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,
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 ³/₄ 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



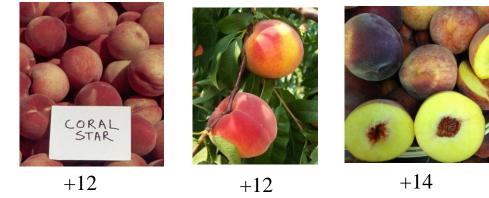
PF Lucky 13

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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