# Muscadine Cultivar Selection for the Fresh Market

Mel Hall

University of Georgia

#### What is a Muscadine?

Muscadine Grape

Bunch Grape





#### Early Reports

- Native Americans used the fruit.
- 1565 Spanish missionaries in Florida.
- 1584 Coastal North Carolina.
- Wild and semi-cultivated vines.
- Vineyards since mid-18<sup>th</sup> century.

#### Distribution

• Delaware to central Florida; along Gulf of Mexico to eastern Texas. North along the Mississippi River to Missouri & near the Appalachian Mts. from the east & west.

• Where temperatures seldom drop below 10 degrees F.

#### Why Muscadines?

• Traditional for region

• Alternative crop



Health considerations

## Georgia



\$2.7 million average annual farmgate value for grapes (1990-99)-----Georgia Crop
Reporting Service, 2000.

#### North Carolina



\$2.5 million farmgate
value for grapes in
2001---North Carolina
Department of
Agriculture and
Consumer Services.

#### Uses

• Fresh Market\*

• Processing



#### Considerations when Selecting a Fresh Market Cultivar

Adaptation

• Fruit Color

Productivity

Fruit Quality

Type of Fresh Market
 Dry Stem Scar

• Fruit Size

Pollinizers

#### Adaptation

How does the cultivar perform in the specific area where it is to be grown? Vigor?



## Productivity

Acceptable yield

• Reliable production from year to year



#### Type of Fresh Market

• Once-over---mechanical or hand-picked

• U-pick

Homeowner



#### Harvest Season

- Uniform ripening vs. increased ripening period.
- Early to late.





### Fruit Size



## Fruit Color





#### Fresh Fruit Quality

- Sugar and acid and their ratios
- Flavor
- Skin thickness
- Seed size
- Pulp texture
- Adherence to the vine
- Uniform ripening



# Dry Stem Scar



#### Pollinizers

- Female or self-fertile plants?
- Marketability of the pollinizer
- 1/8 to 1/4 of vines
- Two or more pollinizer cultivars



# Leading Fresh Market Muscadines in the Southeast

- Carlos
- Dixie
- Fry
- Jumbo
- Nesbitt
- Summit
- Triumph

(Basiouny & Himelrick----2001)

# Six Newer Unpatented Cultivars with Promise for Fresh Market

- Alachua
- Florida Fry
- Loomis
- Polyanna
- Scarlett
- Tara

(Basiouny & Himelrick----2001)

#### Other Fresh Market Cultivars

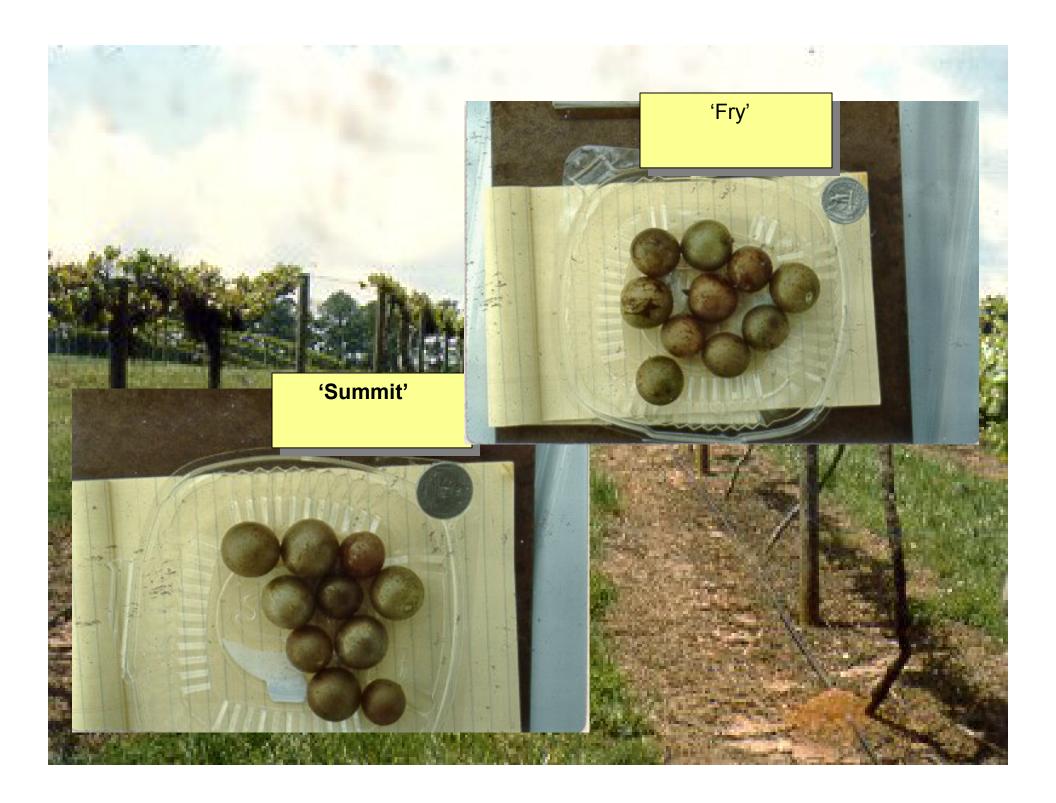
- 15 newer patented cultivars with promise as fresh fruit types.
- 13 other cultivars which may be found useful by some growers.
- Over 50 other fresh market cultivars still planted but no longer competitive.

(Basiouny & Himelrick ---2001)

## Cultivars for Georgia

• 34 fresh market cultivars grown to some extent but only a few are well known.

• Attractive, large bronze fruit preferred for both commercial and u-pick operations.







#### Other Bronze Types to Try

- 'Darlene'
- 'Early Fry'
- 'Pam'
- 'Sweet Jenny'



# Cultivars for Georgia

Attractive, large black fruit preferred in some areas

## Popular Black-Fruited Cultivars

- 'Supreme'
- 'Black Fry'
- 'Polyanna'\*







#### Pollinizer Cultivars

Commercial Shipping U-Pick

'Granny Val'\*

'Tara'

'Triumph'

'Cowart'

'Nesbitt'

'Tara'

'Triumph'



# Popular Cultivars Grown in North Carolina

- 'Fry'
- 'Higgins'
- 'Scuppernong'
- 'Jumbo'

- 'Nesbitt'
- 'Regale'
- 'Tara'
- 'Triumph'
- 'Cowart'
- 'Carlos'

# Popular Cultivars Grown in South Carolina

- 'Fry'
- 'Darlene'
- 'Sugargate'
- 'Black Beauty'
- 'Supreme'
- 'Summit'
- 'Scarlett'

- 'Carlos'
- 'Cowart'
- 'Nesbitt'
- 'Tara'

# Cultivar Selection is Crucial for Successful Fresh Market Muscadine Operation

