

Cornell Cooperative Extension

Start Your Own Vegetable Garden

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--Putnam County Master Gardener Volunteers--



Photo: Jen Lerner

Cornell Cooperative Extension | Putnam County

*Putting
knowledge to
work to improve
our community!*

- **The Environmental Horticulture & Natural Resources Program** focuses on an array of gardening, agricultural, and community health topics. Our current priority areas are **Climate Change** and **Food Systems**.
- **The 4-H Program** is a youth-development initiative with a range of clubs and activities for kids from age 5-19.

Follow us on IG/FB/Twitter @CCEPutnam

Gardening questions? Email Mastergardener.Putnam@gmail.com

We Can't Cover Everything . . .

Find Good evidence-based advice by searching your subject and adding site:edu to the end of your search string

Example:

growing pole beans site:edu



Presentation Overview

- Choosing what to plant
- Selecting a good garden site
- Garden bed preparation
- Growing in containers
- Taking care of your soil
- Planting
- Trellising
- Mulching
- Garden Maintenance



Photo: Jen Lerner

Take the Poll

1. How would you describe your vegetable gardening experience?

Beginner (no experience)

Intermediate (1-5 years)

Seasoned (5+ years)

2. Where do you plan to grow vegetables this year?

What and when to plant

Where and how to set up your garden

Vegetable Garden Planning

Important considerations

- What do you like to eat?
- How large is your family?
- How much time do you have to garden?
- Are you a perfectionist?



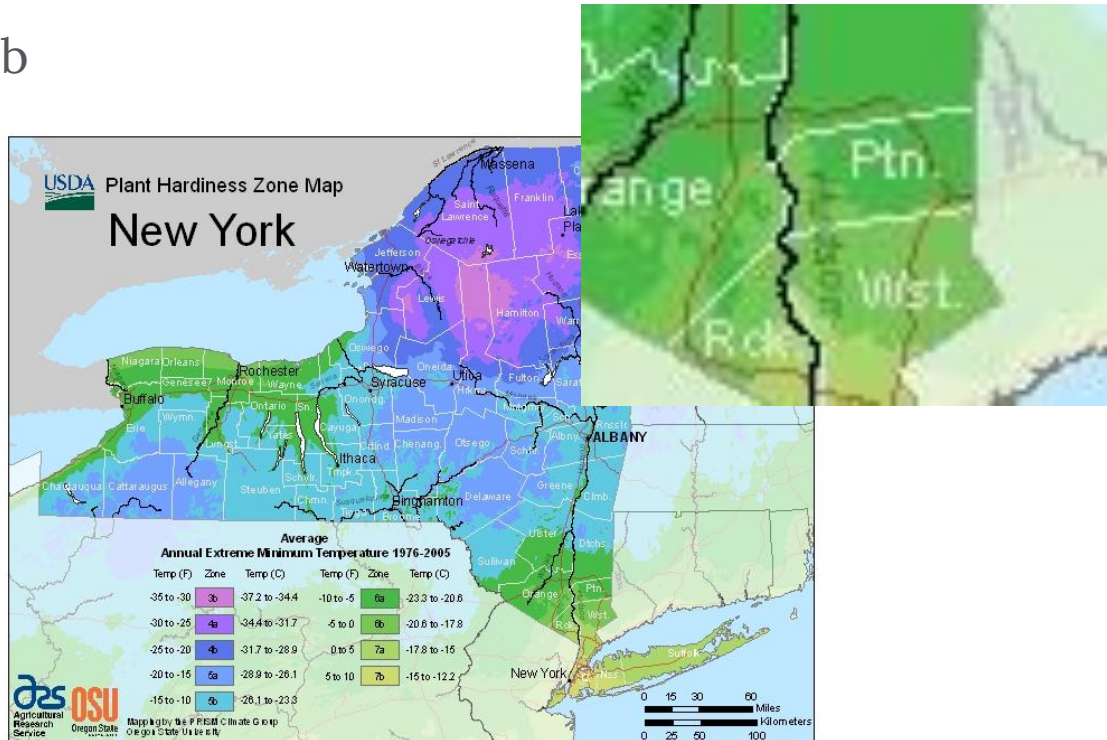
Photo: Jen Lerner

Growing Zones

USDA Hardiness Zone 6a and 6b

Important Dates:

- Last Frost: May 15th
- First Frost: October 20th



<https://planthardiness.ars.usda.gov/PHZMWeb/>

Growing Zones



Cool Season Vegetables: Early spring and Fall

- Leafy Greens
- Lettuce
- Mustard Greens
- Kale
- Spinach
- Radish
- Peas
- Swiss chard
- Any other favorites to share?



http://elevennews.byu.edu/wp-content/uploads/2013/02/Kopfsalat_Setzlinge-e1360782702733.jpg

Warm Season Vegetables: Summer

- Tomatoes
- Peppers
- Summer squash
- Edamame
- Eggplant
- Melons
- Any other favorites to share?



<http://blog.lib.umn.edu/wolfx450/myblog/peppers.jpg>

Garden Site Requirements

- 6+ hours sunlight
 - Some plants can grow in shade
- Well Drained soil (no standing water)
- Level site
- Convenience
- Protection from hungry neighbors
 - Deer and rodents



http://people.morehead-st.edu/fs/j.birriel/SUNDIAL/new_page_2.htm

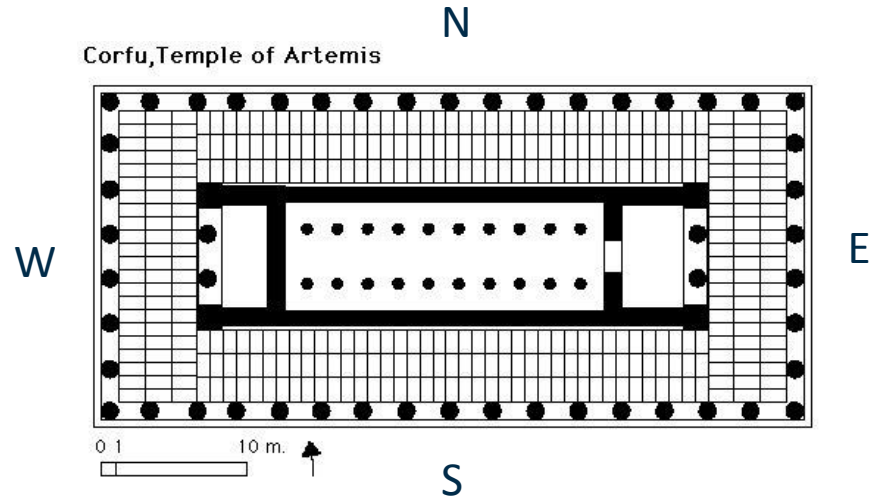
Avoid wet areas Or elevate beds



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Garden orientation

- Observe your site!!
- Generally select space on the south facing side of your property
 - East or west can also work well
- Orient rows east-west
 - Tall plants on north side



Garden orientation



<http://www.aces.edu/pubs/docs/A/ANR-1345/index2.tmpl>

Planting Maps

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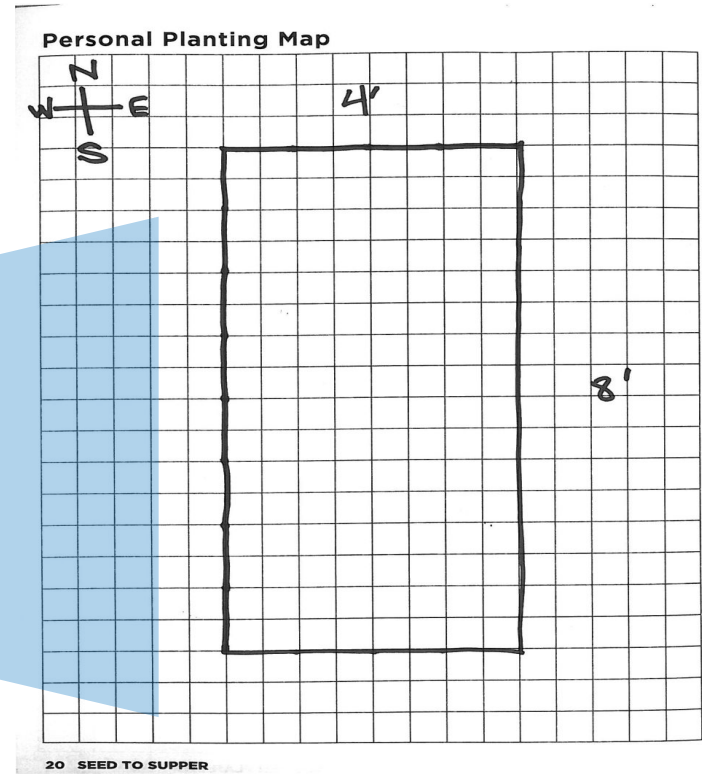
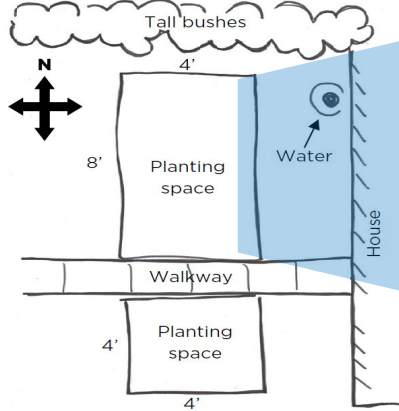
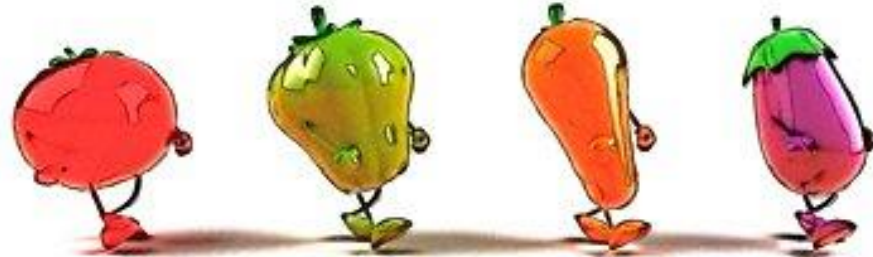


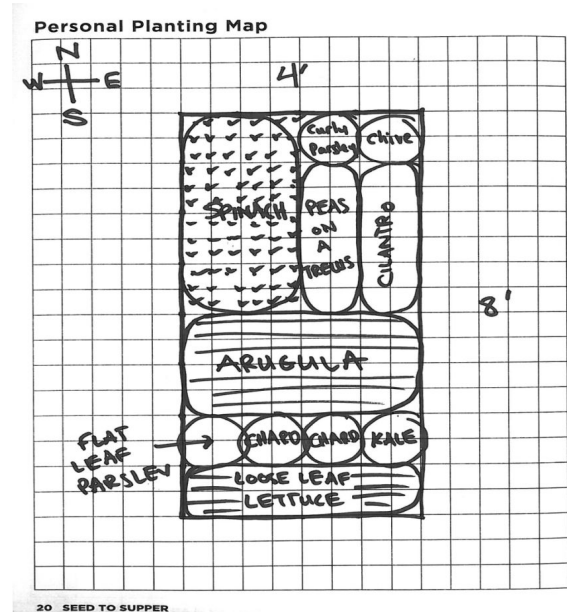
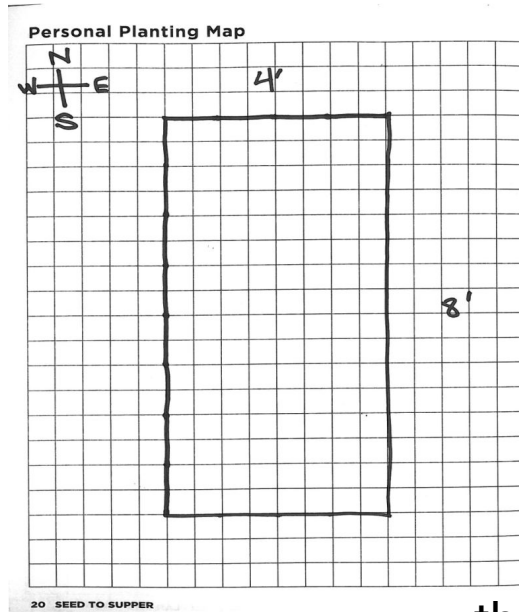
Photo via Seed to Supper program of Oregon Food Bank and Oregon Cooperative Extension

Vegetable Spacing

Plant Footprints!



As you design your map...



...think about plant spacing:

- The “footprint” of mature plants
- The height of mature plants

Make a Planting Map

Sketch your space

Make it to scale

Remember orientation
and plant spacing!

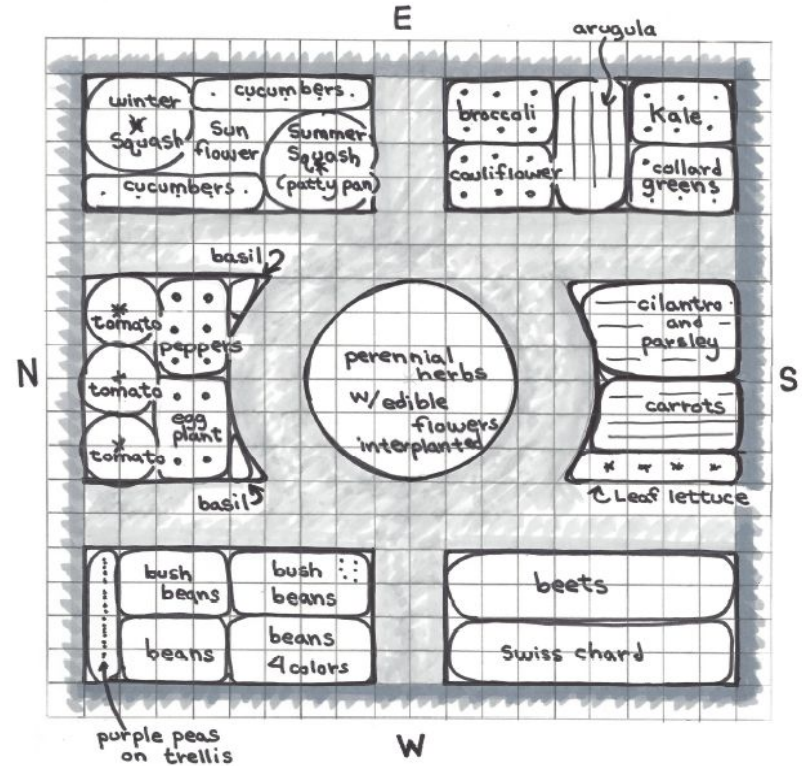


Photo via Seed to Supper program of Oregon Food Bank and Oregon Cooperative Extension

Raised bed vs. In-ground vegetable garden



<https://sites.aces.edu/group/backyardwisdom/Lists/Posts/Post.aspx?ID=108>

- Improves soil drainage
- Easier working height
- Reduces soil erosion



<http://biogas.ifas.ufl.edu/SCC/garden.jpg>

- Warmer soil temperature in spring
- Provides a structure for deer fencing

Raised bed materials

No walls

Wood *

Cement blocks

Hay bales

*Don't use pressure treated

Filling a Raised Bed (on a lawn)

- Cover area with cardboard, layers of newspaper, or a weed barrier fabric
- Fill the bed with a mixture of compost and topsoil at a ratio of between 1:1 and 1:2 (some garden centers sell a mixture of topsoil and compost)



Irrigation

Hose

Watering Can

Drip Irrigation or soaker hose

Sprinkler

Irrigation

In dry periods, we need to provide water **DEEPLY** and **INFREQUENTLY**.

Most plants need at least 1” of water per week. Use a rain gauge.

In general, water 2-3 times per week, in the morning.



[Photo from KOMUnews via Flickr](#)



Healthy Soil is Key to Healthy Plants



http://coolclimate.berkeley.edu/files/coolclimate/images/sponsor_logos/compost_bin.jpg

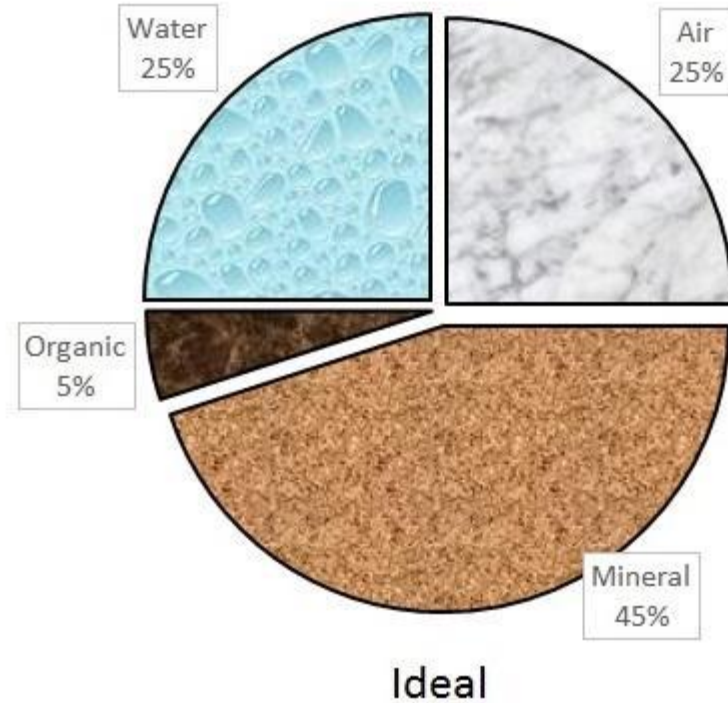
What is Soil

Air

Water

Organic matter

Pieces of minerals and rock



[Image via NC State Extension](#)

Symptoms of Poor Soil

Don't Treat Your Soil Like Dirt

- Dried and cracked
- Hard to dig
- Doesn't absorb water
- Poor drainage

NEVER work your soil when it is wet

Don't leave your soil bare(mulch, cover crop)

Don't step on your garden beds--it compresses the air out

Adding compost is almost always a good idea.



[Photo from UMaine Extension](#)

Adding Compost

Increases soil organic matter

Allows soil to hold moisture and nutrients better

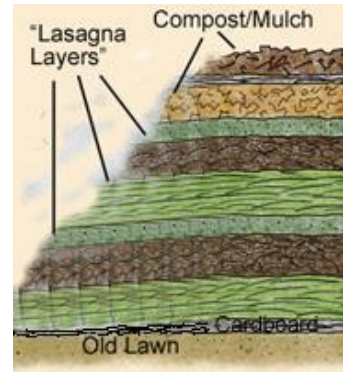
Attracts beneficial organisms

To learn more about to making your own compost, visit our website.

What to put in your compost pile	
Brown layers <i>(high in carbon)</i>	Green layers <i>(high in nitrogen)</i>
Dry leaves	Garden waste
Straw	Kitchen scraps
Sawdust	Coffee grounds
Torn paper bags	Grass clippings
Dry corn husks	Pet hair
Shredded newspaper	Composted manure
NO: Meat, dairy, bones, diseased plants, weeds, or poop from people or meat-eating animals like dogs or cats.	

Lasagna garden

- Remove weeds
- Layer cardboard
- Fill with greens and browns to compost
- Top off with finished compost or soil



<http://ucanr.edu/sites/scmg/files/30472display.jpg>

No Till/Low Till Gardening

Adding “lasagna layers” each fall will replenish soil and reduce weed pressure

Plant cover crops in the fall to add organic matter and suppress weeds. (Oats are a great low maintenance cover crop)

Tilling disrupts your soils’ delicate balance and just sets your garden back.

Containers vs. In-Ground

Similarities:

Many plants can be grown both ways

Growing Season

Sunlight Requirements

Differences:

Watering

Fertilizing

Soil Care



Container Types

Good containers

- Old recycling bins
- 5 gallon buckets
- Wine barrels
- Bag of potting soil with holes poked in the bottom.

Bad containers

- Tires
- Treated wood
- Buckets that contained chemicals, laundry soap, or cat litter
- See-through containers

Containers cont.

- More controllable environment
- Few to no weeds
- Moveable and re-arrangeable
- A garden you can stack and put away
- Keep out of reach of deer/other pests.
- Faster growth

Compact varieties are best for containers:

Look for words like “Patio”, “bush” or “dwarf”



Photo: Jen Lerner

Transplanting

- Harden off your starts 1-2 weeks before planting outdoors.
- Transplant when at least 2 sets of “true leaves” have grown.
- Wait until the recommended soil or air temperature has been reached before planting.

<https://www.johnnyseeds.com/growers-library/seed-planting-schedule-calculator.html>



Photo jalexartis Photography via Flickr

Planting Do's and Don'ts

- Press down: “Just right”
- Cardboard collars?
- Water-in transplants: always!
 - Not too wet
 - Not too dry
 - Water gently



Succession and Relay Planting

- Succession planting is done to maximize yields and to spread out your harvests.
- 1-3 weeks apart
- Know the days to maturity(DTM) of the vegetable to determine when your 1st and last succession should be.

Some veggies for successions:

1-week Intervals

- radish
- spinach
- baby greens

2-week Intervals

- beans
- beets
- peas
- arugula

3-week Intervals

- carrots
- cucumbers
- summer squash

Succession and Relay Planting

Relay planting or intercropping:
following 1 crop with another or
seeding 1 crop into another.

Follow a spring vegetable with a
summer one or summer with a fall.
Example: radishes or leafy vegetables
can make way for tomatoes or squash.

Intercrop a vegetable into the
understory of another or undersow a
cover crop into a crop past its prime.





Photo: [Nick Saltmarsh via Flickr](#)

Trellising: Vert. Gardening

Materials: Tomato cages, bamboo, branches, fencing, netting, metal wire, stakes, rope/string

Designs: Be creative- use what you have available

Consider weight and plant size: tomatoes, peas, beans, cukes, melons, squash- use supports for heavier vegetables



Trellising Examples

Peas on fencing/ Tomato Ladders





Additional Trellising Examples:

Use branches for TeePee Trellis for Beans;

Use metal hoops (or other structures) between raised beds \ wood frame with string

Mulching

Retains moisture

Moderates temperature

Reduces: weed competition, erosion,
disease

Improves soil tilth: can till in after season

Use: wood chips, shredded straw\leaves,
black plastic, bark, dry grass clippings,
cardboard, bagged mulch, landscape
fabric



Photo: Tired Husband by Jen Lerner



Mulch Examples: shredded straw & wood chips

Throughout the season...

- **Weeding:** best when soil is moist; use proper tools- stay on top of it!
- **Watering:** shallow vs. deep rooted; best in morning; attention to seeds\seedlings. Target plants
- Weekly Scouting for **Pests:**
- **Fertilizing:** nitrogen for greens; phosphorus for fruiting veggies



<http://www.ford.ksu.edu/p.aspx?tabid=153>

Throughout the season...

Pollination

- Wind pollination (some)
 - Insect pollination (many)
 - Putnam Pollinator Pathway
 - *Make the Pledge*
 - Pollinator Paradise Program
- Join Us: May 2nd & 9th



Squash bee gathering nectar from cucumber flower
Photo: Jen Lerner



Photo: [Nick Saltmarsh via Flickr](#)

Summary

- Set garden goals that work the best for you!
- Keep the sun, water, and soil in mind!
- Select crops that your family loves to eat and that are in season!
- Mulch, weed, and water!
- Have fun and keep learning!



Photo: Jen Lerner

Additional Resources:

- gardening.cals.cornell.edu
- putnam.cce.cornell.edu/gardening/food-gardening
- [Beginning a vegetable garden PDF](#)



Thank You!

Enjoy your time in the garden and stay in touch
mastergardener.putnam@gmail.com

Plant Sale

Order Online by
May 9th

putnam.cce.cornell.edu



*Brought to you by
the Master Gardener
Volunteers*

- Native and pollinator friendly plants
- Organic tomatoes and vegetables
- Aromatic and culinary herbs