



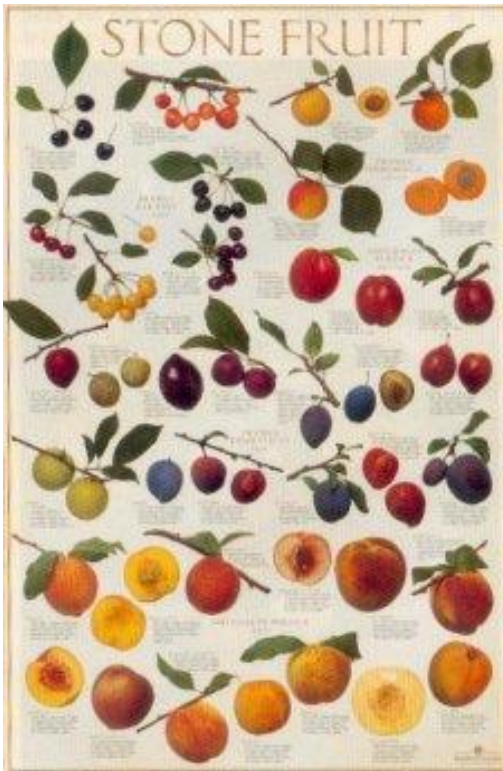
Growing Stone Fruits

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Stone Fruits

- Peaches
- Nectarines
- Apricots
- Plums
- Pluots and Apriums
- Cherries





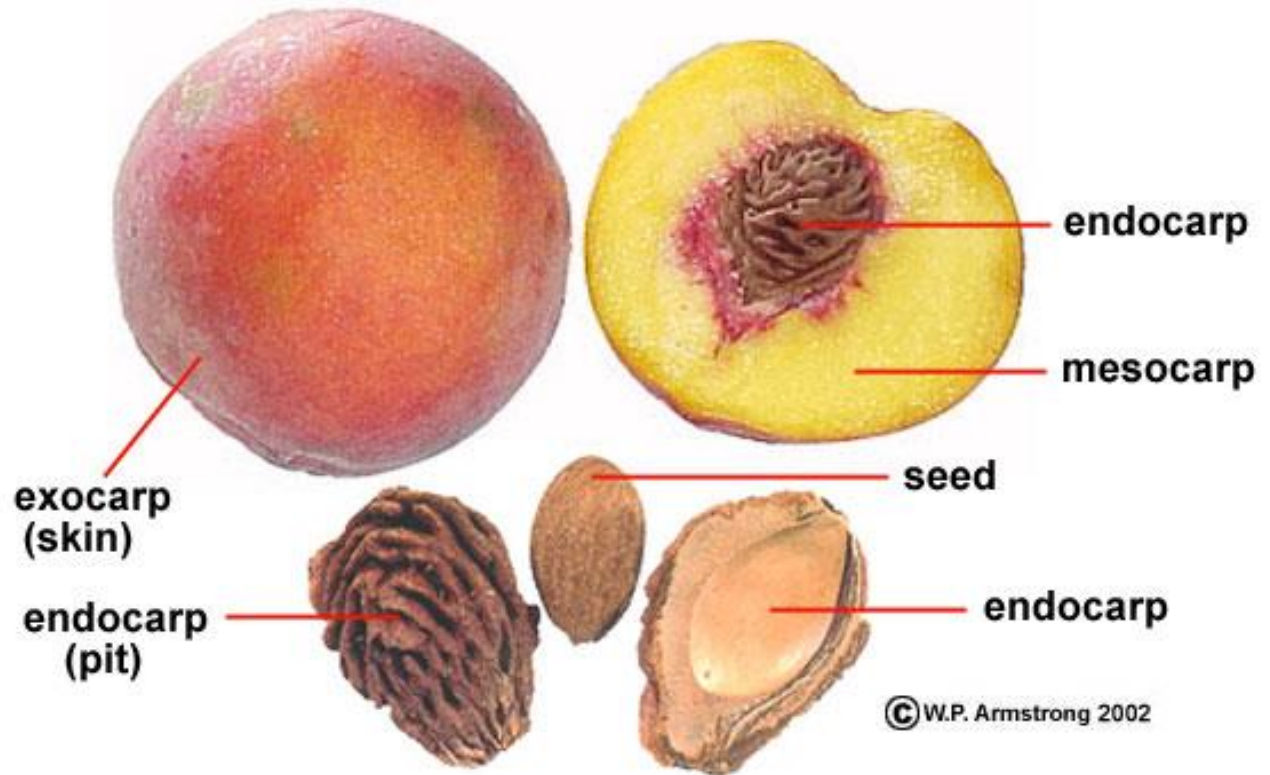
Peaches & Nectarines

- Freestone
- Cling
- Yellow
- White
- Yellow Nectarines
- White Nectarines
- Subacid vs standard
- Pillar vs standard
- Peento types





The Peach Fruit



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Drupe (fleshy fruit with a stony endocarp)

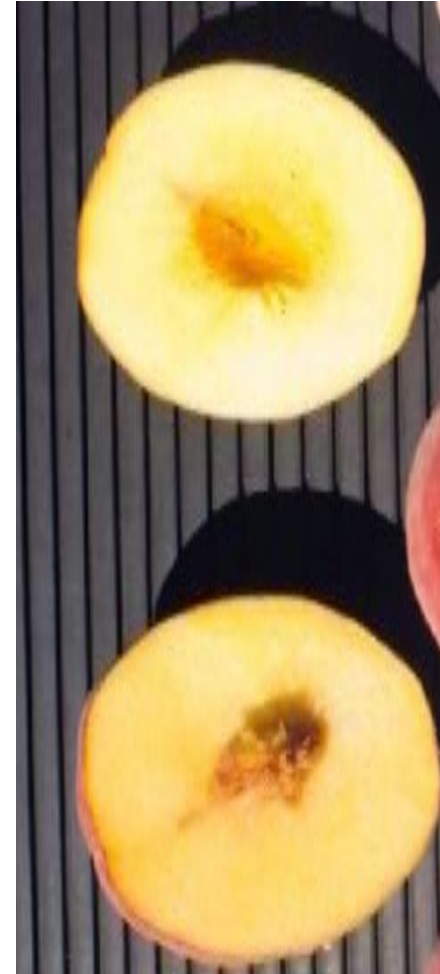
Freestone, Semi-Freestone, and Cling



Freestone



Semi-Freestone



Cling

Peento or Doughnut Peach



Saturn



NJF 16



NJF15



NJF 17



Peach Seasons

- Very Early – Late
June to early July
- Early – Week 2 and 3
in July
- Main Season – Late
July through August
- Late – Early
September
- Very Late – Mid to
Late September



Redhaven – Main season standard



Varieties

- Season sequence
- Season extension
- Quality factors
 - Taste, Texture
- Firmness
- Disease resistance
 - Bacterial spot
- End use
- Specialty types
- Nursery sources
- Recommended varieties



Early Peaches and Nectarines

Ripening Date in Southern NJ	Best Peach Cultivars	Best Nectarine Cultivars	Promising Peach Cultivars for Trial	Promising Nectarine Cultivars
June 25 to July 5 - 22 to 32 days before RH	Desiree NJ 350, Flamin' Fury PF5B, Spring Prince, Sugar May (W), Sunbrite Spring Snow (W)	Mayfire	Carored Manon (W), Flamin' Fury PF 5Big, Queencrest, Rich May , Sugar May (W)	Westbrook
July 6 to 12 - 15 to 21 days before RH	Harrow Dawn, Ruby Prince, Sentry	ArcticStar (W)	Early Star, Scarlet Pearl (W)	Jade (W)
July 13 to 19 - 8 to 14 days before RH	Flamin' Fury PF7, Glenglo, Ruby Prince Sentry, Summer Serenade	Arctic Glo (W), Arctic Sweet (W), Easternglo, Honeyblaze	Flamin' Fury PF8 Ball, Galaxy (FW), NJ F 18 (FY), Snowbrite (W), Vulcan	Arrington Silver Gem (W)
July 20 to 26 - 1 to 7 days before RH	Arctic Sweet (W), Flamin' Fury PF11, Flavorcrest, Gala, Saturn (W)	Flamin' Fury PF11, Harblaze	Country Sweet, NJF 15 (FY), Raritan Rose (W), SnowBrite (W), Vinegold, While Cloud (W)	Brigantine, Honeykist, Silverglo (W)

Early



Flavorcrest



Glenglo



Gala



Sugar May

Main Season

Ripening Date in Southern NJ	Best Peach Cultivars	Best Nectarine Cultivars	Promising Peach Cultivars for Trial	Promising Nectarine Cultivars
July 27 to August 3 +1 to 7 days after RH	Early Loring, Flamin' Fury PF 15A, Flamin' Fury PF Lucky 13, John Boy, Redhaven Redstar, Starfire, White Lady (W)	Harflame, Summer Beaut	Blaze Prince, Blazing Star, Evelynn, Felicia, Flamin' Fury PF 9A-007, Salem, Snow Beauty (W), TangOs NJF 16 (FY)	Bradley
August 4 to 10 + 8 to 14 days after RH	Bounty , Coralstar, Flamin' Fury PF17, Harrow Beauty, July Prince, Klondike (W), Loring	Arctic Jay (W), Flavortop, Sunglo	Anna Rose (W), Carolina Belle (W), Flamin' Fury PF19-007, Flavrburst, Harrow Fair, Scarlet Prince, TangOsl NJ F17 (FW)	Emeraude (W)
August 11 to 18 + 15 to 22 days after RH	Allstar, Contender, Flamin' Fury PF23, Flamin' Fury PF24-007, Glowing Star	Redgold	Blushingstar (W), Flamin' Fury PF 22-007, Glowingstar, Redkist, Sweet N Up	Arctic Belle (W), Honey Royale
August 19 to 26 + 23 to 30 days after RH	Cresthaven, Flamin' Fury PF Lucky 24B, Flamin' Fury PF25, Gloria NJ 351, Messina NJ 352	Fantasia	Benedicte (W), Early August Prince, Opale (W), Sugar Giant (W), Sweet Breeze	Arctic Gold (W)
August 27 to September 3 + 31 to 35 days after RH	Fayette, Flamin' Fury PF27A, Flamin' Fury PF28-007, Jerseyqueen, Redskin		August Prince, Lady Nancy (W), Selena, Summerfest, Tiana	Stark Ovation, Zephyr (W)

Main season I Redhaven Period



Salem

John Boy



Klondike White



White
Lady

Main Season II



Contender



Loring



Sugar Giant



Bounty

Main Season III



Gloria



Late Season

Ripening Date in Southern NJ	Best Peach Cultivars	Best Nectarine Cultivars	Promising Peach Cultivars for Trial	Promising Nectarine Cultivars
September 3 to September 10 + 36 to 43 days after RH	Flameprince, Laurol, Flamin' Fury PF35-007 Fat Lady		Autumn Star, September Rose (W), Snow Giant (W), Yukon King (W)	Arctic Pride (W)
September 10 and later, 44 days or later after RH	Victoria NJ 353		Big Red (CVN #3)	

Late

Flameprince





Nectarines



Summer Beaut

- **Yellow Fleshed Nectarines**
 - Easternglo - July 11
 - Honeyblaze - July 13
 - Summer Beaut – July 27
 - Sunglo - August 4
 - Flavortop - August 4
 - Redgold - August 11
 - Fantasia - August 19
 - Honey Royale – August 25
- **White Fleshed Nectarines**
 - Arctic Star – July 6
 - Arctic Glo - July 13
 - Jade - July 18
 - Arctic Sweet - July 20
 - Arctic Jay - August 4
 - Arctic Pride – August 19
 - Zephyr – August 24



Peento or Doughnut Peach



NJF 16
7/28



Saturn
7/28



Galaxy
8/5



NJF15
7/22



NJF 17
8/12



Plums

- European and Japanese types
- Many require cross pollination
- With variety selection can harvest similar period to peaches
- Similar culture to peaches but are pruned differently



Japanese Plum Varieties



Methley

- Early (July)
 - Au Amber
 - Early Golden
 - Methley
 - Shiro
 - Au Rosa
 - Santa Rosa
- Mid Season (August)
 - Black Amber
 - Satsuma
 - Vanier
 - Queen Rosa
 - Fortune
 - Black Ruby
 - Red Ace
 - Redheart
 - Ozark Premier
 - Formosa
- Late (September)
 - Elephant Heart
 - Ruby Queen
 - Friar
 - South Dakota

Japanese Plums

Shiro



Ozark
Premier



Vanier



European Plum Varieties



Stanley

- Earliblue – July 24
- Castleton - August 3
- Mohawk – August 10
- Richards Early Italian – August 15
- Green Gage – August 15
- Stanley - August 21
- Brooks – August 21
- Valor – August 21
- Long John – August 23
- Victory Plum – August 23
- Bluefre – August 28
- Italian – September 5
- Vision Plum - September 2
- President - September 12

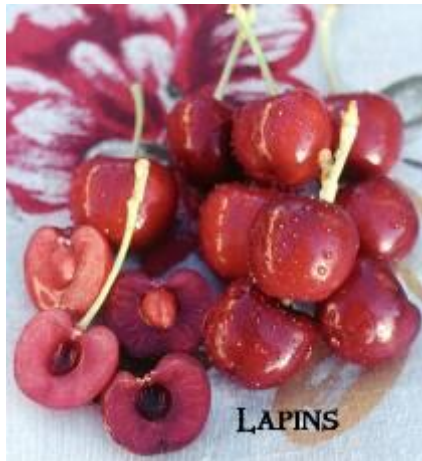


Cherries

- Sweet and Tart types
- Condensed season – June/July
- Somewhat different pest profiles than other stone fruits
- Sweet require a pollinizer variety commonly, tart do not
- Limited maintenance requirements
- Birds



Cherry Types





Dwarf Cherry System

- Best adapted for commercial orchards



Dwarfing Cherry Rootstocks

Sweet Cherry Varieties



Ulster



Emperor Francis

- **Summit**
- **Kristin**
- **Ulster**
- Black Gold
- Schmidt's Bigarreau
- Lapins
- Hedelfingen
- **Sweetheart**
- **Hudson**
- **Regina**
- **Cavalier**
- Chelan
- Index
- **Sam**
- **Benton**
- Glacier
- Nelson
- Skeena
- **Attika**
- Whitegold (light)
- Stardust (light)
- **Emperor Francis (yellow)**
- Gold (yellow)

Sour Cherry Varieties

Balaton



Danube

- Jubileum
- Danube
- Montmorency
- Surefire
- Balaton
- Northstar



Apricots



- Very susceptible to frost damage – crop is often lost due to early bloom
- Use NJ new varieties
 - Sugar Pearls
- Similar culture to peaches but are pruned differently

Pluots, Plumcots & Apriums



Pluot 75% plum
Plumcot 50 % each
Aprium 75% apricot





Peach Planting Systems

- No cross pollination needed
- Small orchard
 - Standard
 - 20 x 20,
 - Medium density
 - 20 x 12, 18 x 12
 - High density
 - 9x18
 - Pillar varieties
 - 6 x 16



Planting



- Spring planting
- Size hole to spread roots
- Plant at nursery depth
- Modify compact soils
- Wet roots
- Firm soil – no air pockets



Soil Fertility

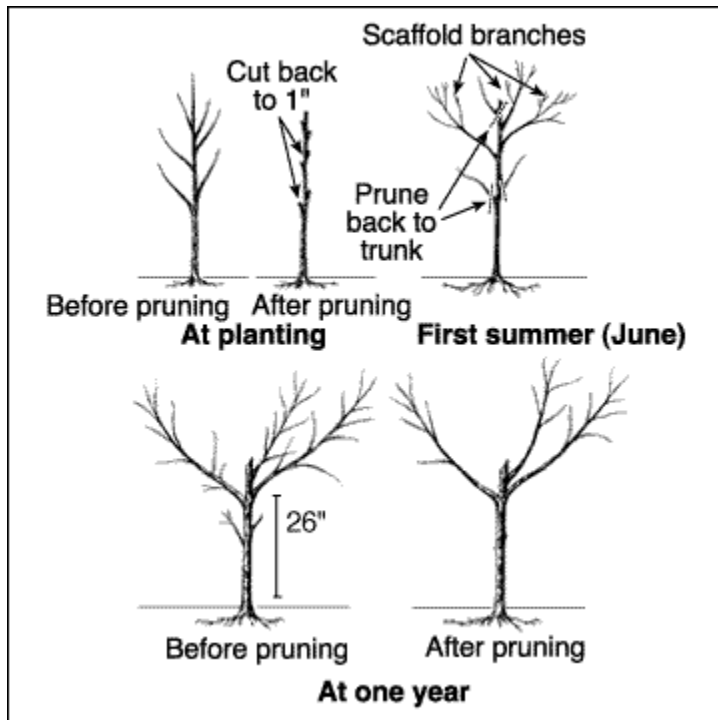


- pH 6.0-6.5
- P and K add if below optimum according to soil test
- Best to adjust before establishment
- N - .15, .30, .45, 1.0 lbs per tree
 - First 4 years



Pruning

- Initial shape
- This years growth, next years fruit in peach, spurs on old wood in others
- Maintenance
 - Upright growth
 - Suckers, water sprouts
 - Dead or diseased
 - Crossing branches
- Thinning
- Light penetration
- Maintaining shape
- Plant height



Goal for Standard Peach Training – Open Center, Horizontal Branches





Thinning

- Critical for fruit size in peaches and nectarines
- 800 fruits per tree
- Blossom thinning
- Hand thinning at 45 days after bloom (quarter or less in size)
- > 4" between, 6" average





Weed Management

- Clear area 3'+ from trunk
- Herbicides



Disease Management

- Scab
- Brown Rot
- Bacterial Spot
- Leaf Curl
- Leaf Spots
- Blossom Blight, Botrytis
- Powdery mildew/Rusty spot
- Canker
- Black Knot (plums)
- Fungicide selection
- Fungicide schedule



Bacterial spot (left) and scab (right) on peach fruit.
Courtesy George Philley, TAES - 1996.



Insect Management



- Sucking – stink bug, lygus bug
- Plum Curculio
- Fruit Moth
- Borers
- Beetles
- Mites, Aphids, Scales
- Insecticides
- IPM methods
- Timing of controls



Harvest

- Fruit sizes up
- Color change
 - Background color
- Firm vs. Tree Ripe
- Multiple picks necessary





Handling and Storage

- Gentle handling
 - Firm vs tree ripe
- Limited transfers, dropping
- Varietal differences
- Storage – let ripen room temperature then put in refrigerator

