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# **Home Fruit Production Instructional Outline**

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Educating People to Help Themselves

Local Governments • U.S. Department of Agriculture

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# Apple

## Recommended Varieties

- ◆ Liberty, Freedom, Goldrush, Priscilla, Prima – Scab Immune
- ◆ Red Delicious, Golden Delicious, McIntosh, Cortland, Royal Court, Redcort, Jon De Coster, Crown Empire, Goldrush – Traditional Varieties, High Quality Fruit with Some Fire Blight Tolerance
- ◆ Gala, Fuji, Rambo, Ginger Gold, Paula Red, Mutsu, Braeburn, York Imperial, Rome Beauty, Yataka, Granny Smith – All have Superior Fruit Quality; Although Fire Blight Susceptible

## Recommended Rootstocks

- ◆ G-30, EMLA-7, EMLA-7A, EMLA-111 – Semi-Dwarf 20 Year Tree  
Clonal Rootstock History:  
Malling (M) – First Clonal Stocks from England, Vegetative Propagation  
MM (EMLA) -111 – Malling X N Spy var.—for wholly apple aphid resistance  
MAC-9 – Michigan Apple Clone #9 – Malling 9 X Malling 26  
MARK – Virus Free MAC-9  
BUD – A Hardier M-9 Release from Russia  
GENEVA (G) – Recent Fireblight Resistant Releases from New York
- ◆ M-9, BUD-9, G-16, EMLA-26, MARK – Dwarf 15 Year Tree  
Fireblight Susceptible (Except G-16)  
Trees Must be Supported

## Ripening Dates

- ◆ August 5 – November 5

## Training Systems

- ◆ Free Standing Central Leader – Heinike Spread & Head System
- ◆ HYTEC; Hybrid Tree Cone
- ◆ Vertical Axis
- ◆ Slender Spindle

## Pruning

- ◆ Head At Planting 28” Whips
- ◆ Prune Annually During Dormancy
- ◆ Remove Damaged or Blighted Wood Immediately
- ◆ Carefully Follow Training System

## Planting Instructions, Densities & Pollinators

- ◆ Plant in the Spring, Trim and Spread Roots, Place the Majority of Roots & Lowest Scaffold Limb Towards Prevailing Wind
- ◆ 250 – 800 Trees/Acre; In Row Spacing 8–12’ & Between Row 16–20’
- ◆ Position Pollinator Trees Strategically

## Major Pest Problems

- ◆ Diseases – Fire Blight, Leafspot, Scab, Rust, Powdery Mildew
- ◆ Insects – Aphids, Scales, Mites, Leafrollers, Plant Bugs, Plum Curculio, Codling Moth, Pear Psylla, Apple Maggot

# Pear

## Recommended Varieties

- ◆ Magness, Potomac, Moonglow – Fire Blight Immune
- ◆ Seckel – Sugar Pear, Small but excellent quality, Pest Resistance
- ◆ Asian Pear Varieties: Hosui, Olympic, Shinseiki, Yoinashi - High Pest Resistance but Fireblight Susceptible

## Recommended Rootstocks

- ◆ Standard Tree – Domestic Bartlett Seedling

## Ripening Dates

- ◆ August 25 – September 20

## Training Systems

- ◆ Free Standing Co-Dominate Central Leaders

## Pruning

- ◆ Head At Planting 30' Whips
- ◆ Prune Annually During Dormancy
- ◆ Remove Damaged or Blighted Wood Immediately

## Planting Instructions, Densities & Pollinators

- ◆ Plant in the Spring, Trim and Spread Roots, Place the Majority of Roots & Lowest Scaffold Limb Towards Prevailing Wind
- ◆ 200 Trees/Acre; In Row Spacing 15' & Between Row 20'
- ◆ Position Pollinator Trees Strategically; At Least Three Varieties Required

## Major Pest Problems

- ◆ Diseases – Fire Blight, Leafspot, Scab, Rust, Powdery Mildew
- ◆ Insects – Aphids, Scales, Mites, Leafrollers, Plant Bugs, Plum Curculio, Codling Moth, Pear Psylla, Apple Maggot

# Peach, Nectarine, Plum

## Recommended Varieties

- ◆ Peaches: Candor, Garnet Beauty, Red Haven, Reliance, Canadian Harmony, Raritan Rosa, Loring, Bounty, New Haven, Flamin Fury, Crest Haven, Summerglo, Sunhigh, Redskin, Red Rose, White Hale, White Lady, Autumglo
- ◆ All Nectarine Varieties are Highly Susceptible to Brown Rot: Easternglo, Sunglo, Fantasia
- ◆ Plums: European Varieties: Bluefre, Italian Prune Stanley – Prune Type Japanese Varieties: Methley, Shiro, Santa Rose, Ozark Premier – Sweet & Juicy

## Recommended Rootstocks

- ◆ Peach & Nectarine: Standard Tree – Domestic Lovell, Halford Seedlings
- ◆ Plum: Myro 29C (Myrobalan)

## Ripening Dates

- ◆ July 5 – September 25

### Training Systems

- ◆ Free Standing Open Center

### Pruning

- ◆ Head At Planting to 24" Whips, Determine Scaffold Limbs for 18" Crotch & Headback Scaffolds in Second Year
- ◆ Prune Annually During Dormancy in Late Winter, Remove Dead Wood

### Planting Instructions, Densities & Pollinators

- ◆ Plant in the Spring, Trim and Spread Roots, Place the Majority of Roots & Lowest Scaffold Limb Towards Prevailing Wind
- ◆ 200 Trees/Acre; In Row Spacing 15' & Between Row 20'
- ◆ Self-Fruitful

### Major Pest Problems

- ◆ Diseases – Peach Leaf Curl, Brown Rot, Peach Scab, Cherry Leafspot, Plum Black Knot, Cytospora Canker
- ◆ Insects – Scale, Plant Bugs, Stink Bugs, Aphids, Oriental Fruit Moth, Plum Curculio, Peach Tree Borer

## Cherry

### Recommended Varieties

- ◆ Hedelfingen, Schmidt, Ulster, Emperor Francis, Van, Sam, Stella, Lapins, Starkrimson, Royal Ann – Sweet Varieties
- ◆ Montmorency, Meteor, Northstar – Tart Cherry

### Recommended Rootstocks

- ◆ Mazzard – Sweet Cherry
- ◆ Mahaleb – Tart Cherry

### Ripening Dates

- ◆ June 25 – July 20

### Training Systems

- ◆ Free Standing Open Center

### Pruning

- ◆ Head At Planting to 24" Whips, Determine Scaffold Limbs for 24" Crotch & Headback Scaffolds
- ◆ Prune Annually During Dormancy in Late Winter
- ◆ Remove Dead Wood

### Planting Instructions, Densities & Pollinators

- ◆ Plant in the Spring, Trim and Spread Roots, Place the Majority of Roots & Lowest Scaffold Limb Towards Prevailing Wind
- ◆ 200 Trees/Acre; In Row Spacing 15' & Between Row 20'
- ◆ Sweet Types Require Pollinator, Tart Types are Self-Fruitful

## Major Pest Problems

- ◆ Diseases – Peach Leaf Curl, Brown Rot, Peach Scab, Cherry Leafspot
- ◆ Insects – Scale, Plant Bugs, Stink Bugs, Aphids, Oriental Fruit Moth, Plum Curculio, Peach Tree Borer

# Grape

## Recommended Varieties

- ◆ Concord, Niagara, Catawba, Cayuga, Buffalo, Steuben, Alden, Norton – Seeded Labrusca (American) Varieties, All Purpose
- ◆ Canadice, Himrod, Saturn, Mars, Reliance, Vanessa – Seedless Table and Juice Grapes
- ◆ Concord, Niagra – Seeded Table and Juice Grapes
- ◆ Cabernet Franc, Chardonnay, Pinot Noir, Pinot Gris, Merlot, Nebbiolo, Petite Verdot – Vinifera (European) Wine Grape Varieties
- ◆ Vidal, Seyval, Foch, Chambourcin, Chancellor – Lambrusca X Vinifera Hybrid Wine Grape Varieties

## Recommended Rootstocks

- ◆ Labrusco & Hybrids are Self Propagating
- ◆ Caudoroc 3309, S04, 5BB for Vinifera Varieties

## Ripening Dates

- ◆ Veraisen – August 25 – October 15

## Training Systems

- ◆ Cordon Support Trellis Systems: Bilateral Cordon with Vertical shoot Positioning (VSP) or Smart-Dyson Divided Canopy (1 Wire); Horizontal Arm-Spur (2 Wire); Geneva Double Curtain (2 Wire); Six-Cane Kniffen System (3 Wire)

## Pruning

- ◆ Remove Old Fruit Wood to Cordon Wood After fruiting
- ◆ Renewal Spurs are Trained Every Season

## Planting Instructions & Densities

- ◆ Plant Vines 8' In Row by 12' Between Row

## Major Pest Problems

- ◆ Diseases: Black Rot, Crown Gall, Downy Mildew, Gray Mold or Bunch Rot, Powdery Mildew
- ◆ Insects: Grape Berry Moth, Flea Beetles, Japanese Beetles, Phylloxera

# Blueberry

## Recommended Varieties

- ◆ Bluecrop, Blueray, Coville, Darrow, Duke, Elliott, Jersey, Patriot, Spartan– Northern Highbush Varieties
- ◆ O’Neal, Legacy, Star - Southern Highbush
- ◆ Premiere, Brightwell, Climax, Tiftblue – Rabbiteye Varieties

## Recommended Rootstocks

- ◆ Propagated Cuttings – Certified Virus free

## Ripening Dates

- ◆ June 25 – August

## Training Systems

- ◆ Spreading High Bush

## Pruning

- ◆ No Pruning for 3 Years Except of Dead Wood
- ◆ Prune Out 5 Year Wood Annually

## Planting Instructions & Densities

- ◆ Plant All Roots Shallow – Within the Top 6” Plow Layer
- ◆ Amend pH to 4.5-5.0 Range
- ◆ Space 5’ By 10’

## Major Pest Problems

- ◆ Diseases: Botrytis Twig & Blossom Blight, Mummy Berry
- ◆ Insects: Fruitworms, Blueberry Maggot, Plum Curculio, Japanese Beetle, Scale, Yellow Necked Caterpillars

# Blackberry, Raspberry

## Recommended Varieties

- ◆ Blackberry: Dirksen, Hull, Chester, Navaho, T ripple Crown -- Thornless Varieties;  
Darrow, Cherokee, Shawnee – Thorny Varieties
- ◆ Raspberry: June Bearing (Floracanes): Bristol, Haut, Jewel, Allen– Black Varieties;  
Royalty, Brandywine – Purple Varieties; Latham, Nova, Hilton, Titan, Amos-H, Citadel, Lauren,  
Gel-20 – Red Varieties
- ◆ Raspberry Fall Bearing (Primocanes): Heritage, Autumn Bliss, Caroline, Josephine – Red Varieties;  
Fall Gold, Anne – Yellow Varieties

## Recommended Rootstocks

- ◆ Propagated Cuttings – Certified Virus free

## Ripening Dates

- ◆ June 15 – July 15 for Floracanes
- ◆ July; September- Frost for Primocanes

### Training Systems

- ◆ Wire Trellis, or Cross-Arm

### Pruning

- ◆ Remove all Fruited Canes to the Crown After Harvest
- ◆ Cut Renewal Canes to 4-5' Length
- ◆ Mow to Ground Primocane Raspberries After Harvest for Fall Only Production

### Planting Instructions & Densities

- ◆ Space Blackberry Plants 3-6' In Row By 8-10' Between Row
- ◆ Space Raspberry Plants 2-4' In Row By 8-10' Between Row

### Major Pest Problems

- ◆ Diseases: Anthracnose, Cane Blight, Spur Blight, Gray Mold, Orange Rust
- ◆ Insects: Blackberry Psyllids, Japanese Beetle, Plant Bugs, Cane Borers, Scale & Spider Mites

## Strawberry

### Recommended Varieties

- ◆ Earliglow, Annapolis, Cavendish, Delmarvel, Jewel, Allstar, Eros, Primetime, Surecrop, Lateglow, Latestar, Honeoye, Ovation, Daraselect – June Bearing Varieties
- ◆ Chandler, Sweet Charlie, – Annual Plasticulture System
- ◆ Seascape, Albion, Tristar, Tribute – Everbearing; Day-Neutral

### Recommended Rootstocks

- ◆ Propagated From Certified Virus-Free Runners

### Ripening Dates

- ◆ Mid May - Mid June

### Training Systems

- ◆ Matted Row
- ◆ 5400 Plants/A at 24" In Row By 4' Between Row Spacing

### Pruning

- ◆ Annual Renovation Following Harvest – Mowing & Cultivating

### Major Pest Problems

- ◆ Diseases: Botrytis Rot, Black Rot, Anthracnose, Powdery Mildew, Leaf Spot, Leaf Scorch, Leaf Blight, Red Stele
- ◆ Insects: Strawberry Clipper Beetle, Spittlebug, Tarnished Plant Bug, Aphids, Spider Mites