



HYLDEMØER + Co.



Diversifying the Regional Wine Industry Through Sustainably Grown Sambucus

2 0 2 2

A Presentation to the FWGGA Conference

A stylized purple tree with yellow leaves is positioned on the left side of the image. The tree's trunk and branches are a solid purple color, while the leaves are represented by numerous small yellow shapes. To the right of the tree, the letters 'N.C.' are rendered in a large, purple, serif font. The 'N' is the largest, followed by the 'C', and then the period. The background is a solid, light yellow color.

The Farm

The Farm

30 acres, 2018



The Farm

12 acres focus '18 - '22



The Farm

10 pine 1990 - 2010



The Farm

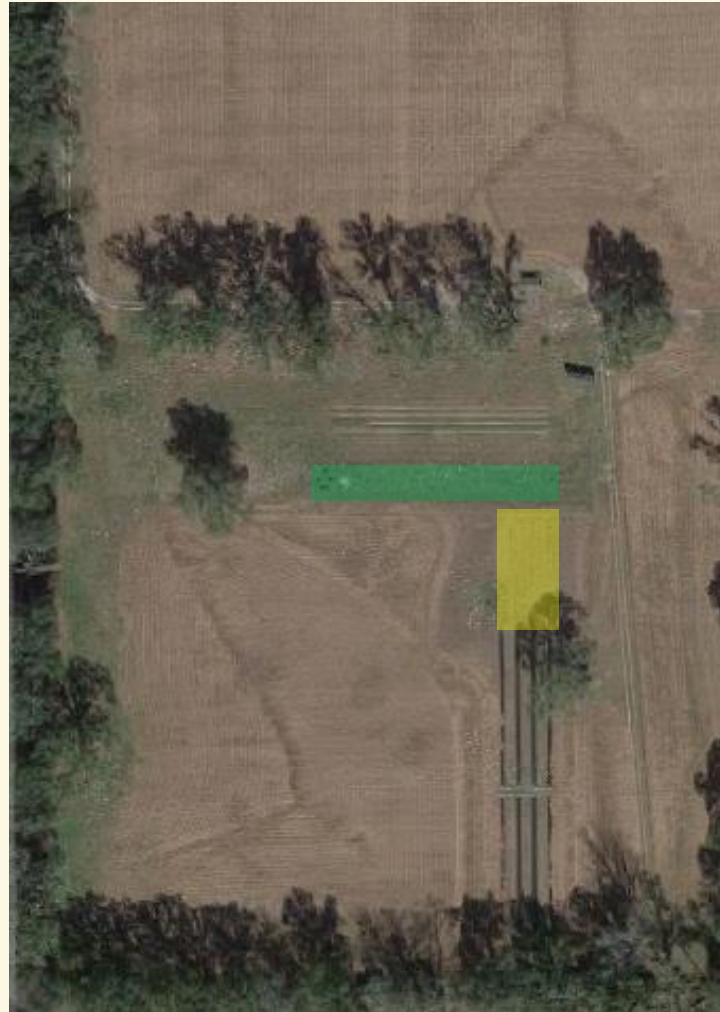
1st 13 varieties (SARE)



2018 (October)

The Farm

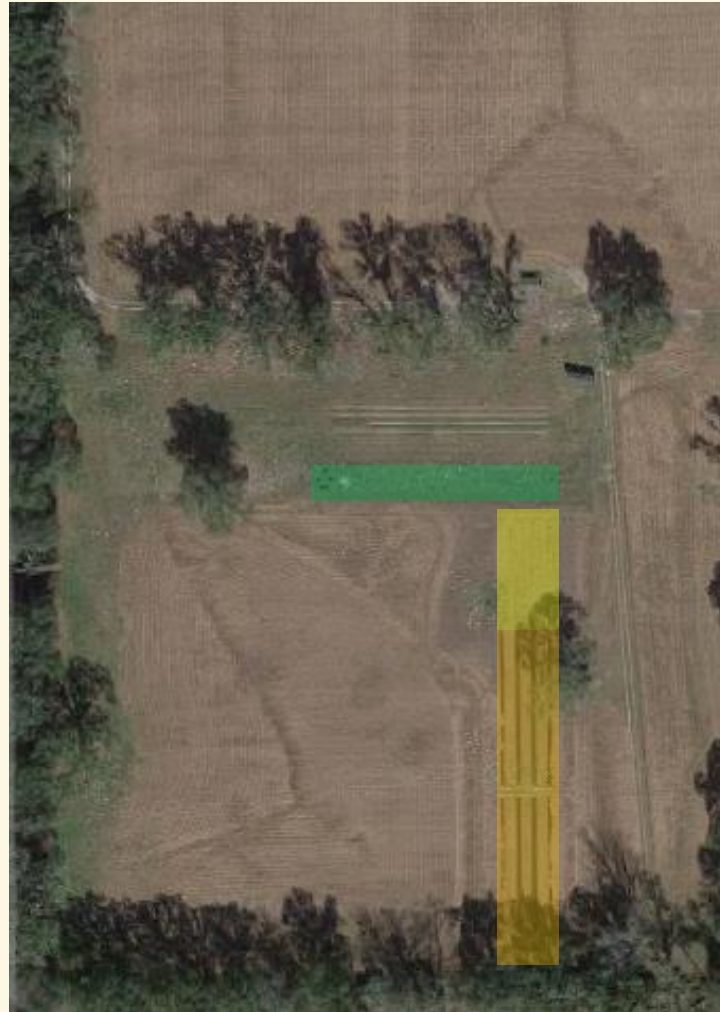
1/8th acre (+I2 geno)



2019 (spring)

The Farm

$3/8^{\text{th}}$ acre (6 focus)



2019 (winter)

The Farm

Full new acre (4 focus)
But 32 new...



2020 (winter)

The Farm

$\frac{1}{4}$ acre (2+2+2+7 focus)
But 13 new...



2022 (spring)

The Farm

1/4 acre (2+2+2+7 focus)
But 13 new...

Bringing it to 70 (80+)

2022 (spring)



The Farm



The Farm

2 acres (NIFA)

4 focus, + ~3 up to 7



2022 (winter)

The Farm

Other crops



2022 (winter)

The Farm

Expansion
(catch up year)



2024

The Farm

30 acres



2024

The Farm

10 open acres

4 - 6 varieties (goal)



2025

The Farm

10 acres

4,000 lbs/ac

12 lbs per gallon

3,000 gallons

15,000 bottles

Not including
elderflower



The Farm

12 acres

6,000 lbs/ac

12 lbs per gallon

6,000 gallons

30,000 bottles

Not including
elderflower



The Farm

30 acres (24), 2018



The Farm

30 acres (24), 2018

But that wasn't
possible.



The Farm

30 acres (24), 2018

But that wasn't
possible.



The Farm

30 acres (24), 2018

But that wasn't
possible.

And it likely would
have been a disaster.



The Farm

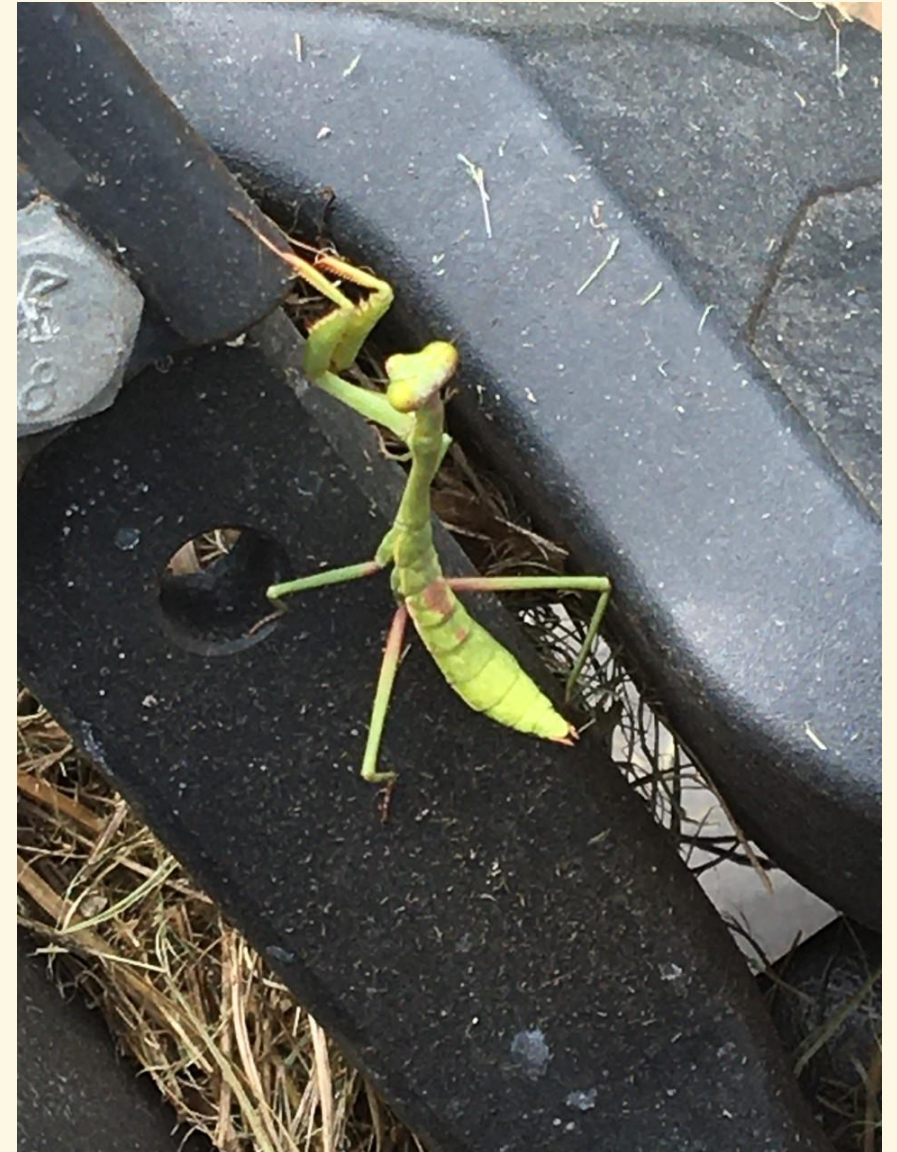
30 acres (24), 2018

But that wasn't possible.

And it likely would have been a disaster.



The Farm



Sambucus Taxonomy and Botany



Sambucus Taxonomy and Botany



Genus:

Sambucus

within family: *Viburnaceae* or *Adoxaceae*

formerly *Caprifoliaceae* (honeysuckle)

Sambucus Taxonomy and Botany

Species: Bolli, 1994 (Germany): 9 only, previously “20-30”

S. nigra

S. nigra ssp. nigra

S. nigra ssp. canadensis

S. nigra ssp. cerulea

Sambucus Taxonomy and Botany



Species:

- S. nigra*
- S. canadensis*
- S. cerulea*
- S. racemosa**

Sambucus Taxonomy and Botany



Species: *S. ebulus*
S. ebulus ssp. africana

Sambucus Taxonomy and Botany

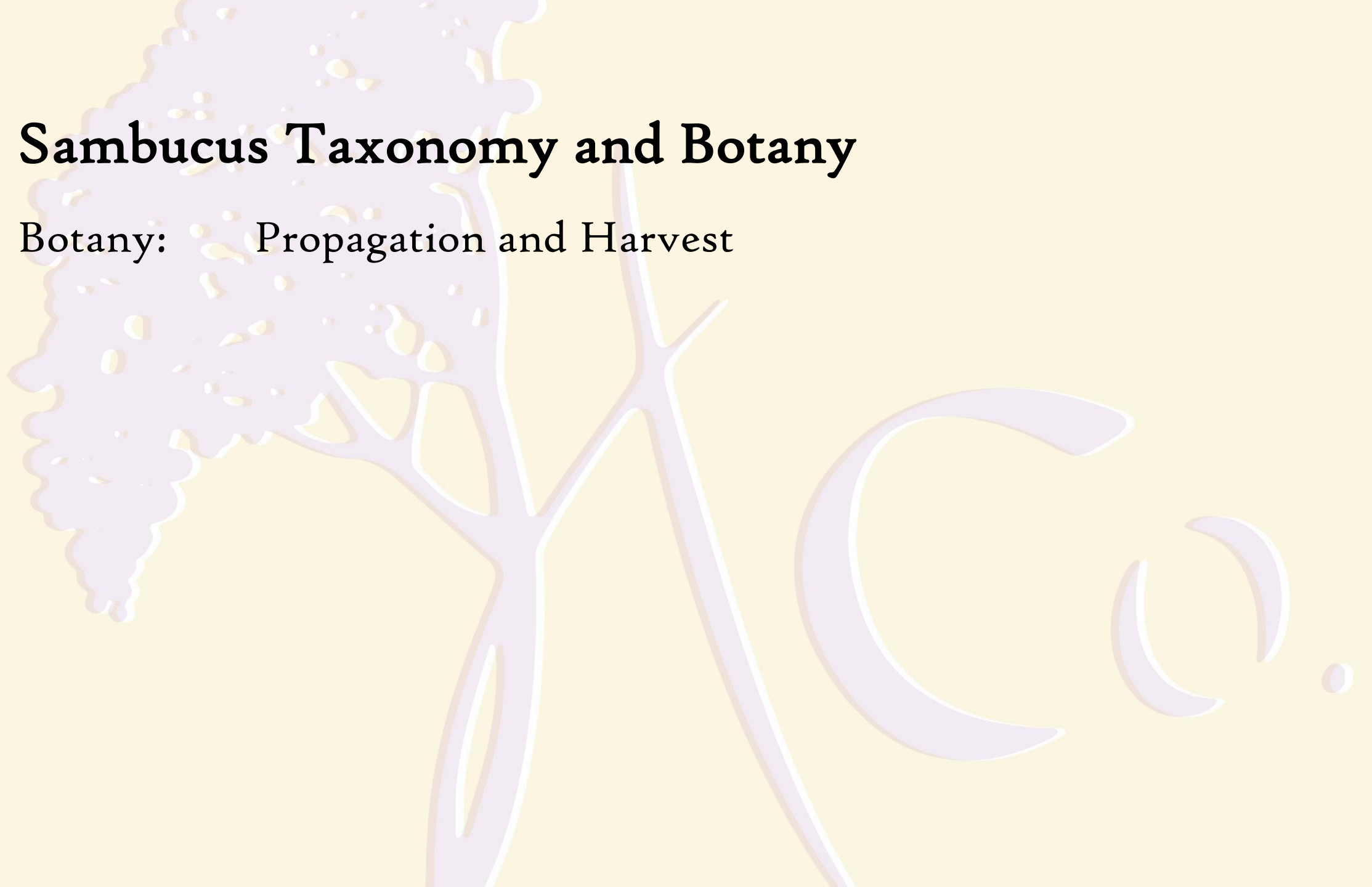
Species: *S. canadensis* vs. *S. simpsonii* (“Florida Elder”)

- Determinance
- Elderflower: “Elderflower is best picked on sunny days when the sprays are full of the heady yellow pollen that gives the drink its flavour. Don’t pick them if there’s even a tinge of brown, however, because your cordial will smell of cat’s pee.”

~<https://spectator.com.au/2022/06/elderflower/>

Sambucus Taxonomy and Botany

Botany: Propagation and Harvest



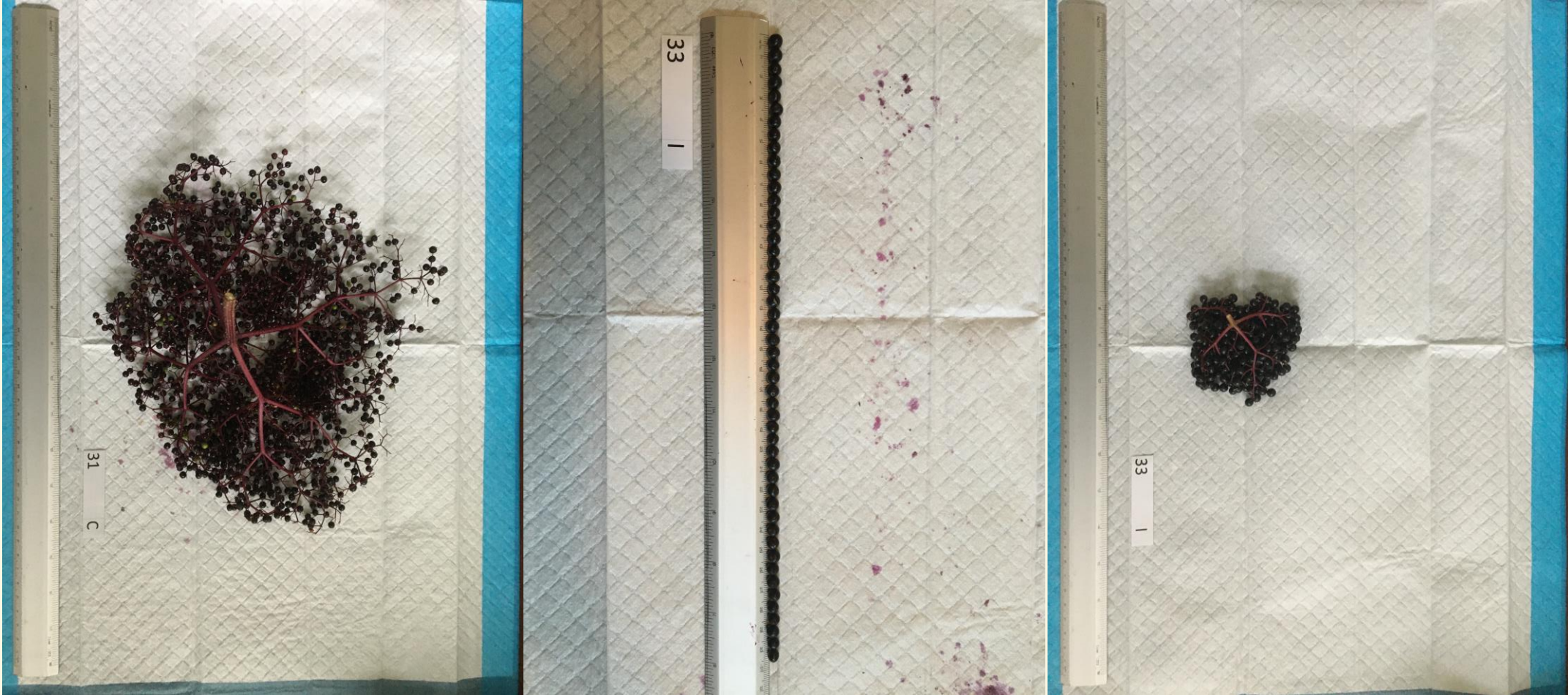
Sambucus Taxonomy and Botany

Propagation



Sambucus Taxonomy and Botany

Harvest (and postharvest)



Sambucus Taxonomy and Botany

Harvest (and postharvest)



Sambucus Taxonomy and Botany

Judas' ear

A large fungus often found on the Elder, *Hirneola auricula Judae*, from 'Judas's ear.' From the tradition that Judas hung himself on the Elder in his grief over his betrayal. It is purplish, resembling the human ear in shape and texture. It occurs at roughly eye-level on Elder trunks in damp, shady places. It is sold in the form of a dietary supplement marketed for immune support.

Sambucus Taxonomy and Botany

Judas' ear



A stylized purple tree with a dense canopy of leaves and a trunk that branches out. To the right of the tree is a large, purple, stylized 'NC.' logo. The background is a solid light yellow color.

Importation

Importation

95% of the elderberry consumed in the US is imported



Importation



95% of the elderberry consumed in the US is imported

Approximately 11% of samples failed to be identified as pure elderberry in recent investigations

Importation

The Interprofessional Council of Bordeaux Wine estimates that 30,000 bottles of fake imported wine are sold per hour in China.

“Adulteration of wine and the relabeling of inferior wines to more expensive brands are the most common types of wine fraud.”

~Forbes Magazine, 2017

Importation

Bulgaria





Importation

Bulgaria

Austria, Germany, Hungary

Importation



Bulgaria

Austria, Germany, Hungary

(90% or more of Hungary's elderberry goes to the production of red food colorants used in the EU)



Importation

Bulgaria

Austria, Germany, Hungary

Denmark, Turkey, Romania (elderflower)

Importation

2 lbs Bag
pristine nutri
ORGANIC
ELDER BERRIES
WHOLE DRIED

USDA ORGANIC
Premium Sambucus Nigra
European wildcrafted elderberries
Certified 100% Organic
NET WT. 2lb (908g)

Roll over image to zoom in

2lbs Organic Dried Elderberries | Whole European Elder Berry, Wildcrafted All Natural | Non-GMO, Non-irradiated | Immunity Booster Antioxidants and Vitamins | Bulk | Make Syrup, Tea, Jelly, Pastries

Brand: Konexcel
★★★★★ 162 ratings
Climate Pledge Friendly

\$32⁹⁸ (\$1.03 / Ounce)

& FREE Returns

Get 20% off eligible products sold and shipped by Amazon.com when you use Amex Membership Rewards points. Max discount of \$25. Limited-time offer. See terms.

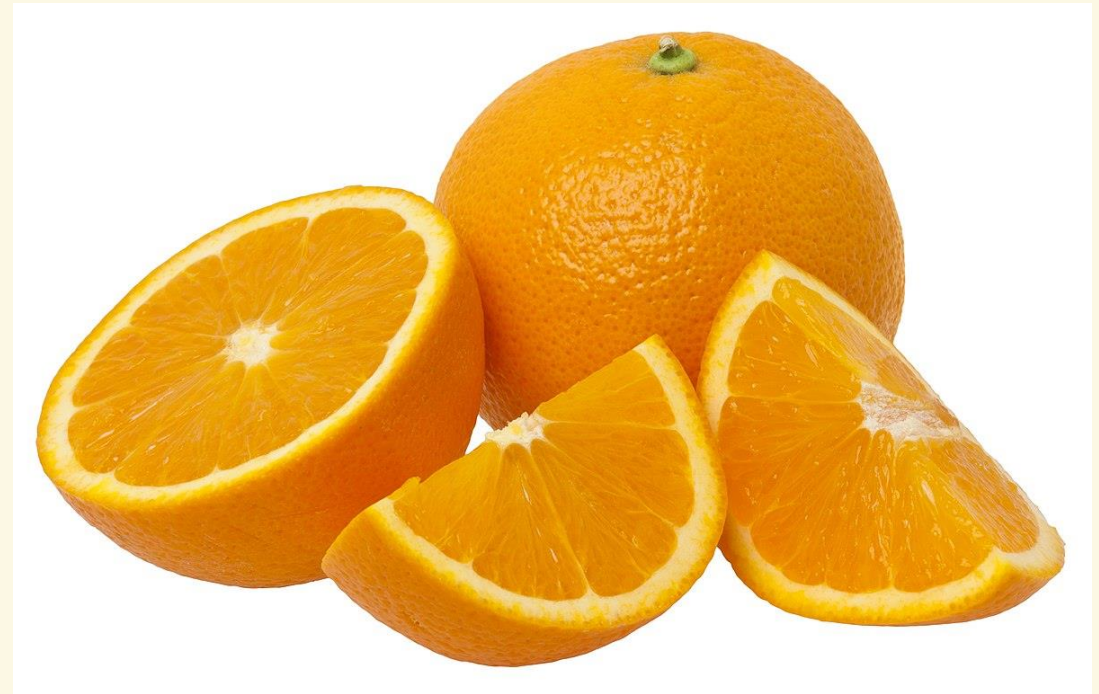
Brand	Konexcel
Unit Count	32.0 Ounce
Item Form	Dried fruit

\$18.50/lb. ~8lbs fresh to 1 lb. dried
\$2.30 before any overhead

Importation

What's the difference?

Importation



Importation





Cultivation in Florida

Cultivation in Florida

S. canadensis, *S. simpsonii*, *S. ebulus*,... others?



Cultivation in Florida

www.HyldemoerFarms.com



Cultivation in Florida

www.HyldemoerFarms.com

“Research and Publications”

*Elderberry and Elderflower (Sambucus spp.):
A Cultivation Guide for Florida*

<https://edis.ifas.ufl.edu/pdf/HS/HS139000.pdf>

Cultivation in Florida



The screenshot shows a web browser window with the URL <https://hyldemoerfarms.com/research-and-publications>. The search bar contains the text "Sambucus". The browser interface includes navigation icons (back, forward, refresh, home), a search bar, and a "Most Visited" section. The website header features the logo for "HYLDEMOER + Co." which includes a stylized green leaf and branch. Below the logo is a navigation menu with the following items: HOME, RESEARCH AND PUBLICATIONS (highlighted in green), UF/IFAS EDIS, CNG FLORIDA, and SHOP THE SHRUBBERY. The main content area displays the heading "Research and Publications" in a large, green, serif font, with a horizontal line underneath.

← → ↻ 🏠 <https://hyldemoerfarms.com/research-and-publications> 📄 ☆ 🔍 Sambucus → 📄 📄 📄 ☰

⚙️ Most Visited 📁 Other Bookmarks

 HYLDEMOER + Co.

HOME **RESEARCH AND PUBLICATIONS** UF/IFAS EDIS CNG FLORIDA SHOP THE SHRUBBERY

Research and Publications

Cultivation in Florida

Elderberry and Elderflower (*Sambucus* spp.): A Cultivation Guide for Florida¹

David Jarnagin, Ali Sarkhosh, Juanita Popenoe, Steve Sargent, and Kevin Athearn²

Elderberry, *Sambucus* spp., has long been cultivated or collected from the wild by humans for both food and medicine. Europeans have used the flowers and fruit of *Sambucus nigra* for thousands of years, while Native Americans and European immigrants used *Sambucus nigra* sp. *canadensis*, native to the New World (Figure 1).



Figure 1. Elderberry and elderflower cyms.
Credits: Hydemeer + Co, Florida

The purpose of this paper is to provide information on growing American elderberry in Florida as an alternative crop for commercial growers as well as homeowners. Although elderberry has been historically grown at commercial scale in some world regions, especially throughout Europe, in the New World it has not found meaningful commercial acceptance until recently. It has typically been more of a small-scale or backyard crop in the United States, possibly because of the challenges of harvest and postharvest processing and reports of the toxic nature of parts of the plant.

Pushes for commercial cultivation were initiated in various regions of North America in the 1920s and again in the 1960s, but the most recent iteration of commercial cultivation over the last 10 to 15 years has outpaced the previous attempts considerably. The high levels of antioxidants and health benefits of the fruit have created new demand for the fruit and flowers, and this new demand may provide an alternative crop opportunity for Florida growers with many value-added possibilities. A native species grows wild throughout Florida, indicating that this may be a perennial crop that can be sustainably grown on marginal land. However, the native Florida plants have many drawbacks compared to the more commonly cultivated forms originating from farther north, and these drawbacks are an important consideration for proper establishment on a commercial scale. The fruit and flowers of the elder are used for wine, preserves, tinctures, teas, brewing and distilled spirits, and dyes for both food and textiles. The anthocyanins in the fruit have been found to have higher antioxidant properties than vitamin E or C as well as antiviral activity owing to a variety of phytochemical compounds. Different growing conditions may cause more variability in fruit and flower compositional quality than varietal differences, making cultivation techniques and environment important factors.

1. This document is HS1390, one of a series of the Horticultural Sciences Department, UF/IFAS Extension. Original publication date October 2020. Visit the EDIS website at <https://edis.ifas.ufl.edu> for the currently supported version of this publication.
2. David Jarnagin, Hydemeer + Co.; Ali Sarkhosh, assistant professor and Extension specialist, Horticultural Sciences Department; Juanita Popenoe, multi-county commercial fruit production agent IV, UF/IFAS Extension Lake County; Steven Sargent, professor and postharvest Extension specialist, Horticultural Sciences Department; Kevin Athearn, regional Extension specialized agent, UF/IFAS North Florida Research and Education Center - Sawannee Valley, UF/IFAS Extension, Gainesville, FL 32611.

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Economics

www.HyldemoerFarms.com

“Research and Publications”

*Elderberry and Elderflower (Sambucus spp.):
Markets, Establishment Costs, and Potential Returns*

<https://edis.ifas.ufl.edu/pdf/FE/FE109300.pdf>

Economics

- 3 acres,
- organic,
- minimum of equipment,
- no previously established operational capacity.

Economics

Elderberry and Elderflower (*Sambucus spp*): Markets, Establishment Costs, and Potential Returns¹

Kevin Athearn, David Jarnagin, Ali Sarkhosh, Juanita Popenoe, and Steven Sargent²

Introduction

This publication is part of a series on elderberry production in Florida. Other publications in the series cover cultivation practices and phytochemical research. The focus of this document is on markets, establishment costs, and potential returns for commercial elderberry production in Florida. Cost and return estimates are based on a 3-acre elderberry orchard following organic standards. The information is intended to assist farmers in evaluating elderberry as a possible alternative crop and to aid in financial planning for an elderberry enterprise.

Wild and cultivated varieties of the elderberry plant grow in many parts of the world. The American elderberry, *Sambucus nigra* ssp. *canadensis*, is native to eastern North America (Charlebois et al. 2010). The native Florida type was formerly separated as its own species *S. stimpsonii* and exhibits substantial differences from commonly cultivated varieties of *S. nigra* ssp. *canadensis* and European *S. nigra*. Varietal differences can include growth habit, fruiting habit, harvest time, disease resistance, fruit and flower quality, and other factors affecting crop management and commercial potential (Jarnagin et al. 2020). Prospective growers are encouraged to seek advice from specialists or experienced growers in Florida regarding varietal selection.

Elderberry products have established commercial value, but Florida production is currently limited to a small, cottage industry. Elderberry is an alternative crop that holds promise for further commercial development in Florida. This publication reviews information on markets for elderberries and elderflowers (Figure 1) and estimates establishment costs and potential returns for a 3-acre elderberry orchard managed organically in Florida. Information about cultural practices can be found in another publication, *Elderberry and Elderflower (Sambucus spp): A Cultivation Guide for Florida*.



Figure 1. Elderflower and elderberry cymes.
Credits: Hyldenmoor + Co., Florida

Market Potential

The elderberry plant can provide numerous marketable products. Berries and flowers are the two primary products sold, but leaves, bark, roots, wood, and cuttings from

1. This document is FET093, one of a series of the Food and Resource Economics Department, UF/IFAS Extension. Original publication date March 2021. Visit the EDIS website at <https://edis.ifas.ufl.edu> for the currently supported version of this publication.

2. Kevin Athearn, UF/IFAS Extension regional specialist agent, UF/IFAS North Florida Research and Education Center, Suwannee Valley; David Jarnagin, Hyldenmoor + Co.; Ali Sarkhosh, assistant professor and Extension specialist, Horticultural Sciences Department; Juanita Popenoe, UF/IFAS Extension multi-county commercial fruit production agent, UF/IFAS Extension Lake County; Steven Sargent, professor and Extension postharvest specialist, Horticultural Sciences Department, UF/IFAS Extension, Gainesville, FL 32611.



Nutraceutical Quality

SARE Grant Analysis 2019-2021

www.HyldemoerFarms.com

“Research and Publications”

*Elderberry and Elderflower (Sambucus spp.):
Nutraceutical quality analysis of several
genotypes of Sambucus spp. grown in Florida*

<https://hyldemoerfarms.com/sare-nqa-2022>

SARE Grant Analysis 2019-2021

About 60 elderberry genotypes were evaluated for productivity.

22 genotypes were eventually selected for postharvest quality analyses.

2019 - 9 genotypes

2020 - 8 genotypes

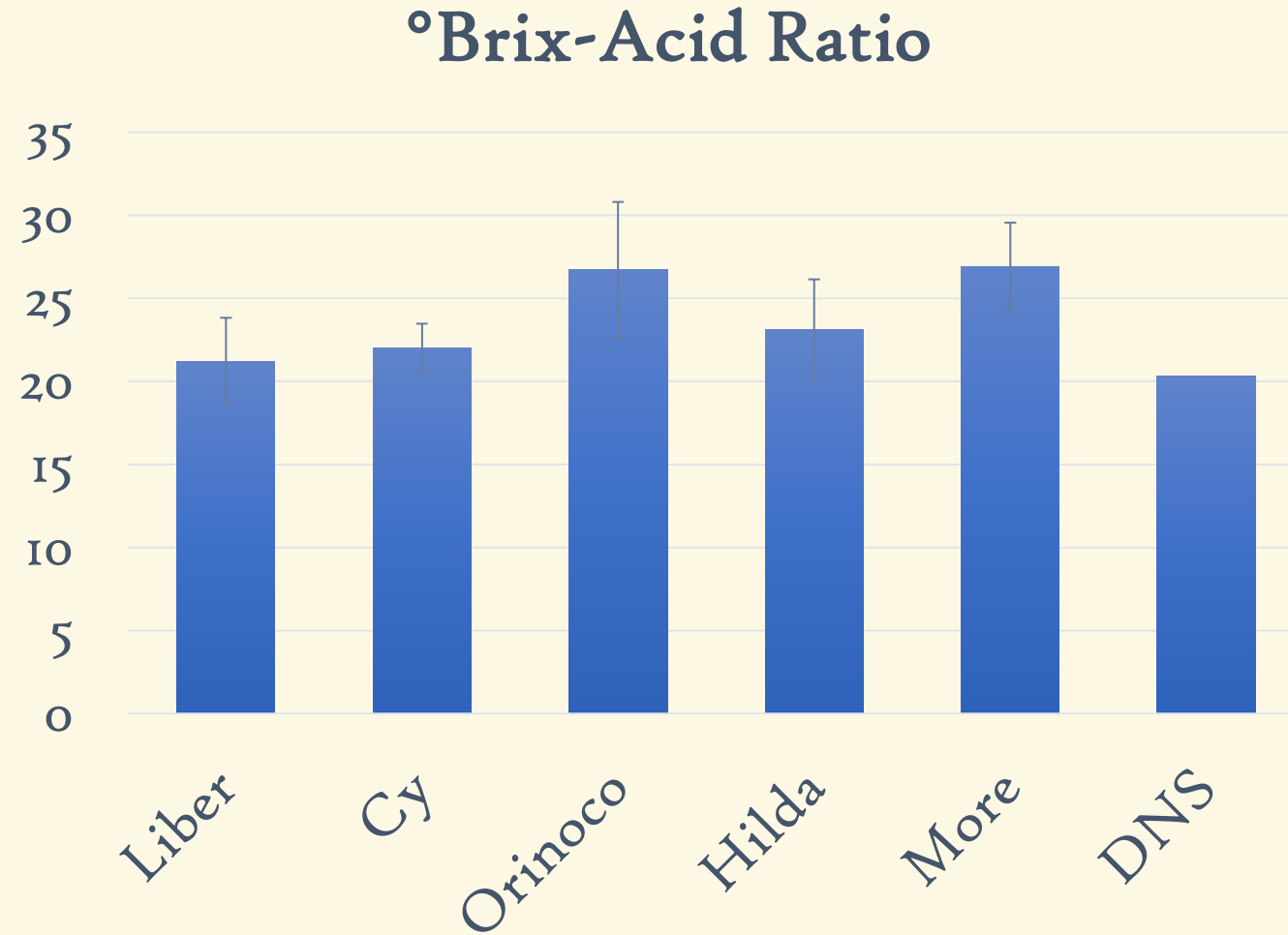
2021 - 22 genotypes

Immediately after harvest, berries were vacuum-sealed and frozen at $-20\text{ }^{\circ}\text{C}$ until transported to the University of Florida Postharvest Lab then kept frozen ($-30\text{ }^{\circ}\text{C}$) for later analysis.

SARE Grant Analysis 2019-2021

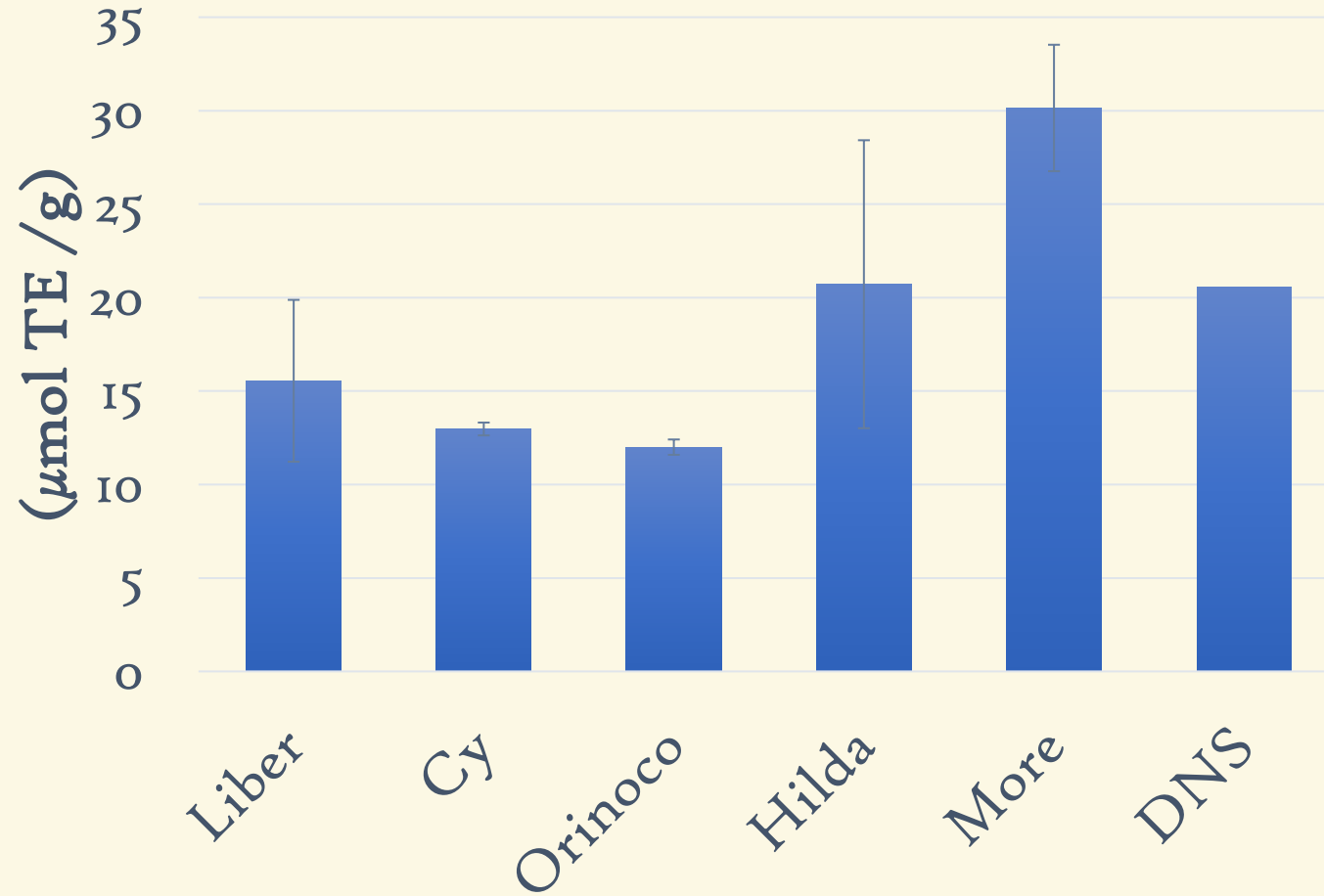
- Soluble solids content (SSC)
- Total titratable acidity (TTA) & pH
- Total anthocyanin content
- Total antioxidant capacity (FRAP)

SARE Grant Analysis 2019-2021



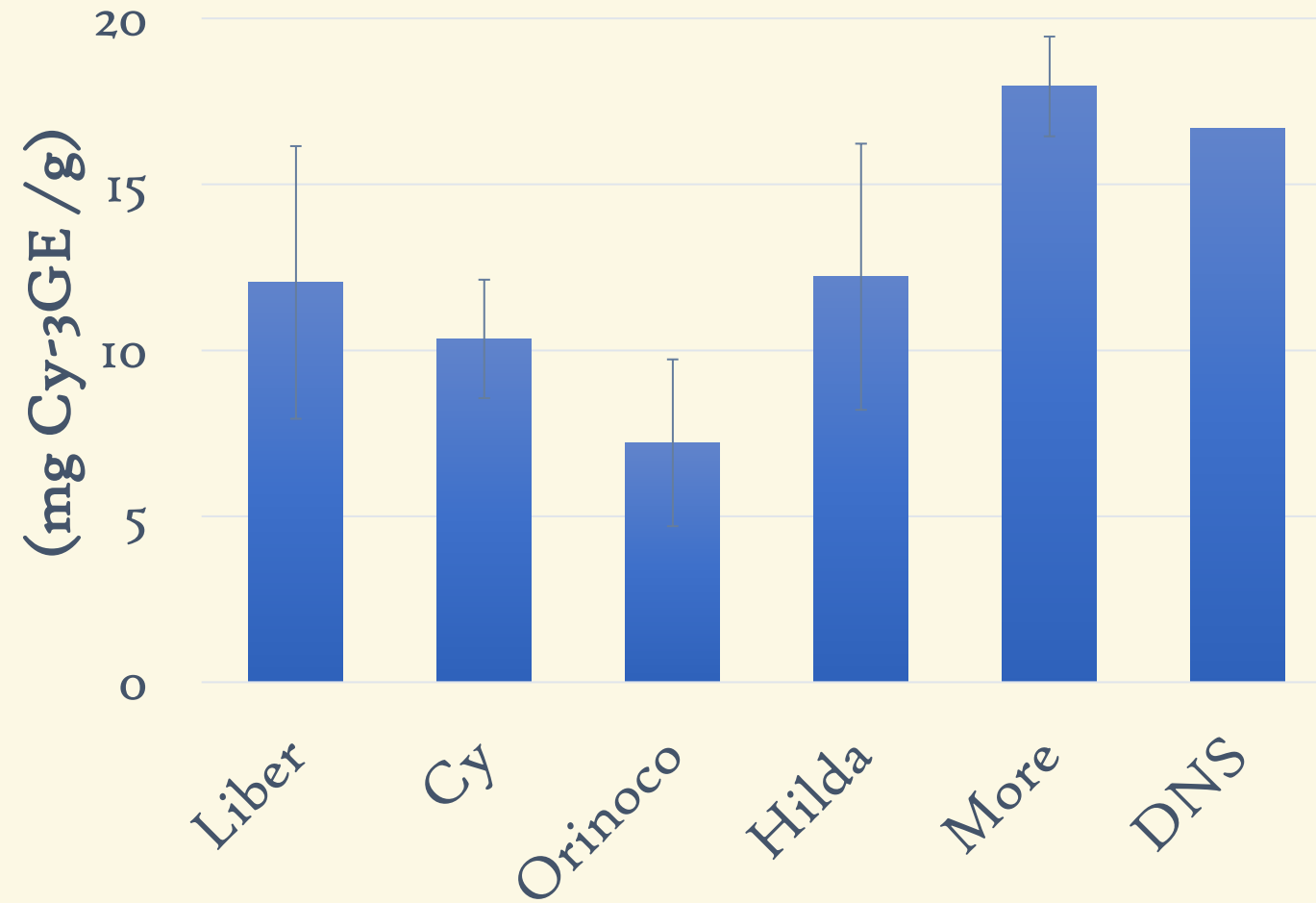
SARE Grant Analysis 2019-2021

Antioxidant Capacity (FRAP)



SARE Grant Analysis 2019-2021

Total Anthocyanins





Nutraceutical Quality

How does it relate to wine?

Is it similar to muscadine wines?

Or a different conversation?

Nutraceutical Quality

FAMU CVSFR Wine Health Reference Index

The screenshot displays the Microsoft Access interface for a database named 'FAMU_Wine Health Reference Index'. The 'Table Fields' ribbon is active, showing various data manipulation options. The main window displays a table with the following data:

ID	Variety	Style	Type	Vintage	Sample	Total phenolics (725 nm) (mg/ml)	0-diphenols (517 nm) (mg/ml)	Total phenols
1	Lefkada	still dry	Red		2008 CYP00215	3804		1843
21	Floriana	Still Dry	Red		2019 FLR19	2629.1		
7	Noble	Still Dry	Red		2016 HWN0119	2252.1		
22	Noble	Still Dry	Red		2019 NR19	1935.6		
25	Noble	Semi-Dry	Red		2020 PVH0321	1903.9		
20	C30-5	Still Dry	Red		2019 C30-519	1849		
14	NOBLE	STILL DRY	RED		2018 CTQNR18	1833.6		
16	NOBLE	FORTIFIED POR	RED		2018 ECPOR18	1761.6		
26	Noble	Forified	Red		2020 PVPC0321	1641.7		
11	NOBLE	STILL DRY	RED		2019 UCBNR19	1431.4		
10	NOBLE	STILL DRY	RED		2016 UCBNR16	1217.5		
9	CARLOS	STILL DRY	WHITE		2019 UCBC19	1085.9		
8	CARLOS	STILL DRY	WHITE		2017 UCBC17	921.4		
24	Carlos/Noble	Sweet	Blush		2020 PVLD0321	781.6		
23	Carlos	Semi-Dry	White		2020 PVP0321	657.1		
6	Noble/Carlos	Still Dry	Blush		2017 HUR0119	600.6		
13	CARLOS/NOBLE	STILL DRY	BLUSH		2018 CTQBL18	502.9		
2	Carlos	Still Dry	White		2017 HWC0119	420.4		
15	CARLOS	FORTIFIED SHE	WHITE		2018 ECSHERRY18	368.9		
19	A27-10-10	Still Dry	White		2019 A2719	326.2		
12	CARLOS	STILL DRY	WHITE		2018 CTQCL18	300.3		
17	Blanc Du Bois	Still Dry	White		2020 BDB20	268.5		
5	A-24	Still Dry	White		2018 VAL0119	211.7		
18	047	Still Dry	White		2019 04719	179.8		

Nutraceutical Quality

FAMU CVSFR Healthy Compounds Report for “Quick Tingler” 2021

Healthy Compounds

Total Phenolics 765nm (mg/L GAE)	9,773.5 ± 167.0
Total Phenolics 280nm (mg/L GAE)	15,532.9 ± 623.6
Hydroxycinnamic Acids 320nm (mg/L)	1,246.2 ± 48.0
Flavonols 360 nm (mg/L)	576.8 ± 90.3
Anthocyanins 520nm (mg/L Cyanidin Chloride Equivalents)	1,459.5 ± 43.8
DPPH Free Radical Scavenging (μmol trolox equivalents)	11,622.0 ± 274.6
FRAP Free Radical Scavenging (μmol trolox equivalents)	32,203.7 ± 1,530.2

Nutraceutical Quality

“Quick Tingler” (an elder-only wine fermented by H+Co. 2021)



Nutraceutical Quality

“*Quick Tingler*” (an elder-only wine fermented by H+Co. 2021)

- Total Phenolics 725 nm: 9,773 mg/L

Nutraceutical Quality

“*Quick Tingler*” (an elder-only wine fermented by H+Co. 2021)

- Total Phenolics 725 nm: 9,773 mg/L
 - Highest from database: 3,804 mg/L
(“Lefkada” CYP00215 “Still, dry red” 2008)

Nutraceutical Quality

“Quick Tingler”

- Total Phenolics 280 nm: 15,533 mg/L

Nutraceutical Quality

“Quick Tingler”

- Total Phenolics 280 nm: 15,533 mg/L
 - Highest from database: 5,747 mg/L
(“C30-5” C30-519 “Still, dry red” 2019)

Nutraceutical Quality

“Quick Tingler”

- Hydroxycinnamic Acids 320 nm: 1,246 mg/L
 - 2,216 mg/L
(“C30-5” C30-519 “Still, dry red” 2019)

Nutraceutical Quality

“Quick Tingler”

- Flavonols 360 nm: 577 mg/L

- 246 mg/L

(“Lefkada” CYP00215 “Still, dry red” 2008)

Nutraceutical Quality

“Quick Tingler”

- Anthocyanins 520 nm: 1,459 mg/L
 - 3,068 mg/L (average 365 mg/L from database)
(“Noble” PVHo321 “Still, dry red” 2020)

Nutraceutical Quality

“Quick Tingler”

- DPPH Free Radical Scavenging: 11,622 $\mu\text{mol TE/L}$

Nutraceutical Quality

“Quick Tingler”

- FRAP Free Radical Scavenging: 32,204 $\mu\text{mol TE/L}$



The History of Elder and Wine

The History of Elder and Wine

Arsenic and Old Lace, 1944 starring Cary Grant



The History of Elder and Wine

Arsenic and Old Lace, 1944 starring Cary Grant

Elderberry Wine from Elton John's 1973 album
Don't Shoot Me I'm Only the Piano Player



The History of Elder and Wine



Use of elderberry and elderflower is common and widespread in Europe.

Modern science is now conducting a serious study of the plant's nutritional properties and uses.

The History of Elder and Wine

3000 B.C.E – 30 B.C.E: Egypt: Recipes for elderberry-based preparations in the records of Ancient Egypt. Egyptians included medicinal herbs in wines up to 5,000 years ago.

2000 B.C.E: Stone Age: Seeds from elderberry found in Neolithic dwellings in Switzerland suggest that the plant was in cultivation.

The History of Elder and Wine

400 B.C.E: Hippocrates – Greece: The “father of medicine”, Hippocrates (460 B.C.E – 375 B.C.E.) referred to elder as the “medicine chest” of all herbs because of its endless benefits and the usability of all aspects of the plant.

370 B.C.E – 285 B.C.E: Greco-Roman Period: Theophrastus (300’s B.C.E) described elder in *Historia Plantarum*.

77 C.E: Italy: Pliny the Elder, the medicinal qualities of elder were widely known and written on.

The History of Elder and Wine

1600's C.E: Britain: Over the centuries, elderberry has been used to treat colds, flu, fever, burns, cuts, and more than 70 other maladies, from toothache to the plague.

In the 17th century, John Evelyn, a British researcher, declared, "If the medicinal properties of its leaves, bark, and berries were fully known, I cannot tell what our country man could ail for which he might not fetch a remedy from it, either for sickness or wounds."

The History of Elder and Wine

“Scandals” where commercial wineries were discovered to have adulterated their grape wines by adding elderberry to improve their color have occurred throughout the ages and into modern times.

Example: Judiciously flavoured with vinegar and sugar and small quantities of port wine, Elder is often the basis of spurious ‘clarets’ and ‘Bordeaux.’ ‘Men of nice palates,’ says Berkeley (Querist, 1735), ‘have been imposed on by Elder Wine for French Claret.’

The History of Elder and Wine

“Scandals”

Cheap port is often faked to resemble tawny port by the addition of elderberry juice, which forms one of the least injurious ingredients of factitious port wines. Doctoring port wine with Elderberry juice seems to have assumed such dimensions that in 1747 this practice was forbidden in Portugal, even the cultivation of the Elder tree was forbidden on this account.

The History of Elder and Wine

The circumstances under which this was proved are somewhat curious. In 1899 an American sailor informed a physician of Prague that getting drunk on genuine, old, dark-red port was a sure remedy for rheumatic pains. This started a long series of investigations ending in the discovery that while genuine port wine has practically no anti-neuralgic properties, the cheap stuff faked to resemble tawny port by the addition of elderberry juice may relieve the pain of sciatica and other forms of neuralgia. Cases of the cure have been tested by leading doctors in Prague and elsewhere abroad, the dose recommended being 30 grams of Elderberry juice mixed with 10 grams of port wine.

The History of Elder and Wine



London: In the Gregorian Period (1714-1837) in the winter, elder wine heated in copper vessels was sold for a penny per wine glass from portable wood stands that contained glassware.

The History of Elder and Wine



A stylized, semi-transparent graphic in shades of purple and yellow, resembling a large flower or a cluster of grapes, is positioned in the upper left and center of the slide. The background is a solid light yellow color.

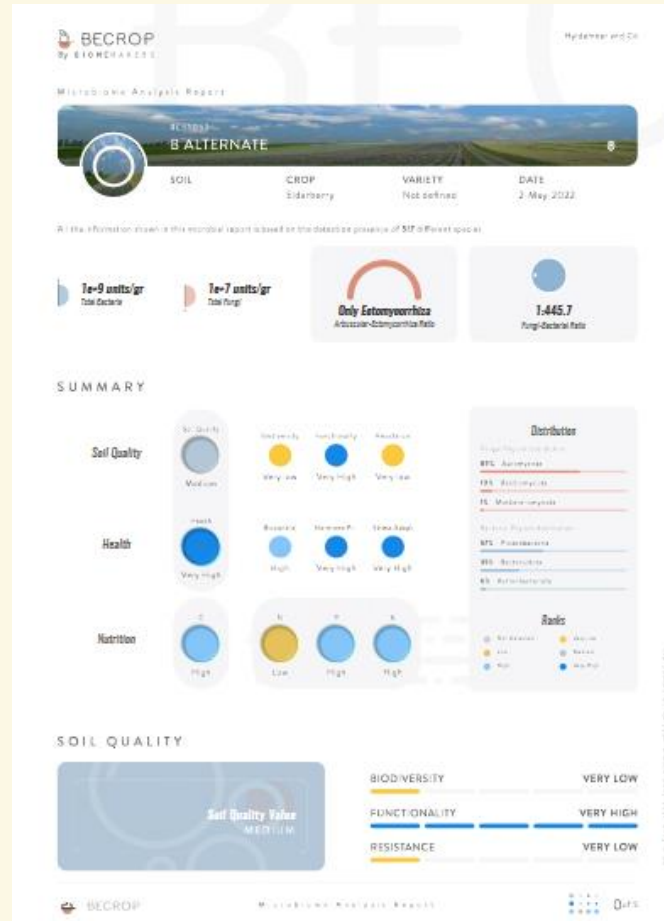
**National Institute of Food and
Agriculture, Small Business Innovation
Research Grant, 2022 – 2024...**



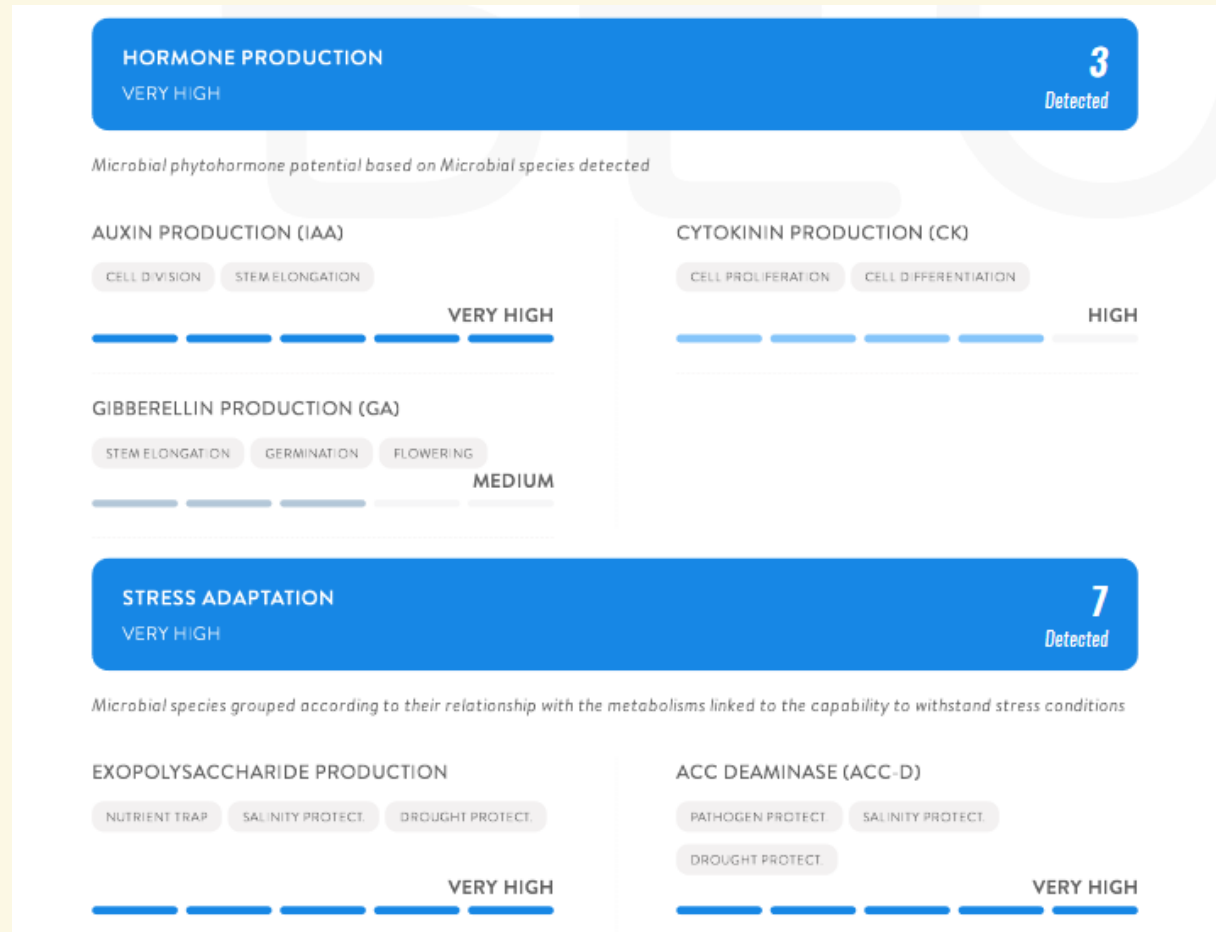
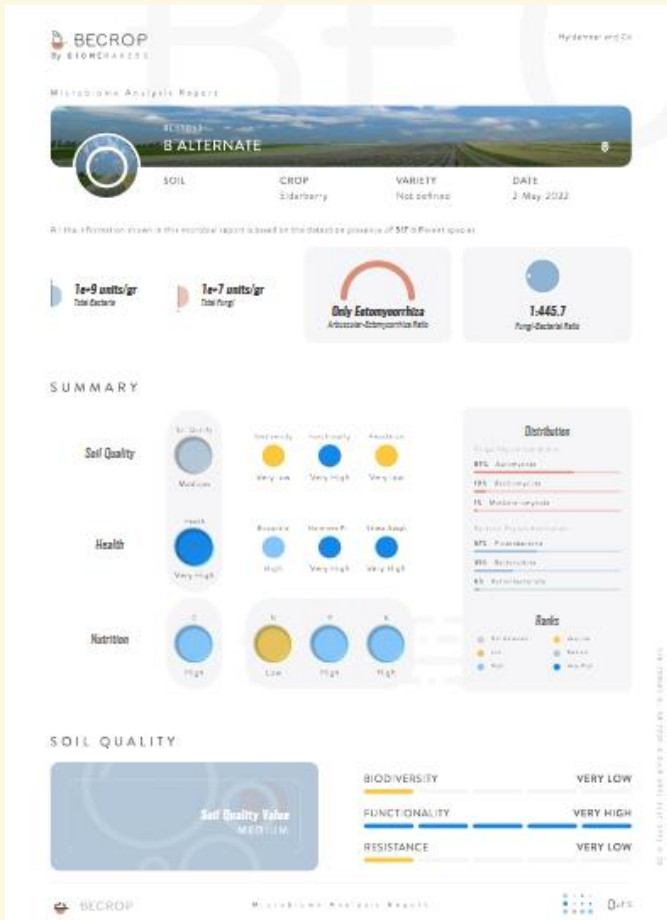
National Institute of Food and Agriculture, Small Business Innovation Research Grant, 2022 – 2024...

- Cultivation and Establishment (2 acres)
- Documentation of organic fertilization and pest management
 - Including advanced DNA sequencing of soil microbiology

National Institute of Food and Agriculture, Small Business Innovation Research Grant, 2022 – 2024...



National Institute of Food and Agriculture, Small Business Innovation Research Grant, 2022 – 2024...





National Institute of Food and Agriculture, Small Business Innovation Research Grant, 2022 – 2024...

- Cultivation and Establishment (2 acres)
- Documentation of organic fertilization and pest management
- Compositional quality and vinification studies
- Sensory analysis as single wines and blends

National Institute of Food and Agriculture, Small Business Innovation Research Grant, 2022 – 2024...

- Cultivation and Establishment (2 acres)
- Documentation of organic fertilization and pest management
- Compositional quality and vinification studies
- Sensory analysis as single wines and blends

- 20 month term
- Phase I ends Feb. 29th, 2024
- Phase II begins 2025...

**National Institute of Food and Agriculture, Small Business
Innovation Research Grant, 2022 – 2024...**



National Institute of Food and Agriculture, Small Business Innovation Research Grant, 2022 – 2024...





Varieties

Ongoing Variety Trials



Ongoing Variety Trials: *Hibiscus sabdariffa*



Ongoing Variety Trials: *Hibiscus sabdariffa*



Ongoing Variety Trials: *Hibiscus sabdariffa*

45+ genotypes
trialed over last
5 years

25 in trials this year

GRIN

Univ. US Virgin
Islands



Ongoing Variety Trials: *Passiflora* spp.



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16 genotypes

Rootstock



Ongoing Variety Trials: *Pyrus communis*

6 varieties

Dixie Delight

McKelvey

Warren

Spalding*

Thanksgiving

Dr. Deer



Ongoing Variety Trials: *Sambucus spp.*



Previously / currently trialed named varieties

Sambucus canadensis

Ranch

Bob Gordon

Wyldewood (II)

Ozark

Pocahontas

York

Johns

Kent

Nova

Adams x 4*

Previously / currently trialed named varieties

Sambucus canadensis

Ranch

Bob Gordon

Wyldeewood (II)

Ozark

Pocahontas

York

Johns

Kent

Nova

Adams x 4*

Sambucus nigra

Marge*

Haidegg 17

Korsor

Samdal

Samyl

Previously / currently trialed named varieties

Sambucus canadensis

Ranch

Bob Gordon

Wyldeewood (II)

Ozark

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Adams x 4*

Sambucus nigra

Marge*

Haidegg 17

Korsor

Samdal

Samyl

Others

Unnamed: 7

Florida types: 5

Seedlings: 54

Previously / currently trialed named varieties

Sambucus canadensis

Ranch

Bob Gordon

Wyldeewood (II)

Ozark

Pocahontas

York

Johns

Kent

Nova

Adams x 4*

Sambucus nigra

Marge*

Haidegg 17

Korsor

Samdal

Samyl

Others

Unnamed: 7

Florida types: 5

Seedlings: 54

- 7 of those now: ~120 plants



Ongoing Variety Trials

“Adams”

An excellent example of challenges in selecting from currently available “varieties.”

William Adams, 1915



Ranch, Bob Gordon, Adams*, Wyldeewood (II*)

Likely the most widely grown varieties in the US (outside of the Southeast), in that order.

JLAV-1-3 “Hilda”

S. canadensis of Southeastern origin. Highest potential of all varieties previously trialed. Semi-erect growth habit, ideal size cymes, primocane bearing. Numerous cymes, fast establishing. Mainly green petiole. Excellent disease and mite resistance thus far. The highest culinary value of flowers trialed thus far with a very unique fragrance and medium sweetness. Compositional quality of fruit tested high in 2021. Large, glossy berry. Leaves are also very glossy. High potential for cultivation in Florida.

JLAV-5-1 “More”

S. canadensis of Southeastern origin. Very high potential compared to previously trialed varieties. Mainly erect growth habit. Large cymes, but appears to have good evenness of ripening despite size, primocane bearing. Numerous cymes, possibly even more than JLA VI-3. Red petiole. Good disease and mite resistance thus far. Very high culinary value of flowers with powdery sweet fragrance. Compositional quality of fruit tested very high in 2021. Relatively small berry, but heavy producer. High potential for cultivation in Florida.

JLAV series



JLAV series



31-03-200 “*Liber*”

S. canadensis of unknown origin, primocane bearing, good productivity, comparatively difficult to establish, but does not require more chill hours than typical of our latitude. Extremely high culinary value of flowers with high sweetness and powdery fragrance. Good quality of berries. Berries are individually smaller than typical. Decent disease resistance, dark red petiole, less susceptible to mites than average *canadensis*. Good potential for commercial cultivation in Florida.

31-03-200 “*Liber*”



33-00-400 “Cy”

S. canadensis likely from Nova Scotia. Very unique variety. Does not fruit on primocane growth, but blooms and fruits on floricanes very early in the season and does not require more chill hours than typical of our latitude, despite its likely origin. Very small but numerous cymes. Very determinate in ripening and the only variety we have encountered with enough determinance to be eligible for mechanical harvest***. Slightly larger berry than typical *canadensis*. Less disease and pest prone than most *canadensis* trialed. Interesting stock for breeding potential. Unknown potential for Florida as its own cultivar.

33-00-400 “Cy”



DNS Series 1 - 43

Seedlings from aggregate seed collection throughout the Southeast not including Florida.



DNS Series 1 - 43



FGW / FRW “*Florida Waldgeisters*”

A stand-out Florida type with two distinct variations. Found growing together, one is green throughout all plant parts and the other a deep red in petioles and leaf margins. Both are in propagation for the eventual possibility of use as rootstock.

FGW / FRW “*Florida Waldgeisters*”



Summary

Cultivation of elder in the U.S., and specifically in the Southeast, is at an early stage.

The market exists and is growing for imported product, and the domestic market is taking shape.

Use in wine has a long history, and wine is an ideal vehicle for expanding regional market share.

Questions





Thank you!