# Precision Peach Production Systems Varieties

MICHIGAN STATE UNIVERSITY Extension

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## Choosing the right variety is critical but is difficult

- Large number of available varieties
- Many new varieties appearing, often with only scanty information available
- Performance of varieties is often site specific



# Variety characteristics that are important, regardless of the intended market

- Tree longevity
- Fruit productivity
- Disease resistance
- Low fruit pubescence
- Year-to-year consistent fruit characteristics



# Variety characteristics that are more important for some markets

#### <u>Chainstore</u>

#### Direct Sale

Well-colored Good size Round Uniform firmness Good shelf life

#### Well-colored Decent to good size Round

#### Direct Sale - Gourmet

Attractive color Decent to good size Emphasis on flavor (high sugar / acid ratio)







### Matching variety to the production system

<u>Variety vigor / shape</u> will determine the correct tree spacing

<u>examples</u>

- Upright tree forms
- Lower vigor Glowingstar, higher vigor Sweetstar.

<u>Bacterial spot resistance</u> is more important with narrow tree wall system because fruit is more exposed

<u>Red coloration</u> "Medium red" varieties may have insufficient color in thicker canopies







## Types of peach and nectarine varieties

#### Novelty fruit

- Peen Tao (flat)
- White peaches
- White nectarines
- Yellow nectarines
- Low acid, subacid
- Slow softening









#### Mainstream fruit

- Yellow melting flesh peaches
- Non-melting peaches





- Direct Market -Peen Tao Galaxy (-10)\* 90% red pink blush, white flesh, large, sweet, low acid,

moderately bacterial spot susceptible, significant split pits, medium hardy

BuenOs (-7) 80% red skin, melting yellow flesh, semi-cling, sweet, mild flavor, tree not winter hardy (NJF18)

Saturn (-5) White flesh, very sweet, productive, good bac spot resistance, hardy

BuenO II (-3) 50% red striped, yellow orange flesh, low acid, non-melting, slight cling, medium eating quality (NJF15)

Flat Wonderful (-1) 30% red blush, yellow clingstone, spicy, aromatic, good eating quality

TangOs II (+4) Cream slight green skin and flesh, somewhat non-melting texture, medium eating quality

TangOs (+7) Orange/yellow skin and flesh, non-melting nice flavor, skin mark tendency (NJF16).

Galactica (+12) Firm white flesh, large fruit, moderate acidity, relatively susceptible to bacterial spot









White PeachesDirect MarketPrecision peach production - VarietiesSpring Snow (-25)\*90% dark red blush, medium size, nice firmness, sweet sub-acid,<br/>productive, moderately susceptible to bacterial spot

Sugar May (-10) Dark blush, medium fruit, very firm, significant bact spot, usually nice flavor



July Rose NJ 354 cv (-7) 95% red, excellent firmness, 2 <sup>3</sup>/<sub>4</sub> to 3" fruit, clingstone, low acid, sweet, decent bacterial spot resistance, low to moderate bacterial spot susceptibility



Scarlet Rose NJ 355 cv (-4) 100% rich pink red, clingstone, very firm, very slow softening, crunchy, moderate susceptibility to bacterial spot, low acidity, nice flavor, late bloom

White Lady (+4) 95% red skin, sub-acid, very firm, very nice flavor, many pickings, medium bacterial spot, significant split pits some years, aromatic some years, decent hardiness



Blushingstar (+25) freestone, medium sweet, with noticeable acidity, nice firmness and shelf life, productive, moderate to good resistance to bacterial spot

Sugar Giant (+23) freestone, large, attractive 90%+ red / pink color, nice firmness, medium sweetness and acidity, semi-reliable cropper, moderately susceptible to bacterial spot



August Rose (NJ 356) (+25) freestone, 80% med red, low acid, very good firmness, attractive, low susceptibility to bacterial spot.

## Yellow Nectarines

## Direct Market

- new Carene (-20)\*
  - Easternglo (-14)
  - Nectafest (-12)
- new Avalon NJN 101 cv (-10)
  - Juneglo (-7)
- new PF-11 Nectarine (+0)
  - Summer Beaut (+0)
  - Redgold (+18)
  - Fantasia (+31)



Carene Photo credit Starfruit



**PF11** Nectarine



Avalon Photo credit Rutgers University

## Processing peaches

<u>Canning melting flesh peach characteristics</u>: Slow to brown, fine texture, little to no red in flesh, firm to hold up in the jar, easy to peel

- Sunhigh, Loring, John Boy

<u>Clingstone non melting peach characteristics</u>: firm flesh, high sugar content, no red in flesh, little split pit tendency

- Early varieties (i.e. Vinegold and Virgil) are NOT recommended due to small size.
- Arkansas 9 (Goldnine) has some split pit issues, may have some red in flesh in warmer climates, hot seasons
- Catherina, Venture, Babygold 5 and Babygold 7 are acceptable by Gerbers for processing



#### Yellow Melting Peach Variety Options Across the Harvest Season

	Older peach varieties	Newer varieties	Newest peach varieties
	Harbinger = -33*	PF-1 = -30	Rich May = -28
tub <i>i</i>	Harrow Diamond = -25	PF-5B = -25	Desiree = -26 ^^ PF-5D Big = -22 ^^ Earlystar = -18 ^ PF Early 8 Ball = -17 ^^
July	Garnet Beauty = -10 Early Red Haven = -10 GaLa = -8 Sentry = -8	Glenglo = -13 PF-7 = -10 Summer Serenade = -10 PF 8 Ball = -10 PF-7A Freestone = -10 Rising Star = -8	Brightstar = -12 ^ PF Late 8 Ball = -5 ^^
	Redhaven = 0 Reliance = 0 Vivid = +2 Bellaire = +3 PF-12A = +3 John Boy = +3	PF 9A-007 = -2 PF 11 Peach = -2 PF 15A = +2 Blazing Star = +2 Starfire = +3 Redstar = +3 PF 14 New Jersey = +4	PF Lucky 13 = +6 ^
August	Glohaven = +8 Canadian Harmony = +10 Loring = +12 Suncrest = +12	Blaze Prince = +8 Bounty = +10 PF 17 = +12	PF Super Duper = +8^^ John Boy II = +8 ^
	Contender = +18	PF 19-007 = +14 Allstar = +16 Coralstar = +16 Beaumont = +19	Messina = +17 ^^
	Cresthaven = +24 Redskin = +26	PF 23 = +20 PF 24-007 = +22 Glowingstar = +22 PF 24C Cold Hardy = +24 PF 25 = +26	SweetStar = +20 ^ PF 22-007 = +20 ^^ July Prince = +24 ^^ PF Paramount = +24^^ Gloria = +26 ^^ LA
 September	Madison = +28 Harcrest = +28 Fayette = +28 Encore = +31	PF 27A = +30 PF 28-007 = +32 Autumn Star = +37 ^ PF 35-007 Fat Lady = +40 ^^ Laurol = +41 PF Big George = +50^^	Flame Prince = +38 ^^ PF Legendary = +41^^ Victoria = +47 ^^ PF Fashionably Late = +54^^

\* = estimated harvest days before (-) or after Red Haven. ^ = little experience, ^^ = very little experience to date. Cooler year will delay harvest dates, LA = low acid type

### Early Season Melting Flesh Peaches – direct sale types

Variety	Red skin	Fruit size	Bac spot resist	Free of splits	Notes	More + is better
Harrow Diamond	40 - 60%	+++	++++	+++	Hardy, medium firm, good flavor, semi-freestone	
Desiree	70% med	++++	++++	++	Somewhat fruit bud tender, crunchy, mod. fuzzy, good flavor	
PF-5D Big	90%	++++	+++	+++	Very little fuzz, fine texture	
Earlystar	80% med	+++	+++	+++	Hardy, uniform fruit, semi- freestone	
PF Early 8 Ball	70% med	+++	++	++++	Low fuzz, retains flavor	











Harrow Diamond

-25

Desiree

-26

PF-5D Big

-22

Earlystar

-18

-17 PF Early 8 Ball

# **Garnet Beauty Season**

Variety	Harvest rel to RH*	Red skin	Fruit size	Bac spot resist	Free of splits	Notes
Glenglo	-13	80%	++++	+++++	+++	Loring sport, low fuzz, tree medium winter hardiness, nice flavor
PF-8 Ball	-10	80%	+++	+++	++++	Garnet Beauty like suture & quality, productive
Garnet Beauty	-10	50%	+++	+++	++++	Medium attractive, productive, medium quality
Summer Serenade	-10	60%	+++	+++	++++	Garnet Beauty sport, productive, medium quality
GaLa	-6	70%	+++	++	+++	Can be fruit bud tender















GaLa

Glenglo

**PF-8** Ball

## Redhaven season

\* = harvest relative to Red Haven, - = days before, + = after,

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Variety	Harvest rel to RH*	Red skin	Fruit size	Bac spot resist	Free of splits	Notes
PF9A-007	-2	70% med	++++	++++	+++	Essentially freestone, fruit needs good exposure to color
Redhaven	0	60% med	+++	+++	++	Hardy, good flavor, multi-pick, range of fruit sizes
Blazing Star	+2	60 to 95%	+++	+++	+++	Less stable than Starfire
Starfire	+3	50 to 90%	+++	+++	+++	Uniform size, need early thinning, productive, more stable
Redstar	-2 to +3	50 to 90%	++++	+++	++	Less stable than Starfire
PF 14 New Jersey	+4	65%	+++	+++	+++	Better coloring than Redhaven, maybe slightly more bud tender
PF Lucky 13	+4 to +6	70%	+++	+++	++++	Multipick, crunchy, good flavor, some drop



PF9A-007



Redhaven





PF 14 NJ



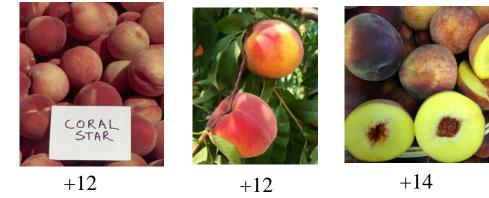
PF Lucky 13

# Mid season fresh market peaches

Variety	Harvest rel to RH	Red skin	Fruit size	Bac spot resist	Free of splits	Notes
Coralstar	+12	55% med	+++++	+++	+++	Good flavor, decent shelf life, fuzzy some years, needs more color some years, can be too large
PF 17	+12	60%	++++	+++	++++	Productive, firm, nice quality, some drop
Sweetstar	+14	80%	+++++	+++	++++	Durable tree, fruit hangs well, productive

\* = harvest relative to Red Haven, - = days before, + = after, ^ = early evaluation,  $^{\wedge}$  = very early evaluation

Glohaven Canadian Harmony Loring Suncrest



Coralstar

PF 17 Sweetstar

# Mid to late season fresh market peaches

Variety	Harvest rel to RH	Red skin	Fruit size	Bac spot resist	Free of splits	Notes
PF19-007	16	80%	++++	+++	+++	Attractive dark red, good flavor
Messina	17	85% med	+++++	++++	++++	Low fuzz, medium hardy fruit buds
Beaumont	18	70%	++++	+++	++++	Uniform fruit, firm, good shelf life
Allstar	18	80%	++++	++++	++++	Productive, uniform shape, softens on shoulder
PF 23	20	80%	++++	+++	++++	Attractive, firm, hangs well, stores well



# Later season fresh market peaches

Variety	Harvest rel to RH	Red skin	Fruit size	Bac spot resist	Free of splits	Notes
Glowingstar	+22	70%	++++	++++	++++	Dark skin, productive, some irregular fruit, range of fruit sizes
PF24C Cold Hardy	+24	80%	++++	+++	++++	Dark skin, productive, retains flavor, tough tree
PF Paramount	+24	80%	++++	?	?	Firm, early evaluation
Gloria	+26	70%	++++	+++	++++	Stony hard, long storage, pale yellow flesh, fruit hard to peel, sub acid, sharp pit

\* = harvest relative to Red Haven, - = days before, + = after,



+22 Glowingstar



+24 PF24 Cold Hardy





+24 PF Paramount

+26 Gloria

# Late season fresh market peaches

Variety	Harvest rel to RH	Red skin	Fruit size	Bac spot resist	Free of splits	Notes
PF28-007	+32	60% med	++++	+++	+++	Nice texture, low fuzz
Autumn Star	+37	85%	++++	+++	++++	Stores well, firm fruit, tree medium winter hardy
PF35-007	+40	70% med	++++	+++	+++	Firm, fine texture flesh, yellow / orange background, hangs well
Victoria	+47	40% med	+++	+++	+++	Hangs well, productive, nice flavor, slightly cling-like flavor
PF Big George	+50	60%	++++	++++	+++	Firm, attractive



+32 RH PF28-007



+37 RH Autumn Star



+40 RH **PF35-007** 



+47 RH Victoria



+50 RH PF Big George

### Choosing the right variety

- Know your farm and your market
- Plant test varieties on your farm
- Attend fruit showcases
- Acquire variety performance data and summaries from areas with similar climates
- Find knowledgeable people you trust



## **Questions?**

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