

Starting Your Vegetable Garden

What to grow

- Favorites of the family
- Valuable crops (herbs)
- Short season crops (40-50 day crop vs. 85 day crop)

Space needs

- A sunny location (8+ hrs of sun) is crucial to plants that form fruit (tomato, cucumber, squash, eggplant, peppers, melon); many leafy vegetables (lettuce, spinach, etc) need less sun
- Choose a high spot – cold air settles in low spots and shorten the productive season; low spots also tend to have drainage problem
- Start small: 2'x2'x1' deep container to 10'x10'+ plots
- A 30'x30' garden will yield enough fresh produce for a family of 4
- Intensive culture requires expert care but little space: bush bean (6"x6"), beet (4"x4"), carrot (2"x2"), chard (9"x9"), lettuce (6"x6"), onion (3"x3"), pea (2"x2"), radish (1"x1"), spinach (4"x4"), tomato (24"x24")

Time needs

- Most vegetables are annual crops, so demand much attention during the growing season
- Begin small: it's wise to allow time for proper care of a productive, smaller garden
- How much time do I need: OSU researcher estimates that a 10'x10' garden requires 40 minutes per week for planting and cultivation, plus an additional 30 minutes for each watering session.

Ideal calendar

- Fall – soil test, soil amendment
- Winter – plan, order seeds
- Spring to fall – sow, fertilize, water, weed, and harvest

Soil preparation

- Test for pH and nutrients; Clackamas County Master Gardeners do free pH test
- Add dolomite lime (magnesium and calcium) to balance acid soil
- Add 2" of compost to improve soil structure and long-term source of nitrogen
- Add fertilizer – annual crops need extra help to grow well
- Work the ground only when soil moisture is ideal; wait if you can squeeze water out of a handful of soil
- In containers – use potting mix, not garden soil

Planting

- Check soil and air temperature before planting; a soil thermometer comes in handy
- Soil temperature is crucial to germination; minimum required (°F) for some favorites are: Pea (35), onion (35), carrot (40), bean (50), eggplant/pepper/tomato (55), basil (60)
- Air temperature is crucial to good plant growth, optimum (°F) for some favorites are: Pea (50-60), tomato (60-80 day, 59-68 night), pepper (70-80), cucumber (75-80)
- Sow seeds directly for short season crops such as: Salad mix (21 days), chard (30-55 days), peas (62 days)
- Sow indoors or purchase starts for long season crops
- If purchasing starts, select healthy plants firmly established in pot but without encircling roots

- Transplant after soaking roots in water to rid any air bubbles; take care not to damage roots in transplanting and water thoroughly after transplanting
- Make raised beds by mounding soil to improve drainage and raise soil temperature in root zone

Fertilizing

- Know your N-P-K by learning to read fertilizer labels
- Leafy greens need more nitrogen (N), fruits such as tomatoes need more phosphorus (P), and roots such as potatoes need more potassium (K)
- Plants use only nutrients that are dissolved in soil water; most nutrients in soil are not soluble
- Apply fertilizer at the right time: Chemical fertilizers dissolve quickly and are immediately available to plants; Organic fertilizers need to break down before becoming available to plants, work them into soil a few months before planting
- Organic fertilizers – Nitrogen: fish emulsion (3-5%), composted chicken manure (3%), blood meal (12-15%); Phosphorus: bone meal (12-24%); Potassium: kelp meal (2-5%)
- Fertilize according to needs: Heavy feeders – beet, collard, kale, lettuce, parsley, spinach, tomato; Light feeders – carrot, garlic, onion, chard, mustard, pepper
- Do not fertilize soil builders – bean, pea, soybean, clover

Watering

- Water to keep the root zone evenly moist; dig down 6-8" after watering to check soil moisture
- Drip system delivers water to the roots to minimize loss to evaporation
- Overhead watering dampens leaves and can foster disease
- The most critical stage for watering vary by plants: Beans/peas – during flowering and pod development; Broccoli/cabbage – during head formation and enlargement; Eggplants/peppers/tomatoes – from blossom set to fruit enlargement; Lettuce and other leafy vegetables – from germination to harvest; Onion – during bulb formation

OSU Extension Service resources

Visit your OSU Extension Service office at 200 Warner-Milne Road, Oregon City, for these publications, or get them online at <http://extension.oregonstate.edu/catalog/html/ec>

Grow your own lettuce, spinach, and Swiss chard EC 1268

Grow your own beets, carrots, radishes, onions, and similar crops EC 1231

Grow your own peppers EC 1227

Grow your own cucumbers EC 1226

Grow your own tomatoes EC 1333

Grow your own vegetable sprouts EC 1358

Planning and preparing your vegetable garden site EC 1228

Raised bed gardening FS 270

Gardening with composts, mulches, and row covers EC 1247

For Master Gardener advice

- Call Home Horticulture Helpline: 503-655-8631 (Clackamas Co), 503-725-2300 (Washington Co), 503-445-4608 (Multnomah County)
- Visit Clackamas Chapter Master Gardeners website www.clackamascountymastergardeners.org for 10-Minute University™ handouts and schedule
- Look for Master Gardeners at area Farmer's Market