

FRUIT TREE BASICS



TYPES OF FRUIT TREES TERMINOLOGY

- Pome Fruit – many seeds
 - Apples, pears
- Stone Fruit – one seed, referred to as a pit/stone
 - Peaches, plums, nectarines, cherries

WHERE TO PLANT

SITE REQUIREMENTS (CLIMATE)

- All fruit grow best in full sun
- Pay attention to climate requirements of fruit trees – not all fruit trees are suited to Midwest environment
 - Our agricultural zone is 5b/6a
- 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)

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!!
 - Soil test if you're unsure about your soil

SITE REQUIREMENTS (FOR YOU!)

- Easy access to water!!
- Make sure you're thinking of full size of the tree when planting
 - Dwarf trees are 8-10ft tall, semi-dwarf 15-20ft, mature 20ft+
 - About 15ft between trees
- Call 811 before planting to make sure you don't dig into a utility line

WHAT TO PLANT

SELECTING VARIETIES

- Lots of things to consider in selecting variety:
 - Choose something you like eating and is in harvest when you're around
 - Pest resistance
 - Disease tolerance
 - Some fruits require cross-pollination
 - Full size

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 pest resistance so you don't have to spray/or only a few times a year

THINGS YOU CAN GROW IN INDIANA'S CLIMATE

- For SURE: Apples, European pears, Asian pears, European plums, pawpaws and persimmons
- Parts of Indiana
 - (best in the South of Indiana): Japanese plums, peaches, nectarines
 - (Best in the north of Indiana): Tart cherries
- Sketchy (not really adapted to either the south/north): sweet cherries, apricots

POLLINATION

- All fruits need to be pollinated!
- Some fruit trees need cross-pollination: some sweet cherries, pears, apples, plums
 - Need to be planted within 2,000 feet of each other and flower at the same time
 - Often the tag will tell you a good tree to plant for cross-pollination
- Self-fertile: tart cherries, some sweet cherries, peaches, apricots



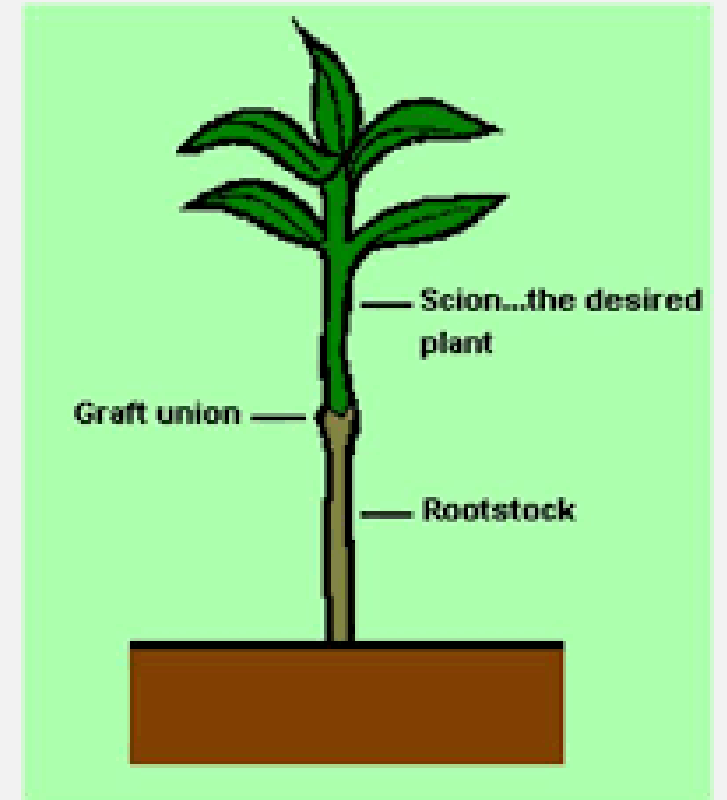
POLLINATORS

- If you don't have pollinators around your garden, it'll be difficult to get pollination or you'll get uneven pollination, with lumpy fruit
- Broad use of insecticides can hurt bees
- Plant some native plants (coneflower, milkweed, coreopsis, hairy beardtongue, etc) to encourage pollinators
- Also having some things that bloom throughout the season so pollinators stick around (early spring, spring, summer, and fall blooms)



GRAFTING

- Most fruit plants are grafted
- The upper part is called the scion, the lower part is the rootstock
- Rootstock determines the tree size
 - (usually there's dwarf, semi-dwarf, and full size)
- Dwarf and semi-dwarf make maintenance/harvest easier but is also more expensive to buy
- Dwarf trees (and some semi-dwarf) will also do better with support



Typical Grafted Plant

APPLES

- Cultivars in the genus *Malus*
- Full size – 20 ft
- High effort (susceptible to pests/diseases and need pruning)
- Need a pollinator buddy (make sure it blooms at the same time, crabapples can also be a pollinator buddy)
- Recommended Varieties
 - Early (July ripening): William's Pride, Pristine
 - Mid (August/September ripening): Redfree, Liberty
 - Late (September/October ripening): Enterprise, Sundance



EUROPEAN PEARS

- Cultivars in the genus *pyrus*
- Need a pollinator buddy- not all species will cross-pollinate so double check!
- Mid effort – less pest/disease susceptible, but requires pruning and maintenance
- European varieties
 - Harrow delight: ripens July, excellent fire blight resistance
 - Honeysweet: self fertile, ripens late August
 - Warren: partially self-fertile, ripens early September
 - Potomac ripens in September

ASIAN PEARS

- Cultivars in the genus *pyrus*
- Need a pollinator buddy- not all species will cross-pollinate so double check!
- Mid effort – less pest/disease susceptible, but requires pruning and maintenance
- Asian varieties:
 - Shinsui: earliest, ripens mid-July
 - Chojuro: ripens mid-August,
 - Yoinashi: ripens mid/late August, sweet and refreshing
 - Korean Giant: ripens late September, long storage life



PEACHES AND NECTARINES

- Cultivars of *prunus persica*
- High effort – highly disease/pest susceptible, require pruning and maintenance
- May not always have yield depending on the weather
- Self-fertile
- Recommended Varieties:
 - Harrow Diamond: Ripens Mid June, Early July
 - Redhaven: ripens mid-July
 - Contender: ripens late July
 - Messina: ripens mid-late August, longer storage life



CHERRIES

- Tart: *prunus cerasus*, Sweet: *Prunus avium*
- Tart cherries are more hardy, sweet cherries may not last through winters in Indiana
- Mid-effort (susceptible to disease and some pests, require pruning and maintenance, sweet cherries especially)
- Recommended Varieties:
 - Tart: Montmorency (prolific), North Star (natural dwarf, smaller harvest)
 - Sweet: Blackgold (self-fertile)

THE ROMANCE SERIES OF BUSH CHERRIES

Carmine Jewel

- Featured in the Beanstalk Children's Garden (KCCG)
- Frequently bears over 20lb per year
- 3.5 gram fruits
- Sweeter than Montmorency

Romeo

- Less tart than pie cherries, good for fresh eating
- Best for cherry juice, deep color
- 4.0 gram fruits
- Sweeter than Carmine

Juliet

- Great for fresh eating
- High sugar content
- 5.0 gram fruits
- Sweetest of the series



PLUMS

- European (variety *Prunus domestica*) Japanese (*Prunus salicina*, *Prunus trifloral*)
- Need a pollinator buddy, and Japanese and European plums will not cross pollinate
- Japanese plums won't do well in Indiana
- Mid-effort (susceptible to diseases and pests, needs maintenance and pruning)

PERSIMMONS

- Variety (*diospyros virginiana*)
- Native to Indiana
- Need both male and female trees
- Low low effort!

PAWPAWS

- Variety (*asimina triloba*)
- Native to Indiana
- Needs cross-pollination
- Young plants need to be babied- shade and frequent watering
- Recommended varieties:
 - Sunflower
 - Shenandoah
 - Susquehanna

OTHER FRUITS

Yes

- Cornelian Cherry Dogwood: Good for chutneys, preserves
- Hardy Kiwi: Produces well, needs trellising
- Elderberry: Mo is leading producer in US
- Blueberries: Need pH of 4.5-6
- Currants, Gooseberries: Not all will grow well here
- Grapes, Plums, other “traditional’ Fruits: Be prepared to spray more
- Apricots: Late blooming varieties
- Mulberries: Its complicated

No, Save your Money

- Seaberry: Not suited for our climate
- Honeyberry: Not suited for our climate
- Medlar: Fire-blight Magnet
- Fruiting Quince: Fire-blight Magnet
- Alpine Strawberries: Not suited for our climate
- Nectarines: Not worth the disease and fungus
- Autumn Olive: It is an invasive species, be responsible!
- Goumi: Invasive?, horrible taste

SUPPLIERS

- **Adams County Nursery**
- [Website](#)
- Aspers, PA
- Specialty: Apples, Pears, Asian Pears, Cherries, Peaches
- **Burnt Ridge Nursery**
- [Website](#)
- Onalaska, WA
- Specialty: Hazelnut & Jujube
- **Cummins**
- [Website](#)
- Ithaca, NY
- Specialty: Apples, Pears, Asian Pears, Cherries, Peaches, Geneva Rootstock
- **Forest Keeling**
- [Website](#)
- Elsberry, MO
- Specialty: Pawpaws, Persimmons, Pecans (cultivars of native fruit plants)
- **Grimo Nut Nursery**
- [Website](#)
- Ontario, Canada
- Specialty: Hazelnut, Walnut, and other nuts
- **Indiana Berry**
- [Website](#)
- Plymouth, IN
- Specialty: Blackberries, Raspberries, Strawberries, and other small fruits
- **Raintree**
- [Website](#)
- Morton, WA
- Specialty: Unusual & hard to find fruits
- **Schlabach**
- (585) 798-6198 (Amish-based, must call to request a catalog)
- Medina, NY
- **VanWell**
- [Website](#)
- Wenatchee, WA
- **Wafler**
- [Website](#)
- Wolcott, NY
- **Agriforest Bio-Technologies**
- [Website](#)
- Kelowna, Canada
- Specialty: Bush Cherries
- **Big Sioux**
- [Website](#)
- Watertown, SD
- Specialty: Bush Cherries
- **Dave Wilson**
- [Website](#)
- Hickman, CA
- **Grandpa's Orchard**
- [Website](#)
- Coloma, MI
- Specialty: Apples, Pears, Asian Pears, Cherries, Peaches
- **Honeyberry USA**
- [Website](#)
- Bagley, MN
- Specialty: Bush Cherries, Saskatoons, small fruits
- **One Green World**
- [Website](#)
- Portland, OR
- Specialty: Unusual & hard to find fruits
- **Stark Bros.**
- [Website](#)
- Louisiana, MO
- Specialty: Apples, Pears, Asian Pears, Cherries, Peaches
- **True Vine Ranch**
- [Website](#)
- Bonner Springs, KS
- Specialty: Blueberries
- **Willis Orchard Co.**
- [Website](#)
- Cartersville, GA

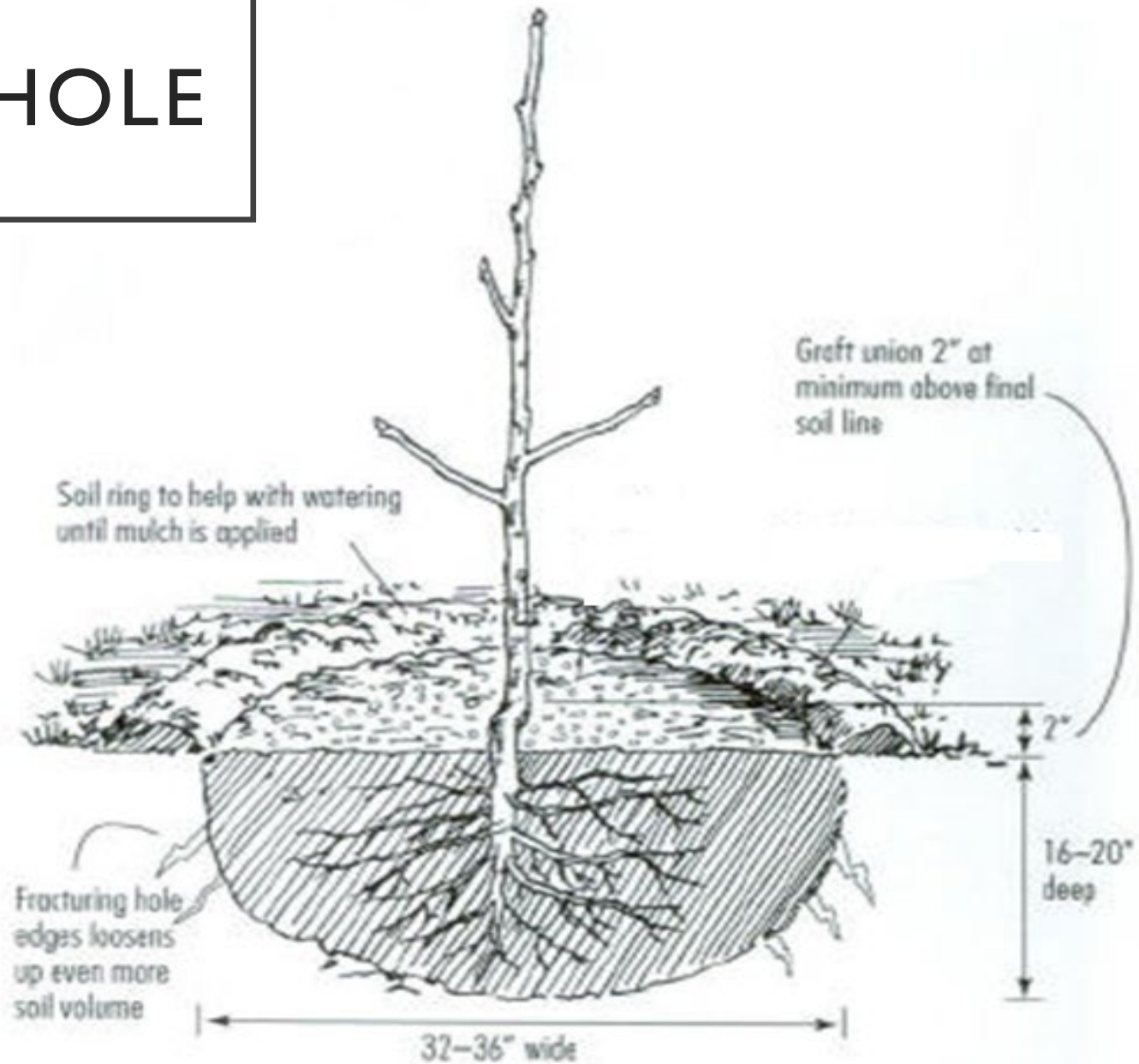
PLANTING

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, because the tree will focus on root growth for the first part of the year and the soil will stay damp with snow cover

DIGGING A 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 bareroot trees for an hour beforehand
- 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

MULCHING

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



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

LEARNING MORE

RESOURCES

- Unity Gardens
 - We'll have a fruit series
- Extension resources (Purdue, Ohio, Michigan)
 - Facts for fancy fruit newsletter
 - Midwest home fruit production guide
- Giving Grove