THE STATE UNIVERSITY OF NEW JERSEY

**UTGERS** 

### **Update Your Peach Harvest Windows**

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Support from: New Jersey Peach Promotion Council, New Jersey State Age Horticulture Society, and Pennsylvania State Department of Agriculture Your future grows here

# **Rutgers Tree Fruit Breeding Program**

- Currently headed by Dr. Joseph Goffreda.
- Diversifying each harvest windows to occupy shelf space through out growing season.
- Current focus: delayed bloom, better firmness, bigger fruits, more sub acids, and white peaches.
- Multi year, multi location evaluation of fruit characteristics in southern NJ.



RUTGERS

#### Desiree (NJ 350)



- ~28 days before Red Haven (RH)
- Late June to very early July, yellow peach
- Beautiful crimson red on light yellow.
- Nice flavor
- Medium sized
- Good firmness
- Light cropper compared to other early peaches.



#### **Early Star**



total titratable acidity3.1 g/Ltotal soluble solids10.9 Brix

- 20 days before RH
- Early July, yellow-fleshed peach
- Few days after PF 5B and Desiree.
- Attractive bright crimson red.
- Good bud hardiness\* and size
- Inconsistent shape.
- Leaves and fruit have medium susceptibility to bacterial spot.



#### Carored



total titratable acidity2.7 g/Ltotal soluble solids10.6Brix

- 20 days before RH
- Early July, yellow, cling stone peach.
- From Clemson breeding program
- Very attractive red skin.
- Flavor is excellent
- Medium to large size for this season.
- Good productivity and vigor even with cold winters and spring.
- Medium susceptibility to bac. spot.



#### **Spring Snow**



- 26 days before RH
- Late June white fleshed, cling stone –peach (6/28/22)
- Dark red skin and white flesh.
- One of the most attractive early white peach variety.
- Sweet and Sub acid

total titratable acidity	1.48 g/L
total soluble solids	10.93 °Brix



## Other Early July varieties

	Peach	Challenge
June 25 to	Spring Snow (W)	
July 5	Sugar May (W) Manon (W)	too acidic, inconsistant size Bac spot
	Flamin' Fury PF5B Desiree	Difficult to size
	Sunbrite Spring Prince Rich May Queencrest	Split pits, Bact spot Bact. spot Some split pits Split pits
	Flamin Fury PF5 Big Carored	Not bright and attractive

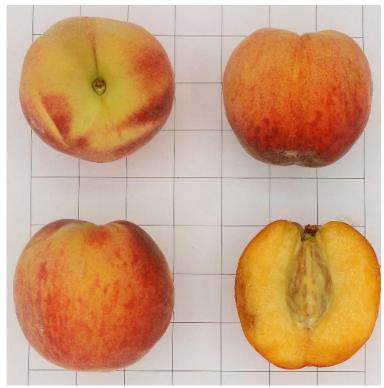


#### Sentry



- 15 days before RH (7/5/22)
- Good size for the early season variety
- Variable cropping record.
- Low susceptibility to bacterial spot

#### Glenglo



- 13 days before RH (7/5/22)
- An attractive peach, medium large size
- Low susceptibility to bac. Spot
- Flavor and cold-hardiness is better than Sentry. Size better than PF7.

Ruby Prince is another great peach PF 8 Ball (10 D before RH) has better cold hardiness and other traits in this season!



diameter	2.75 in.
total titratable acidity	0.87 g/L
total soluble solids	12.7 °Brix

- 7 days before RH
- Mid –July White fleshed, cling-stone peach (7/17/22)
- Very attractive scarlet skin.
- Sweet and sub acid flesh.
- Fruit hangs well.
- Large peach even when heavily cropped.
- Highly productive.
- Low susceptibility to bacterial spot.
- Fits well between Sugar May and White Lady\*
- Cold-hardy and better than southern Pearl\*



#### GaLa Peach



- 7 days before RH
- Yellow fleshed free stone.
- Attractive large fruit with traditional flavor.
- Not so sweet. (Brix = 9.64; Acidity = 2.46 g/L)
- Inconsistent cropping
- Lots of splits, even during the normal years.
- Bacterial spot is another challenge.





# Scarlet Rose®



- Late July, cream-fleshed clingstone peach.
- Excellent firmness and good eating qualities.
- Late bloom and good bud hardiness \*
- The fruit can hang on the tree for up to two weeks after maturity without significant loss of firmness.
- Some susceptibility to bacterial spot.
- Round and few split pits.
- More tart than July Rose.



#### Late July Peach varieties

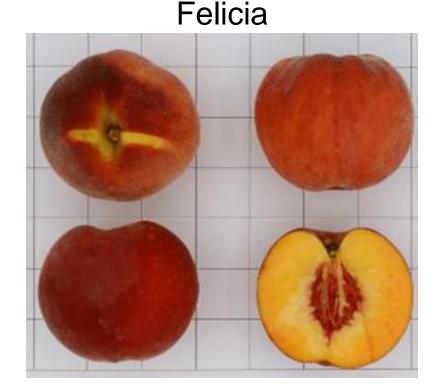
#### Redhaven



- Standard peach variety.
- Large fruited, traditional peach
- Traditional combination of sweetness and Acidity.

Your future grows here

Ripens faster than it changes color.
 American
 AgCredit



- 1 day after RH
- Recent release from Rutgers NJAES
- Attractive, firm fleshed
- Traditional sweet and tangy Flavor.
- No bacterial spot, on leaves or fruit.
- Hangs well while maintaining flavor

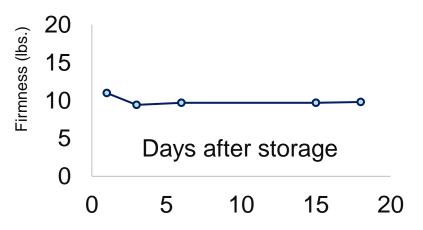
Your future grows here



- Evelynn™
- 2 days before RH
- Yellow-fleshed peach,
- Excellent firmness
- Excellent bud hardiness
- Smooth, low pubescence.
- Very attractive full scarlet.
- Retains firmness on tree.
- Consistently productive.
- Low susceptibility to bacterial spot.

firmness	10.35 lbs.
diameter	2.87 in.
mass	7.3 oz. (205 g)
titratable acidity	0.76 g/l
total soluble solids	10.23 °Brix
American AgCredit	*3 year average





#### John Boy



- 4 days after RH
- Standard variety for this season
- Large sized
- Traditional flavor
- Highly productive.
- Medium susceptibility to Bac. Spot
- Firm flesh with good flavor
- Fruits bigger than PF 15 A.



# White Lady



- 3 day after RH (7/28/22)
- Skin can get discolored with abrasion and ink spot.
- Has pronounced Suture.
- Good sub-acid flavor however, not as



sweet (11.4 brix) as other white

#### Anna Rose™



- 1 day after RH (7/28/22)
- Impressive fruit set and Uniform shape and attractive color
- Bud hardiness is good.
- High sweetness (14.4 Brix), sub acid
- Better crop load and bac. Spot resistance than Klondike

# Early August Peach

#### Bounty



PF 17



- 15 days after RH
- Standard variety.
- Melting flesh is firm
- Good flavor.
- Size of fruit gets bigger as tree gets older
- Not as sweet compared to other yellow-fleshed varieties in the



Contender season,

- **15** days after RH Standard variety.
- Large to very large, 60-90% attractive scarlet.
- The flesh is firm with very good color.
- Good flavor
- Tree has medium susceptibility to bact. spot.

#### FlavrBurst



- 21 days after RH
- USDA, Kearneysville
- Exceptional flavor: pleasing balance of acidity and sweetness.
- Consistently large to very large.
- Beautiful red on a yellow.
- And the productive tree.
  - susceptible to bact. Spot?

#### **July Prince**



- 22 days after RH
- Yellow fleshed, free stone
- Good balance of sugar and acidity
- Flesh is very firm, melting with sweet acidic and good flavor.
- Very attractive fruit.
- Good firmness and handling attributes.
- Cold hardy



- 6 days after RH
- Early August, yellow-fleshed, golden skinned, freestone peach.
- Excellent extended bloom, always crops
- Biggest flat peach of the season.
- Perfect sweetness and acidity.
- Mango, melon flavor as it ripens.
- Good firmness at harvest
- Great variety for direct retail.
- Bruises easily.



TRADE SIDE



# TangOs II



- 8 days after RH
- Unique appearance, all creamgreen.
- Medium-sized fruit.
- Good firmness.
- No skin tears when harvesting.
- Sweet, spicy flavor.
- Medium to large scar that may crack in some years.
- Great for direct retail



## Other mid-August varieties

Aug 11 to Aug 18	Blushingstar (W)	
	Allstar Contender * Flamin' Fury PF23 FF PF 24-007 Glowing Star	
	Redkist Flamin Fury PF 22-007 Sweet N Up	
Aug 19 to Aug 26	Cresthaven	

PF Flamin Fury 24 doesn't get very big.



#### Sugar Giant



- 23 days after RH (8/12/22)
- Cream-fleshed, large peach
- Good sweet, sub acidic flavor.
- Not so firm

American

- Can also get skin discoloration.
- Moderate to high susceptibility to bacterial spot.

#### **August Rose**



- 25 days after RH
- White peach, large peach
- Very sweet and sub acid.
- Very firm, free stone
- Very productive and low susceptibility to bacterial spot.
- Can replace Sugar Giant.

AgCre Both ripens around Blushing Star - good white-peach with acidic flavor

Your future grows here



firmness	10.5 lbs.
diameter	2.8 - 3.1 inches
mass	7.5 oz. – 9 oz.
total titratable acidity	0.34 - 0.22 g/L
total soluble solids	11 - 14.2 brix
American AgCredit	

- 25 days after RH
- Late August, yellow peach.
- Delayed and Extended bloom\*.
- Excellent firmness.
- Fruit can hang on tree for one week after maturity without significant loss of firmness.

**Gloria**<sup>®</sup>

- Flexibility in picking
- Large sized and sub acid, sweet flavor.
- Consistently high cropping.
- Excellent potential for sliced peach and processing.
- South Jersey growers planting more Gloria.



Letting 'Gloria' fruit hang longer:

- Lets fruit get sweeter
- Lets fruit get larger
- Loses some firmness
- Loses acidity

'Gloria' fruit often develops good color and size *before* it is ready to pick. Be Careful!

Can not go by softness for harvest decision. It does not soften like other varieties.

Background yellow coloring and min.  $2\frac{3}{4}$ " size is a good indicator to start picking.

## How can we market this "neat" peach?



AgCredit Your future grows here



firmness	n/a
diameter	n/a
mass	n/a
total titratable acidity	0.78 - 1.01 g/l
total soluble solids	11.4 – 13.8 °Brix
American	

- **30** days after RH
- Late August, yellow-fleshed peach.
- Attractive scarlet on yellow.
- Flesh, firm to very firm
- Heavy crop load. Requires careful thinning.
- Large to very large size.
- Pleasing combination of sweetness and acidity.
- Very low incidence of bacterial spot, on leaves or fruit.



#### Flame Prince



- 26 days after RH
- Ripens near Messina
- Very traditional appearance.
- Large fruit
- Tangy traditional flavor
- Not so cold bud hardy





firmness	7.4 lb.
diameter	2.68 inches
mass	3.1 oz. (89 g)
total titratable acidity	1.06 g/l
total soluble solids	13.3 °Brix

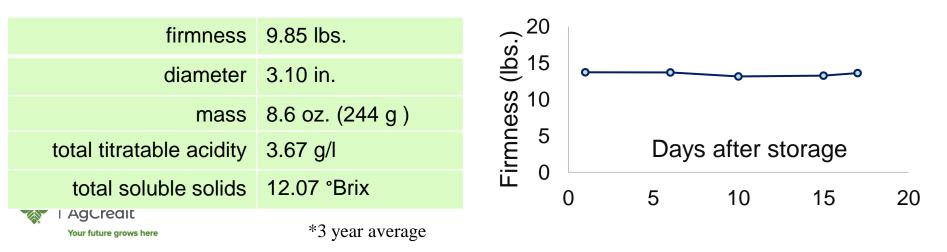
### Lady Nancy

- 30 days after RH
- Late August, white peach.
- A very large and ovate.
- Bright, pinkish-red over a creamy white ground color.
- Very good aromatic flavor.
- Medium susceptibility to bacterial spot.
- Light cropper in cold climate.
- Flesh has a prominent yellow streak through the white.

#### Selena™ Peach



- 30 days after RH
- Early September, yellow fleshed peach. Ripens between JerseyQueen and Encore.
- Very large fruit with attractive red on yellow.
- Excellent firmness and bud hardiness
- Balanced Sweetness and acidity.
- Hangs well on tree unlike many late season varieties, and productive.
- Low susceptibility to bacterial spot.





firmness	11 lbs.
diameter	2.67 in.
mass	9.6 oz. (271 g)
total titratable acidity	2.71 g/l
total soluble solids	11.72 °Brix
	*2



\*3 year average

# Tiana<sup>™</sup> Peach (NJ359 Cv. )

- 30 days after RH
- Early September, yellow-fleshed.
- Few days after Selena and between Cresthaven and Encore.
- Beautiful coloring Highly mottled scarlet on yellow.
- Freestone and very firm.
- Excellent firmness and bud hardiness
- Very large fruit.
- Excellent balance of sweetness and acidity.
- Low susceptibility to bacterial spot.



- 31 days after RH
- Harvest: first week of September
- One of the best late season peach varieties.
- Fruit large to very large.
- Each fruit gets bigger and better.
- It can replace Encore, which is a very attractive peach, and has high tolerance to bacterial spot. However, gets soft before developing the color (pick it when in pink blush).



Your future grows here

# Victoria



•	45	days	after	RH
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- Mid September, yellow peach.
- Attractive.
- Late blooming and bud hardy
- 20-80% medium red on yellow.
- Large fruit.
- Good firmness and flavor.
- Low susceptibility to bacterial spot and constriction canker.
- Always productive.

firmness	8.1 lb.
diameter	2.8 in.
mass	4.4 oz. (126 g)
total titratable acidity	1.25 g/l
total soluble solids	11.6 °Brix
AgCredit	

	Aug. 27 to Sept. 3	FF PF27A
		FF PF 28-007*
		JerseyQueen
		Fayette Redskin
		Summerfest
		Lady Nancy (W)
		August Prince
		August Rose (W)
		Selena
		Tiana
	Sept. 3 to Sept. 10	. ,
		Yukon King (W)
		Encore
		Laurol
		FF PF 35-007
		Flame Prince
	AgCredit, O and I a fam	Autumn Star
0	Sept. 10 and later	Victoria NJ 353

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•	Late June,	yellow-fleshed,	flat
	nectarine.		

**NJF 20**<sup>™</sup>

- Excellent flavor and firmness.
- Very sweet and sub acid.
- In some years problems of open scars, cracks blemishes.
- Great for retail and farm stand business.
- Available through Adams County Nursery, PA

Firmness	10.6 lb.		
diameter	2.4 inch		
mass	2.6 oz. (73 g)		
total titratable acidity	0.46 g/L		
total soluble solids	14.2 brix		
American AgCredit			

# SilverGem





total titratable acidity3.05 g/Ltotal soluble solids12.14 °BrixAgCreditYour future grows here

- Harvest 7/5/22
- Early July white nectarine.
- Clingstone with a melting texture.
- Very attractive glossy red on cream.
- Excellent flavor, sweet and acidic
- Highly productive.
- Medium size and firm
- Low susceptibility to bacterial spot
- Good bud hardiness

AaCredit

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# Silverglo



- Late July, cream-fleshed nectarine.
- Lots of pinkish red color
- Very low skin blemishes.
- Uniform-sized, large fruit.
- Most attractive white nectarine in this season.
- Balanced ratio of sugar and acidity
- Low susceptibility to bacterial spot.

firmness	10.05 lbs.			
diameter	2.67 in.			
mass	6.7 oz. (191 g)			
total titratable acidity	2.36 g/l			
total soluble solids	10.54 °Brix			
American				

\*3 year average firmness

# Brigantine





- Late July, yellow-fleshed nectarine
- Solid scarlet coloring and a nice tangy acidic flavor.
- Skin clean to blemishes.
- Leaves had low susceptibility while fruit has moderate susceptibility to bacterial spot.

firmness	9.05 lbs.
diameter	2.60 in.
mass	6 oz. (172 g)
total titratable acidity	1.46 g/l
total soluble solids	10.05 °Brix



\*3 year average



- FS 1201: <u>Yellow-fleshed</u> Peach Varieties for New Jersey commercial and Home Orchardists.
- FS 1203: <u>White-fleshed</u> Peach Varieties for New Jersey commercial and Home Orchardists.
- FS 1074: <u>Flat Peach</u> Varieties for New Jersey commercial and Home Orchardists
- FS 1204: <u>Nectarine</u> Varieties for New Jersey commercial and Home Orchardists
- FS 1300: <u>Five New Peach Varieties</u> for NJ Commercial and Home Orchardists



TGERS

#### Thanks To,

Industry cooperators:

Fralinger Farms – Mr. Robert Fralinger, Circle M Farms - Mr. Santo Maccherone Larchmont Farms - Mr. Charles Haines and Summit City Farms - Dr. Lewis DeEugenio

Our technical help: Mr. Jeff Hammerstedt Ms. Angela Faustino

Special Thanks, Jerry Frecon, Consultant Adams County Nursery





# **Thank You**





### Nectafest



- Mid-July yellow fleshed clingstone, Nectarine
- Ripens a week after the Eastenglo
- USDA, Kearneysville, WV
- Moderately firm
- Medium large fruit size.
- Excellent flavor
- Upright but grower friendly productive tree.
- No bacterial spot yet observed.
- Few skin blemishes.



### Easternglo



- Harvest: 7/14/22
- Mid-July yellow fleshed nectarine
- Rounder shape and full darker red makes it very attractive.
- Large sized fruit
- Nice traditional flavor with balanced sweetness and acidity.
- 11.88 brix; Acidity: 2.60 g/L
- Hangs well after achieving commercial maturity



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### Avalon



firmness	n/a
diameter	2.8 inches
mass	3.1 oz. (87 g)
total titratable acidity	1.06 g/l
total soluble solids	13.8 °Brix
AgCredit	

- Late July yellow nectarine.
- Semi clingstone, firm, melting flesh.
- Medium size, Low skin blemish and very attractive
- Excellent flavor.
- Very productive.
- Low susceptibility to bacterial spot.

### Fantasia



- Smooth glossy red makes it very attractive.
- Large-fruited nectarine.
- Fruit gets bigger as it ripens.
- Traditional flavor: Sugar 12.11 brix; Acidity = 3.02 g/L
- High yielding variety.





- White-fleshed nectarine
- Very sweet and sub-acid flavor (15.44 brix and 2.21 g/L TTA).
- Medium susceptibility to bacterial spot.



### **Flavor Top**



firmness	
diameter	2.6 inch
mass	3.5 oz. (59 oz.)
total titratable acidity	1.21 g/l
total soluble solids	12.2 °Brix

- Late August, yellow fleshed, nectarine.
- Round shape.
- Red skin with yellow background.
- Traces of red in flesh.
- Excellent tangy flavor.
- Excessive bloom.
- No bacterial spot observed yet on leaves or fruits.

### Redgold



- late August, yellow fleshed
  freestone nectarine
- Oblong shaped
- Consistently high cropping
- Traditional acidity
- Few skin blemishes
- Susceptible to Bact. Spot.

firmness	7.6 lb.
diameter	2.44 in
mass	2.1 oz.
total titratable acidity	1.61 g/l
total soluble solids	13.1 brix



## **PF Flamin Fury Ka-Ching**



firmness	8.5 lb.
diameter	2.77 inches
mass	4 oz. (114 g)
total titratable acidity	2.08 g/l
total soluble solids	13.9 °Brix

- Early September, yellow fleshed, nectarine.
- Fruit is large and round.
- Freestone.
- Firm, melting flesh.
- Exceptional balance of sweetness and high acidity.
- No bacterial spot observed yet on leaves or fruit.



#### **PF 11 Nectarine**



- Harvest: 7/22/22
- It always sizes better.
- It gets soft quickly, however get thru the first picking and its better.
- Bitter after taste Acidity, from skin?
- Doesn't get bacterial spot.



Firm flesh type peach cultivars soften more slowly than traditional melting-flesh cultivars in cold storage, and to a larger degree during room temperature shelf storage - **providing more flexibility to retailers and consumers.** 

Cultivar	Fruit softer	Fruit softening rate (lbs/day)	
Guitivai	During 14d in cold storage	During shelf storage (room temp.)	
Bounty	-0.230	2.03	
Gloria	0.074	2.62	
Klondike	0.083	3.57	
Scarlet Rose	0.088	0.80	
White Lady	0.340	2.34	



### Other Mid July varieties

	Galaxy (FW)	Arctic Sweet (w) Arctic Glo (W)
	Flamin' Fury PF 7	Nectafest
	Glenglo	Honeyblaze
	Ruby Prince	Arrington
	Sentry	Easternglo
	Summer Serenade	
	Vulcan	
	NJ F 18 (FY)	
	FF PF 8Ball	
July 20 to July 26	Saturn (W Flat)	Silverglo (W)
Glenglo has more favorat Summer Serenade is a lov PF&Ballihas good size an	v vigor tree.	••



#### Other late July varieties

July 20 to July 26	Saturn (W Flat)	Silverglo (W)
	Arctic Sweet (W)	
	Snowbrite (W)*	
	Scarlet Rose (W)	
	White Cloud (W)	
	Raritan Rose (W)	
	July Rose (W)	
	Flavorcrest	Harblaze
	Flamin Fury PF 11	
	Country Sweet	Honeykist
	Gala	Brigantine
	Vinegold	

Bact. Spot susceptibility: Snowbrite >>Scarlet Rose >> July Rose



# **RUTGERS** Other late July early August Varieties

	Early Loring Flamin' Fury PF15A Redstar Redhaven John Boy FlavrBurst Starfire Flamin Fury PF Lucky 13 Starfire Blazing Star TangOs Blaze Prince Not so winter Evelynn Flamin Fury PF 9A-007 Salem	Summer Beaut Bradley Flamin' Fury PF 11
August 4 to August 10	Klondike (W)	Arctic Jay (W)
American AgCredit	Anna Rose (W)	Emeraude (W)

Your future grows here

August 4 to August 10	Klondike (W)	Arctic Jay (W)
	Anna Rose (W)	Emeraude (W)
	Carolina Belle (W)	
	Coralstar	Flavortop
	Bounty	Sunglo
July Prince = Good	July Prince	
firmness and handling	Flamin' Fury PF17	
properties	SunHigh	
	Harrow Beauty	
	Loring	
	Harrow Fair	
	Flamin' Fury PF19-007	
	Scarlet Prince	
	TangOs	

Other lete August ve

### Other late August varieties

August 19 to August 26	Cresthaven FF PF 24 B-007	Arctic Gold (W)
	Flamin' Fury PF25 <mark>Gloria NJ 351</mark>	Fantasia
	Messina NJ 352	
	Prince Sugar	
	Sugar Giant (W)	
	Opale (w)	
	Sweet Breeze	
	Benedict (W)	



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