Peach Disease Overview

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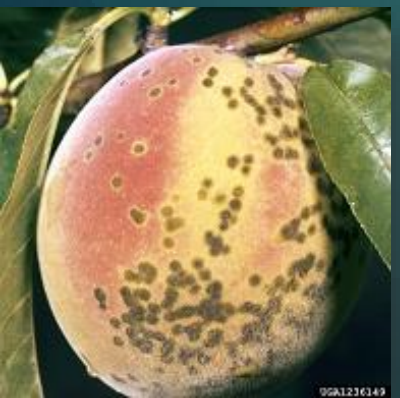

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Peach Diseases

- Peach Leaf Rust
  - *Tranzschelia discolor*
  - Late summer/fall, wet weather
  - Causes defoliation and early bloom in winter
  - Need to keep leaves on as long as possible
    - Growth, develop fruit buds for next season
  - Controlled with fungicides

Images: http://ipmimages.com

Rust Management

- Little research has been conducted
- Fungicides with efficacy include:
  - Abound
  - Adament (triflox and teb)
  - Bravo and Captan
  - (DMI's) Elite, Indar, Orbit, Rally

Peach Diseases

- Peach Scab
  - Common problem in SE U.S.
  - Caused by *Cladosporium carpophilium*
  - Spots on fruit, twigs
  - Controlled with fungicides
    - Important to control shortly after fruit set and into early part of fruit growth
    - Can affect leaves as well

Images: http://ipmimages.com

Scab Management

- From Petal Fall
  - Abound, Pristine, Adament
  - Topsin M
  - Captan, Bravo

Leaf Curl

- *Taphrina deformans*
  - Occurs sporadically
  - Fungicide applications can control it where it occurs regularly
  - Two dormant apps of Ferbam give good control, Ziram, Thiram, Chlorothalonil, copper may also give control

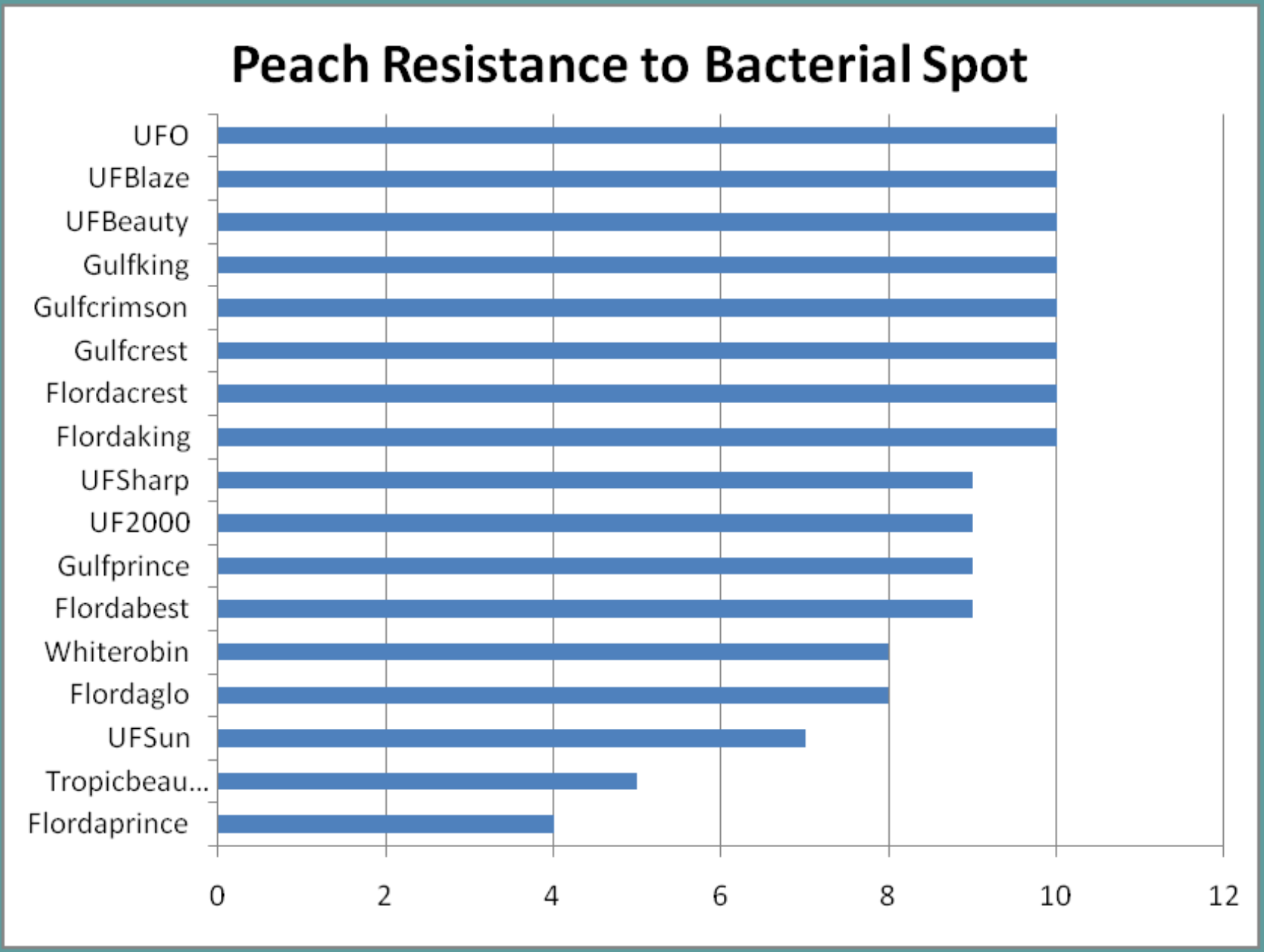
Peach Diseases

- Bacterial Spot
- *(Xanthomonas arboricola pv. pruni)*
  - Yellow, chlorotic leaves, with lesions
    - Many UF varieties resistant

    "Bacterial shot hole"

    Not Coryneum shot hole disease caused by *Wilsonomyces carpophilus*

Images: http://ipmimages.com



Most

Least

Florida Subtropical Peaches: General Concepts and Cultivars Recommended for Grower Trials[1]

J. Ferguson, P. Andersen, J. Chaparro, and J. Williamson[2]

Bacterial Spot

- Dormant Copper Sprays
  - Reduce rates after dormancy to avoid toxicity
- Shuck Split
  - Oxytretracycline
    - Mycoshield

Peach Diseases

- Brown Rot
  - Caused by *Monilinia fruiticola*
  - Not as large a problem in Florida due to early harvest
  - Thrives in wet conditions (rain during fruit development)
  - Controlled with multiple fungicide applications, sanitation

Image: G. England

Brown Rot

- 21 days pre harvest—through harvest
- Abound, Adament, Pristine
- Scholar
- Indar, Orbit, Elite, Quash
- Captan
- Topsin M

Mushroom Root Rot

- *Armillaria tabescens*, *Ganoderma lucidum* or *Armillaria mellea*) attacks a wide range trees
- First symptoms range from a slow, gradual decline to rapid death.
- Slow death of the tree in the aboveground parts is the most common.

Phony Peach *Xylella fastidiosa*

- Canopy of tree is flattened, compact and umbrella-like due to shortened internodes
- Dwarfing
- Early bloom, fruit set and reduced fruit size
- Fruit may be more colorful with early ripening.
- Production reduced 80-90%
- Trees that develop PPD symptoms before bearing age never become productive. PPD does not kill the tree but may make it more susceptible to other diseases and arthropods

Phony Peach *Xylella fastidiosa*

- Can be transmitted by grafting
- Spread primarily by a type of leafhopper known as sharpshooters
- Symptoms can develop as late as 18 months or more after initial infection
- Insects are commonly found in Florida in association with weeds, shrubs, and trees that serve as reservoirs for *X. fastidiosa*

Phony Peach *Xylella fastidiosa*

- There is no cure for PPD or any other disease caused by *X. fastidiosa*.
- Rogue trees once confirmed PPD
- Manage weeds
- Replanting in a PPD orchard not likely to be successful

Peach Tree Short Life

- Complex of problems
  - Cold damage and *Pseudomonas syringae*
  - Ring nematode may play a role
  - Growth is delayed in spring, shoot collapse often seen
  - Sprout back from rootstock

Image: http://ipmimages.com

PTSL

- Avoid deep cultivation that disturbs feeder roots
- Avoid winter pruning where possible

Fungal Gummosis

- *Botryosphaeria dothidea*
  - Amber colored sap oozes from cankers under bark
    - Flordaguard rootstock is highly susceptible
  - Fungicide applications (Captan) to trunk early (yrs 1-3) may help to control
  - Reduce stress, sanitation

Read the labels

- Captan up to day of harvest, 24 hr to 4 day REI depending on product
  - Repeat apps 3-4 days during bloom 7-14 after
- Bravo Ultrex, not after shuck split
  - Repeat not sooner than 10 day interval
- Copper, rate dependent on grth stage
  - Some, not within 3 weeks of harvest, not within shuck split

Additional Resources

- **2012 SOUTHEASTERN PEACH, NECTARINE AND PLUM PEST MANAGEMENT AND CULTURE GUIDE**
- **Crop Profile for Peaches in North Carolina**
- **Eastern Peach Pest Management Strategies for Adapting to Changing Management Options**