Welcome to
Florida Small Farms and Alternative Enterprises
CONFERENCE
Blueberry Varieties to Extend The Harvest Season in Florida

UF | IFAS Extension
UNIVERSITY OF FLORIDA

100th Anniversary
FLORIDA EXTENSION
A CENTURY OF SERVING FLORIDA
The 2014 Educational Program Committee is pleased to share conference educational materials with you under the condition that they are used without alteration for educational and non-commercial use only. All materials are protected by copyright law. The authors kindly request their work is properly cited, including the date of publication.

For more information on Small Farms, visit our website at: http://smallfarms.ifas.ufl.edu/ or contact your local County Extension Agent.

For inquiries about this topic, please contact: Danielle Treadwell, Educational Program Chair. Phone: (352) 273-4775 Email: ddtreadw@ufl.edu

Suggested Citation: Author Full Name. Title of Presentation or Handout. 2014 University of Florida-IFAS and Florida Agricultural and Mechanical University-CAFS Florida Small Farms and Alternative Enterprises Conference. August 1-2, Kissimmee, FL.
Blueberry Varieties to Extend the Harvest Season in Florida

Dr. Jim Olmstead

Horticultural Sciences Department

2014 Small Farms Conference
A berry by any other name......

• Several different *Vaccinium* species are collectively called “blueberries” in agricultural production systems

• The species grown is dependent on location and end use
Southern Highbush Blueberry

- *Vaccinium corymbosum*

- Temperate adapted varieties (Highbush blueberry) crossed with evergreen Southeast species (*V. darrowii*, rabbiteye) and selected for low winter-chilling requirement

- Also including *V. arboreum*, *V. stamineum*, *V. elliottii*, *V. myrsinites*, wild highbush, .......
Trial Sites – Chill Accumulation (0-7°C)

- Windsor/Waldo, FL: 605, 284, 230
- Interlachen, FL: 605, 284, 230
- Citra, FL: 417, 272, 159
- Haines City, FL: 233, 114, 83
- Arcadia, FL: 276, 114, 94
Most Common Florida SHB Varieties
‘Springhigh’ (USPP # 16,404)

- Early bloom, ≈1.5 weeks before ‘Star’
- Early ripening, ≈9 days before ‘Star’
- Vigorous, upright growth habit, excellent field survival
- Darker berry color, lower firmness
- Harvest frequently or packing and postharvest problems
‘Star’ (USPP # 10,675)

- Higher chill requirement (Gainesville-north)
- Short fruit development period
- Concentrated harvest period
- Easy harvest, good quality fruit
- Has been used as a standard for comparing UF varieties
- Disease difficulties
‘Jewel’ (USPP # 11,807)

- Low chill (Gainesville-south)
- Blooms 1 week before ‘Star’
- Ripens with ‘Star’
- Excellent fruit quality, but berries are tart until fully ripe
- High yield potential
- Often paired with ‘Emerald’
- Very susceptible to leaf diseases
‘Emerald’ (USPP # 12,165)

- Low chill requirement
- High yield potential
- Vigorous, spreading bush
- Large fruit size, good quality, tight clusters
- Blooms 1 week earlier than ‘Star’
- Long harvest period
- Often planted with ‘Jewel’
‘Farthing’ (USPP # 19,341)

- Vigorous, compact growth habit, good survival
- Blooms mid-late (between ‘Emerald’ and ‘Star’)
- High yield potential, long picking season
- Very firm fruit, potential for mechanical harvest
- Poor color with large crop
Other SHB Variety Options
‘Primadonna’ (USPP #20,181)
‘Windsor’ (USPP #12,783)
‘Sweetcrisp’ (USPP #20,027)
‘Meadowlark’ (USPP #21,553)
Low-Chill SHB Options
‘Snowchaser’ (USPP # 19,503)

- Low chill, early bloom (mid January in Gainesville)
- Very early ripening, ≈20 days before ‘Star’
- Excellent flavor, medium sized fruit
- Susceptible to stem blight – field survival is marginal in FL
**Kestrel™**

‘FL02-40’ – (USPP # 21,719)

- Low chill requirement
- Early bloom, very early maturity
- Strong early leafing
- Medium to large berry, excellent flavor
- Has performed well in high tunnel production
- Evergreen production
Chickadee™
‘FL04-235’ – (USPP # 21,376)

• Low chill requirement
• Early bloom, very early maturity
• Upright growth habit
• Vigorous, excellent survival
• Very firm, great flavor, darker fruit color
• Has performed well in high-tunnel production
All patented UF blueberry varieties are licensed by Florida Foundation seed Producers, Inc. (FFSP)

Anyone propagating plants for personal use or sale is required to be licensed by FFSP.

Licenses are available to any nursery in Florida by contacting FFSP

http://ffsp.net, (352) 392-9446
Historical Varieties

• Sharpblue (UF, unpatented)
• Misty (UF, unpatented)
• Gulf Coast (USDA, unpatented)

Other UF Varieties

• Marimba (USPP# 7,974)
• Southmoon (USPP# 9,834)
• Bluecrisp (USPP# 11,033)
• Santa Fe (USPP# 10,788)
• Sapphire (USPP# 11,829)

• Southern Belle (USPP# 13,931)
• Sebring (USPP# 13,683)
• Millenia (USPP# 12,816)
• Abundance (USPP# 16,476)
• Springwide (USPP# 16,333)
Evergreen Production
Rabbiteye Blueberries
Rabbiteye Blueberries

• UF varieties are earlier flowering and ripening, generally have chill requirement of around 300 hours
• UGA varieties are later flowering and ripening, generally have chill requirement of above 300 hours
• Rabbiteye varieties are NOT self-fruitful. Careful choice of pollenizer is important
• Flower thrips have been a problem, particularly with earlier ripening rabbiteyes in north Florida
Rabbiteye Standards

- Premier
- Climax
- Brightwell
- Tifblue
- Powderblue
Introduction

Georgia can potentially have 3 months of commercial harvest.

However, much of the market is focused on early to mid season SHB varieties.
  - Generally hand harvested

Much of the Rabbiteye production is machine harvested, ~90%

<table>
<thead>
<tr>
<th>Cultivar</th>
<th>Highbush</th>
<th>Rabbiteye</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rebel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Star</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Premier</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Climax</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alapaha</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brightwell</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tifblue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Powder Blue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ochlockonee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>April</td>
<td>3 4</td>
<td></td>
</tr>
<tr>
<td>May</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>June</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>July</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>August</td>
<td>1 2</td>
<td></td>
</tr>
</tbody>
</table>
UGA Rabbiteye Varieties

• Rabbiteye
  – ‘Alapaha’ 2001
    • Late flowering
    • Ripens quickly
    • 450-500 chill hours
    • Cross pollination
      – ‘Vernon’
      – ‘Titan’
UGA Rabbiteye Varieties

• Rabbiteye
  – ‘Ochlockonee’ 2002
    • Late flowering
    • Ripens quickly
    • 650-700 chill hours
    • Cross pollination
      – ‘Powder Blue’
      – ‘Titan’?
UGA Rabbiteye Varieties

- **Rabbiteye**
  - ‘Vernon’ 2004
    - Late flowering
    - Ripens quickly
    - 450 chill hours
    - Cross pollination
      - ‘Alapaha’
      - ‘Titan’?
UGA Rabbiteye Varieties

• Rabbiteye
  – ‘Titan’™ 2010
    • Late flowering
    • Large fruit
    • 500-550 chill hours
    • Cross pollination
      – ‘Vernon’
‘Primadonna’ (USPP # 20,181)

- Early bloom, ripens 7-10 days before ‘Star’
- Large, excellent tasting fruit
- Needs hydrogen cyanamide in FL
- Susceptible to flower bud injury with hydrogen cyanamide applications in low chill years
‘Windsor’ (USPP # 12,783)

- Bloom and ripe similar to ‘Star’
- Vigorous, strong early leafing
- High yield potential, large fruit size
- High disease tolerance, excellent field survivability
- Deep stem scar, tendency for wet scar if not harvested often at proper maturity
‘Sweetcrisp’ (USPP # 20,027)

- Higher chill requirement (Gainesville-north)
- Crisp flesh texture, very sweet taste
- Very vigorous, sprawling growth habit
- Blooms 1 week before and ripens with ‘Star’
- Medium yield potential
Meadowlark™
‘FL01-173’ – (USPP # 21,553)

- Part sparkleberry
- Early bloom, starts ripening ≈ 10 days before ‘Star’
- Very upright growth
- Very open fruit clusters
- High yield potential
- High mechanical harvest potential
- Flavor, color?