

Small Fruits & Berries



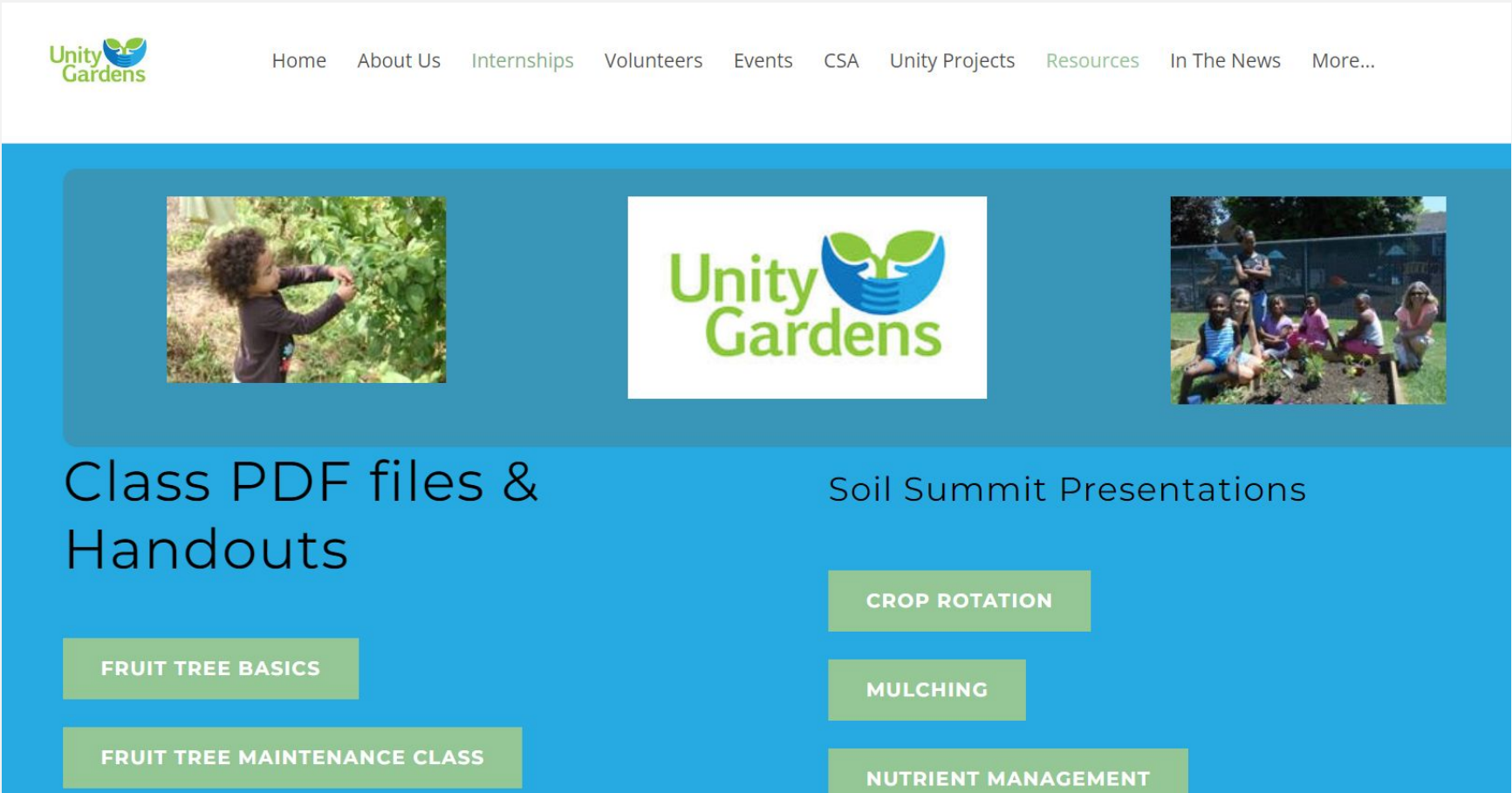
This is part of a series on growing fruit!

April 3rd @6pm - Holistic Spray Program

April 10th @6pm - Orchard Companions

April 24th @6pm - Fruit Propagating




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 has three buttons: 'FRUIT TREE BASICS', 'FRUIT TREE MAINTENANCE CLASS', and 'CROP ROTATION'. The 'Soil Summit Presentations' section has three buttons: 'MULCHING' and 'NUTRIENT MANAGEMENT'.

Unity Gardens

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Class PDF files & Handouts

FRUIT TREE BASICS

FRUIT TREE MAINTENANCE CLASS

Soil Summit Presentations

CROP ROTATION

MULCHING

NUTRIENT MANAGEMENT

Considerations

Berries

- all live multiple years
- all are easily propagated/shared (we'll cover this later!)
- increase productivity in later years
- good for low-effort gardening
- often expensive in the grocery store
- some berries are harder to maintain than others

Site Requirements

good drainage

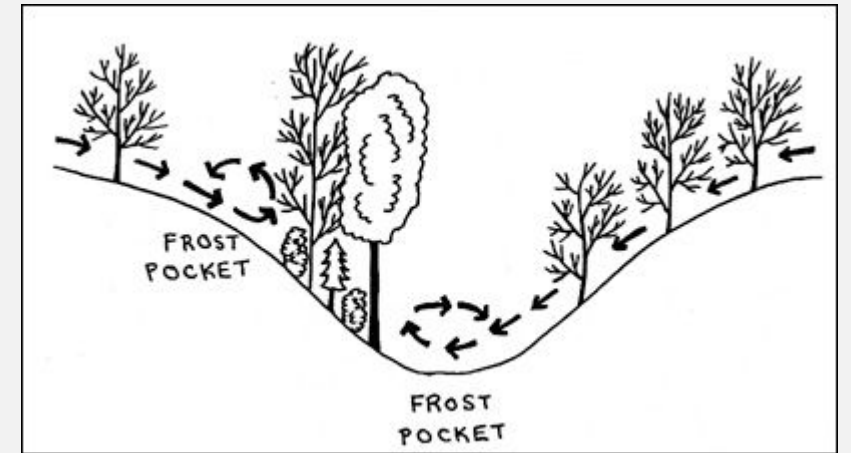
loose soil

fertile soil (compost, green mulch)

can use a raised bed for amending soil

6-8 hours full sun

not a frost pocket





Strawberries

Site Requirements

good drainage

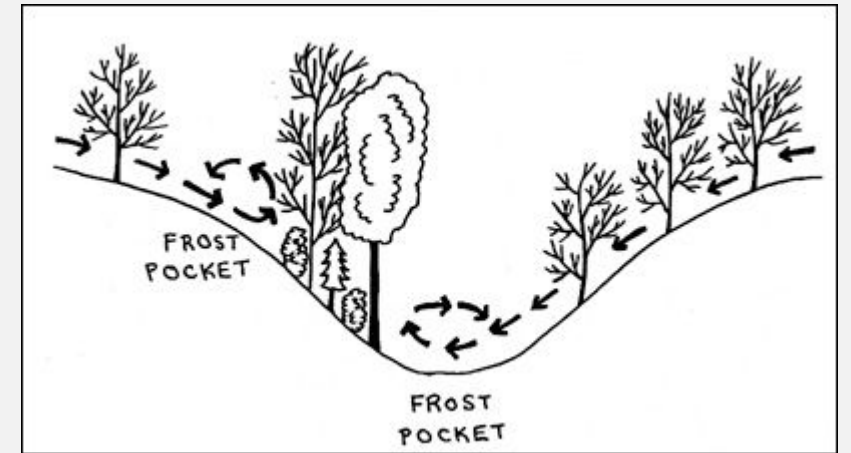
loose soil

fertile soil (compost, green mulch)

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Picking varieties

June-bearing (best in Indiana, bear once, highest productivity)

- Annapolis, delmarvel (early); redchief, honeoye, guardian, surecrop (mid); allstar, sparkle (late)

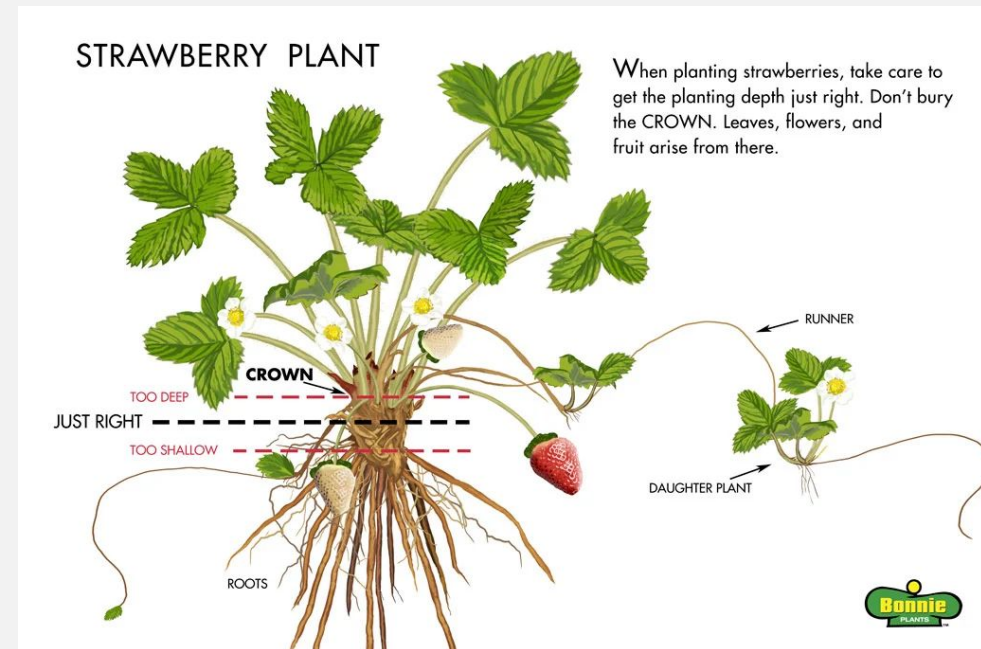
Day neutrals (bear multiple times, do not set buds when temperature is over 85)

- tribute, tristar

Everbearing (not adapted to indiana, bear twice)

Planting/spacing

- don't plant from seed (a few years before a good crop, low success)
- source locally for best adapted varieties (Indiana Berry)
- plant with crowns above soil, about a foot per plant
- clip off diseased/sad leaves at planting time
- water deeply after planting
- plant after danger of frost



Maintenance

remove initial blossoms to fortify the plant, help establish runners

mulching - straw/wood mulch, retain soil and create a barrier between ground and strawberries, helps with weeds

weeding - they're stealing the strawberries nutrients, weed regularly

deep watering - water deeply, strawberries have roots a foot deep at full size

remove rotting fruit and pick regularly

Harvest

- harvest when fully ripe (does not ripen off vine)
- harvest with little cap on
- cut rather than pull



Dormant Mulching

mulch over strawberries after they've gone dormant (around Thanksgiving)

- this protects from frost for next season

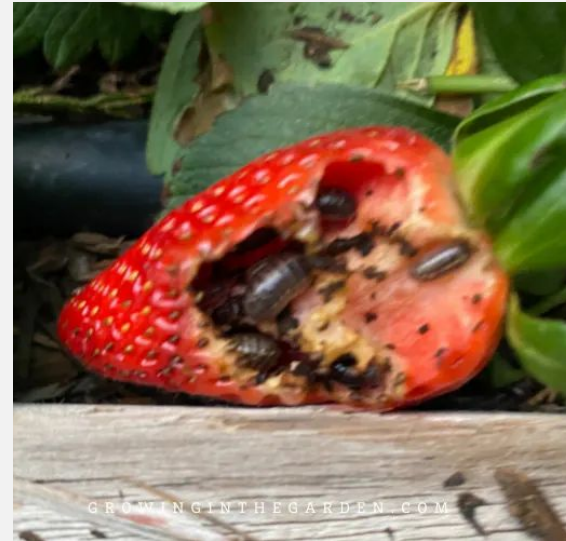
next spring, pull back straw to both mulch your next season and allow new growth through

occasionally you'll need to revitalize your beds



Pests

- birds (paint little red rocks, use bird netting)
- roly polies/pill bugs - create a barrier between strawberries and ground (usually mulch/straw/plastic OR fun strawberry holders)



Diseases

- gray mold (remove affected plant tissue)
- anthracnose (remove affected fruit)
- can spray fungicide but these build up resistance easily, so be careful
- sanitation is a better control method (for your wallet, your plants, and the planet!)



^ anthracnose

< gray mold



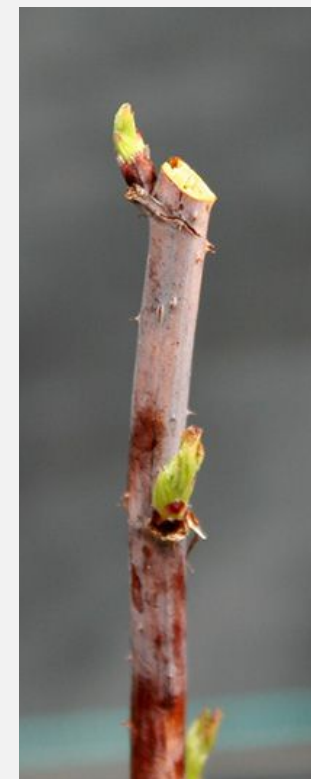
Raspberries & Blackberries

Site Requirements

- sunny, well drained soil
- can use a raised bed if your soil doesn't drain well
- avoid planting by wild brambles or tomatoes/peppers, easy transfer of diseases

Anatomy

- grow as canes
- can easily see where canes have fruited or will fruit



Primocane v. Floricane

Primocane - the canes in their first year of growth, vegetative

(primo - first)

Floricane - the cane in its second year of growth, bears fruit

(flora - flower)

Third year, the cane dies

Everbearing versus summer bearing

June-Bearing OR summer bearing	Fall bearing OR Ever-bearing OR Primocane-bearing
produce fruit once in early summer (late June, early July) this fruit is produced from canes that grew last year Recommended Varieties: Latham, Canby, Nova	produce fruit twice in a season once on new canes at the end of fall once in spring on year old canes Recommended Varieties: Autumn Bliss, Heritage



Planting

Can come bare root or potted

Bare rooted are cheaper, plant during dormant season

Potted are more expensive but can be planted in growing season

When planting, keep soil level at previous soil level

Bare rooted - spread roots around to encourage growth

Difference of opinion: Head back to 6 to 10 inches tall after planting OR head back to ground level



Planting (cont)

Plant about 2 ft apart, the roots will sprout new canes

Give enough space between rows for easy maintenance (or mowing!)

Eliminate problematic weeds beforehand

Don't put fertilizer directly into the hole, you'll burn your roots

If potted, loosen the roots

Always water after planting/transplanting

Blackberries are sensitive to sunlight, plant on overcast day or shield roots



Trellising

Trellis your brambles to increase air flow, give them support, and make your maintenance easier



Pruning

prune your brambles in dormant season! (Late winter, early spring)

- make sure your pruners are sharp
- remove anything growing outside your rows (or you'll shade the middle of the row)
- remove dead canes
- thin some of the remaining canes (especially skinnier/shorter ones)
- afterwards, remove the cuttings from your garden (either compost or municipal yard waste or feed our goats)
- june bearing and everbearing get pruned slightly differently!

How to Tell What's Dead



- no green ring if you tip it
- snaps super easily
- if it bends okay, it's still alive
- loses a lot of color, becomes more gray

Always remove everything dead!

June Bearing

Just remove what's dead!

Can either do this in dormant season or wait for them to leaf out if you're not confident in your ID skills

Everbearing

Remove what's dead and tip where it started fruiting last fall

It fruits from the top of the cane down and stops when frost hits

So remove the old fruiting parts and it'll continue fruiting further down the cane

Can also mow everything down if you prefer, but then you'll only get fall fruit

- early fruit set is smaller



Should I top my brambles?

- Maybe?
 - if they're too tall
 - or are everbearing that have already fruited
- According to Extension Services, tipping otherwise removes fruit set
- According to growers, tipping encourages lateral fruit branching
 - this seems to be more true of blackberries



Correct

Water runs off easily.
Wound heals quickly



Wrong direction

Water will run onto bud causing rotting



Too close to bud

The bud may die



Too flat

Holds water which can rot bud



Too much stub

Die back occurs as wound doesn't heal easily. Infection can occur



Too large a wound

Infection enters wound easily

Problems

To avoid insect/disease issues, use good cultural practices:

- don't plant by wild brambles or solanaceae family
- prune for airflow
- harvest everything, pick up fallen fruit
- support beneficial insect habitat through biodiversity and native plants
- remove affected plant material immediately
- Issue bugs: japanese beetles, spotted wing drosophila
- Issue diseases: mosaic virus, anthracnose, verticillium wilt

Pests

cane borer >



^ japanese beetles



^spotted wing drosophila

Diseases

mosaic virus >



anthracnose^

verticillium wilt >





Blueberries

Blueberries

- very exacting soil needs
- don't bear crop fully until 5 to 7 years after planting

Acidity

Prefer between pH 4.5 and 5.1 (soils that start higher than 5.5 should maybe not be used for blueberries)

good surface soil drainage, blueberry roots require aeration

high organic matter content

start amending your soil a year or two beforehand

amend soil with sulfur or aluminum sulfate or pine

- in parent soils with lime (moves the pH towards basic), amending is a losing battle

Planting

- plant as early as soil can be worked or when you receive your blueberries
- space 4-8 ft apart (or more depending on the variety)
- plant at same depth as nursery growth
- pack down dirt, water well afterwards

Varieties

Different varieties available that grow to different sizes, productivity, seasonality, and cold hardiness

- Northern Highbush - best bet for Indiana. productive, cold-hardy, get big (6 - 12 ft)
- Halfbush - hybrids between lowbush and highbush, good cold hardiness, less tall
- Rabbiteye - do not recommend, not winter hardy
- Southern Highbush - do not recommend, not winter hardy

Even self-fruited varieties benefit from cross-pollination

Pruning

- remove spindly growth near base of plant
- remove dead/injured branches
- do not prune early or you'll damage your blueberry plants!

Problems

- do not have a lot of insect/disease issues
- mostly issues with soil acidity
- occasionally japanese beetles (can be controlled through beneficial environment)
- occasionally deer (can protect with fencing/netting)

If showing signs of chlorosis, usually a sign that the soil is not at proper pH



A close-up photograph of a woven basket filled with bright red, glossy currants and gooseberries. The berries are piled high, with some green leaves visible at the top. The basket's rim is made of light-colored, woven material. A white rectangular box with a thin black border is centered over the middle of the image, containing the text "Currants & Gooseberries".

Currants & Gooseberries

Currants & Gooseberries

- both very hardy
- similar growth/planting requirements
 - likes cool, moist, rich sites (like forest edge) not hot/dry
 - good air circulation is helpful
- will bear fruit for many years, so pick a permanent location

Use

gooseberries - good for pies/preserves (and fresh eating)

currants - good for jellies (very tart)



Gooseberry Cultivars

American and European

American will grow better in our area

European has slightly larger and flavored berries but is more subject to disease and is not as well suited to our climate

American: pixwell (hardy, productive) downing (vigorous, productive, high quality)
poorman (largest fruit, less thorny, suggested for home use, good for fresh eating)

European: Fredonia, vigorous, productive, good berries

Currant Cultivars

Is not actually a host for white pine blister rust

RED:

Red lake (easy to pick, productive, late ripening, vigorous)

Wilder (mid-season, productive, good quality fruit)

BLACK:

Consort, Crandall, Crusader

planting

Spring or fall

space 4-5 ft apart

cut back bare root plants to 6-10 inches above ground

plant at level grown in nursery, tamp down soil, water well afterwards

pruning

during dormant season (late winter/early spring)

most fruit is on 2 or 3 yr old canes

remove weakest and oldest canes yearly

gooseberries - new canes are pale tan, 2 yr canes are gray,
and older canes are black



Serviceberries

what are serviceberries?

- native version of blueberries
- can be eaten fresh or used in jams, jellies, pies, preserves etc



Size!

- get up to 25 ft tall!
- there are cultivars that grow smaller but will compromise the native benefits of the berry



Serviceberries

- similar requirements (sunny, well-drained, high fertility in soil)
- self-fertile
- prune for size and open canopy

Problems

- birds (can utilize bird netting, fake berries, and humming wire)

Sourcing

We have a local berry nursery here: Indiana Berry