potential carryover effects (D. Doohan, personal communication).



**Photos (top):** Black rot (left), anthracnose (right); **Photos (bottom):** Signs of nutrient deficiency (left), 2-4 D drift injury (right).



# OARDC-Wooster July Vineyard Update

By: Diane Kinney and Dr. Imed Dami, HCS-OSU (Photos by Diane Kinney)

## Grape phenology:

In Wooster, we are beginning to see the start of veraison in early ripening varieties including Marquette, La Crescent and Regent. The remainder of our varieties are at a marble-sized stage and the beginning of berry touch..

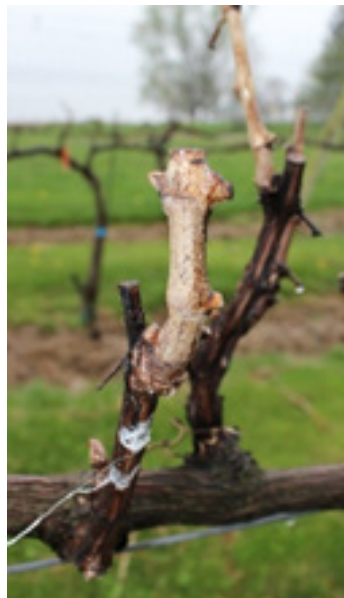


*Photo: Marquette 31 July 2019*

**Phenology progression of Cabernet franc (Photos left and center show year-over-year comparison of phenological stage at the same date)**



Cab franc (25 Apr 2018)



Cab franc (25 Apr 2019)



Cab franc (30 May 2019)



# OARDC-Wooster July (continued)

Phenology progression of Cabernet franc (June and July 2019)



Cab franc (27 Jun 2019)



Cab franc (31 Jul 2019)

# OARDC-Wooster July (continued)

## Weather Conditions:

Rainfall in July was 7.92" which exceeded the 30-yr average by 4.37". On July 21, 3.69" of rain fell, and some neighboring communities in Wayne county suffered damage from flooding with up to 7" falling that same day. Cumulatively, we are nearly 12" over the long-term average for a total just over 30"! July was slightly warmer than normal, but GDD (1765 vs 1800) is a little below the long-term average.

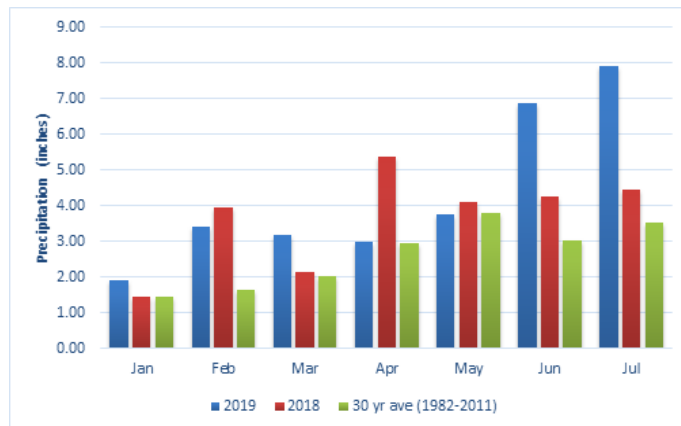


Figure 1. Monthly mean precipitation for Wooster, OH

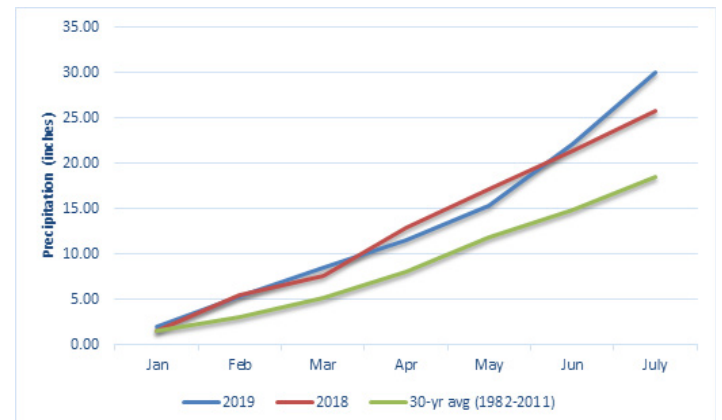


Figure 2. Cumulative precipitation for Wooster, OH

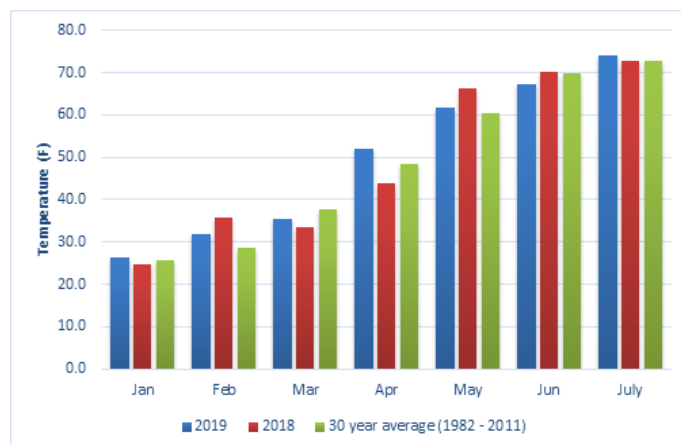


Figure 3. Monthly average temperature for Wooster, OH

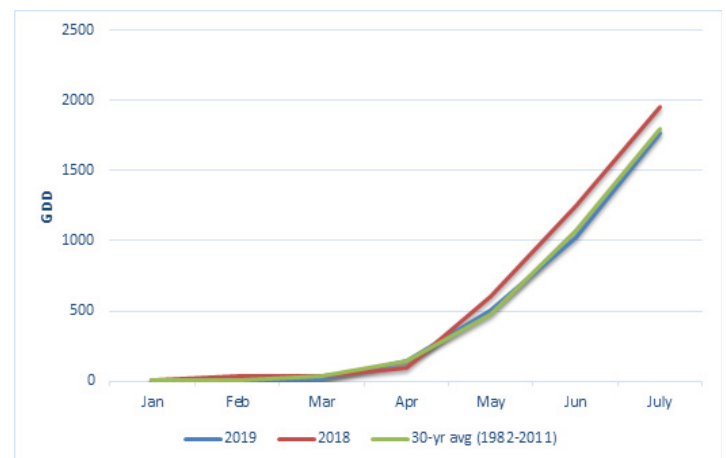


Figure 4. Cumulative GDD for Wooster, OH



# OARDC-Wooster July (continued)

## Cultural Practices:

Vineyard activities have been on schedule for the most part including leaf removal and cluster thinning as well as the typical training of new vines or replacing cordons of winter-damaged vines. With the onset of veraison, we hope to complete hedging this week and plan to start netting in the coming week. Japanese beetles have been an ongoing issue even with frequent and timely sprays applications. Most of the vineyard has fared well except the edge rows with some vines that suffered up to a third defoliation of the canopy (see photo).



*Photos: Defoliation of Chardonnay caused by Japanese Beetles*



OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER

# SUMMER MANAGEMENT OF COLD INJURED GRAPEVINE WORKSHOP

**Hosted by: Dr. Maria Smith, Dr. Imed Dami, and Diane Kinney**

The 2018-2019 winter brought another damaging polar vortex event to Ohio vineyards. Join us on Tuesday, August 27 for an afternoon workshop, as we discuss summer management of vines following damaging cold temperatures, the current state of the 2019 growing season, and more!

**TUESDAY, AUGUST 27, 4:00-6:00 P.M.**

**Location:** OARDC Unit 2, 5082 Oil City Road, Wooster, OH

**Cost:** \$10

**Details:** Registration covers handouts and refreshments

**Pre-registration Contact:** Diane Kinney at [kinney.63@osu.edu](mailto:kinney.63@osu.edu) or 330-263-3814



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<b>Dr. Doug Doohan, Professor</b> Horticulture & Crop Science 116 Gourley Hall - OARDC	330-202-3593	email: <a href="mailto:doohan.1@osu.edu">doohan.1@osu.edu</a>	Vineyard weeds and control. Recommendation on herbicides.
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<b>Andrew Kirk, AARS Station Manager</b> Astabula Agricultural Research Station 2625 South Ridge Rd. Kingsville, OH 44048	440-224-0273	email: <a href="mailto:kirk.197@osu.edu">kirk.197@osu.edu</a>	Viticulture research and outreach in northeastern Ohio.
<b>Dr. Erdal Ozkan, Professor</b> Food Agriculture & Biological Engineering 590 Woody Haes Drive Columbus, OH 43210	614-292-3006	email: <a href="mailto:ozkan.2@osu.edu">ozkan.2@osu.edu</a>	Pesticide application technology. Sprayer calibration.
<b>Patrick Pierquet, Research Associate</b> Horticulture & Crop Science 220 Gourley Hall - OARDC	330-263-3879	email: <a href="mailto:pierquet.1@osu.edu">pierquet.1@osu.edu</a>	Wine cellar master. Enology research, micro-vinification, sensory evaluation, and laboratory analysis.
<b>Dr. Maria Smith, Viticulture Outreach Specialist</b> Horticulture & Crop Science 205 Gourley Hall - OARDC	330-263-3825	email: <a href="mailto:smith.12720@osu.edu">smith.12720@osu.edu</a>	Maria is the primary contact for viticulture extension and outreach. Evaluation of site suitability for vineyard establishment and all aspects of commercial grape production.
<b>Todd Steiner, Enology Program Manager &amp; Outreach</b> Horticulture & Crop Science 118 Gourley Hall - OARDC	330-263-3881	email: <a href="mailto:steiner.4@osu.edu">steiner.4@osu.edu</a>	Todd is the primary contact for enology research and extension. Commercial wine production, sensory evaluation, laboratory analysis/setup and winery establishment.