



Australia and Beyond: Research & Grower Experiences

Dr. Mercy Olmstead
Stone Fruit Extension Specialist



Australia Low-Chill Peach Industry



- Mainly coastal regions
 - NSW and QLD
- Late August – November
- Nectarines, peaches, some plums
- 10% of national sales (vol.)
- \$40 million AUD industry



Philip Wilk, NSW Extension Specialist





Ballina, NSW



- Robyn & Robert Hood
- *High Valley Orchard*
 - Peaches & nectarines
- 5 ha (12.3 acres)
- Palmette
 - 1000 trees/ha (2,470 trees/acre)



High Valley Orchard Practices

- Remove leaves around fruit to prevent wind damage
- Remove fast growing shoots
- Fruit spacing – 6-8 inches
- 160 to 180 fruit/tree
 - About 4 trays (11 lbs/each)





Mechanization



- Use for shoot thinning, fruit thinning
- Harvesting
- Movable platform use in Washington State mainly in apples here in U.S.



Challenges

Queensland Fruit Fly





Challenges

- Diseases
 - Botryosphaeria
 - Phytophthora trunk canker
 - Peach rust
 - Brown rot



Patel Srinivak



Challenges

- Water
 - Irrigation comes from catchment ponds





Cooper's Shoot Orchards



- Greg Foster
- Netting – one layer for hail protection
- UFSun, TropicBeauty
- Palmette, similar density as High Valley



Production Methods

- UFSun = thins aggressively, but poor flavor in some years
 - Previous Cultar use = smaller trees
 - (*can't use in U.S.)
- Nitrophosphate = main fertilizer (13-15% N)
 - 13-12-11
 - 1 kg/tree/year



Ideal Fruit Spacing





Training Palmette Trees





Challenges

- Tree cost:
 - Replaces ~ 500 trees/year (\$15.00/tree)
- Extended bloom period = higher labor costs
- Similar disease issues with dieback





Uniform Leafing







UF
FLORIDA'S
LAND GRANT
UNIVERSITY
Results Beyond Education

UF UNIVERSITY of
FLORIDA
IFAS Extension





Challenges

- Marketing
 - CA peaches =
 - \$8.00/lb (\$17.60/kg)
 - Some infringement on Australia market
- Extension
 - Philip Wilk moved to blueberries





RESEARCH UPDATES



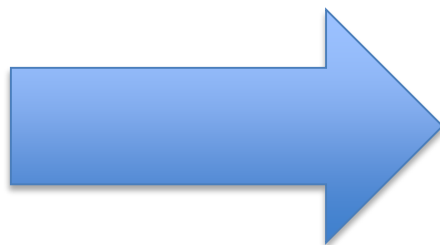
Identifying Elements of an Ideal Peach Experience: A Consumer-Centered Approach

Mercy Olmstead, T. Colquhoun, C. Sims, R. Kluson, P. Dewar, T. Hopkins, H. Moskowitz





**Breed/produce
peaches that
consumers
want!**



**What are the
consumer
perceptions of
peaches?**

**How much are
they willing to
pay for
important
traits?**



Firmness

Bite into peach...and hear a loud crunch

Melts in the mouth when you bite into the peach

Thin skin that melts away

Tough chewy skin

Peach clings to the pit

Pit easily comes free from the peach flesh

Color

All-over blush, almost solid red in skin color

Mainly yellow skin color, with a slight blush

White flesh color

Bright yellow flesh color

Yellow flesh color with red flesh near the pit

Red skin color that bleeds into the flesh

Texture

Smooth skin with very little fuzz

Typical fuzzy peach skin

Full of juice

Meaty... not juicy

Mealy... pasty and dry

Crisp and firm

Flavor

Mild Flavor... but compliments well

Bold and intense peach flavor

So sweet...no sugar needed

Tart peach that wakes the taste buds

Soft peach flavor, but are much more floral tasting

Sweet rich flavor with mildly tart overtones

Size

Plump and Round

Elongated shape (beaked) with characteristic suture

As big as a small softball

Small... bite-sized peaches

Medium size, like a baseball

Flat, shaped like a donut

Health & Wellness

Full of antioxidants

No fat... No cholesterol

High in vitamin C

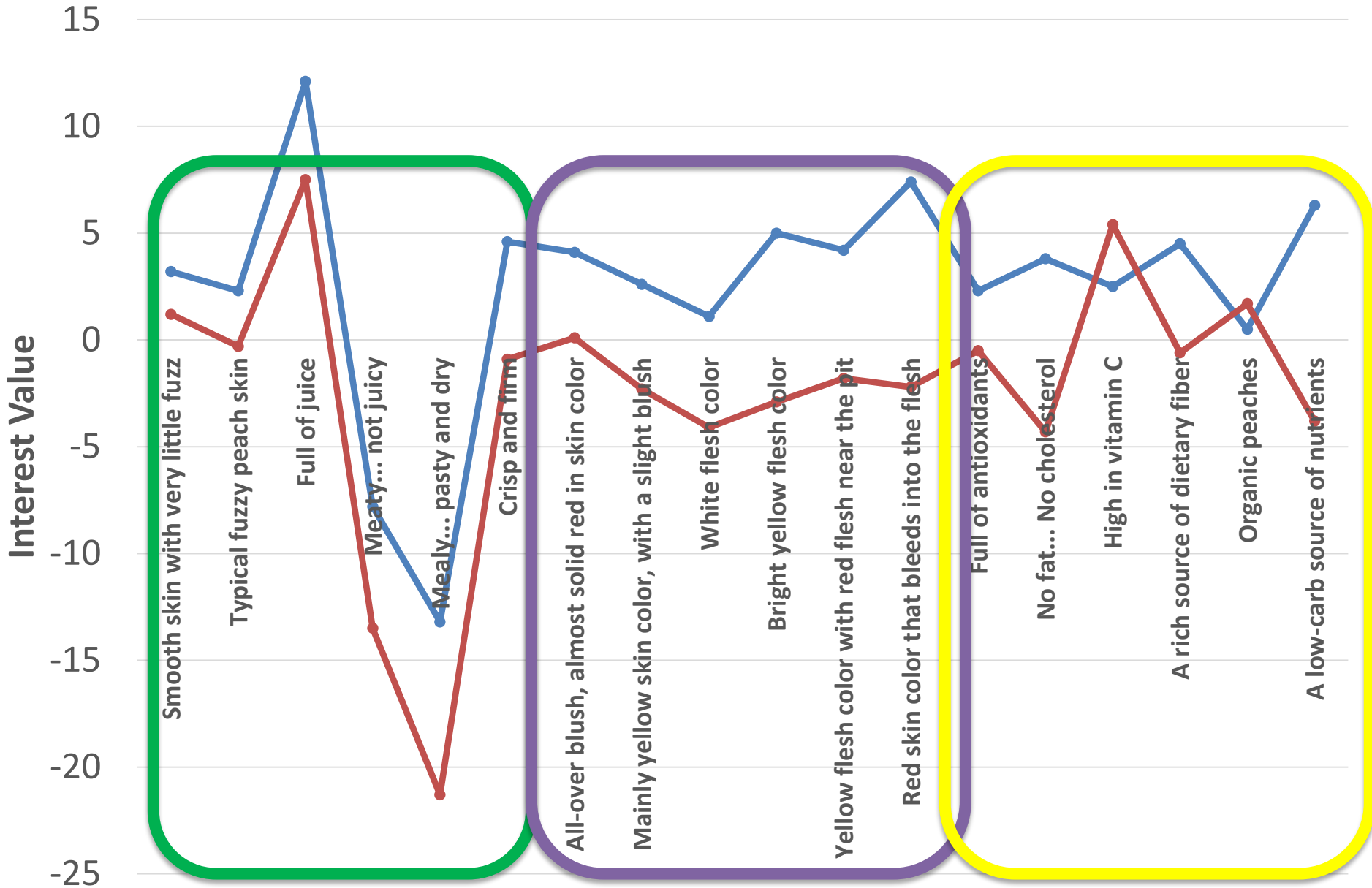
A rich source of dietary fiber

Organic peaches

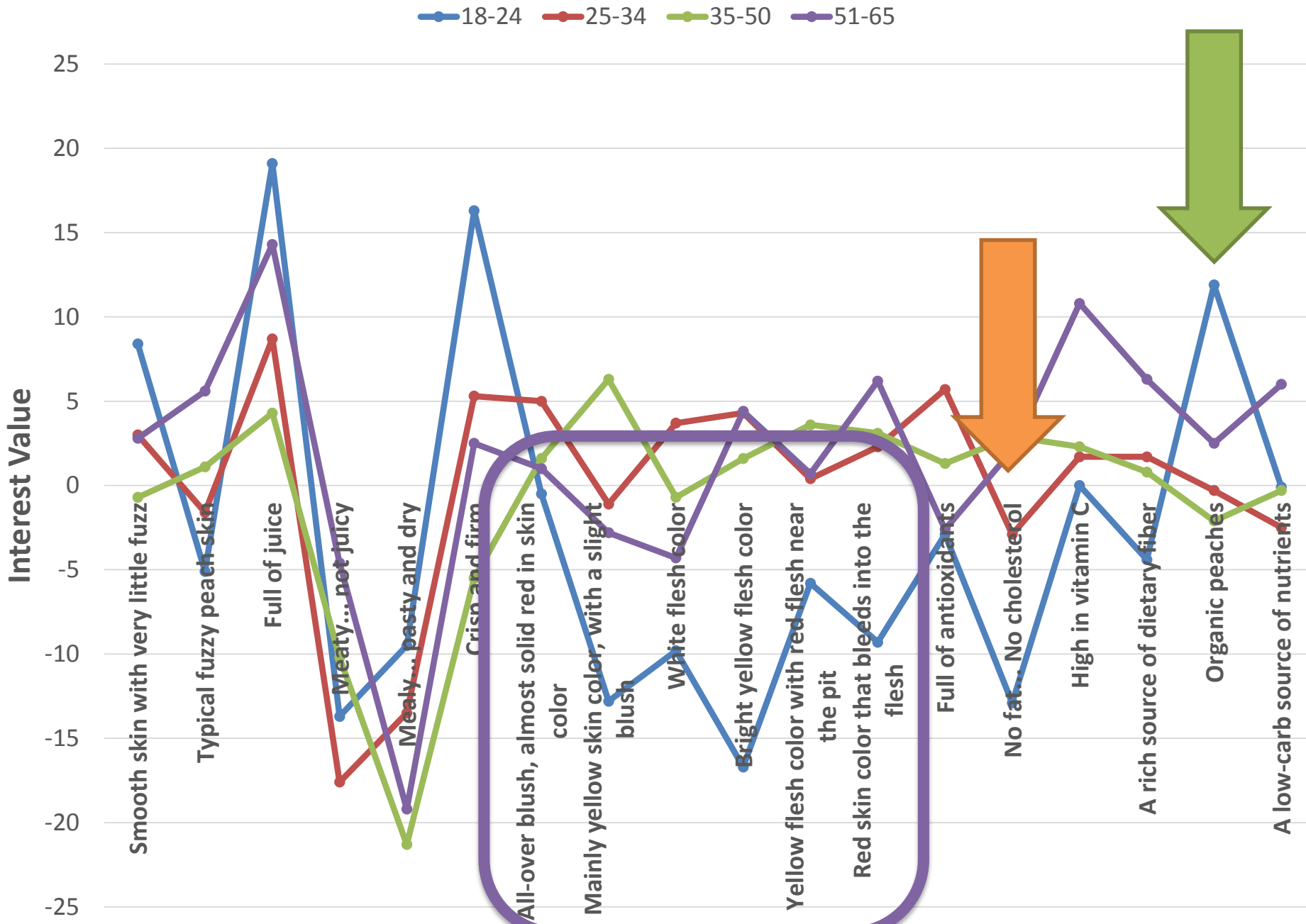
A low-carb source of nutrients

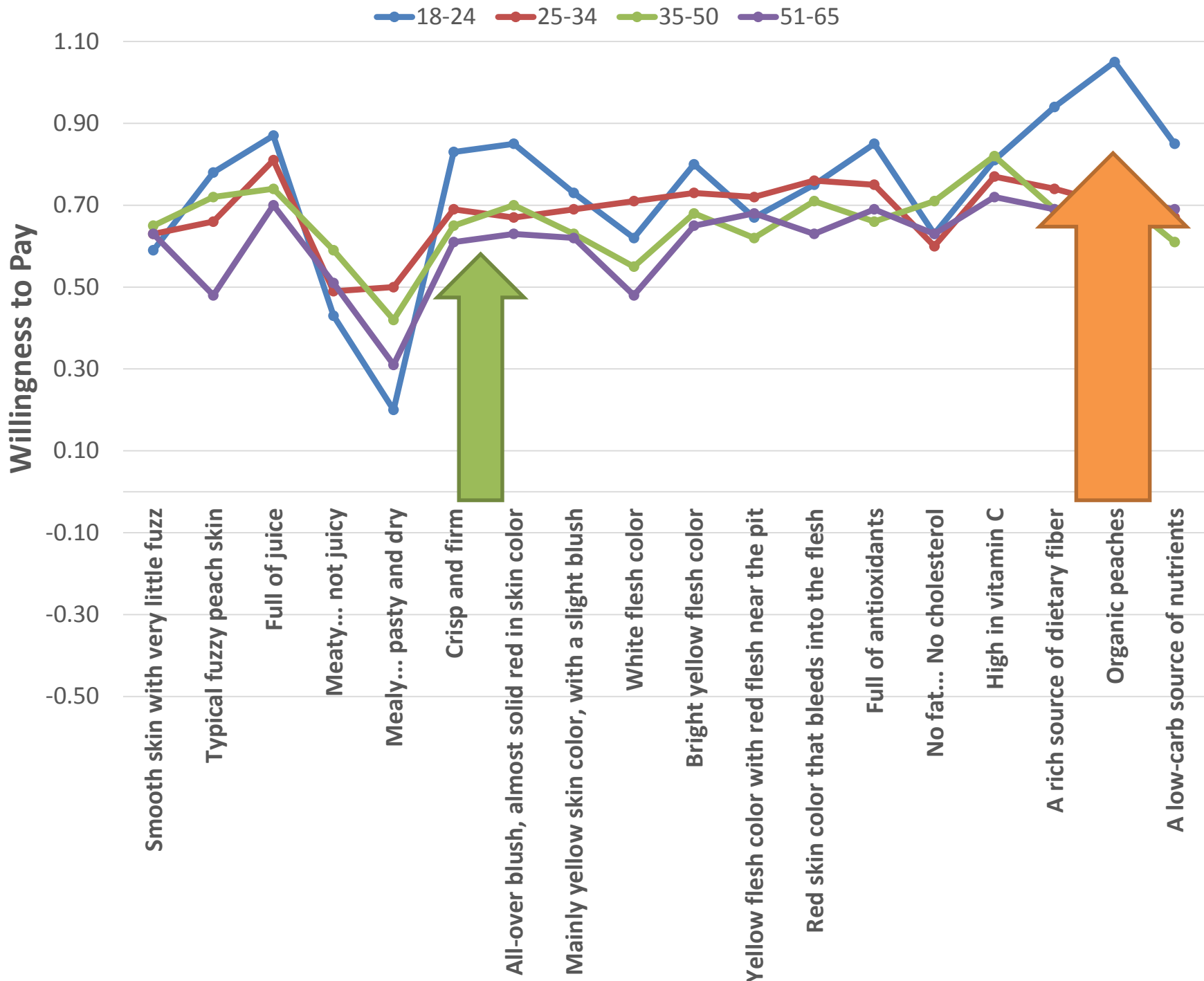
Texture, Color, Health Benefits

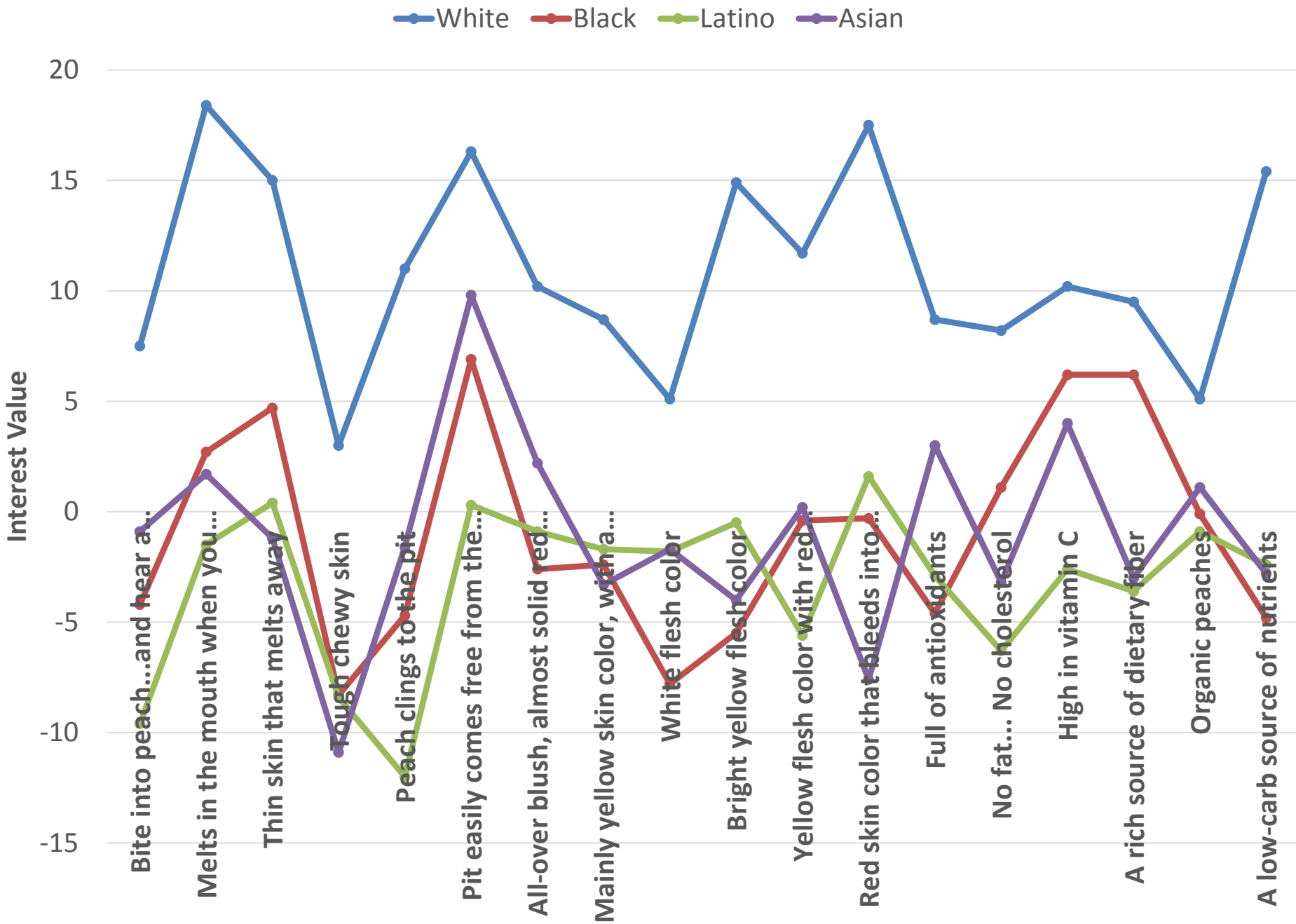
Male Female



Effect of Age on Texture, Color, and Health Attributes









An Ideal Peach for the U.S. Market?

Top Elements

- Melts in the mouth when you bite into the peach
- High in vitamin C
- So sweet...no sugar needed
- Full of juice
- Organic peaches

Negative Elements

- Small... bite-sized peaches
- Flat, shaped like a donut
- Meaty... not juicy
- Tough chewy skin
- Mealy... pasty and dry



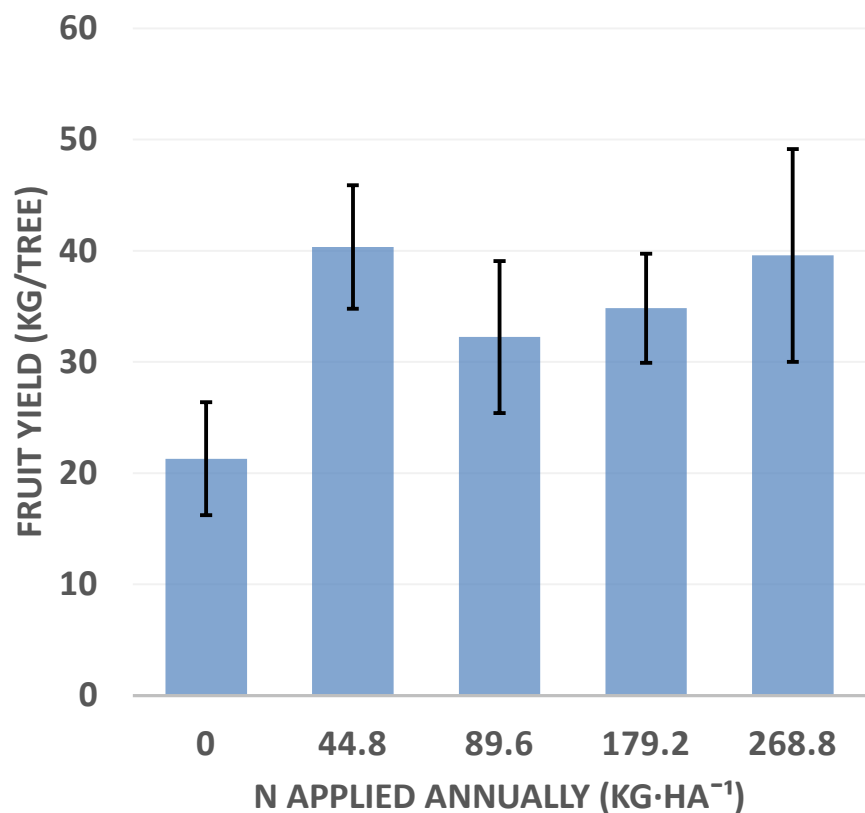
Research Update:

NITROGEN RATES FOR FLORIDA PEACHES

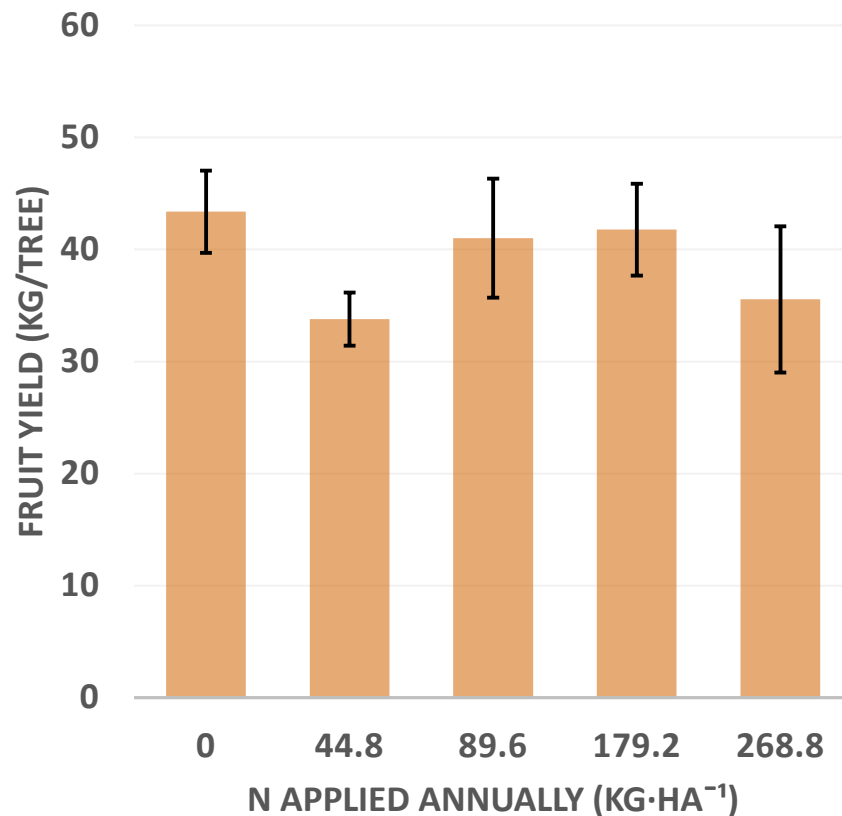


FRUIT YIELD

2013

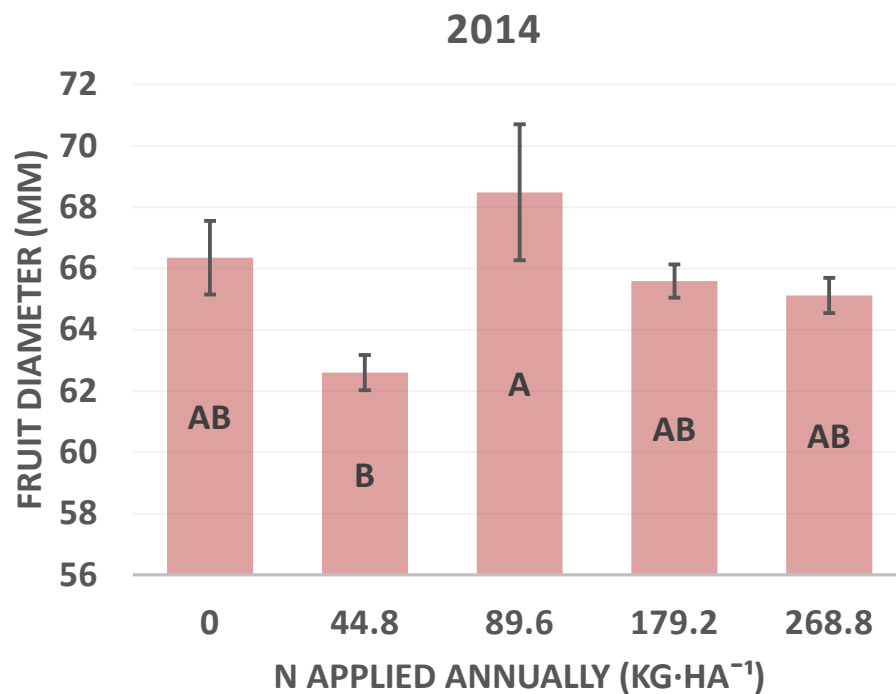
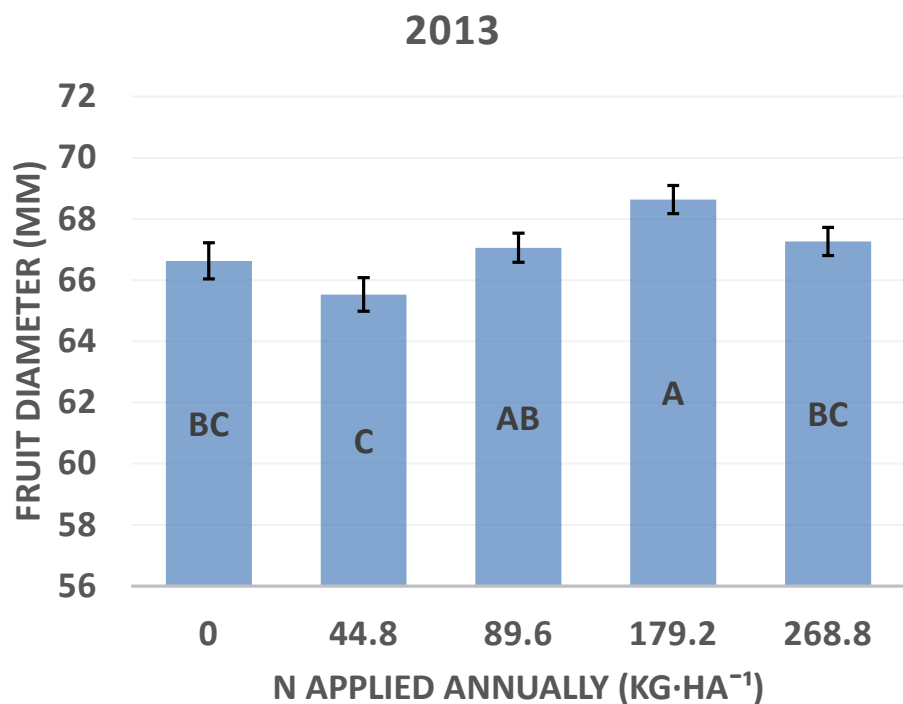


2014





MARKETABLE FRUIT SIZE

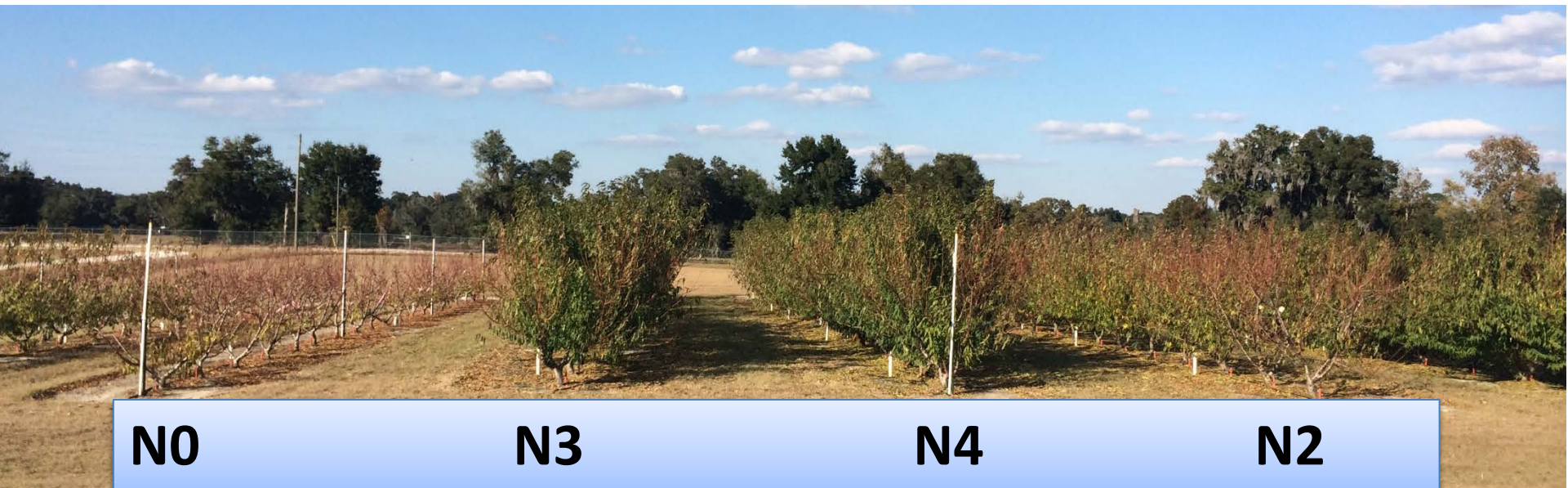


Minimum marketable fruit size = 63.5 mm (2.5")



N Rate Effects on Defoliation

- Some delay in bloom date this year.





Questions?



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