# Postharvest for Fresh and Direct Markets

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## Muscadines differ from bunch grapes

- Harvested singly or clusters rather than bunches
- Slip skin, seeded
- Clusters, not bunches
- Fruit on top of trellis rather than hanging
- Solids/Brix is 13-24
- Stem scar a source of tearing, juice leak, decay
- Muscadines need refrigeration, have a short shelf life (weeks not months)





# Sanitation and food safety

Field sanitation is important for all fruit production and market systems More to come on this from other speakers



### Fresh market and direct sales (U pick)

#### **Key points for both**

- Dry stem scar helps with storage life and keeping juice off grapes
- Muscadines can be easily washed by consumers before consumption
- Stick with grape varieties recommended for fresh market (not Carlos, Noble)

## Common fresh market varieties



<u>Bronze</u>

Tara

Summit

**Granny Val** 

Late Fry

Triumph

Fry

Hall

<u>Purple</u>

Paulk

Supreme

Nesbitt

Lane

<u>Red</u>

Scarlett

**Ruby Crisp** 

## Seedless muscadines

- Oh My
- RazzMaTazz



Same storage temperature (0 to 4C) Shelf life 14-21 days



## Fresh market sales:

- Hand harvest labor needed
- Pick early to reduce field heat
- Field heat removal critical
- Cold storage at 0 to 5 C
- Packaging is primarily clamshells (1 lb)
- Storage life is 7 to 21 days with field heat removal, cold storage, variety
- Soluble solids (Brix) at 13 to 18 %



# Fresh market harvest and storage

- Want full purple or light bronze color for purple/bronze types
- Ethylene production is very low
- Sweetness does not accumulate after harvest





## U Pick sales



1 gallon bucket with plastic liner



- Make sure containers are unused/clean
- Show customers right color and ripeness
- Have refrigeration available
- Large size varieties often most popular



1 gallon box with handle



1 lb vented clamshell

## Unmarketable Berries

#### **Shrivel**











**Decay** 



Leaky



#### **Stem Scar Tears**



### **Splits**



#### **Browning**



## Grading standards (Fresh market)

USDA Extra #1

US no. 1

Well colored

Clean

Not dried

Mature

NOT UTIEU

Not wet from juice

Not crushed, split or leaking

Not excessively soft

Free from decay, mold, insect or holes, overripe, foreign material, other damage
Stems free from mold or decay

SSC at least 13%





# Storage temperature

Cool quickly (Forced air is best)

Followed by low temperature storage (room cooling) to reduce mold, shrivel

Remember, higher temperature means a shorter shelf life:

20D at 33F = 4D at 68F

Plan for this in advance of harvest, make sure have refrigeration capacity for heat load and volume



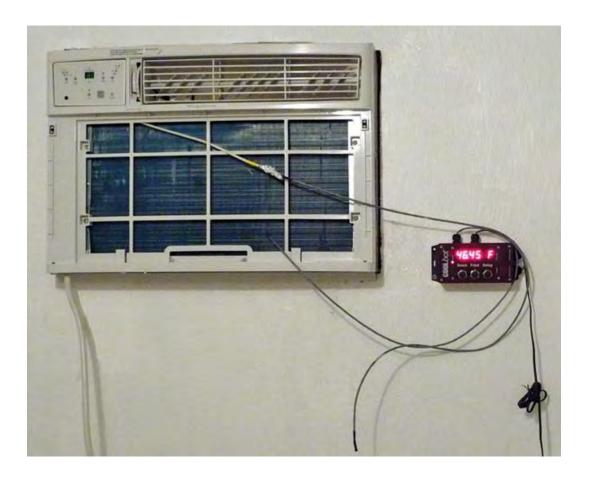


## COOL BOT

AC UNITS: 10,000 TO 25,000 BTU (\$300-600)

NOT ALL BRANDS WORK-CHECK THE WEBSITE!





http://www.storeitcold.com

Use this system to make an inexpensive cold room or for portable cooling

# Other sources of postharvest information

USDA Handbook 66

http://www.ba.ars.usda.gov/hb66/

• UC Davis Produce Fact Sheets (also an app available)

http://postharvest.ucdavis.edu/Commodity\_Resources/Fact\_Sheets/

#### **USDA** grading standards for muscadine

https://www.ams.usda.gov/sites/default/files/media/Muscadine Grape Standard%5B1%5D.pdf (Grading standards)

https://www.ams.usda.gov/sites/default/files/media/Muscadine Grape Standard%5B1%5D.pdf (Market inspection guide)

https://www.ams.usda.gov/sites/default/files/media/Muscadine Grape Visual Aid%5B1%5D.pdf (Unofficial visual aid)