



Virginia Sentinel Vineyard Newsletter

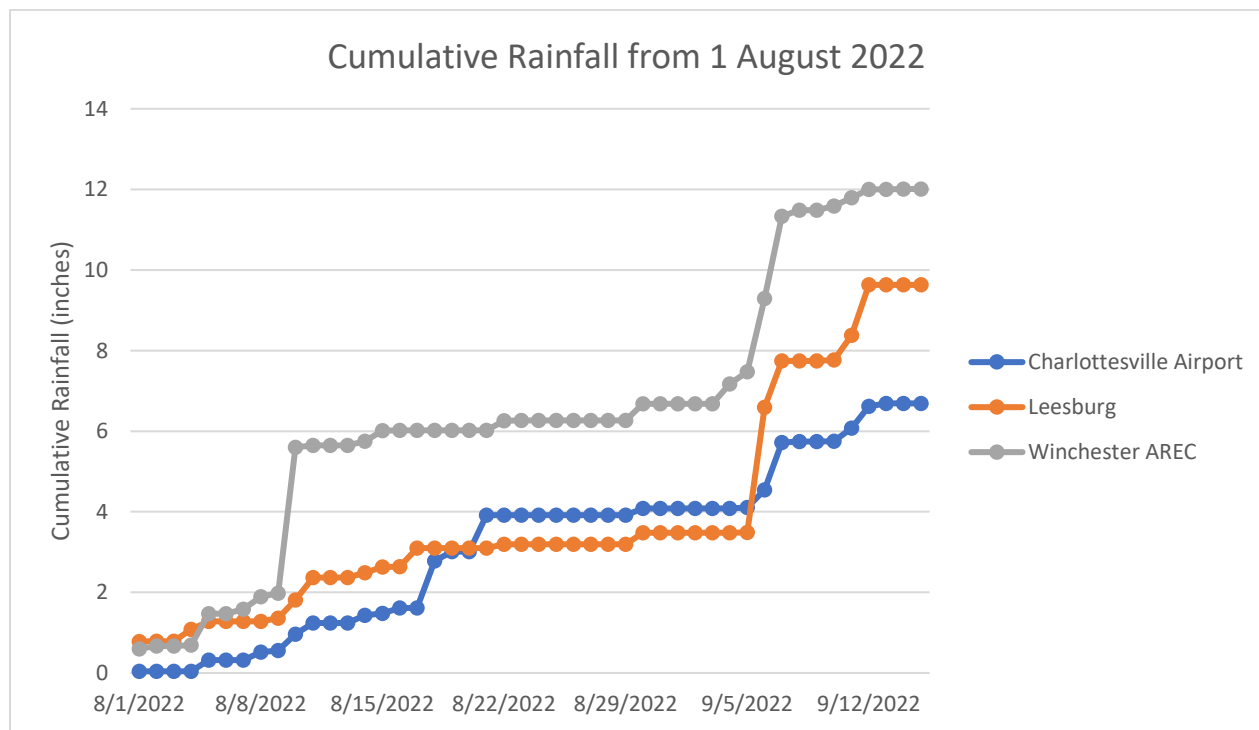


Friday, 16 September 2022

Vineyard updates

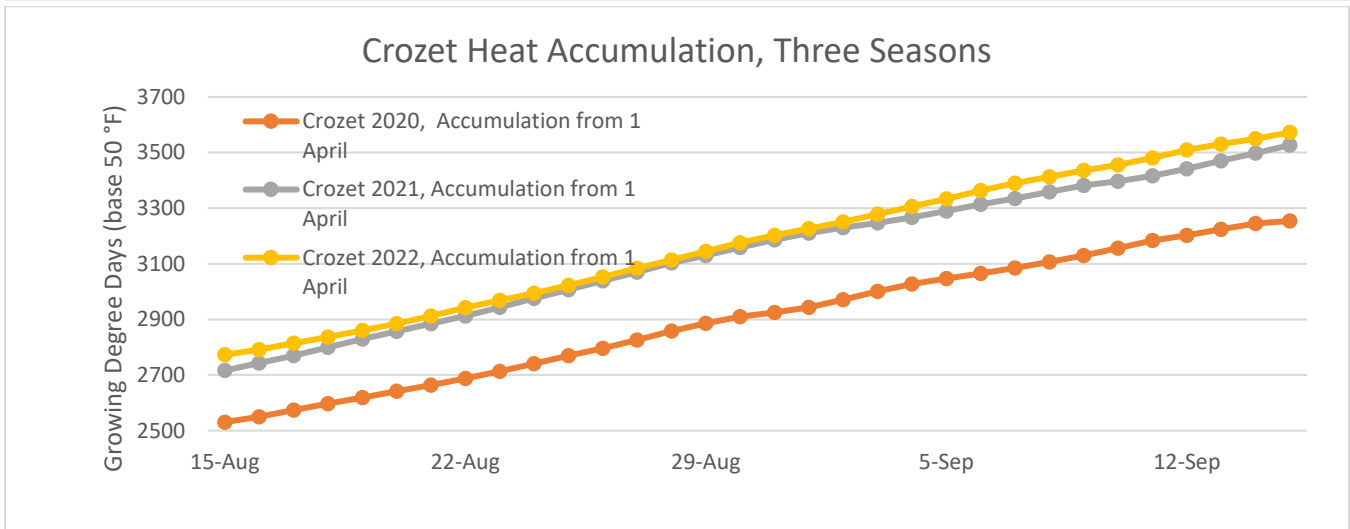
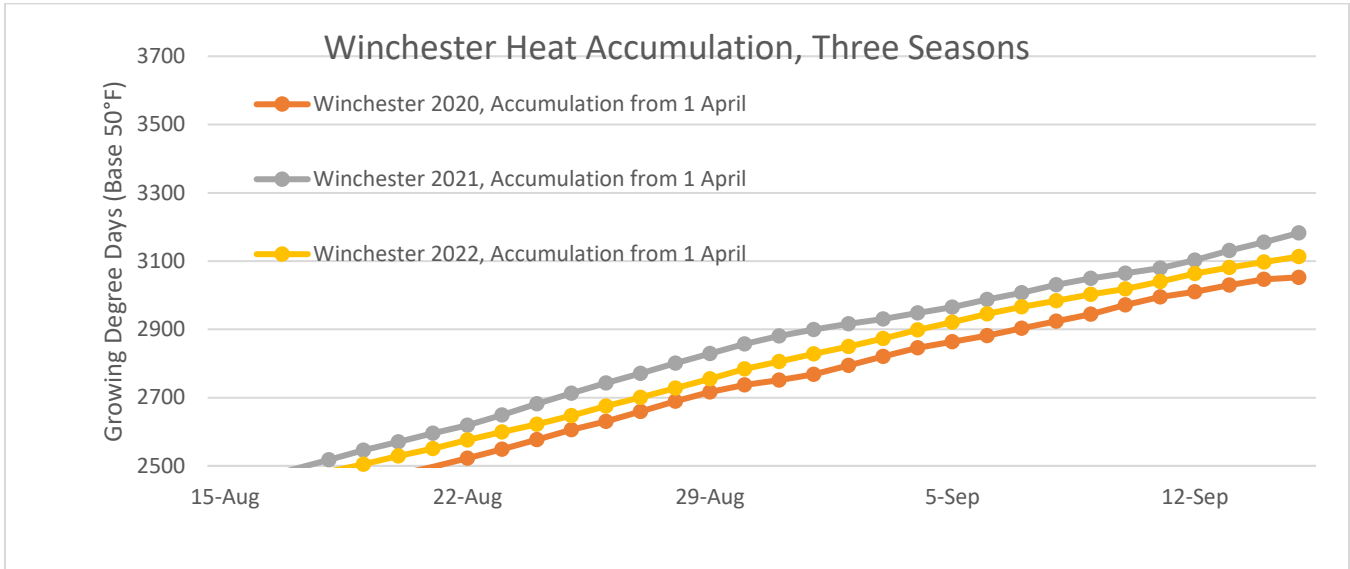
Tremain Hatch- Part-Time Research Faculty

Whew, most of us are experiencing a stretch of nice weather following a couple big rain events. Most sites saw over an inch of rain in the past couple weeks. Some saw much more than that. It does look like the southeastern part of the state is relatively dry.



From what I have seen in northern Virginia, most fruit weathered the rain pretty well. I have heard pretty loud complaints about bird and animal damage to fruit in vineyards.

Regarding heat accumulation we are running more similar to 2021 than 2020, however it appears to me that harvest dates are running later than they did last year. See more about fruit maturity in the Enology section. Good luck over the next week.

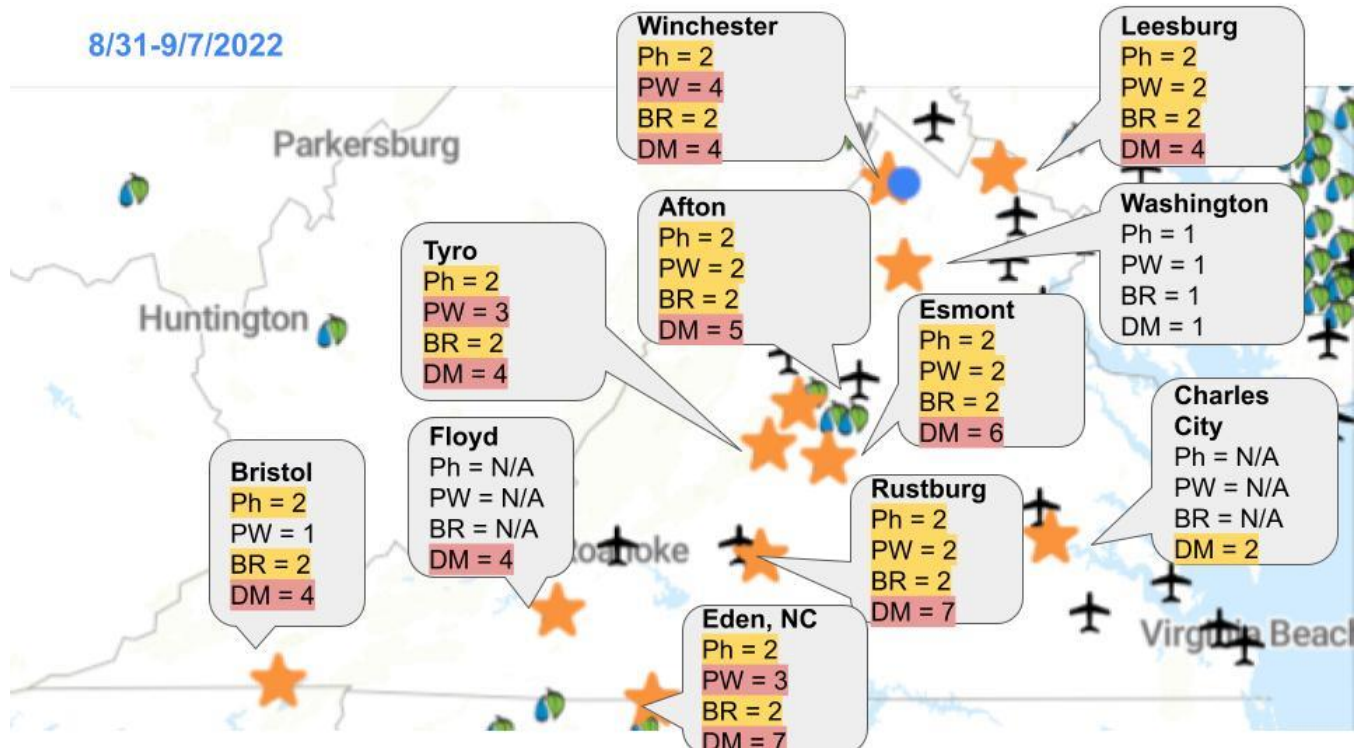


Disease update

Contributor: Mizuho Nita, Ph.D., Associate Professor & Extension Specialist for Grape Disease Management

We had several rain events in the past two weeks throughout the state, and things are started to dry out a bit in the last week or so. The environment seems to be relatively dry on the eastern side of the state. However, based on the NEWA’s DMCast, the risk of downy mildew has been high for most stations.

Here’s a summary from the last week (showing the number of days with the risk of each disease: Ph = Phomopsis, PW = Powdery mildew, BR = Black rot, and DM = Downy mildew. Note: Since both Floyd and Charles City stations are not communicating in the last few weeks, the NEWA is using a weather model to predict downy mildew risks.



The high number of days with downy mildew risk is likely due to cooler nighttime temperatures, which drive the relative humidity high, and the downy mildew pathogen produces its spores under dark and wet conditions. Sometimes heavy dew is enough to spread spores (i.e., condensation water from the dew running down on the surface of leaves) and if they are producing spores, a short rain event can be enough to spread these spores.

The best course of action against any plant diseases is a prevention. At this time of the year, the targets will be downy mildew and other late-season diseases, such as ripe rot and sour rot. The risk of these diseases will depend on your environment, cultivar, and past disease conditions, so, please make sure to come up with a best approach for your situation. For more information, including the list of short-PHI spray materials and pest management guides, please visit my blog (<https://ext.grapepathology.org>).

Hopefully, the dry spell continues. Happy harvest!

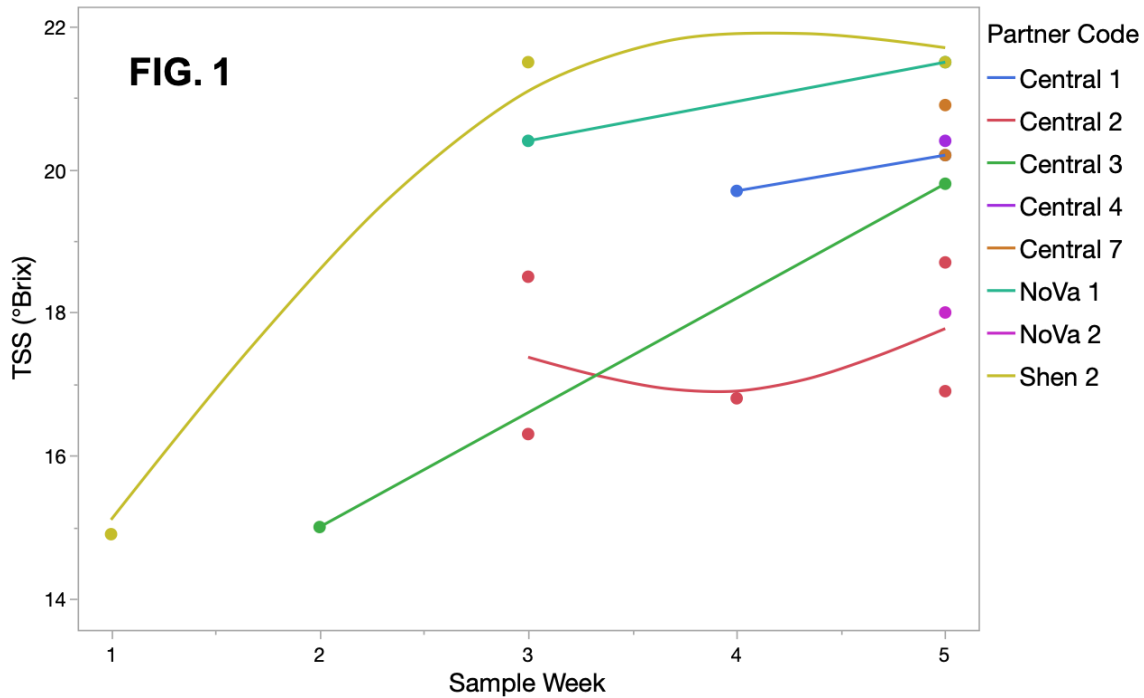
Fruit Chemistry Update

Contributor: Beth Chang, PhD, Enology Extension Specialist

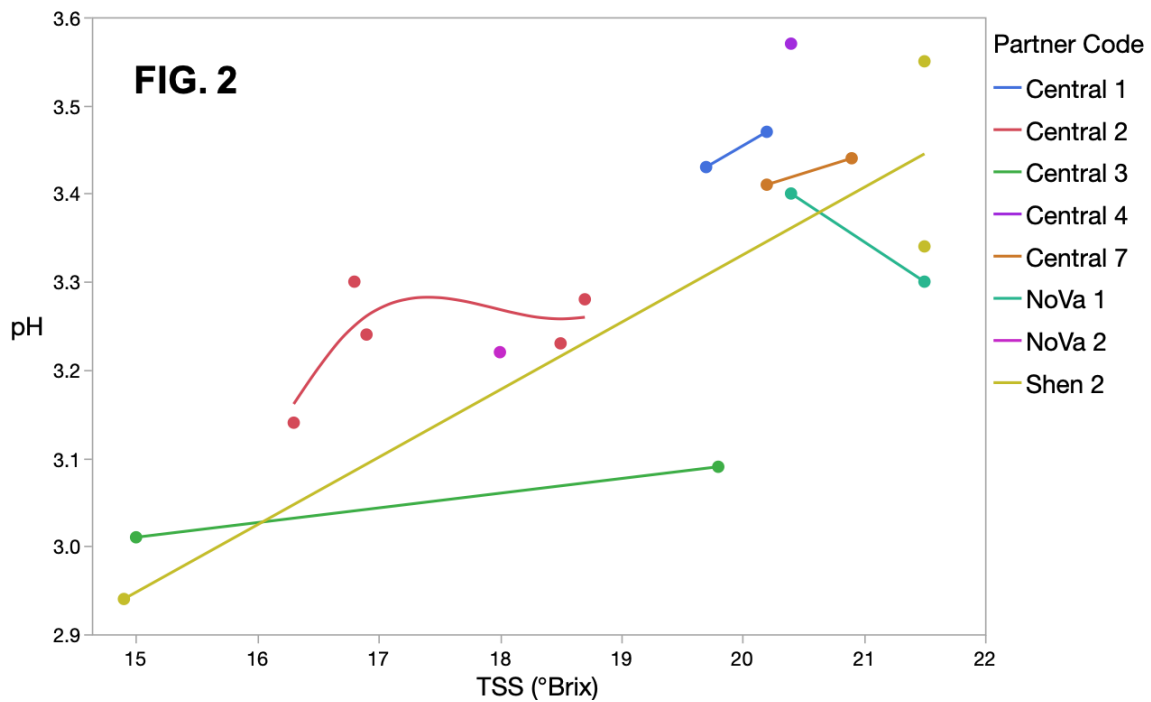
As discussed in the above sections, it's been a meteorological rollercoaster since our last report, but hopefully this stretch of lovely dry weather overall counterbalances any negative effects from the recent precipitation. In the case of white wine cultivars, the rainfall forced some pick decisions: either beforehand, shearing off the possibility of any more sugar accumulation, or after the fact, as disease pressure started causing damage. Due to the recent cooler conditions, unfortunately it appears there was some stagnation in sugar accumulation while pHs continued to rise. I've heard that Viognier was particularly affected by this confluence of ripening timing and

poor weather. On a positive note, there is still some **Chardonnay** on the vines around the state with reported low disease incidents (fingers crossed) and plans to harvest next week – I look forward to seeing those final numbers.

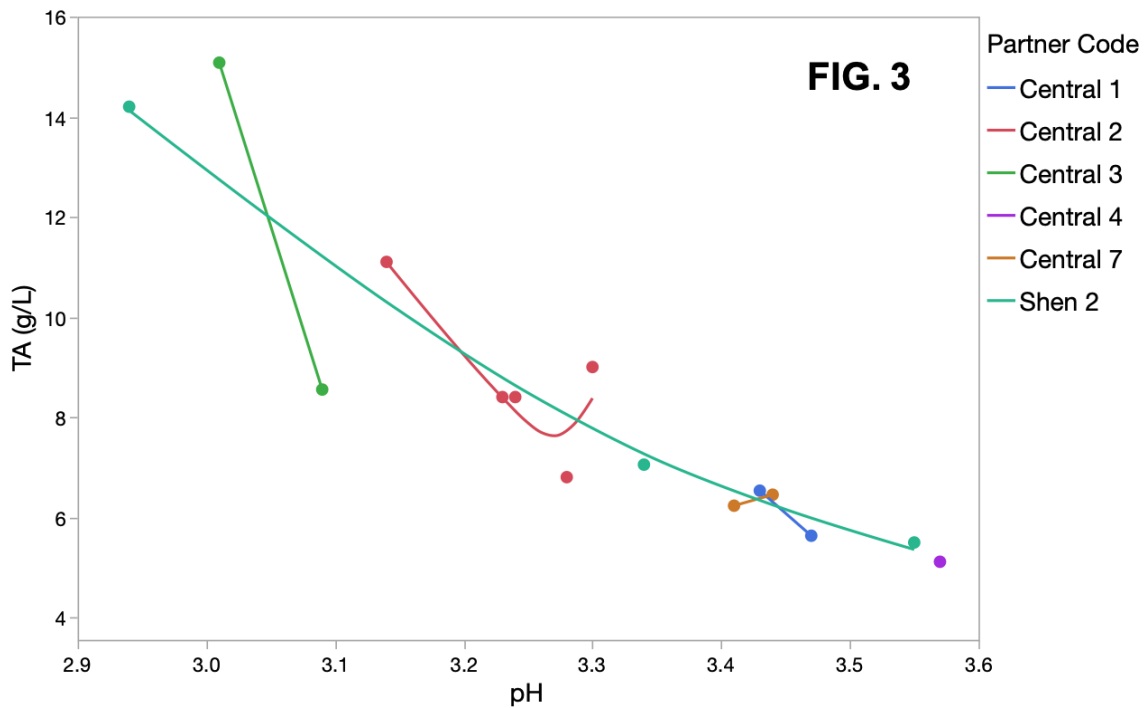
As promised, today we are going to take a closer look at **Cabernet Franc**, as most of our industry partners began sampling within the past 2 weeks. As seen in Fig. 1, Total Soluble Solids (TSS; measured in °Brix) are in the 17 – 21 °Brix range. I’ve received 1 report of a Cab Franc pick within the next week, but generally growers are hoping to let hang at least through this current dry spell.



As usual for us here in Virginia, the balance between pushing sugar accumulation (and other flavor component maturation, e.g. phenolics) versus acid retention is a fine one. We see in Fig. 2 that, on average, there is a bit of wiggle room so far this season, with pHs currently around 3.4 – 3.5 at several locations, and even lower at the higher elevations/cooler sites. Similar to Chardonnay, pHs are .1 - .2 units lower, given °Brix, than we have had in the past 2 years.



Wrapping up this snapshot of harvest conditions, Fig. 3 shows Titratable Acidity (TA; in g/L) as a function of pH. It's early enough in the season that we are still seeing some locations dropping into the 7 – 9 g/L range, with expectations that harvest is several weeks away. Alternatively, a number of sites have fruit approaching the 5-7 g/L range, and will be closely monitoring for more imminent picks. Looking forward to sharing that harvest data in our next report. Until then, wishing everyone continued good fortune and dry weather!



We thank the Virginia Wine Board for their ongoing support of this program.

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