# Stone Fruit Production in Florida: Successes and Challenges

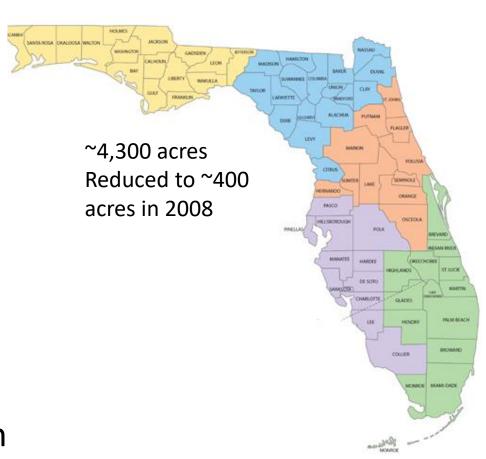


Ali Sarkhosh, Assistant Professor & Extension Specialist

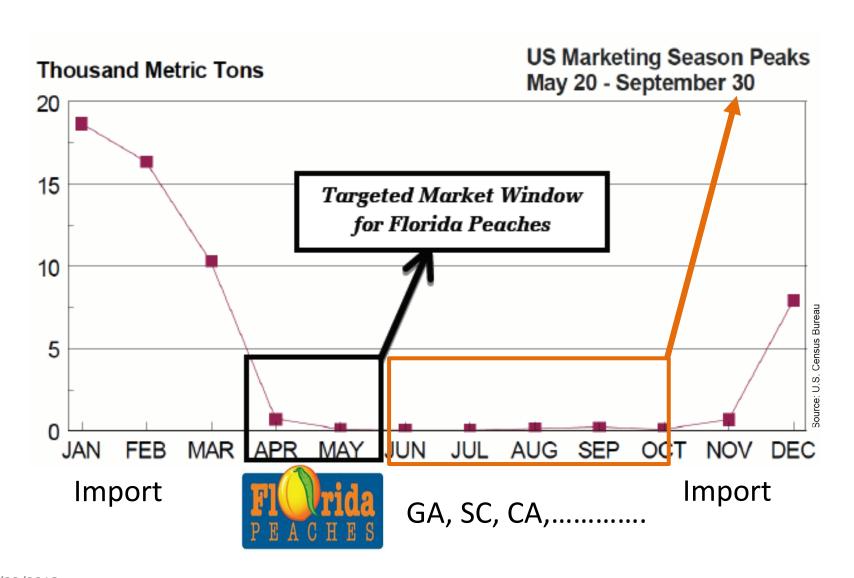


## **Production History**

- Peaked in the 1980s
- Medium-chill varieties
- Marketing challenges
- Domestic competition
- Lack of overhead irrigation



#### Production window for FL



## UF stone fruit breeding program

http://agroclimate.org/tools/chill-hours-calculator/

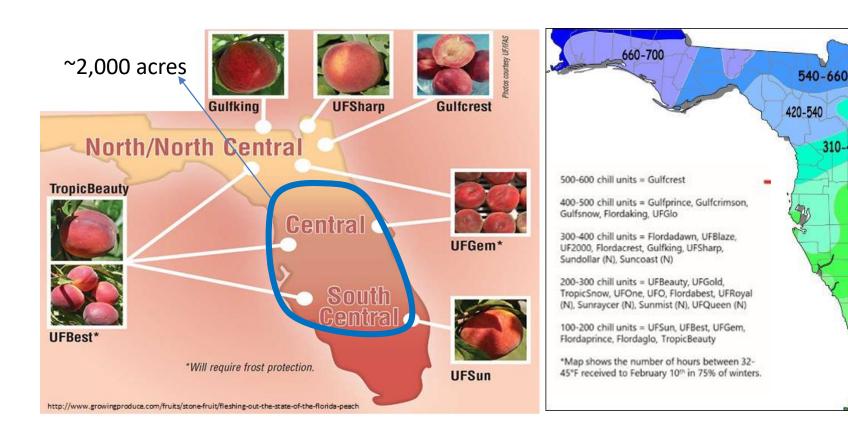
310-420

210-310

110-210

50-110

0-50









Walmart





The Fresh Market





Whole Foods Market

## Freeze protection



**Fungal Gummosis** 



Peach Leaf Rust 5/29/2018

## Peach diseases





**Peach Scab** 



**Brown rot** 

## **Peach Insects**



Plum Curculio



Citrus root weevil





Caribbean fruit fly



White Peach Scale



San Jose Scale

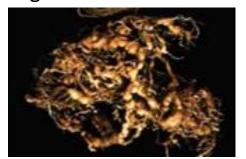
**Peach Tree Borers** 

#### Root-knot nematode

#### Meloidogyne floridensis



Tree on the right shows signs of nematode infestation such as yellowing, stunting and reduced vigor. Photo credit: Mary Ann D. Maquilan.



Reduction in foliage is resulting in the production of poor quality fruit.

Photo credit: Mary Ann D. Maquilan.



## 2018 Pest Management Guide

http://hos.ufl.edu/extension/stonefruit

https://secure.caes.uga.edu/extension/publications/files/pdf/B%201171\_10.PDF

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### Fruit Size

Fruit diameter need to be over 2,5in for supermarkets



https://www.westjetmagazine.com/blog/great-kids-snacks-pack-your-flight

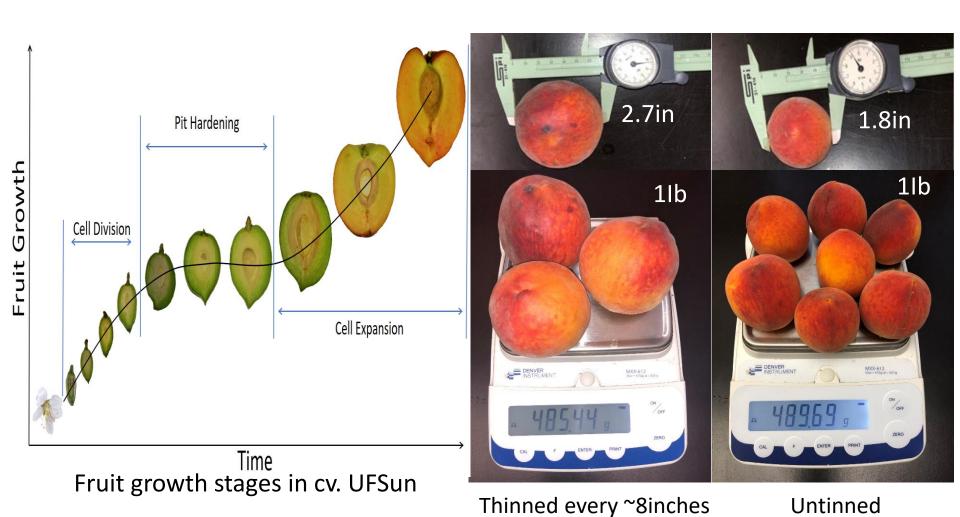
-Mini pack of smaller size fruit-Kids-snacks-pack

Deer Park Peaches Facebook 5/29/2018

Deer Park Peaches Facebook 11

#### Fruit Size

Fruit thinning before pit got harded is the key to increase the fruit size

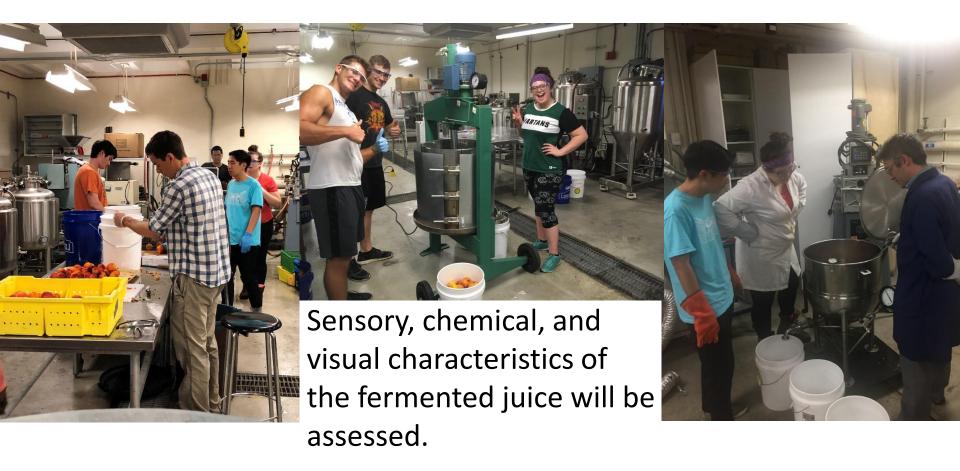


2018 Fruit thinning experiment

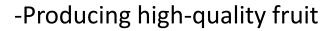
## Experiments to test the fermentability of juice from Florida peaches

-Local brewing

- Agritourism



Vegetative growth



- -Pests management
- -Improving spray coverage and penetration
- -High density orchard
- -Reducing production cost
- -Simplify operational practices









## Marketing

Yellow Peaches





## Climate change

- -Chilling unit -Growing degree days
- -Pest and disease development -and ...

1 chilling unit=1 hour @ 32°F-45°F
Insufficient chilling unit = delayed and prolonged budburst

Chilling unit based on temperature: 32-45 °F, http://agroclimate.org/tools/chill-hours-calculator/											
County	Indian River	Polk	Hillsborough	Pasco	Orange	Lake	Marion	Alachua			
This season	141	163	281	304	203	302	418	524			
Last season	61	59	104	113	86	167	241	327			
Historic average	211	233	288	267	282	420	417	625			

#### Labor

Fruit-thinning and pruning, estimated cost of ~\$2,000/ acre per year

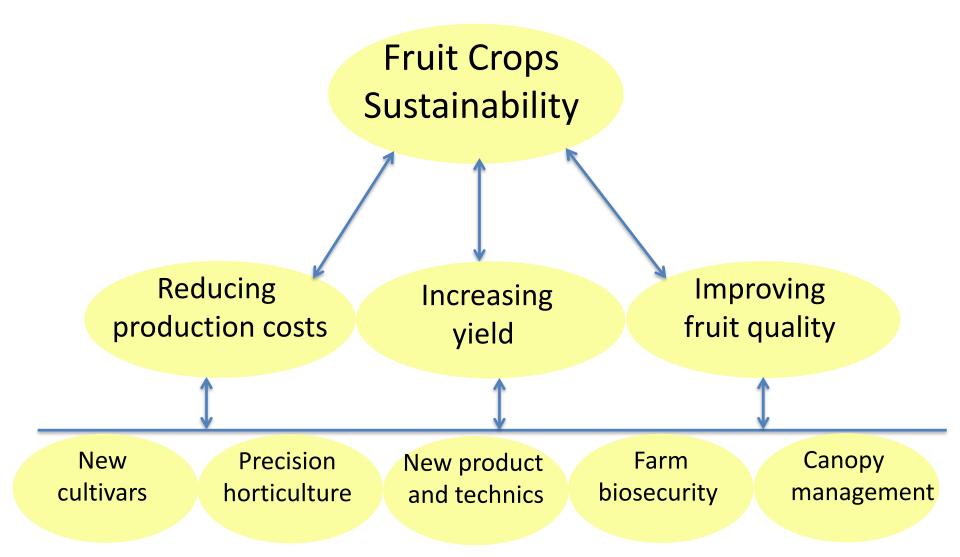
- -Growing system
- -Agro-technical and agro-chemical techniques
- -Diversification
- -and....



A native Australian picker, able to reach high into the trees, good stamina, works well in hot climates, comes with in built picking bag



## Florida Stone Fruit Association?



### Resources for Growers

#### Stone Fruit at the University of Florida

http://hos.ufl.edu/extension/stonefruit

#### **Operation Peaches in Florida**

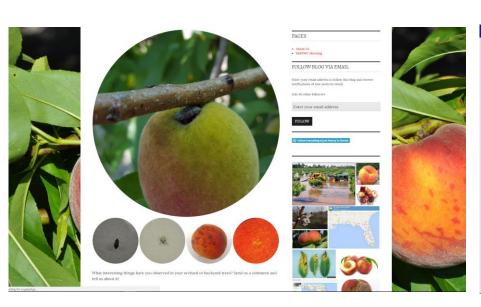
https://ufstonefruit.wordpress.com/#jp-carousel-464

https://www.facebook.com/stonefruitUFIFAS/





Stone Fruit at the University of Florida @stonefruitUFIFAS





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## **UF/Stone Fruit Lab**

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Thank you,

"We would like to see growers get rewarded for the hard work that they have put into producing a quality product"