

FRUIT TREE SELECTION



This is part of a series on growing fruit!

January 17th @6pm - Fruit Tree Selection

February 28th @5pm - Fruit Tree Pruning (w/demo)

March 6th @6pm - Growing Grapes

March 20th @6pm - Small Fruits and Berries

April 3rd @6pm - Holistic Spray Program

April 10th @6pm - Orchard Companions

April 24th @6pm - Fruit Propagating

January 20th - Soil Health and Composting

January 27th - All About Tomatoes

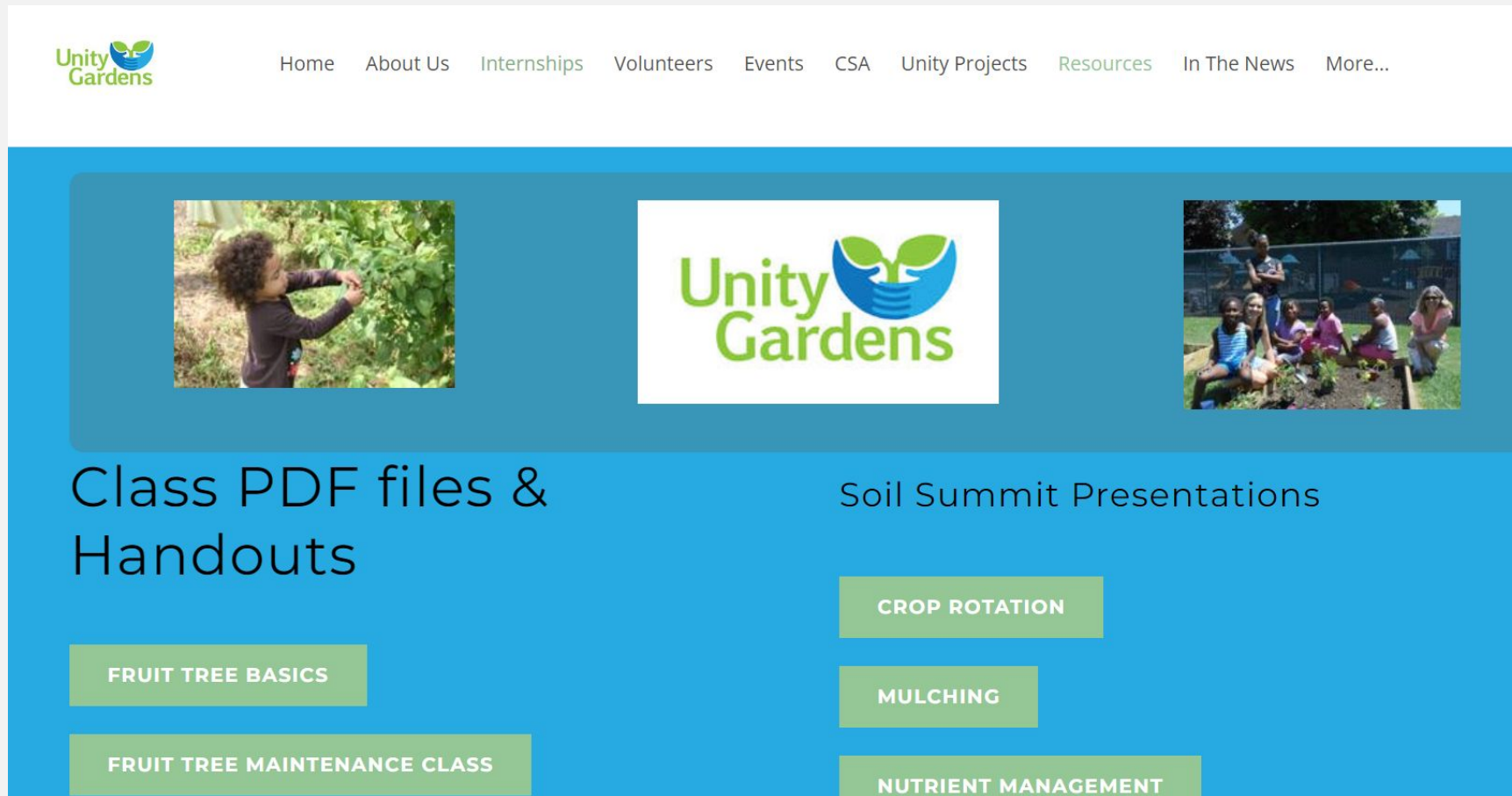
February 3rd - Companion Planting

February 10th - Small Space Gardening

February 17th - Garden Care

February 24th - Pests In The Garden




Slides will be available on the resources tab of our website



The screenshot shows the Unity Gardens website with a navigation menu and a blue content area. The navigation menu includes Home, About Us, Internships, Volunteers, Events, CSA, Unity Projects, Resources, In The News, and More... The blue content area features three images: a child in a garden, the Unity Gardens logo, and a group of people in a garden. Below the images are two main sections: 'Class PDF files & Handouts' and 'Soil Summit Presentations'. The 'Class PDF files & Handouts' section contains three buttons: 'FRUIT TREE BASICS', 'FRUIT TREE MAINTENANCE CLASS', and 'CROP ROTATION'. The 'Soil Summit Presentations' section contains three buttons: 'MULCHING' and 'NUTRIENT MANAGEMENT'.

Unity Gardens

Home About Us Internships Volunteers Events CSA Unity Projects Resources In The News More...



Class PDF files & Handouts

FRUIT TREE BASICS

FRUIT TREE MAINTENANCE CLASS

Soil Summit Presentations

CROP ROTATION

MULCHING

NUTRIENT MANAGEMENT

So you'd like to plant a fruit tree?

DISCLAIMERS!!!

- Long term commitment!
 - Fruit trees take two to seven years to begin bearing fruit (depending on what you plant)
 - Average fruit tree lives 15-30 years, but some will live for hundreds of years!
- Expensive start up cost (relatively)
 - fruit trees are more expensive than plant starts and you need specific tools to take care of them
- Space considerations
 - average tree needs 20 ft circumference
- Lots of harvest
- High knowledge threshold



What are the benefits?

- Less maintenance than a garden (1 hr/week)
- Lots of production over a lifetime
- Ecosystem services of a tree
- Tastes better than what you get from a grocery store

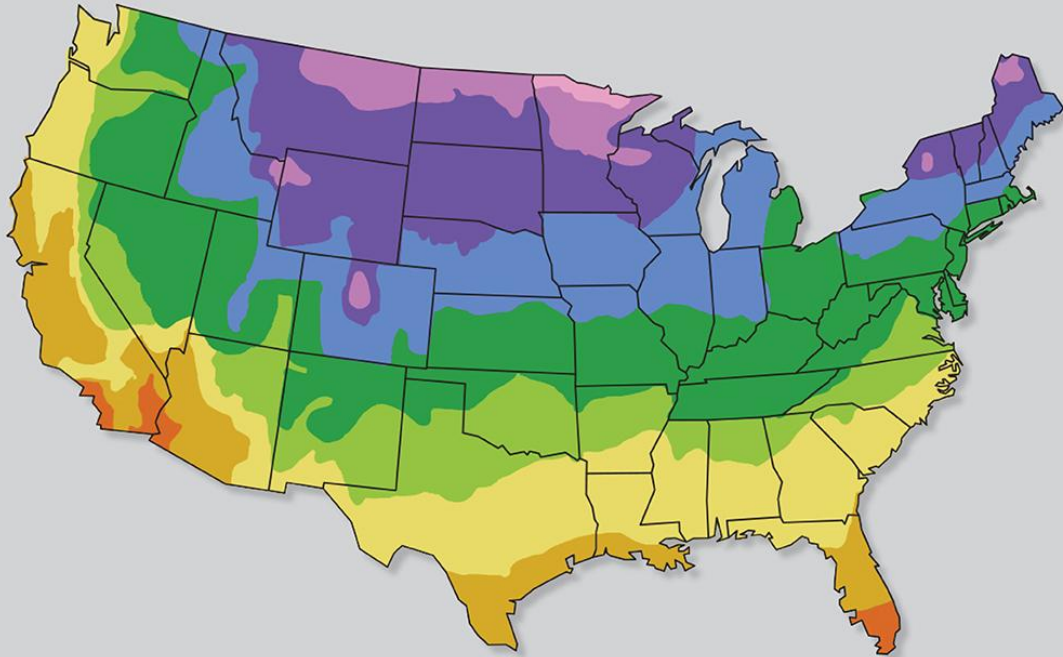


How do you choose what to plant?

- What do you like to eat?
- What can you grow in your area?
- How much space do you have?
- What level of maintenance and care do you want to/can you dedicate?
- How picky are you about your fruit?

What Can Grow in your Area?

Hardiness Zones



- Definition: geographic area with a certain average annual minimum temperature
- South Bend: Zone 6a
- Most nurseries will provide a range of zones that the tree/plant will grow in
- Caution picking on the edges of the zone, especially with climate change
- Many fruit trees need a certain amount of chill hours, but many are also susceptible to winter injury in hard freezes or will reduce fruit production

What can be grown in Zone 6?

Great!	Not Consistent	Definitely Not
Apples European pears Asian Pears Plums Pawpaws Mulberries Persimmons Tart cherries (north)	Japanese plums Peaches (south) Nectarines (south) Sweet cherries Apricots	Oranges Jackfruit Limes Lemons Coffee Bananas Dragonfruit

How Much Space Do You Have?

Pollination

- All fruits need to be pollinated
- Cross-pollination trees: some sweet cherries, pears, apples, plums
 - Need to be planted within 2,000 feet of each other and flower at the same time
- Self-fertile tree: tart cherries, some sweet cherries, peaches, apricots, mulberries

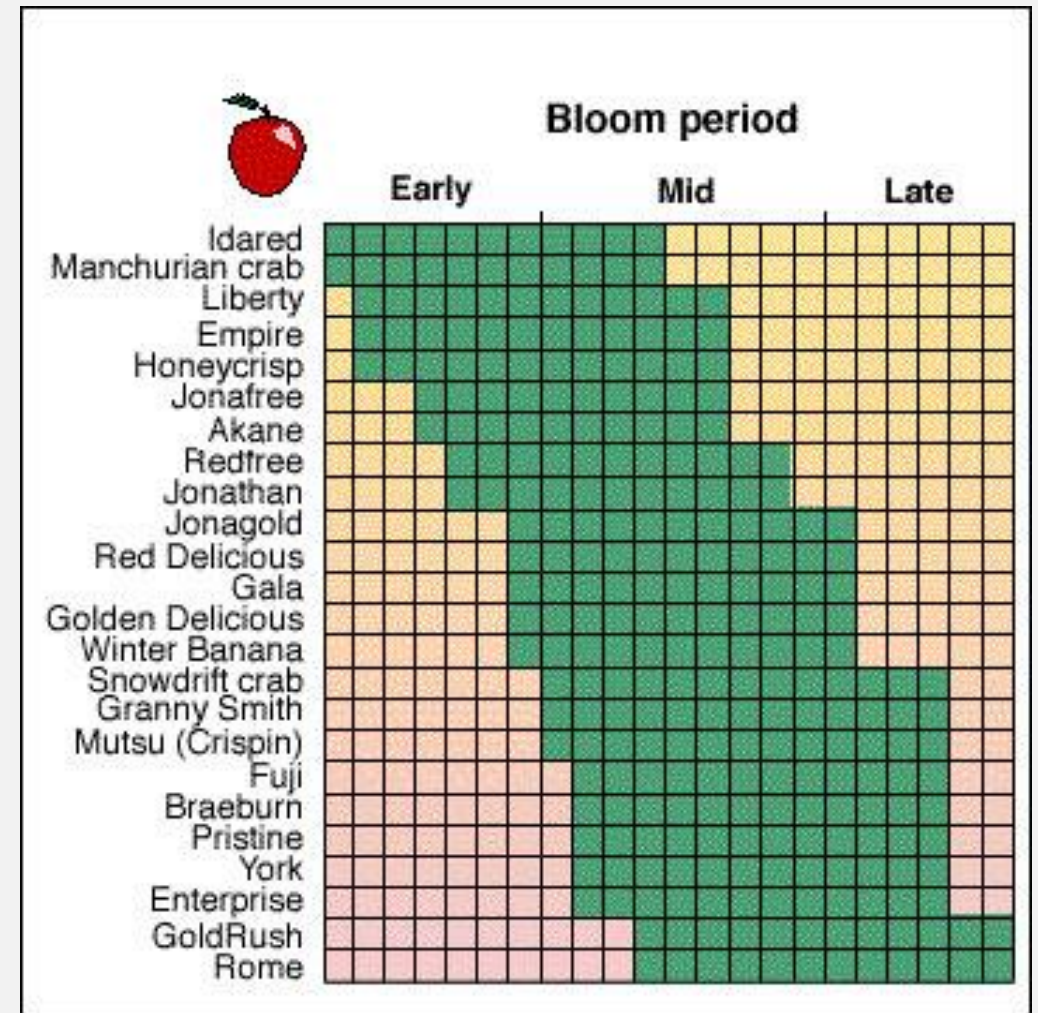


Pollination chart

Shows you when different varieties are in bloom

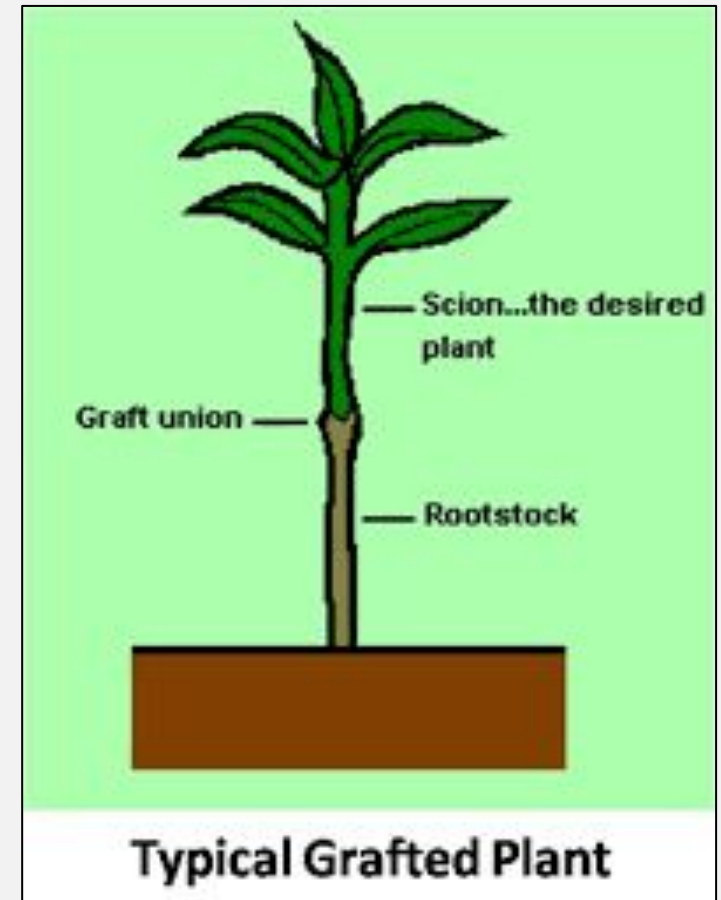
You'll need to make sure that your varieties overlap in bloom time to ensure that both trees can be pollinated, the longer the overlap the better

Can also google "pollinator for x variety" or check the variety information for recommended pollinators

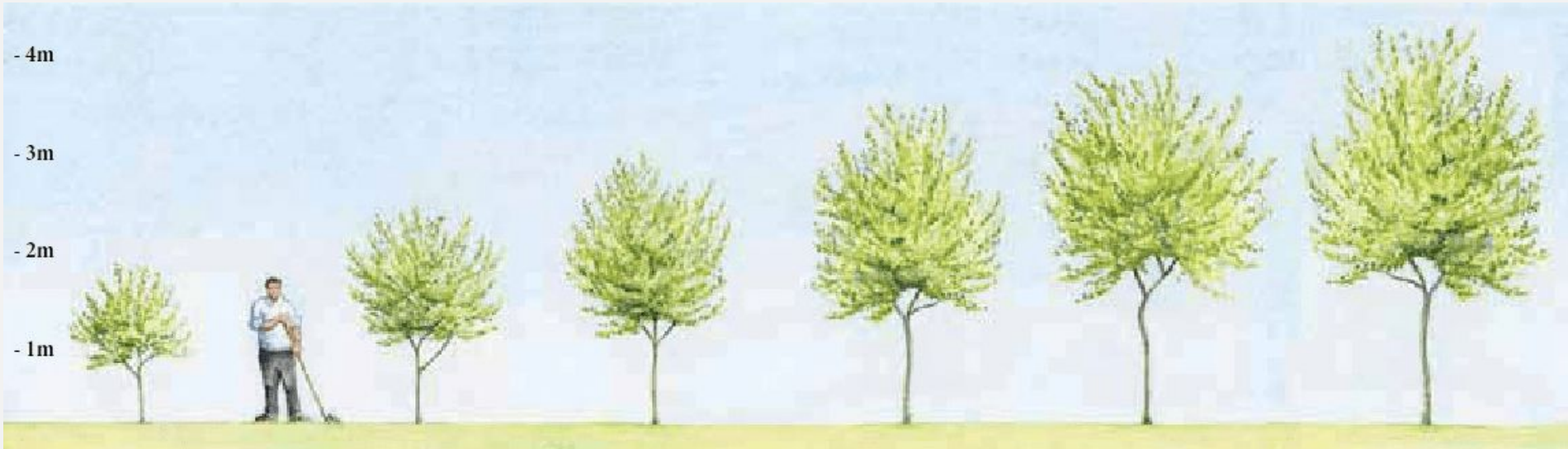


Grafting

- Most fruit trees are grafted
- The upper part is called the scion, the lower part is the rootstock



Rootstocks



Very Dwarf		Dwarf		Semi Dwarf		Medium		Semi Vigorous		Vigorous		Very Vigorous	
Fruit	Rootstock	Fruit	Rootstock	Fruit	Rootstock	Fruit	Rootstock	Fruit	Rootstock	Fruit	Rootstock	Fruit	Rootstock
Apple	M27	Apple	M9	Apple	M26	Apple	M116	Apple	MM106	Apple	MM111	Apple	M25
		Pear	Quince C	Apricot	Torinel			Pear	Quince A	Pear	Pyrodwarf	Pear	Pyrus communis
		Cherry	Gisela 5	Plum	Pixy, VVA-1			Plum	St Julien A			Pear	Pyrus Kirchensaller
				Gage	Pixy, VVA-1			Gage	St Julien A			Cherry	F.12.1
				Damson	Pixy, VVA-1			Cherry	Colt			Plum	Brompton

Considerations in rootstock

Dwarf	Semi-dwarf	Full size
<ul style="list-style-type: none">● Most expensive● Needs support● Smallest (8-10ft)● Good for kids, maintenance, and small spaces● shortest lifespan● will benefit the least from holistic care	<ul style="list-style-type: none">● In the middle● Supported/freestanding● Medium (14-22ft)● Good for maintenance and easy harvest● shorter lifespan	<ul style="list-style-type: none">● Cheapest● Freestanding● Full sized (25+ft)● Will produce the most, at cost of harder maintenance and harvest

Rootstocks will also often have resistance to specific diseases and pests and different tolerances for soil texture. You can also control for size with pruning.

How much effort are you willing to give?

A Note on Disease/Pest Resistance

- Most of the varieties that you find in the grocery store are extremely pest susceptible
- Commercial farms spray with pesticides/fungicides dozens of times in a year to get good quality fruit
- If you're willing to put in that work/time/money you can invest in varieties you're familiar with but otherwise it's probably best to get varieties that have resistance so you don't have to spray/or only a few times a year

Easiest?

Bushes!!

Strawberries, blackberries, raspberries, gooseberries, serviceberries, honeyberries, etc

We'll have a class on raising these later!! (March 20th)



Mulberries



Difficulty Level: **EASY**

- You could do absolutely nothing to a mulberry and it would survive
- The fruit would still taste great and be good quality
- Your biggest issue will be weeding out baby mulberries everywhere and the stains that mulberries leave

Lifespan: 100+ years!

Pollination: Self-Fertile

Note on variety: Red mulberries are native, white mulberries are the cultivated invasive variety

Dwarf varieties of mulberry exist, although they're pricier

Pawpaws

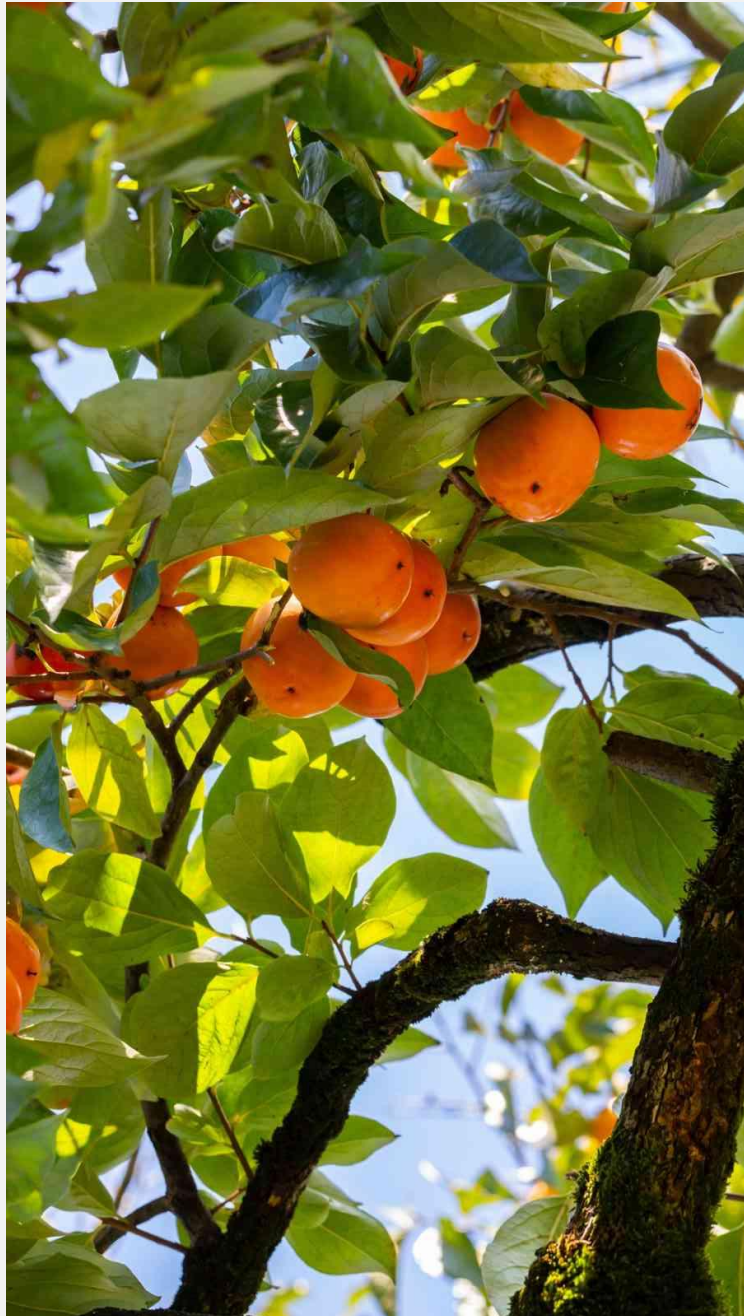


Difficulty Level: **EASY**

- native to Indiana (support swallowtail butterflies)
- need shade and consistent water as an immature tree
- For full fruit set, you may need to pollinate by hand
- can tolerate shade as an adult as well but prefer sun
- little pest/disease pressure
- no pressure from deer/animals in later years
- will spread easily through rootsuckers

Pollination: cross pollinate (plant 60 ft at most, pollinated by flies)

Notes on Variety: Grow what's native to your area, cultivated varieties stem from Kentucky and won't love northern winters, taste will not suffer



Persimmons

Difficulty Level: **EASY**

- native to Indiana
- tolerant of shade, prefer sun
- little pest/disease pressure
- grow very very tall, prune for height

Pollination: dioecious, need a male and female tree, cultivated varieties may be self-fertile through grafting

Varieties

- there are cultivated and native varieties
- choose cultivated for fruit production

European Pears

Difficulty Level: **MEDIUM**

- Fruit is generally pretty high quality
- Require careful pruning/limb spreading for structure
- Haven't noticed lots of disease issues, although if you plant both apples and pears, you'll have to pay attention to spread of disease

Pollination: Usually requires cross-pollination

Recommended Varieties:

- Harrow delight (good disease resistance)
- Honeysweet (self-fertile)
- Warren



Asian Pears

Difficulty level: **MEDIUM**

- good quality fruit, is a little difficult to tell when ripe
- have heard very good things from other fruit growers

Pollination: cross-pollination

Recommended varieties:

- Shinsui (earliest)
- Chojuro
- Yoinashi
- Korean Giant (latest) long storage life, biggest fruit, will need structural support/careful pruning



Tart Cherries

Difficulty Level: **MEDIUM**

- productive
- can also get a bush cherry for lower maintenance
- some pest/disease issues but easily kept track of
- fruit can be high quality if you keep track of pests

Pollination: self-fertile

Note: sweet cherries are not cold-hardy enough for northern Indiana, would not recommend

Recommended Varieties:

- Tree: Montmorency, North Star
- Bush: Romance series (variety of tartness)



Apples

Difficulty Level: **HARD**

- lots of pests and diseases target apples
- hard to get perfect fruit
- Maintenance (thinning, pruning, pest control, harvest clean up)

Pollination: need cross-pollination (this can be solved through planting crabapples too)

Varieties: (fireblight resistance or at least non vigorous)

- Early (July ripening): William's Pride, Pristine
- Mid (August/September ripening): Redfree, Liberty
- Late (September/October ripening): Enterprise, Sundance



Peaches



Difficulty Level: **HARD**

- requires intense pruning (only fruits on second year wood) & thinning
- fruit is hard to maintain quality on
- possibility of no fruit in northern Indiana
- but the fruit is amazing

Pollination: self-fertile

Recommended Varieties:

Freestone vs clingstone

- Harrow diamond
- Redhaven
- Contender
- Messina (good storage)

Buying the Trees

Buy for Plant Health:

- don't buy your plants from somewhere that doesn't specialize in plants
- try to buy from places that provide you lots of information about each variety and that sells multiple varieties
- choose bareroot when you can!
- [Recommended Nurseries](#)

Where Can I Plant?

Site Requirements (Climate)

- All fruit grow best in full sun (with exceptions of native understory plants, pawpaws and persimmons)
- Avoid planting trees in low-lying areas that collect cold air (frost pockets)
- Plant somewhere with air circulation, slopes often help (dead air/moisture encourage diseases and pests)
- Trees on the edge of our zone may require windbreaks

Site Requirements (Soil)

- Soil requirements
 - Well draining soil that will also retain water (not heavy clay, not sandy, good tilth)
 - A lot of Indiana has sandy soil, you may need to do more watering or soil amendments
 - Ideally a neutral pH (6-6.5pH), not usually a worry for Indiana
 - If after a rain, there's standing water, not a good place for a fruit tree!!
 - but can be remedied by berms or hugelkultur
 - Soil test if you're unsure about your soil

Site Requirements (for you!)

- Easy access to water!!
- Call 811 before planting to make sure you don't dig into a utility line
- Recommendation to start small and grow with your orchard

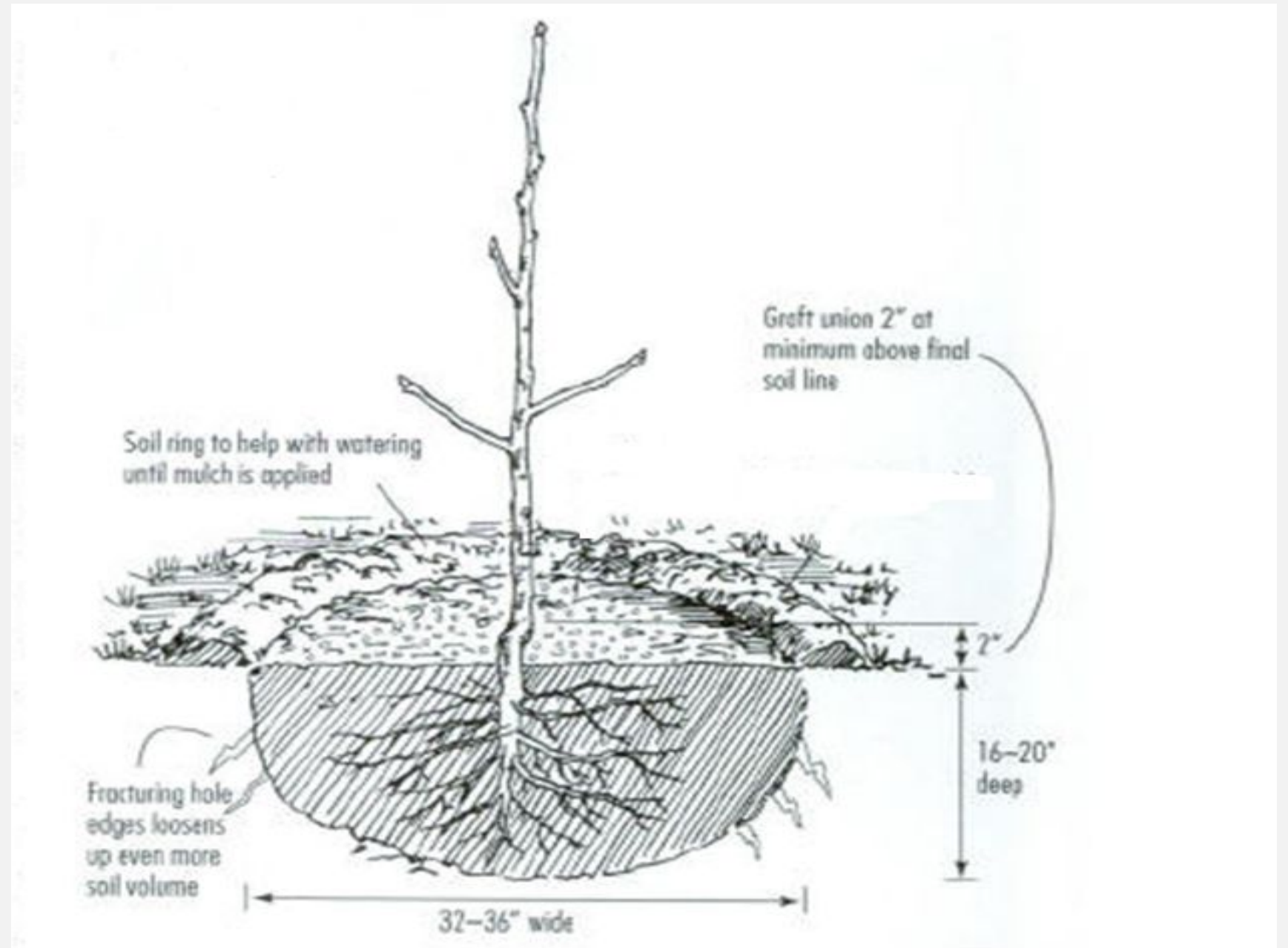
How to Plant

When to Plant

- Spring or fall
- Spring you can usually find varieties you like and will water it throughout the summer with your other garden watering requirements
- Fall it's harder to find varieties you like but is the better time to plant for plant health (in Zone 6 and warmer), because the tree will focus on root growth for the first part of the year and the soil will stay damp with snow cover
- In spring, plant before the dormancy breaks (can also store in a cool place/"heel" in if you need to delay)
- Can also nursery plants over the summer

Digging the Hole

- 30" diameter of hole
- Graft union 2/3 inches above soil level
- More loose dirt around the circumference
- Shape of hole should be square, rather than a V



Graft Union



Planting

- Soak bare root trees for an hour beforehand (not more than 24 hours)
- Backfill with previous dirt
 - Amend with compost if you have especially sandy/clay soil
 - But do not entirely backfill with compost or the roots won't travel
 - Pat down dirt to get out air bubbles
 - do not compact edges of planting hole

Mulching

- Mulch your new trees!
- Think donut, not volcano
- Mulch preferred - ramial



Water!

- Make sure to water new trees
- 10 gallons!
 - Can measure with 5 gallon buckets
- Water 5 gallons per week, unless you get an inch of rainfall for new trees
- This amount should increase as your trees mature (another 5 gallons per year of growth)

Any Last Questions?