

Blueberry Observations in SW Florida

Growing Blueberries in Central and South Florida



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Cultivars Typically Planted in SW FL

- Arcadia
- Avanti
- Chickadee
- Endura
- Kestrel

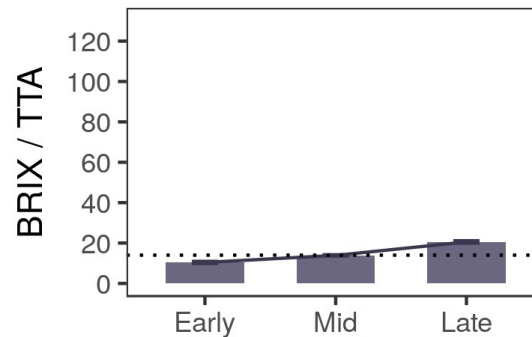
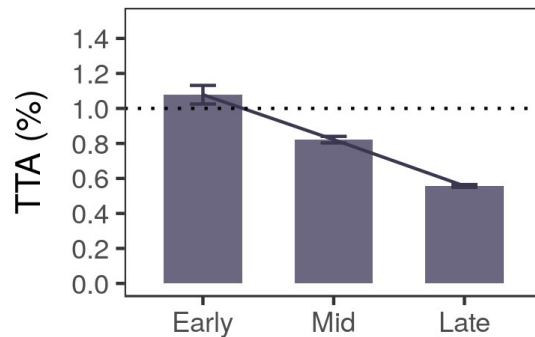
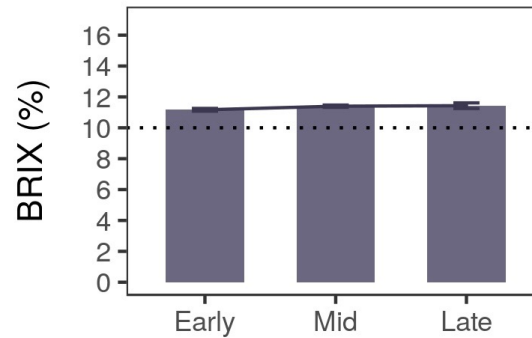
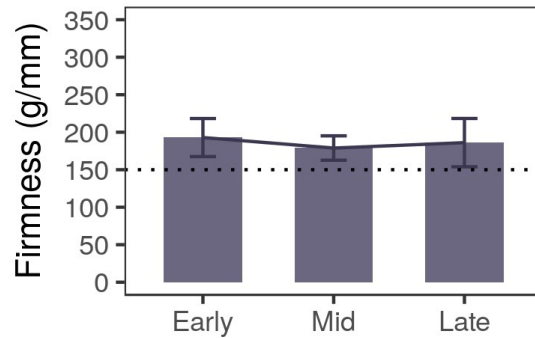
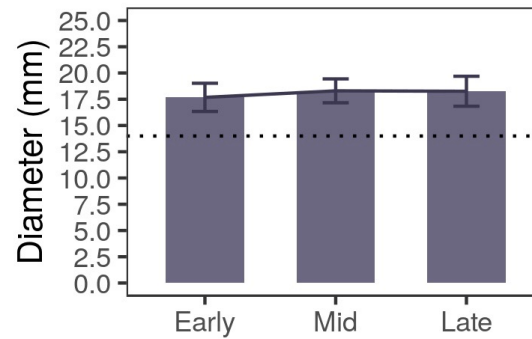
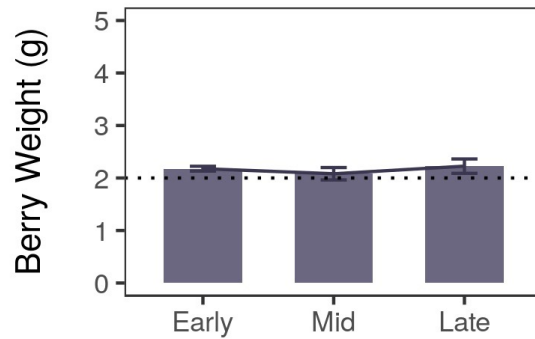


Fruit Quality Thresholds

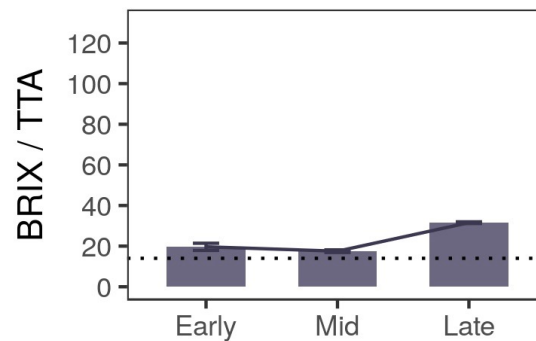
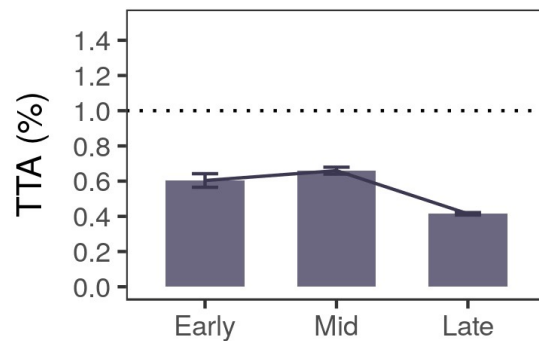
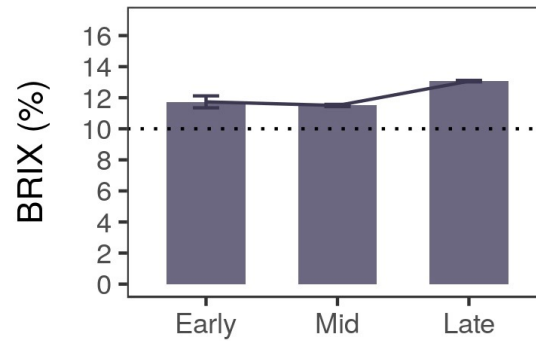
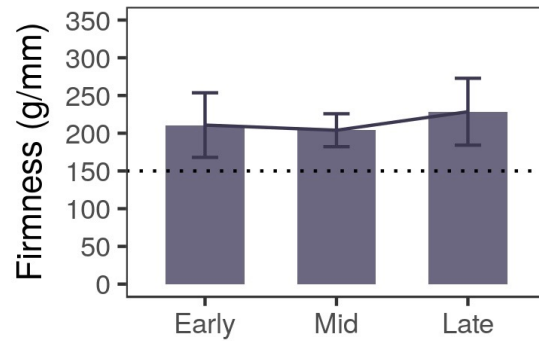
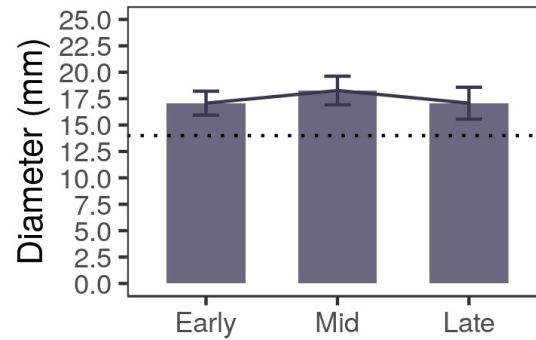
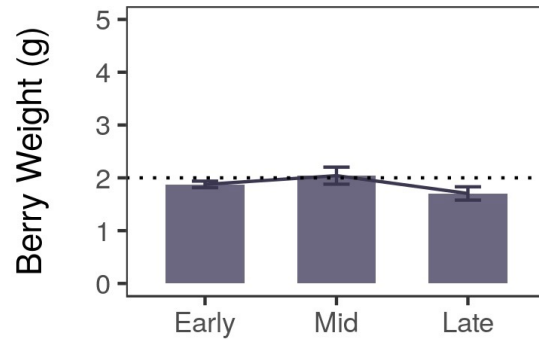
- Weight $> 2\text{g}$
- Size $> 14\text{mm}$
- Firmness $> 150\text{ g/mm}$
- Brix (sugar content) $> 10\%$
- Acidity (TTA) $< 1\%$
- Brix/TTA > 14



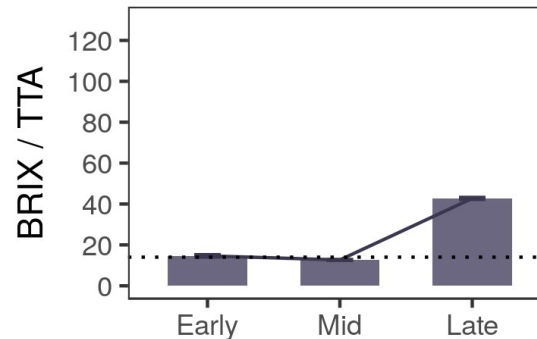
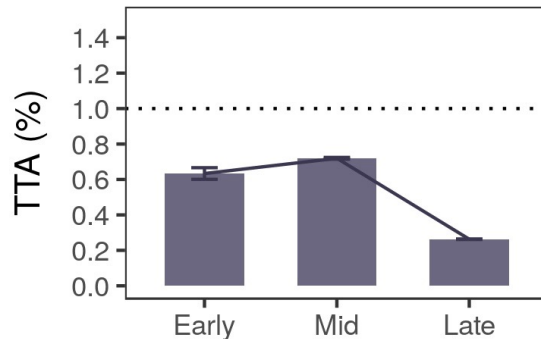
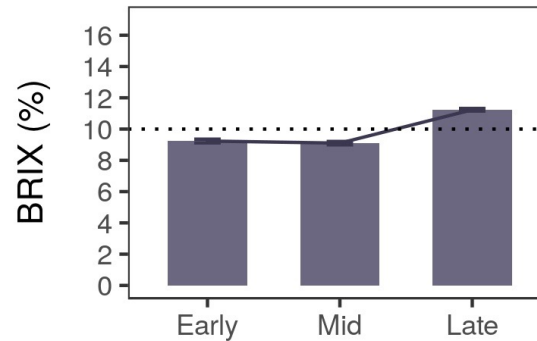
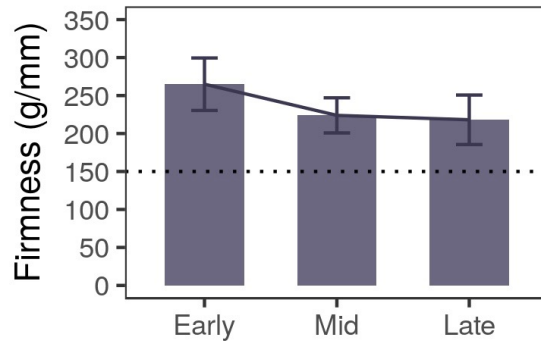
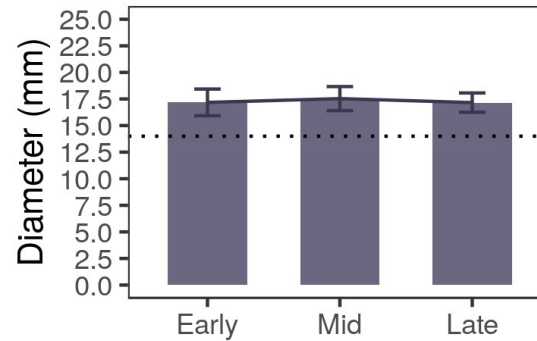
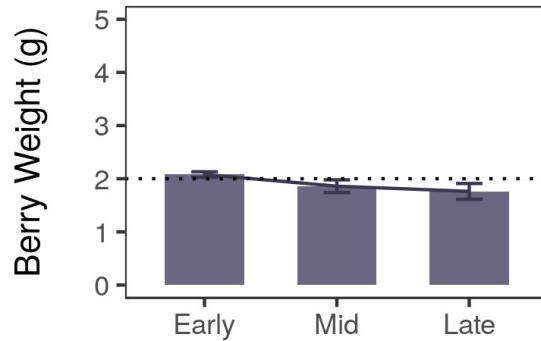
Fruit Quality Data - Arcadia



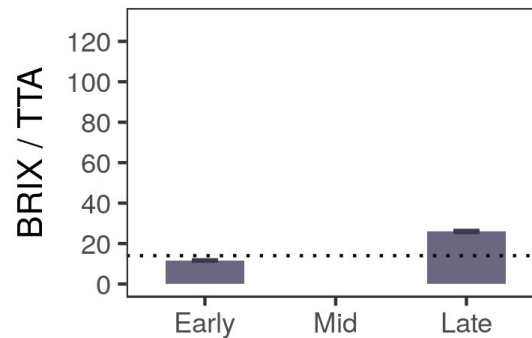
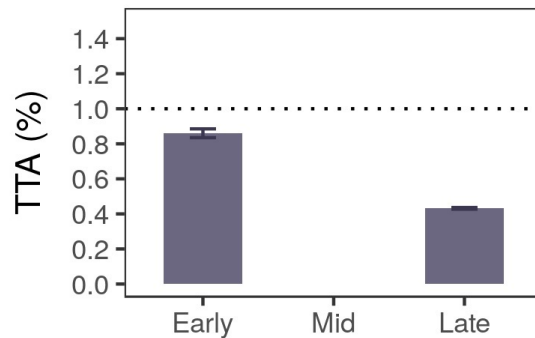
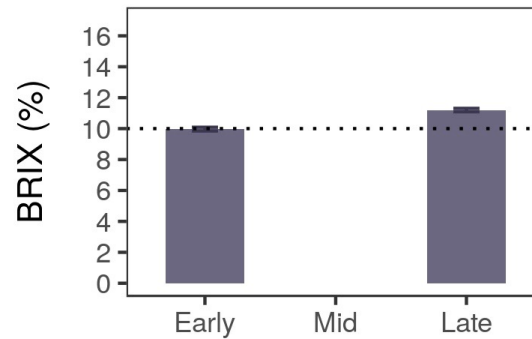
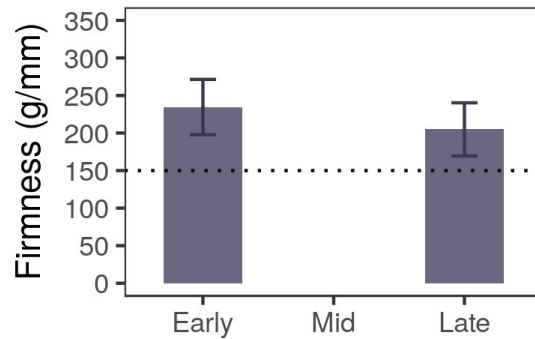
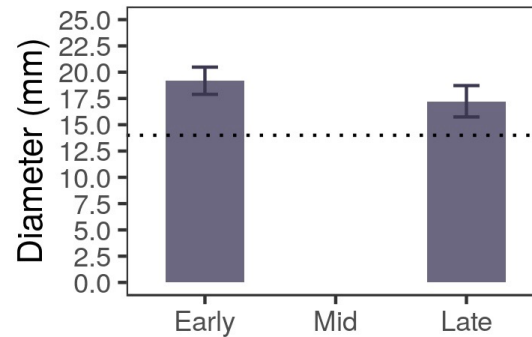
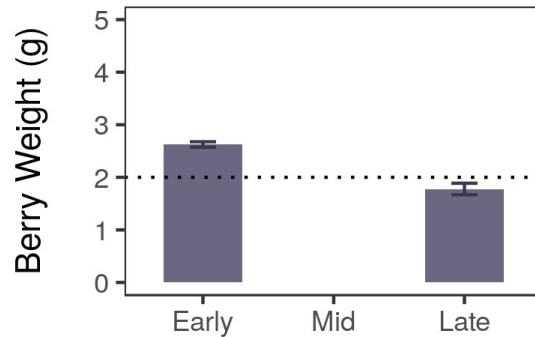
Fruit Quality Data - Avanti



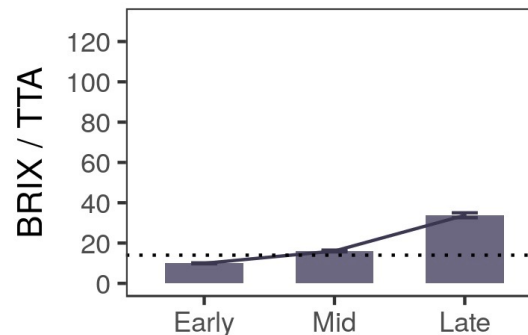
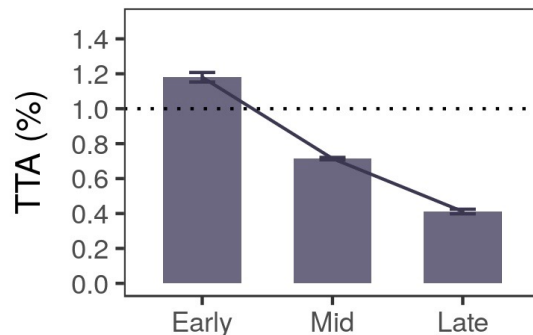
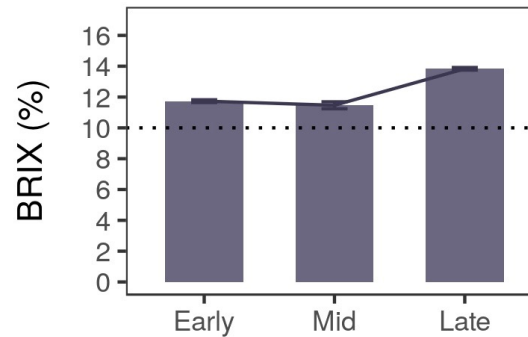
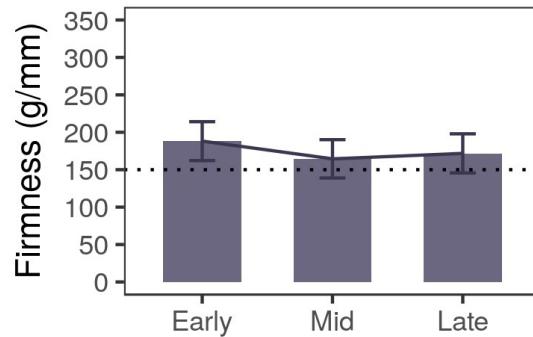
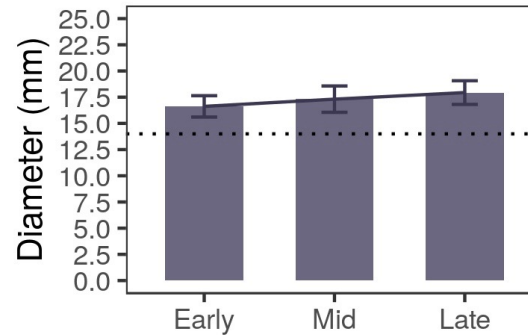
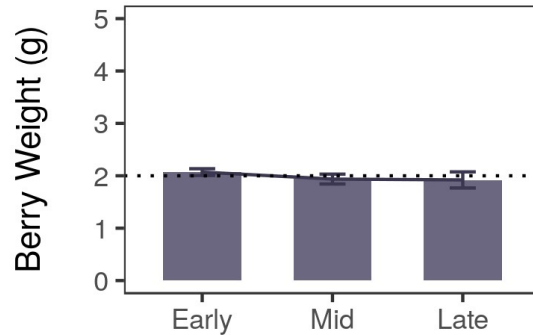
Fruit Quality Data - Chickadee



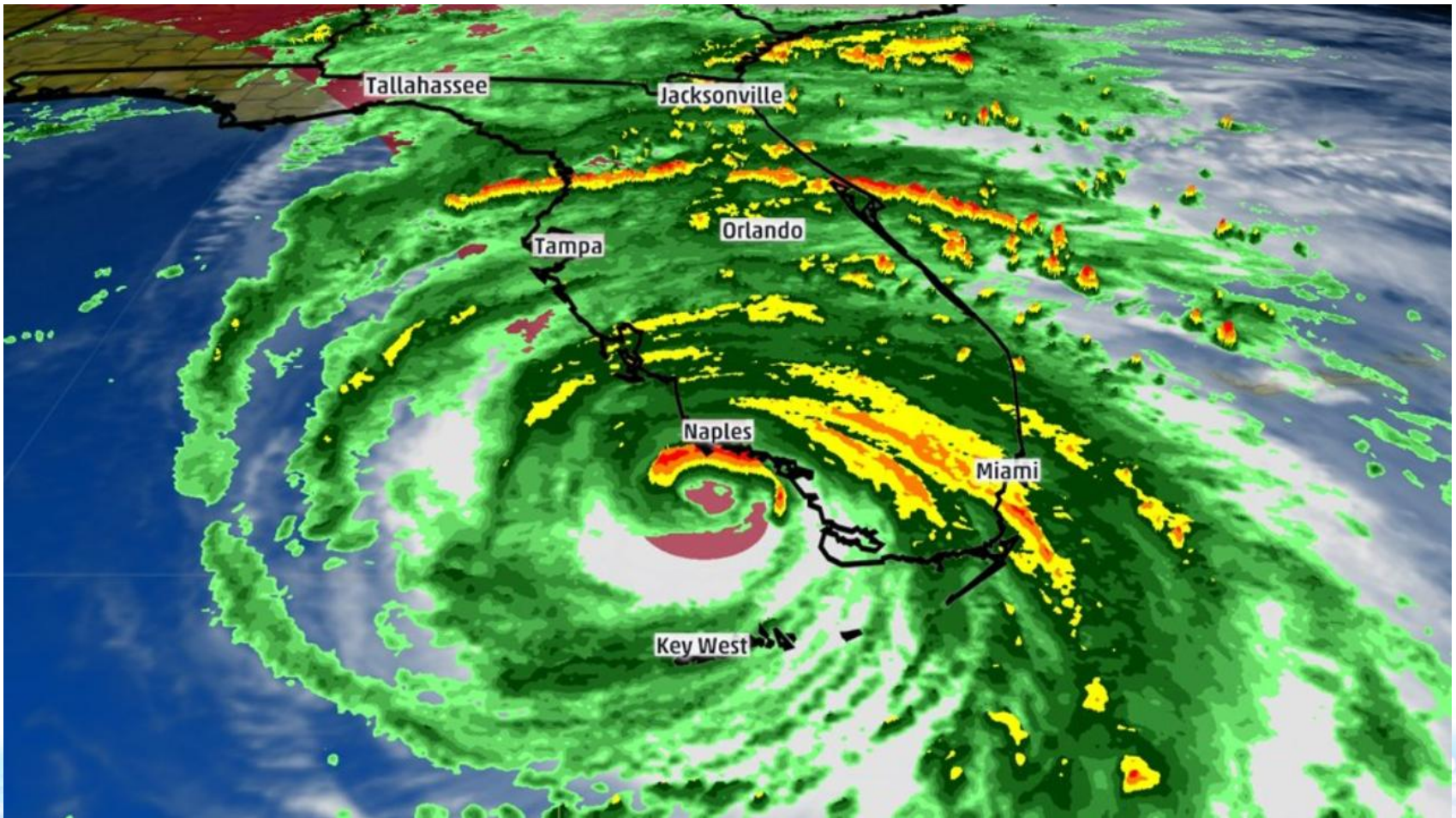
Fruit Quality Data - Endura



Fruit Quality Data - Kestrel



Hurricane Irma

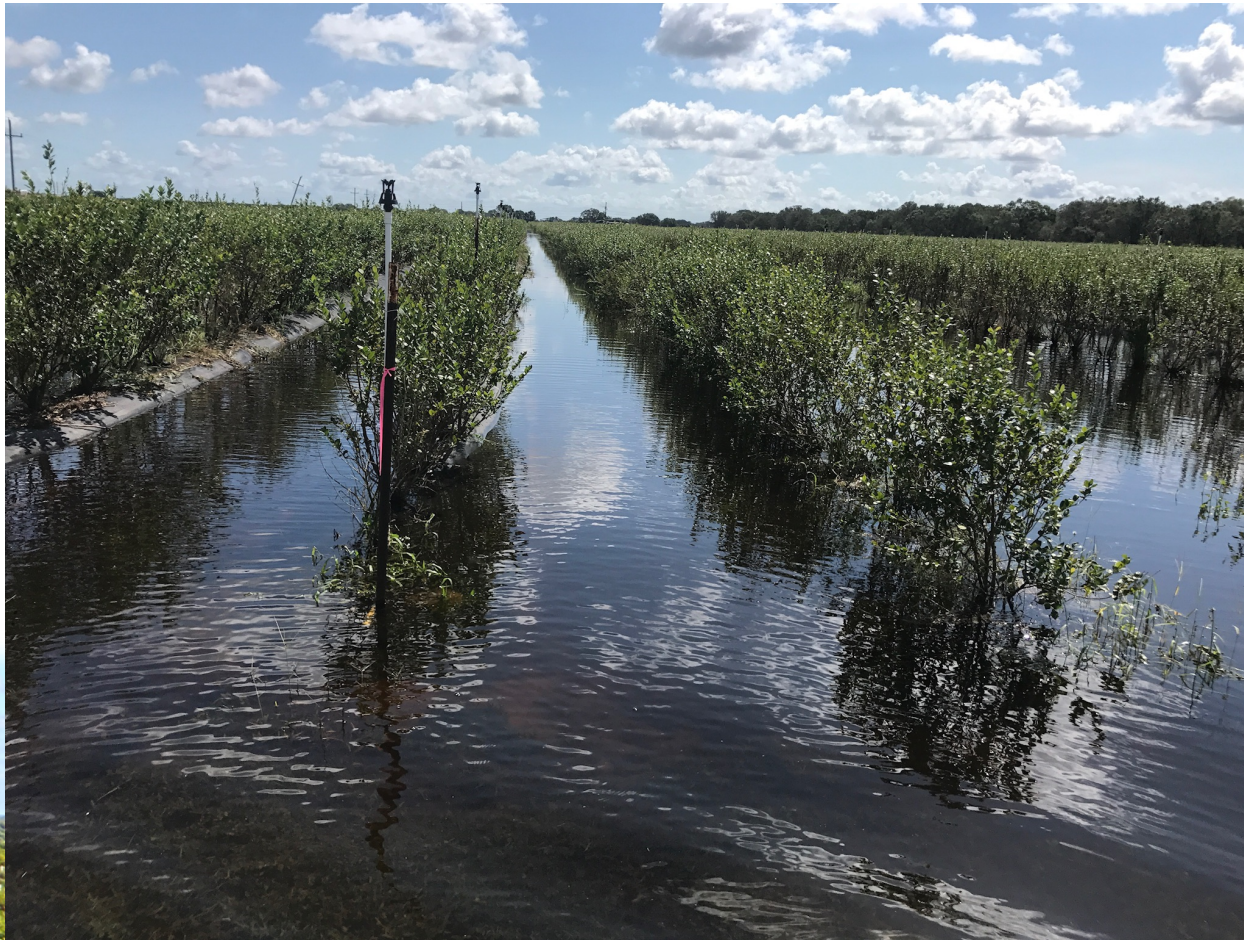


<https://weather.com/storms/hurricane/>



Hurricane Irma Damage

- Flooding, standing water



Hurricane Irma Damage

- Wind damage
 - Plants blown over

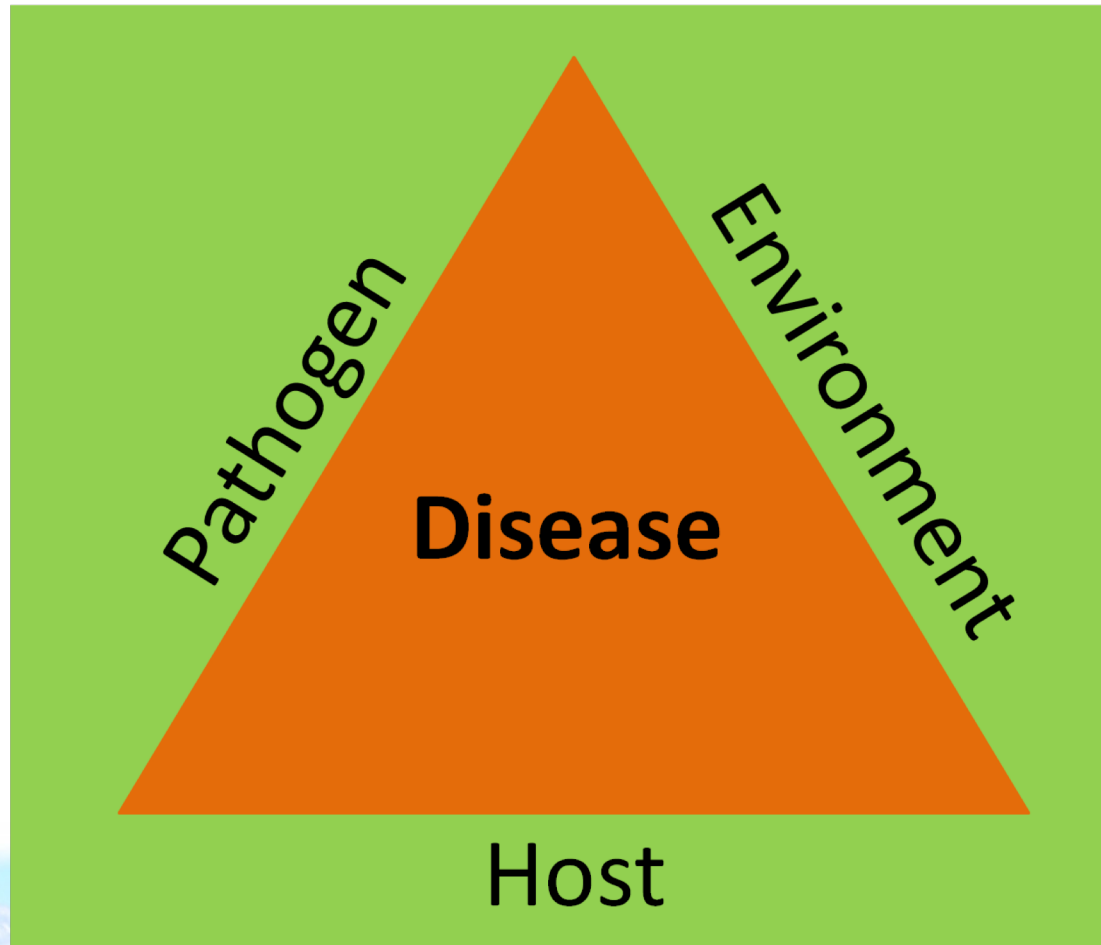


Hurricane Irma Damage

- Wind damage
 - Defoliation



Disease Triangle



Flooding Damage

- Phytophthora root rot
- Hypoxia – root damage from lack of oxygen
- Botryosphaeria stem blight from root damage stress (can be weeks or months after flooding)



Wind Damage

- Wind and rain can spread disease
- Wounds allow disease entry and infection
- Broken roots cause drought stress, making plants susceptible to disease and less vigorous



Defoliation

- Creates plant stress, increasing disease susceptibility (e.g., Xylella, stem blight, algal stem blotch)
- Decreased fruit set, yield



Recommendations

- Consistent application of best management practices
- Scout for disease symptoms and promptly begin recommended management and control (see UF Blueberry Integrated Pest Management Guide)



Pollination



<http://beeaware.org.au/pollination>



Poor Pollination

- Heavy bloom observed, but fruit did not develop, undeveloped fruit dropped
- Meadowlark, Emerald primarily
- Indications of poor pollination –
 - Petals do not fall soon after bloom (~ 3-5 days)
 - Very few seeds in fruit



Poor Pollination

- Variables –
 - Weather
 - Bee activity
 - Bee density
 - Need for cross-pollination
 - Cultivar differences



Other Reasons for Poor Fruit Set

- Bud or flower damage –
 - Freeze
 - Hydrogen cyanamide
 - Gall midge
 - Bud mite
 - Heavy flower thrip activity



Suggestions

- Avoid large solid blocks with a single cultivar
- Have a sufficient number of bee hives (~ 3-5 per acre for standard density plantings)
- Consider adding bumblebees to the pollinator mix
- Hive placement within orchard
- Take into account alternative pollen and nectar sources with similar bloom period



Questions?

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