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Message from the FWGGA President....

Greetings to all you growers, wine makers and wine lovers!

At the beginning of the year, who could have imagined the challenges we would be facing in 2020? Our farmers and wine makers are quite used to curves thrown by mother nature and surprises in the wine making process. We always find ways to rise to those challenges, adapt, overcome, and make fabulous Florida wines. We will surely do the same in 2020!

Although viral pandemics and dramatic social changes will test us in ways that are far from normal, we must simply be more innovative, more creative, more diligent, more patient and more kind. We will all be doing business in ways that we never had before. We must remain positive and move forward, both professionally and personally.

In that vein, your board of directors is surely remaining positive and moving forward. As of now, we continue our planning for both the 2021 FWGGA Annual Conference and the Florida State Fair International Wine Competition. We will keep you updated throughout the year on any changes that may arise. Until then, Drink Local and enjoy our Florida wines!

With warm regards, J. R. Newbold III FWGGA President

2020 Summer Edition

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Harvest Festival Reimbursement Program

For those of you who may have participated in this program in the past, please take note of these important changes. Due to Covid-19 social distancing protocols and the fact that harvest festivals likely will not occur this year, the Viticulture Advisory Council recommended shifting this year's allocation of Harvest Festival funds to the Advertising Reimbursement Program.

So, what does this mean for you if you do indeed hold a harvest festival and wish to be reimbursed for expenses? You will need to apply for funding assistance through the Advertising Reimbursement Program before September 30, 2020 for festivals conducted between April 1, 2020 and March 31, 2021.

To qualify, you must be a Certified Florida Farm Winery. For more information about this program or to receive an application, please contact Emily Hetherington at the Florida Department of Agriculture & Consumer Services at <u>emily.hetherington@fdacs.gov</u> or (850) 617-7291.

Become a Florida Farm Winery!

Certified Florida Farm Wineries qualify as a tourist attraction. By becoming a Certified Florida Farm Winery, you are also eligible to receive reimbursement for harvest festivals and promotional costs. For more information please contact Florida Department of Agriculture and Consumer Services Viticulture Liaison, Emily Hetherington at (850) 617-7291 or emily.hetherington@fdacs.gov

COVID 19 has not slowed us down.

The planning for the 2021 FWGGA Conference is moving full speed ahead. We are trying to make this the best and most informative conference to date. We are returning to DeLand, Florida and working with the local tourism authority, and The Courtyard by Marriott is waiting to welcome us again. We are negotiating for the meeting venues and everyone is excited about us coming to town again.

One major session will be Todd Steiner, Enology Program Manager & Outreach Specialist, Ohio State University, who will be presenting critical issues in preventing wine flaws. Some of the other areas we will touch on are how the pandemic has affected our industry, and new marketing ideas this "novel "environment we are faced with.

But all work and no play, would make for a dull day, so our evening activities will remedy that situation. Friday evening, we will have our Meet & Greet party with another fun mini competition of our wines. Everyone had a great time with that last year and Sarah has refined it even more for this year.

The 20's Wine Walk costume party last year was a "roaring "success that will be hard to top but this year we decided to honor the 50's. We are teaming up with a local Car Club and the Elusive Grape for a Saturday evening extravaganza. There will be Cruisin' Cars, Music, a Sock Hop, and a Wine Party. With this much advance notice, we know you will have time to dust off those duds from the 50's and join in the fun.

More details will be available in our next conference newsletter but meanwhile, please plan to join us...

Save the Dates - January 15 - 17th, 2021



June 2020 Membership Status

To date we have a total of <u>86</u> Members, composed of 72 renewals, 13 new and 1 Lifetime member. Most of the new memberships were in the Student category. In addition to the 7 new memberships in the Student category, there were 5 new Non-Commercial members and 1 new Associate member (Total=13).

The current 86 Total Memberships are broken down as follows:

- 34 Commercial (no new members)
- 35 Non-Commercial (4 new members)
- 9 Associate (1 new member)
- 7 Student (all new)
- 1 Lifetime

To update, after taking care of the memberships that came in before, during and just after the conference, I sent out Membership Renewal Invoices during the last two weeks of January and followed those up with reminder emails at the end of March. Five memberships resulted from the Invoices and reminder emails.

There remains a total of 33 outstanding renewals (5 Associate, 8 Commercial, 19 Non-Commercial and 1 Student).

If you have not yet sent in your membership, please consider doing so as soon as possible. Each individual membership is crucial for the viability of this organization as we collectively represent the industry in Florida. You can either renew your membership at our web site or you can send in your membership to FWGGA, PO Box 840256, St. Augustine, FL 32080.

FL State Fair International Wine Competition

Happy Summer, Florida Wine and Grape Growers!

To prioritize safety and prevent the spread of Covid-19, this year has led to many cancelled, postponed, or limited wine competitions. Our hearts go out to our fellow competition holders and those who planned to submit entries to them. Thankfully, most wines get better with age, so entering next year's competition will certainly bode well!

Stay at home orders have meant that most of us are finding ourselves at home more than usual, with more free time than we know what to do with. Hopefully, you are taking advantage of all your free time by experimenting with making batches for entry into future competitions, I know we are! We have even had the privilege to hold some virtual winemaking sessions with friends and get them started on their winemaking journey!

Amid the chaos, we are getting ready to ramp up the planning for the 2021 Florida State Fair Wine Competition. We wanted to let you know that as of right now, we are proceeding with plans as expected. However, we do have a backup plan should unforeseen events lead us to alter our usual plans. We truly appreciate each and every one of you! Stay safe and be well!

Member Spotlight:

Elderberry Now Available to Florida Winemakers



Hyldemoer + Co. is a North-Central Florida elderberry grower with elderberry available for Florida winemakers in 2020. The company started orchard establishment in 2018 and is now taking orders for bulk sales of elderberry for wine-making. Elderberry has long been used to make wines and is also known as, "The Englishman's Grape." Elderberry can be used as the main fruit or can complement grape or other fruits by providing tannins and depth of color to a variety of wines. Over the last few years the company has been working closely with UF/IFAS to study a range of topics important for cultivation of wine-quality *Sambucus canadensis* (The North American Black Elderberry) in Florida and the South. Phytochemical analysis of the elderberry and elderflower of many varieties began in 2019. This analysis includes testing of antioxidant capacity, total phenolic content, brix, pH and other characteristics of up to 36 different varieties of Elder. Hyldemoer + Co. has also assisted with the development of a marketing and budget primer for new, interested growers, as well as an orchard establishment and management guide, with both to be published through the UF/IFAS EDIS website. The first part of the three-part series will be available this summer and will be followed closely behind by the orchard establishment guide, with the phytochemical analysis research being published in 2021 at the conclusion of testing over a three-year trialing period.

The Sambucus plant can provide numerous marketable products for interested growers in Florida. Berries and flowers are the two primary products sold, but leaves, bark, roots, wood, and cuttings from Sambucus have market potential as well. Elderberry is sold primarily as an ingredient for food and beverage products, and dietary supplements. Final products made with elderberry and elderflower include non-alcoholic beverages, such as tea, juice, syrups, and cordials, in addition to a range of alcoholic beverages including wine, gin, liqueurs, beers, ales, and ciders.

Food products made with elderberry and elderflower include jellies, jams, pies, and other baked goods. As a dietary supplement or cold and flu remedy, elderberry is sold as a liquid or reconstituted extract, or as an ingredient for capsules, gummies, or lozenges in the nutraceuticals market. Elderberry can also be used as a natural food colorant, and as dye for textiles.



Hyldemoer + Co. will also offer fresh elderflower available for winemakers beginning in 2021 as the orchard is expanded. The company is in process on their Certified Naturally Grown and USDA Certified Organic certifications and uses only NOP approved materials and methods. The company will expand from the current 600 plants to 1,800 plants at the end of 2020 with a medium range goal of a seven-acre orchard expansion over the next few years. Hyldemoer + Co. also grows *Hibiscus sabdariffa* or Roselle, once commonly referred to as, "Florida Cranberry" and will have fresh and frozen calyces available in Fall of 2020 for interested winemakers. Roselle and Elderberry complement each other extremely well, both as base fruit for wine and for many other uses.

About the Authors

Heather Martin and Dave Jarnagin are enthusiastic growers of Sambucus in North-Central Florida. They are the co-founders of Hyldemoer + Co. (pronunciation: Hilda-more, the Elder Mother, protector of her precious Elder trees and an aspect of Mother Nature from the Danish and Old Norse traditions).

Interested winemakers can find more information on Hyldemoer + Co. at the following link: <u>Analysis of the</u> <u>Antioxidant Qualities of Flowers and Fruits of Several Commercial Varieties of Sambucus nigra ssp. Canadensis</u> (<u>The North American Black Elderberry</u>) in Florida, and at <u>www.HyldemoerFarms.com</u>, or by emailing Dave directly at <u>djarnagin@HyldemoerFarms.com</u>.

Cover Crops for Soil Improvement in Vineyards

Ali Sarkhosh, Assistant Professor at Department of Horticultural Sciences, University of Florida-IFAS Danielle Treadwell, Associate Professor at Department of Horticultural Sciences, University of FL-IFAS

Most Florida vineyard soils display low soil fertility. The soil is highly susceptible to erosion, low in organic matter content and, therefore, low in water-holding capacity and nitrate retention. Thus, the lack of soil organic matter is associated with unsuitable soil conditions for plant development. Long-term organic carbon stored in soil is the breakdown product of thousands of years of vegetation decomposition. Only a tiny percentage of organic matter added to the soil ends up as soil organic carbon as measured in the laboratory. The main agricultural sources of organic carbon to soil are from plant material such as crop residues, plant roots, and animal manure. Loses of organic carbon from soil are from decomposition by soil microorganisms and by erosion of surface soil.



(Photo courtesy Sarkhosh's Lab)

Cover crops or green manure crops have the potential to increase soil organic carbon, protect soil from erosion, and to improve soil structure and biological health in the vineyard. Green manure crops can play an essential role in Florida's vineyards. In row crop and forage systems in Florida, cover crops have been documented to increase soil water holding capacity and improve the efficiency of soil nutrient use. The extensive root systems of some cover crop species can recover fertilizer leached deep in the soil and recycle it to the surface in its plant tissue, which will become available later after the cover crop is incorporated back into the soil. Keeping the soil covered slows the rate water loss due to evaporation.

Organic matter from cover cropping (green manure) lead to an increased capacity for soils to hold nutrients (increased cation exchange capacity), and contribute to soil organic carbon sequestration, storage, and retention. Carbon is input into soils directly via inorganic materials and indirectly via changes in the amounts of crop and root residues in the soil.

Cover crops are divided into two main classes; grasses, which produce large amounts of organic matter, and legumes, which improve soil fertility by adding nitrogen. Warm-season grasses such as sorghum can produce up to 12 tons of dry matter per acre. These crops are relatively fast-growing and can be mowed several times during the season before incorporation into the soil. These crops can take up to several months to entirely break down in the presence of suitable moisture and is, therefore, a better source for returning carbon to the soil.



Barley cover crop in vineyard. (Photo courtesy Chris Penfold and Cassandra Collins)

Warm-season legumes such as cowpea can exhibit a good amount of mass/organic matter as the grasses. Such legumes may be a good cover choice in a short cover cropping period as they establish quickly, thereby providing better protection against erosion. Legumes also improve soil fertility by adding nitrogen. However, when mowed and tilled legumes might decompose more quickly than grasses.

A combination of grasses and legume cover crops can also be utilized. Such combinations exhibit fast establishment and sustained rates of decomposition while also having the biomass of the grasses.

In temperate climates, cover crops can sequester organic carbon and increase the organic carbon stock of eroded and degraded soils. However, the use of cover crops in subtropical conditions tend to have little to no impact on short-term gain in soil organic carbon level. The humid and hot conditions during the rainy season generally favor the rapid decay of organic additions resulting in no appreciable change in the short term.

Cultivation enhances the breakdown of organic carbon sources as soil aggregates are disrupted, making protected organic matter available to micro-organisms. Tillage also aerates the soil and promotes microbial action, thereby speeding up the rate of decomposition. In Florida soils where temperature and moisture levels are high, especially during the wet season, minimum tillage practices need to be adopted as cultivation promotes microbial activity and exacerbates the decomposition of organic material.

Studies suggest that long-term cover cropping regimes over many seasons, in combination with a reduction of soil tillage, are required to alter the carbon levels of degraded soils. Extensive additions of crop residue may temporarily increase the organic fraction of the soils, but need to be continuously maintained, or soil will revert to its usual steady state of low organic carbon.

Currently, there are no recommendations for cover crop variety selection or management in FL vineyards. Cover crops can have a significant impact on different aspects of vineyard management, such as soil improvement, improved vineyard environment, weed and pest control, and more. Studies are needed to evaluate different type of cover crops not only for improving soil organic matter content but also for managing vineyard pests, weeds and the environment. (Article by Sarkhosh and Treadwell)

Note: We congratulate Dr. John Peterson on his retirement as a Professor in the Department of Environmental Horticulture at the University of Florida in Gainesville. Dr. Peterson represented UF on the Commissioner of Agriculture's Viticulture Advisory Council for five years, and also served as Director of Education with the FWGGA. We appreciate all he has done for the industry and wish him the best in his future endeavors.

It is Time to Re-Certify your Florida Farm Winery

Don't lose your Florida Farm Winery Program benefits. To re-certify, a winery must submit the required documentation as found on the website: <u>fdacs.gov/Agriculture-Industry/Certified-Florida-</u> <u>Farm-Wineries-and-Vineyards</u>. This information maintains the integrity of the Program and must be on file before a winery will be re-certified.

Chapter 599 of the Florida Statutes requires an annual application and registration fee of \$100. In addition, it requires a licensing fee of \$10 for each Florida Farm Winery logo, emblem, and directional sign your winery has in place. Please complete, sign and notarize the application, and submit with the required documentation and fees to the Florida Department of Agriculture & Consumer Services, Florida Farm Winery Certification, P.O. Box 6700, Tallahassee, Florida 32314-6700. You may also complete the application and pay fees online at the website address above.

The Viticulture Advisory Council has allocated funds to Florida Certified Farm Wineries seeking reimbursement for costs associated with the promotion of your products. Your winery must be certified for the 2020-2021 year to be eligible for these funds. For more information please contact Emily Heatherington at 850-617-7291 or by email at Emily.Hetherington@fdacs.gov

News from the 2019 Florida Grape Breeding Season

Islam El-Sharkawy, Zhongbo Ren and Violeta Tsolova Center for Viticulture and Small Fruit Research, Florida A& M University, Tallahassee, FL Recently, two new patented muscadine grape cultivars have been released:

Muscadinegrape plant named 'Floriana'US Patent, PP31,654April 14, 2020Ren, Z., Lu., J., and V. TsolovaFlorida A& M UniversityMuscadinegrape plant named `Florida Onyx`US Patent, PP31,407January 18, 2020Ren, Z., Lu., J., and V. TsolovaFlorida A& M University

Articles by Islam El-Sharkawy, Zhongbo Ren and Violeta Tsolova Center for Viticulture and Small Fruit Research, Florida A& M University, Tallahassee, FL

Muscadine Wine Production Advance Selections:



'A27-10-10' Muscadine Grape

'A27-10-10' is a promising new mid to late season ripening muscadine advance selection for white wine production. Wines are with light green-yellow color, smooth mouthfeel, typical muscadine aromatic flavor, fruity, excellent stability and good longevity. A27-10-10 bears hermaphroditic (perfect, self-fertile) flowers. Similar to Carlos cultivar, flower clusters typically grow at the 2^{nd} and 3^{rd} nodes (2.8 ±0.8). Despite that Carlos produces significantly higher fruiting buds/vine and consequently higher bud fertility (~16.7% for Carlos vs ~11.9% for A27-10-10 selection), A27-10-10 exhibited similar fertility coefficient (~26.4%) to that of Carlos cultivar (~25.6%), due to increased number of clusters per vine. The berries reach maturity one week later than Carlos cultivar (last week of August). Relative to Carlos, it produces significantly bigger (~2.5-times) semi-

compact clusters with an average weight of 119.1g ±3.5; however, in both genotypes the berries represent ~97% of the cluster weight. The large A27-10-10 clusters is mainly due to increased number of berries/cluster (~2-times) with an average of 15.2 ±1 berries/cluster and bigger berry size (~1.2-times) with an average weight of 6.3g ±0.2. The berries are bronze in color. Despite that both Carlos and A27-10-10 selection showed similar lightness (L* value estimated by 43.8 ±1.1), greenish degree (a* value estimated by 4.2 ±0.2), A27-10-10 exhibits more yellow levels ($\Delta b^* = 2.4$). This make a total color difference between the two genotypes estimated by ~3.2 with more color purity (Δ Chroma* = ~3.8) and color shade (Δ Hue* = ~2.4). The difference in color properties between the two genotypes was mainly due to the presence of slight red pigment in the berry color background of Carlos cultivar. The berries are seeded (4 ±0 seeds/berry) and they represent ~5% of berry weight. The 50berries characteristics are significantly higher than in Carlos, including berries weight (~1.1-times), pomace weight represented by seeds, skin and flesh (~1.2times), and juice volume (~1.2-times). The vine produces about ~70 clusters with average yield of 7.5kg ±0.3/vine (~1.5-times more the Carlos). The berries has TSS of ~14.5°Brix, acid levels of $3.25g \pm 0.06$ tartaric acid/L, TA ratio of ~4.46 and pH of ~3.55.

'O19-19-1' Muscadine Grape



'O19-19-1' is a promising new midseason ripening muscadine advance selection for red wine production. Wines are with dark red color, smooth mouthfeel, typical muscadine aromatic flavor, fruity, excellent stability, and good longevity.

O19-19-1 bears hermaphroditic (perfect, self-fertile) flowers. Similar to Noble cultivar, flower clusters typically grow at the 2^{nd} and 3^{rd} nodes (2.6 ±0.55). Despite that both Noble and O19-19-1 selection exhibit similar bud fertility estimated by 15.4% ±0.28, O19-19-1 displayed considerably higher fertility coefficient (~31.2%) than that of Noble cultivar (~16.8%), due to increased number of clusters per vine. Like Noble, it has a mid-season harvest date by the last week of August (~2 weeks later than Noble). Relative to Noble, it produces significantly bigger (~2.4-times) semicompact clusters with an average weight of 97.9g ±2.5; however, in both genotypes the berries represent ~96% of the cluster weight. The large O19-19-1 clusters is mainly due to increased number of berries/cluster (~2.3-times) with an average of 27.6 ±2.1 berries/cluster. 019-19-1 produce similar berries in size to that of Noble with an average weight of $3.7g \pm 0.3$. The berries are black in color with total anthocyanin level of 285mg ±4.8 cyanidin 6-*O* glucoside. The berries of both genotypes showed similar darkness (L* value estimated by 20.8 ±0.2) and blue (b* value estimated by 0.5 ±0.1) levels; however, O19-19-1 exhibits more red color with Δa* = ~4. This make a total color difference between the two genotypes estimated by ~2 with more color purity (Δ Chroma* = ~4) and less color shade (Δ Hue* = ~-11.9). The berries are seeded $(3.2 \pm 0.2 \text{ seeds/berry})$ and they represent ~9.3% of berry weight. The 50-berries characteristics are significantly higher than in Noble, in terms of pomace weight represented by seeds, skin and flesh (~11.1% less), and juice volume (~17.5% higher). Limited quantity of planting stock is available for research/evaluation purpose only.

Bunch Grape Wine Production Advance Selections:

'B18-2-2' Grape



The grape selection is suitable for red wine production. Wines are with dark red color, smooth mouthfeel, hint of muscat flavor, fruity, excellent stability and good longevity.

B18-2-2 bears hermaphroditic (perfect, selffertile) flowers. Similar to Conquistador cultivar, flower clusters typically grow at the 2nd and 3rd nodes (2.8 ±0.4). Despite that Conquistador produces slightly higher number of fruiting buds/vine and consequently higher bud fertility (~9.7% for Conquistador vs ~8.6% for B18-2-2 selection), B18-2-2 exhibited significantly higher fertility coefficient (~28.1%) to that of Conquistador cultivar (~23.2%) due to increased number of clusters per vine. The berries reach maturity one week earlier

than Conquistador cultivar (first week of July). Relative to Conquistador, B18-2-2 produces slightly bigger (~1.2-times) loose clusters with an average weight of 97.8g ±2.5; however, in both genotypes the berries represent ~95% of the cluster weight. The large B18-2-2 clusters is mainly due to increased number of berries/cluster (~1.2-times) with an average of 41.8 ± 1.7 berries/cluster and bigger berry size (~1.1times) with an average weight of $2.9g \pm 0.2$. The berries are black in color with total anthocyanin level of 54.4mg ±1.8 cyanidin 6-O glucoside. B18-2-2 showed slightly darker color ($\Delta L^* = \sim 1.5$) and less blue color levels ($\Delta b^* = \sim -0.2$), but significantly exhibits more red color ($\Delta a^* = 3.8$). This make a total color difference between the two genotypes estimated by ~2.3 with considerably higher color purity (ΔChroma* = \sim 3.1) and color shade (Δ Hue* = \sim 54.6). The berries are seeded (1.8 ±0.4 seeds/berry) and they represent 9% of berry weight. The 50-berries characteristics are significantly higher than in B18-2-2, including berries weight (~1.1-times), pomace weight represented by seeds, skin and flesh (~1.4-times), and juice volume (~1.2-times). The vine produces about ~72 clusters with average yield of 7kg ±0.2/vine (similar to Conquistador). The berries has TSS of ~10.2°Brix, acid levels of $2.4g \pm 0.1$ tartaric acid/L, TA ratio of ~4.2 and pH of ~2.7.

'047-14-2' Grape



Fig.1. Fruit cluster of 'O47-14-2'

'O47-14-2' is the new mid-season ripening white wine grape variety for warm grape growing regions such as Florida and the Southeastern United States, which can produce a high-quality wine with varietal character and satisfactory yield. Wines with light green-yellow color, smooth mouthfeel, fruity with excellent stability and good longevity.

O47-14-1 bears hermaphroditic (perfect, self-fertile) flowers. Similar to Blanc du Bois cultivar, flower clusters typically grow at the 2^{nd} and 3^{rd} nodes (2.6 ±0.3). Despite that both genotypes exhibit similar bud fertility (~19.4%), O47-14-1 showed almost double fertility coefficient (~28.7% for Blanc du Bois and 49.5% for O47-14-1) due to

producing much higher number of clusters per vine. The berries reach maturity four weeks later than Blanc du Bois cultivar (last week of July). Relative to Blanc du Bois, it produces significantly bigger (~3.7-times) compact clusters with an average weight of 295.1g ±6.9. In Blanc du Bois, the berries represent ~96% of the cluster weight; however, this percentage decreased up to 92% in O47-14-1. The large O47-14-1 clusters is mainly due to increased number of berries/cluster (~4.2-times) with an average of 162.3 ±12.5 berries/cluster, but smaller berry size (~30% less) with an average weight of 1.9g ±0.2. The berries are green in color. In terms of color characteristics, O47-14-1 demonstrated more color lightness ($\Delta L^* = ~3.3$), less green $(\Delta a^* = ~-1.1)$, and yellow $(\Delta b^* = ~-2.4)$ levels. This make a total color difference between the two genotypes estimated by ~4.2 with less color purity (Δ Chroma* = ~-2.2) and higher color shade (Δ Hue* = ~7.4). The berries are seeded (2 ±0.3 seeds/berry) and they represent ~7% of berry weight. The 50-berries characteristics are significantly better than in Blanc du Bois. The vine produces about ~91 clusters with average yield of 26.9kg ±0.6/vine (~4.8times more the Blanc du Bois). The berries has TSS of ~13.8°Brix, acid levels of 4.2g ± 0.2 tartaric acid/L, TA ratio of ~3.32 and pH of ~2.98.

Variety is under patent pending application and limited quantity of planting stock is available for research/evaluation purpose only. Contact info: www.famu.edu/Viticulture



Fl Wine & Grape Growers Association

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