Meet the Muscadine

Disease-resistant, Adaptive, Healthful

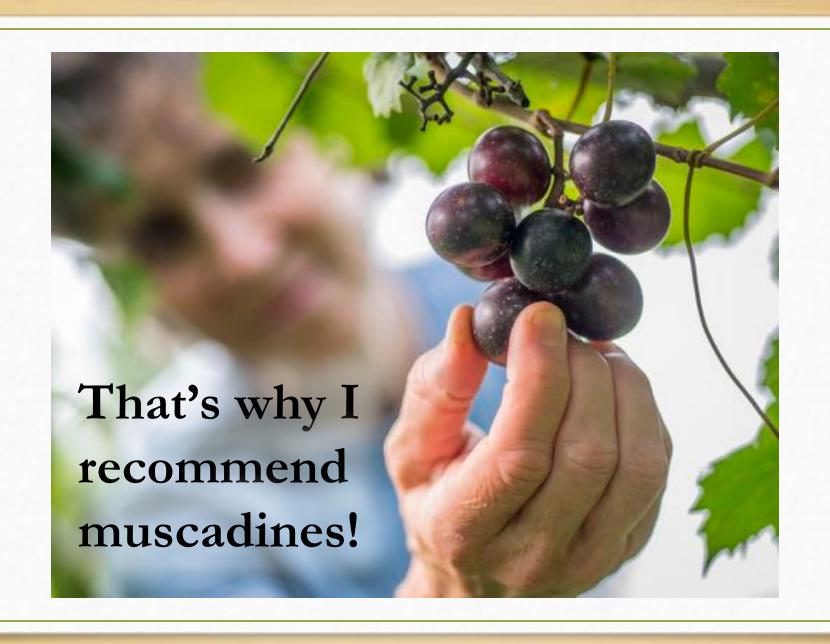


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Grape diseases can be major!



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What is a Muscadine?

• A grape...





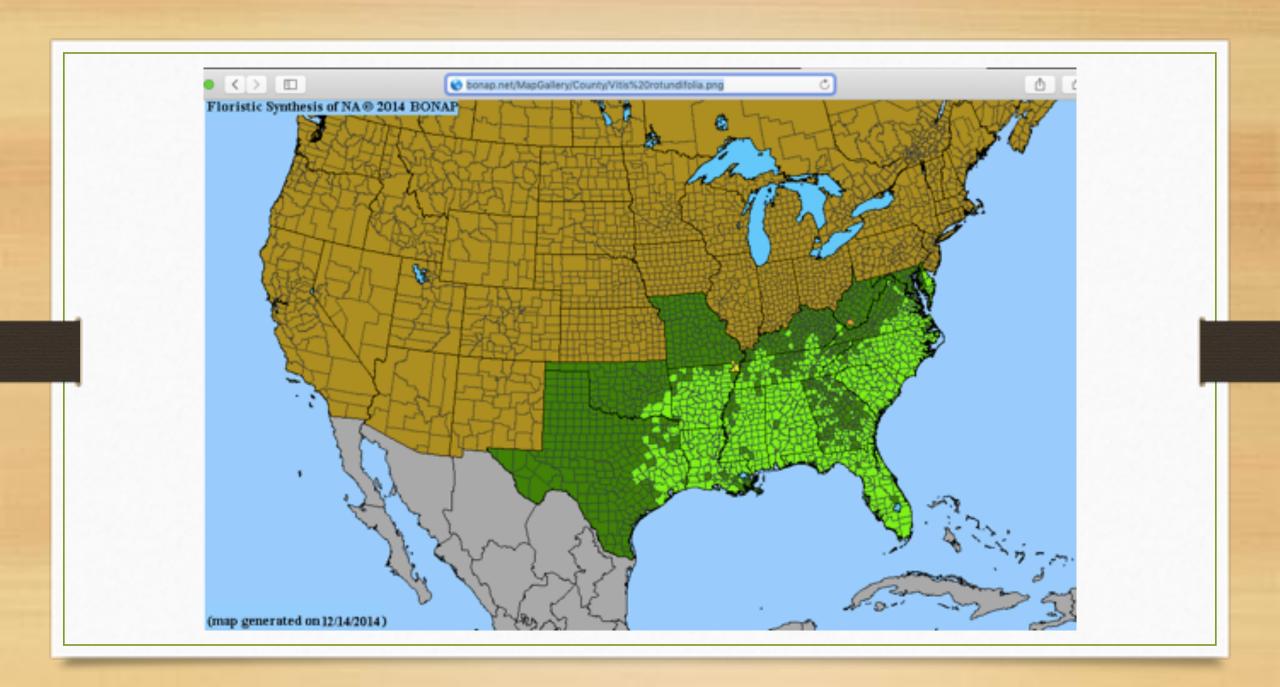


What is a Muscadine?

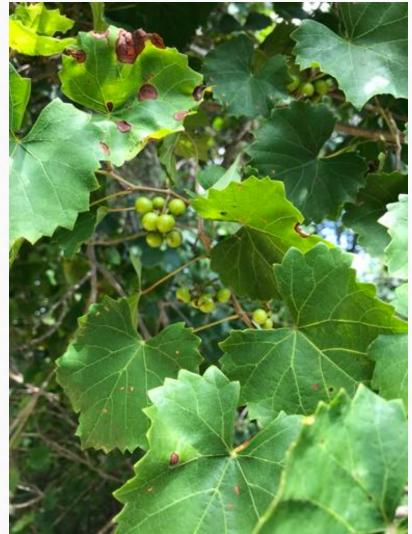
• Different from a typical grape...

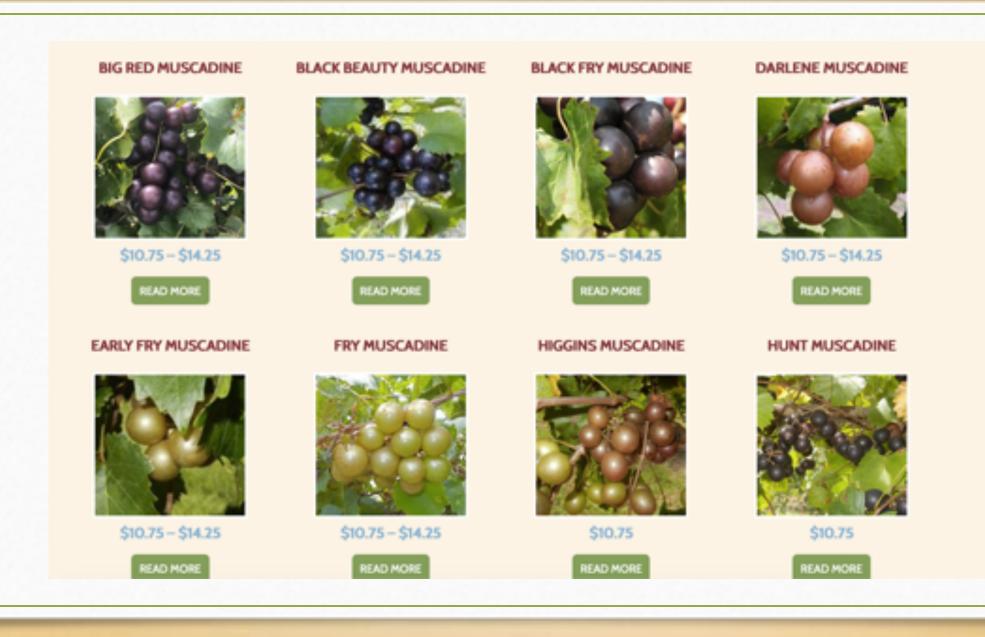












> J Agric Food Chem. 2003 Aug 27;51(18):5497-503. doi: 10.1021/jf030113c.

Phenolic content and antioxidant capacity of muscadine grapes

Eduardo Pastrana-Bonilla 1, Casimir C Akoh, Subramani Sellappan, Gerard Krewer

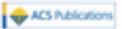
Affiliations + expand

PMID: 12926904 DOI: 10.1021/jf030113c

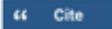
Abstract

Fruits of 10 cultivars of muscadine grapes (five bronze skin and five purple skin) grown in southern Georgia were separated into skin, seed, and pulp. Each fruit part and the leaves from the corresponding varieties were extracted for HPLC analysis of major phenolics. Total phenolics were determined colorimetrically using Folin-Ciocalteu reagent. Total anthocyanins were determined according to a pH-differential method, using a UV-visible spectrophotometer. Antioxidant capacity was determined by the Trolox equivalent antioxidant capacity (TEAC) assay. Gallic acid, (+)-catechin, and epicatechin were the major phenolics in seeds, with average values of 6.9, 558.4, and 1299.4 mg/100 g of fresh weight (FW), respectively. In the skins, ellagic acid, myricetin, quercetin, kaempferol, and trans-resveratrol were the major phenolics, with respective average values of 16.5, 8.4, 1.8, 0.6, and 0.1 mg/100 g of FW. Contrary to previous results, ellagic acid and

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< Title & authors

Abstract

Similar articles

Antioxidant Capacity

- Blueberries and Blackberries 8.11-38.29 TEAC¹
- Muscadine pulp 2.4 TEAC²
- Muscadine skin 12.8 TEAC²
- Muscadine seeds 236.1 TEAC²

¹Sellappan S., Akoh C.C., Krewer G. 2002. Phenolic compounds and antioxidant capacity of Georgia-grown blueberries and blackberries. *J. Agric. Food Chem.* **20**, 2432-2438 in Shi, X., and Hoffmann, M. (2010), Critical Article: Muscadine's Health Benefits. Retrieved from https://smallfruits.cals.ncsu.edu/2020/06/critical-article-muscadines-health-benefits/

²Pastrana-Bonilia E., Akoh C.C., Sellappan S., Krewer G. 2003. *J. Agric. Food Chem.* **51**, 5497-5503 in Shi, X., and Hoffmann, M. (2010), Critical Article: Muscadine's Health Benefits. Retrieved from https://smallfruits.cals.ncsu.edu/2020/06/critical-article-muscadines-health-benefits/

Why I promote muscadines

- Unique* taste
- Arguably the best disease resistance of any grape
- Not fussy about soil for the most part
 - Highly productive
- One of the best no-fuss additions to a wild orchard (or vineyard)!



Choosing Your Site

- Adapt very well to a variety of sites, but have a few constraints.
 - pH of 6-7 (no alkaline soils)
 - Full sun
 - Deer protection
 - North Slope at times*



Choosing Muscadine Varieties

• Isons.com > The Gardeners' Guide (bottom of page) > "Muscadine Characteristic Chart"



Choosing Muscadine Varieties

- Cold Hardiness
 - Pollination
 - Stem Scar
 - Color
 - Use

VARIETIES			da			/.	/	/ ,	/ /,	+ /		
	Patr	or star	in Inches	y Content	sasa Resid	d Hardines	or Mari	est Sesso Ber	N Stem Dry Scal	Set Color	Trail	/s
Big Red O	Pat # TBA	1 1/4	20%	G	G	G	M	90%	Female	Red	M-H	FJ
Black Beauty ©	Pat #7592	1 1/4	23%	E	G	VH	М	78%	Female	Black	м	FW.
Black Fry ©	Pat #5824	1 1/4	19%	E	G	н	M-L	64%	Female	Black	н	FJ
Carlos	Std.	1/2	16%	F-G	E	M-H	M	82%	Self-Fert.	Bronze	M-H	W
Cowart	Std.	1	17%	G	E	M-H	М	16%	Self-Fert.	Black	м	FJ
Darlene ©	Pat #7314	1 1/2	22%	G	G	VH	E-M	90%	Female	Bronze	M-H	FJ
Dixie Red ©	Pat #4770	1	17%	F-G	G	M-H	E-M	21%	Self-Fert.	Red	M	FJV
Early Fry ©	Pat #9225	1 1/4	18%	G	G	н	VE	66%	Female	Bronze	VH	FJ
Fry	Std.	1 1/4	21%	F	F-G	L-M	E-M-L	52%	Female	Bronze	M-H	F
Fry Seedless ©	Pat #7296	1/2	18%	E	G	Н	E-M	20%	Self-Fert.	Red	L-M	F
Granny Val ©	Pat #5823	1 1/4	18%	G	G	Н	L	94%	Self-Fert.	Bronze	VH	F
Higgins	Std.	1 1/8	16%	F-G	F-G	M-H	L	20%	Female	Red	M-H	FW
Hunt	Std.	1	17%	F-G	G	M-H	E-M	20%	Female	Black	M-H	FJV
Ison ©	Pat #5822	1 1/8	19%	E	G	н	E	92%	Self-Fert.	Black	VH	FW
Janet ©	Pat	1 1/8	21%	G	E	VH	M	35%	Female	Bronze	M-H	F
Jumbo	Std.	1 1/2	15%	G	G	M-H	E-M	74%	Female	Black	м	JF
Late Fry ©	Pat #9224	1 1/2	20%	E	E	Н	VL	95%	Self-Fert.	Bronze	Н	F
Magnolia	Std.	1/2	15%	F-G	G	M-H	M	15%	Self-Fert.	Bronze	M-H	WJ
Nesbit	Std.	1 1/8	18%	G	G	M-H	M-L	41%	Self-Fert.	Black	н	FJ
Noble	Std.	1/2	16%	G	G	M-H	E-M	15%	Self-Fert.	Black	M-H	WJ
Pam ©	Pat #7707	1 1/2	21%	E	G	M-H	E-M	87%	Female	Bronze	VH	FJ
Pineapple ©	Pat #7268	1	16%	E	G	M	M-L	47%	Self-Fert.	Bronze	VH	FJ
Scarlet	Std.	1 1/8	17%	G	G	M	M	72%	Female	Red	M	FJ
Scuppernong	Std.	1	17%	F-G	E	M	M	38%	Female	Bronze	L-M	FJV
Southland	Std.	1/2	17%	G	F-G	м	м	51%	Self-Fert.	Black	м	FJ

Acquiring Vines

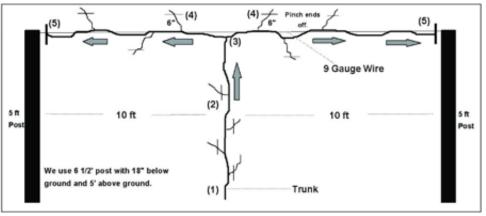
- Purchase
- Propagate
- Plant Patents



Trellising Muscadines

 Isons.com > The Gardener's Guide (bottom of page) > "Developing the Muscadine Vine

DEVELOPING THE MUSCADINE VINE



- At planting, prune all side growth. Find longest runner and prune off all other side growth.
- (2) Keep all side growth removed from trunk area leaving only leaves that are closest to the trunk.

only leaves that are closest to the trunk.

(3) Once vine reaches top of wire, lead vine down wire in one direction and wait for a sucker to put out and lead down wire in other direction.

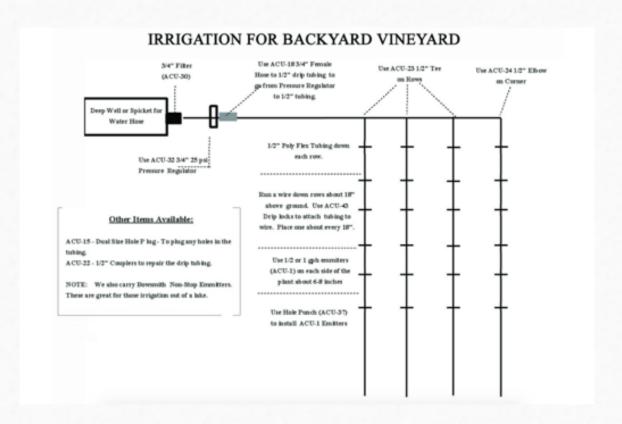
(4) Allow side growth off main vine growing down wire to grow 6* long then pinch tip off every 10-12 days until main vine reaches 10' in each direction.

vine reaches 10' in each direction.

(5) Once vines reaches 10' down the wire, keep main vine cut back to 10' and allow growth back to side growth.

Muscadine Irrigation

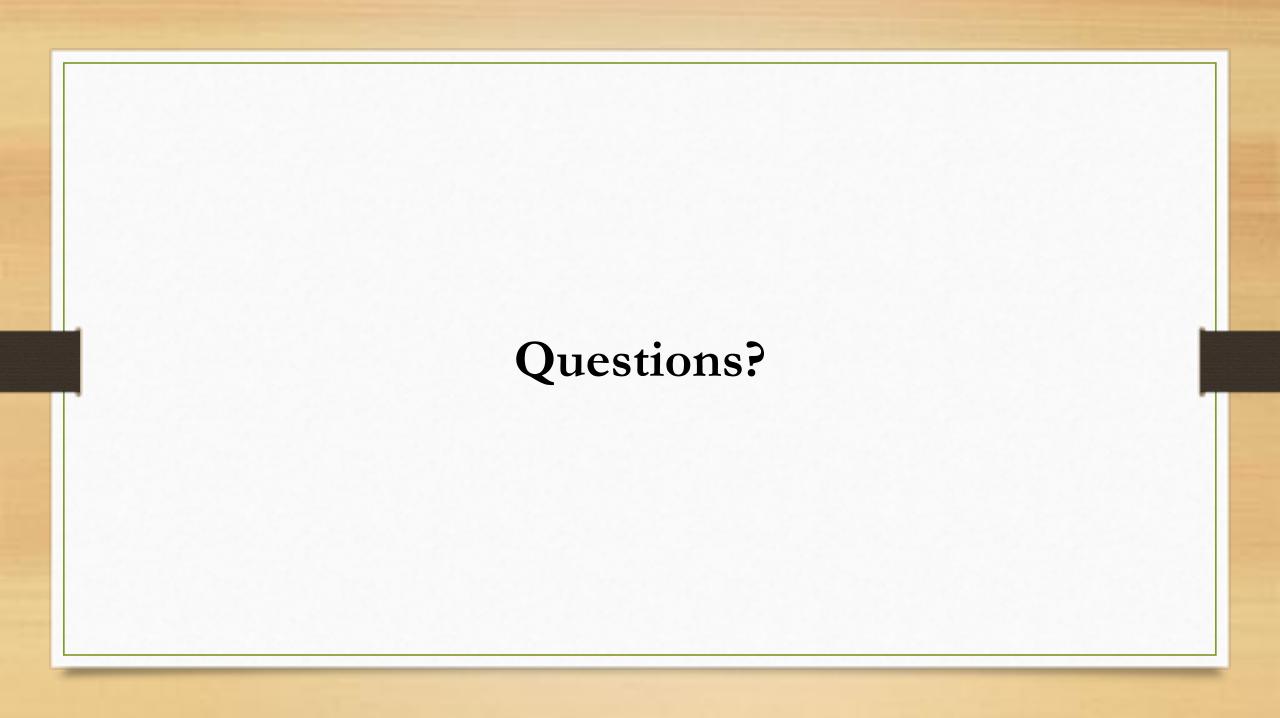
Isons.com has all the materials you need to set up an excellent drip vineyard irrigation system. Give them a call!



Pruning Muscadines

- Pruning essential to maintain productivity
- Pruned annually during the dormant season
 - Spur-pruning method
- Excellent tutorial from Isons.com: https://www.youtube.com/watch?v=x 9
 pk3cnPGI



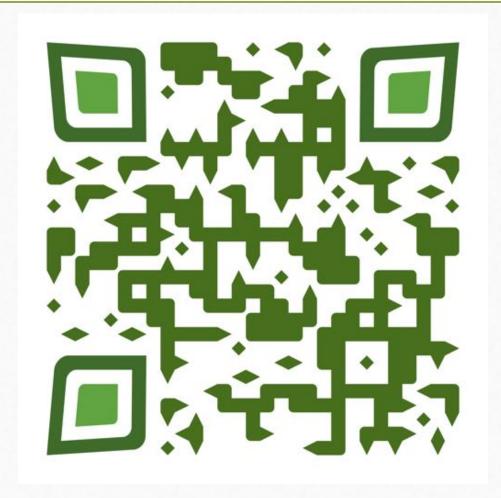


Summit Muscadine

"[O]ne of the most productive varieties grown in East Texas"

(https://aggie-horticulture.tamu.edu/fruit-nut/fact-sheets/muscadine/)

...and other top-notch varieties!



Are you starting your own orchard or vineyard? Join my email list Today!

https://mailchi.mp/031958f101a5/signupform

