Table Grape Cultivar Development at the University of Arkansas

Great Plains Growers Conference & Trade Show - 2015

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2015 is a Time to Rejoice for Grape Breeding In Arkansas

• UA has completed **51 years** of the fruit breeding effort
• Begun in January, 1964 by Dr. James N. Moore
• Lots accomplished, lots yet to get done
Arkansas Breeding Location

- Primary location
- Clarksville
Arkansas Table Grapes

• Refresher:

Neptune

Jupiter
Older Arkansas Table Grape Varieties

• Reliance
• Mars
• Saturn
Jupiter: The Most Popular Arkansas Development

- Seedless
- Mild muscat /American flavor
- Non-slip skin, good texture
- Hardy
- Very limited to no fruit cracking
- Folks are really liking this grape!!!
Jupiter: The Most Popular Arkansas Development

– Key production items
  • Watch downy mildew (and other diseases)
  • Normally spur pruned, 2 clusters/shoot best
  • Keep green June beetles controlled
  • Birds!
Neptune- A White/Green Option

• Seedless
• Fruity flavor but not Labrusca foxiness
• Non-slipskin
• Excellent clusters
• Skin gets thinnest at full ripe
On To the New Grapes

• When one runs out of planets

• And reflects on the specialness of life

• What might come to mind?
  – Faith
  – Hope
  – Joy
  – Gratitude
Faith

- Non-slipskin, excellent texture and skin
- Light fruity flavor
- Excellent vine health
- Good productivity
- Almost no fruit cracking
- Early
Hope

- Non-slipskin, excellent texture and very thin skin
- Light fruity flavor, lighter than Neptune
- Excellent vine health
- Good productivity
- No to very little fruit cracking
- Mid season
Joy

- Non-slipskin, excellent texture and very thin skin
- Light fruity flavor that is unique and catchy
- Slightly elongated
- Excellent vine health
- Good productivity
- No to very little fruit cracking
- Mid season
Gratitude

– Non-slipskin, excellent texture and very thin skin
– Neutral flavor
– Excellent vine health
– No to very little fruit cracking
– Mid to later season
What About Winter Hardiness?

• That is the BIG question for the Midwest region
• These have not been well tested in colder climates below 5-8ºF
• Hunches?
  – None as hardy as Jupiter
  – Hope and Faith hardier than Joy and Gratitude
  – See recent observations in Kentucky...
Seedless Table Grapes
Testing at Lexington, KY
J. Strang, P. Wilson, J. Wheeler, S. Lynch, Univ. of Kentucky

Planted 2012

- Survival, 18 plants, 2014 growing season
  - 78% Hope
  - 61% Faith
  - 33% Gratitude
  - 17% Joy

Polar vortex - 2014
Jan. 5  54 °F
Jan. 6  -5.2 °F

July 17, 2014
Where to get these grapes

• Double A Vineyards, Inc.
  10277 Christy Road
  Fredonia, NY 14063
  Phone: 716-672-8493
  Website: www.doubleavineyards.com
  Email: sue.rak@doubleavineyards.com

• All UA Fruits and sources can be seen here:
  http://www.aragriculture.org/horticulture/fruits_nuts/Grapes/default.htm
If You Happen to Run Across “Cotton Candy” in the Grocery......
Think Arkansas
Cotton Candy

• This “Cotton Candy” grape has very fruity flavor in a Calif. table grape texture

• The flavor comes from an Arkansas table grape parent

• It won’t grow in the East….however
And Whatever You Do, Don’t Let WITCH FINGERS Getcha

• Another Arkansas-derived grape
• Again, California production only and vines not for sale
So, What Has Been Done in Wine Grape Breeding at UA?

• In 1968, hybrid seedlings for wine totaling 1080 were in the field at Clarksville from a range of French hybrids, etc.

• In 1971 a series of *vinifera* crosses were made with parents such as Alicante Bouschet, Grenache, Petit Syrah, Cab. Sauv., Gewurztraminer
So, What Has Been Done in Wine Grape Breeding at UA?

• Approximately 100 wine grape selections were made through 1996

• Many of these had wine made by Drs. Morris, Threlfall and Main in Food Science

• There was quite the backlog of wines and selections on hand by the mid to late 1990s
So, What Is Remaining of the All this Work?

- Seven selections remain from this effort
What Exactly are These Selections?

- One white, Seyval x Muscat Ottonel, light and fruity
- Another white, Cayuga x A-1754 (Semillon x Rkatsiteli), consistent producer, yielder
- A red, (Petit Syrah x Alicante Bouschet) x (Petit Bouschet x Salvador), with intense color, disease resistance
- A few other whites with parents including Gewurztraminer, Gutedelweiss, Okanagan Riesling
Some Years Go By....... 

• Further evaluations have indicated TWO of these have the most potential 
• A-2245 and A-2467, more about these....
Vineyard Comments Over the Years – A-2245

• Tight clusters, consistent fill
• Consistent cluster size
• Some rot observed in some years – not that bad in the rainy 2014! But has to be watched
Vineyard Comments Over the Years – A-2245

- Good health
- Consistent crop
- Moderate vigor
- Some magnesium chlorosis; commonly seen
Vineyard Comments Over the Years – A-2467

- Medium-large cluster size
- Good cluster fill
- Tight clusters, consistent fill
- Clusters well exposed
Vineyard Comments Over the Years – A-2467

- Good health
- Consistent crop
- Moderate vigor
- Some leaf reddening
So, The Value of These?

• Have a place in Arkansas or the Midwest?
• Hardiness? Looks good overall so far
• Diseases? Not many noted over the years
• Release consideration underway
We are having BIG FUN in Arkansas Fruit Breeding!!!!