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[Extension Viticulture Website](#)

[Weekly Weather Station
Reports](#)

ISU Viticulture Newsletter Returns

Good News Everyone! Due to popular demand, the ISU Viticulture Newsletter has returned.

Newsletter topics will be a bit different than what you have received in the past. Topics will include:

- upcoming events
- discussion on seasonal issues
- reporting on pest modeling
- announcement of new fact sheets
- weather station reports
- and miscellaneous other topics relevant to grape production

The newsletter will be released approximately monthly during the off-season and more frequently during the growing season as needed.

If you would like to receive future newsletters in your email, you can sign-up [online](#). Otherwise you can find the e-newsletter at www.extension.iastate.edu/viticulture shortly after publication.

With that all said, allow me to introduce myself. I am Joe Hannan, the new fruit crops field specialist at Iowa State University Extension and Outreach primarily serving grape and apple producers. I have been a regional fruit and vegetable specialist for Central and Western IA since November 2010 focusing on high tunnel production, apples, irrigation, fertility, and food safety (basically everything fruit and veggie related but grapes). My goal as a field specialist is to increase the quantity, quality, and safety of produce grown in the state.

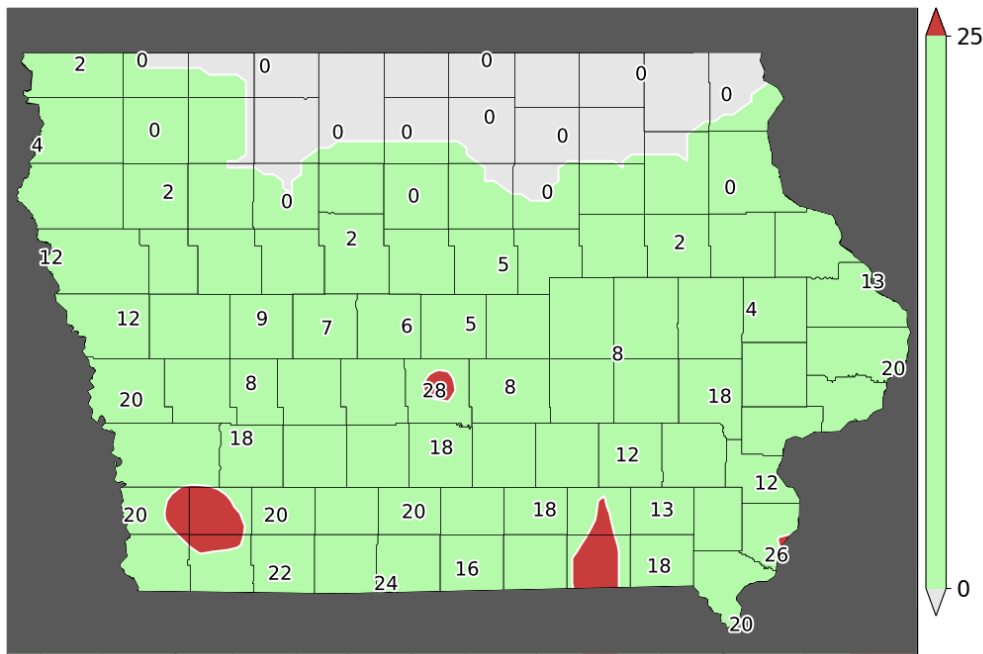
I completed my Master's degree at ISU under Paul Domoto focusing on potassium/magnesium/soil pH interactions with grapes while simultaneously working for the ISU Research Farms system. I managed the research vineyard that was located near Washington, IA and worked with various other crops at the Muscatine Island Research and Demonstration Farm.

In 2015, I pulled our apple industry together into a working group. We have been working on frost mitigation strategies and pest management through a series of grants backed by a needs assessment we conducted when the group formed. I also serve on the Iowa Produce Safety team tasked with implementing the FSMA Produce Safety Rule here in the state and am the director and co-lead for the North Central FSMA Center housed at Iowa State University, which serves the 12 North Central states. That project has 1.5 years left.

Outside of the University, I have been involved in a few farm businesses. My wife and I recently purchased our own farm and are growing strawberries, raspberries, and other gourmet fruits as well as cut flowers.

I am very excited to be focusing on just two crops and look forward to working with the industry. For questions or comments, contact Joe Hannan at jmhannan@iastate.edu or 515.971.9503

Fig 2. Japanese beetle Model. Base 50, Cap 86 accumulated from January 1st through March 2nd. I left the previous week's map in just to show how much we accumulated over the weekend.



Iowa Environmental Mesonet :: generated 02 March 2020 02:16 PM

Grape Berry Moth

Grape Berry Moth modeling requires local input to identify when wild grapes are blooming in addition to growing degrees days. If you would like to provide wild grape bloom data for your region, I would appreciate it.

Other Things in the Pipeline

There are a few other things in development for the viticulture industry...

- The [viticulture website](#) has been updated. I will be adding material as I develop it.
- I am working on setting up a podcast. Just waiting on equipment and software. I am always looking for guest hosts...if you are interested send me a note.
- I am also working on acquiring video equipment and software to create videos.
- Dr. Andrew Manu from the Agronomy Department submitted a Specialty Crop Block grant for drone mapping vineyards. More details to come if funded.

And of course, I am always interested in your ideas and suggestions. Several of you have provided some already.

Spring Fertility Applications

As we enter spring, it is time to be thinking about fertility applications. It is generally a good idea to have both recent soil samples (every couple of years) and foliar samples (annually). Soil samples provide a general idea of nutrient availability for plant uptake while foliar samples tell you exactly what has been taken up. I highly recommend foliar sampling for grapes as sometimes the soil sample can indicate a deficiency but plants are not actually deficient. I will provide details on how to foliar sample later this spring when appropriate.

Soil pH

Soil pH should be 6 to 6.5. For more details on why see [Soil pH Article on Acreage Living](#). The article does not deal with adjusting soil pH on established plantings. Unfortunately, sulfur is not mobile in the soil so surface applications of sulfur have limited effectiveness. It requires a lot of rainfall to leach sulfur into the soil profile and enact a pH change. Fertilizing with ammonium sulfate is a bit more effective at pulling down the soil

pH as both the ammonium (nitrogen source) and the sulfate are acidifying agents sulfate is slightly more mobile in the soil profile than elemental sulfur.

If your vineyard soils tend to hang in the 6.5 to 7.0 range, I recommend annual applications of acidifying agents to pull the pH down and hold it down. Generally ammonium sulfate if you need nitrogen or just elemental sulfur fertilizer if you do not need the nitrogen.

If you are in Western or Eastern Iowa along the Missouri or Mississippi rivers, your soils may be calcareous (essentially the soil pH is not going to go down regardless of sulfur applications). If this is you, check your foliar tests and, if needed, add iron monthly as part of your spray program (in more extreme cases every 3 weeks). You may also need additional zinc though once you are no longer applying Mancozeb.

Potassium

Soil potassium should be about 290 lbs/ acre (145 ppm). Potassium also is not very water-soluble. Surface applications of potassium will take time and rainfall to move down into the soil profile. Potassium chloride (0-0-60) is the cheapest option to apply. It is a dry granular product that is easily broadcast across the field. Potassium can fluctuate from available to unavailable (and back again) with soil moisture and soil pH so some flex between soil tests is normal.

Foliar applications of potassium are hit or miss and dependent on both source and cultivar with limited research on product uptake. If someone was interested in trying foliar K applications side-by-side (probably in Marquette where I know K uptake on high pH is an issue) I would be happy to help and may have some funding to offset foliar sampling costs.

Example potassium application calculation

You soil report says you have 250 lbs per acre. You should have a total of 290 lbs per acre. Thus you should apply:

$$290 \frac{\text{lbs}}{\text{acre}} \text{ needed} - 250 \frac{\text{lbs}}{\text{acre}} \text{ already have} = 40 \frac{\text{lbs}}{\text{acre}} \text{ to apply to field}$$

Potassium chloride is 0-0-60 N-P-K (actually %N-%P₂O₅-%K₂O). To estimate how much 0-0-60 is needed to apply 40 lbs per acre potassium

$X * .83 * .60 = 40$ lbs per acre potassium where 0.83 is a conversion factor from K₂O to potassium. Solving for X means apply 80 lbs of 0-0-60 per acre (or about 1.5, 50 lbs bags per acre).

Phosphorus

Soil phosphorus should be about 60 lbs per acre. The conversion factor for P₂O₅ is 0.44. Triple super phosphate 0-46-0 is probably the cheapest granular phosphorus to apply. It too is not really mobile going into the soil and will have very limited effectiveness when surface applied. Unless you are showing a severe phosphorus deficiency, application is likely not cost effective.

Nitrogen

I do not have a lot of comments regarding annual nitrogen applications since this varies a lot from field to field and cultivar to cultivar. However, I would suggest caution on over application to anyone doing significant reestablishment work due to trunk dieback or other blank areas on cordons. Significant pruning could lead to a fair amount of return plant vigor. In this case, a split application of early spring and late spring might make sense to gauge plant vigor (and need for second half of application) if you generally apply heavier nitrogen rates.

Other Points of Interest

DriftWatch

Most of you have probably already registered with DriftWatch, but in case you have not, you can do so [online](#).

DriftWatch is the new Iowa Sensitive Crop / Bee Directory (as of 2019). If you have previously registered with Driftwatch, you should have or will receive an email when it is time to renew your sensitive crop. It takes less than 5 minutes to do.

Pruning

By now everyone should be in full pruning mode. I am seeing a little more bud injury than I expected (temperatures were not really that cold this winter). Not sure exactly if this is due to actual low temperature or if this is due to some of our very warm days followed by extreme temperature drops. Curious to hear what you are seeing.

Do remember, especially if you are pruning out grapevine trunk disease, that you should be sanitizing pruners regularly. The effectiveness of the sanitizer is directly related to how clean the pruners are. If your pruners are starting to accumulate plant sap and debris, they need to be cleaned prior to sanitizing or the sanitizer will not work. At the very least, your pruners probably need to be cleaned at least once per day. On a full day of pruning, you may also need to do a quick clean at lunch.

Biosecurity

Hopefully you are thinking about biosecurity in your vineyards this spring. Follow normal best practices of lots of handwashing followed by hand sanitizer, clean clothes every day, and shower every day. More importantly, how are you managing guest and workers in your vineyard? Are you communicating the message to wash hands frequently and to wear clean clothes when visiting? If you do not have worker training or guest visitor policies in place, now is a good time to implement them. See ISU Extension Publication [Safe Food Is YOUR Job - Health and Hygiene Tips for Food Handlers](#).

Grapes Wanted

Erin Rasmussen of American Wine Project sent me a note seeking Brianna, Marquette, and Traminette for 2020. If you have some that you would like to sell, contact Erin at info@americanwineproject.com.

Some Of My Favorite Things Wines

Jennie Savits asked me to share this upcoming event. A one-day workshop (with tastings) led by two experts and their opinions on their favorite wine styles using cold climate grapes. See the attached PDF for more details.

Weather Station Report

Following this newsletter you will find weather station summary data from the 5 vineyard weather stations across the state. Data is assembled weekly and posted to the Viticulture website. For your convenience, data from the most weekly report will be included at the end of the Viticulture newsletter (or in this case as a separate attachment).

These reports are assembled by James Schrader, ISU Department of Horticulture. For questions on these reports, please feel free to contact him directly at jschrade@iastate.edu.

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