Let's Plant a Vegetable Garden!

By

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Why do people grow their own vegetables?

- Flavor, freshness, pesticide-free
- Save money; learn new skills
- Health benefits
  - Exercise, nutrition
- Connection to nature and family traditions
- Introduce youth to gardening

Planning is the key to success!

Ask yourself…

What do I want to grow?

- **Tomato -** productive and popular
- **Pepper -** slow-growing but worth the wait
- **Cucumber -** make them climb to save space
- **Summer squash (zucchini) -** feed the neighborhood!
- **Bush bean -** plant them twice for rolling harvest
- **Lettuce-** grow best March-June and Sept.-Nov.
- **Leafy greens -** kale, spinach, Asian greens, and Swiss chard

Where do I want to grow it?

- In-ground
- Containers
- Edible landscape
- Combination of all three??

How much time do I want to spend on it?

- Every garden takes work, but you can get great results with just a little effort

- One container:

  few minutes/day

Or, the other extreme…

15’x25’ main garden +

15’x3’ edible landscape plus…

…10 containers + fruit bushes and trees = 30 minutes/day maintenance plus…

…all Sunday afternoon to cook, process, dry, and freeze the harvest from the week!

In short…

- Consider available space, time, mouths to feed, and motivation
  - ***Always best to start small!***

- Good planning will save you time, work, and $

Here we go!!!

12 Simple Steps - Follow the 4 Ps

Plan

1. Type of garden
2. Size and costs
3. Location

Prepare

4. Soil testing
5. Soil prep
6. Soil improving

Plant

7. Seeds vs. Transplants
8. How to plant seeds
9. Using transplants

Produce

10. Feed and water
11. Weeds & Disease
12. Harvest!

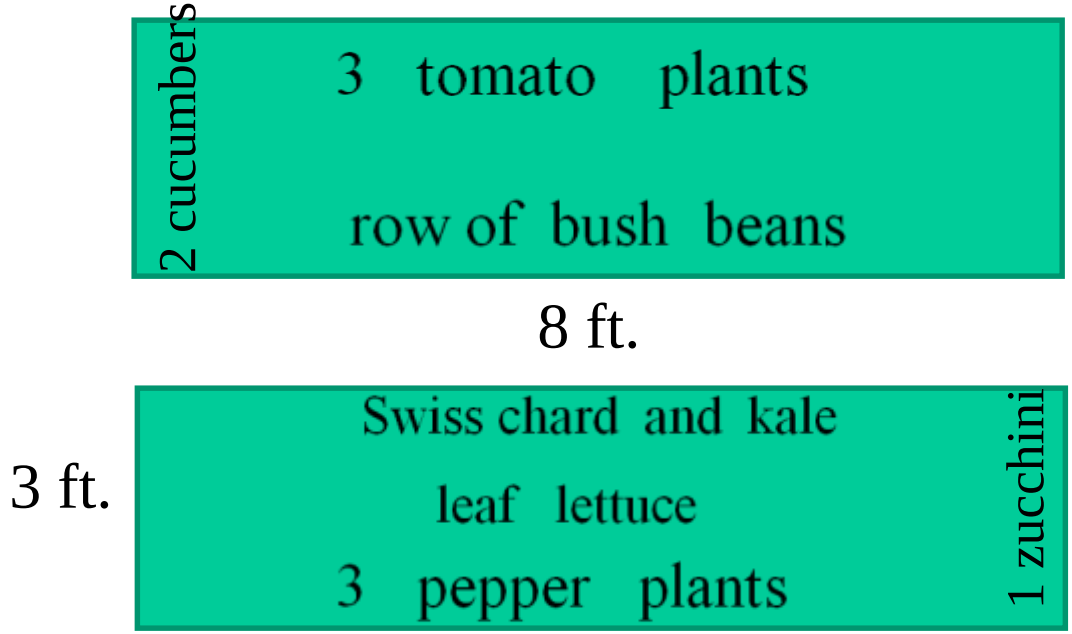
1. What type of vegetable garden?

- In-ground - convert turfgrass to vegetables
- Containers - on back step, deck, balcony or along driveway, etc…
- Edible landscape - pepper, cabbage, Swiss chard, etc. mixed into ornamental beds
- Combination of all three??

- Another option: rent a plot in a community garden

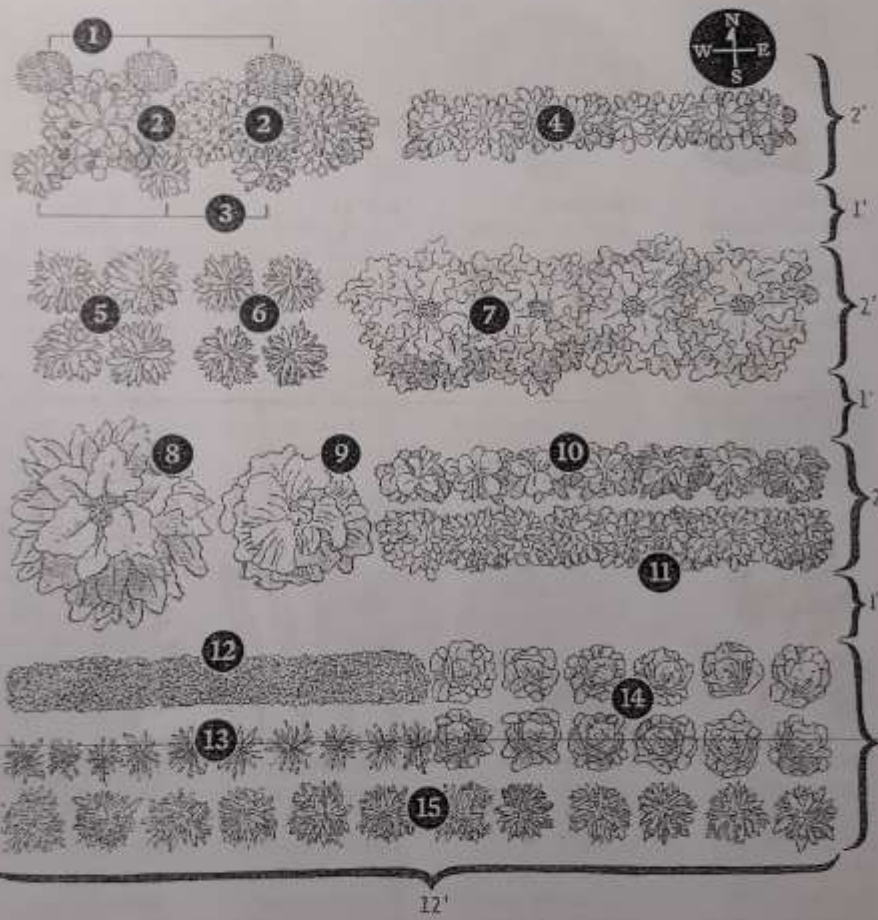
2. Size and cost

- Only buy what you really need; be resourceful
  - Many opportunities for giving recyclable materials a new life
- Two 8 ft. x 3 ft. raised beds with 48 sq. ft. of growing space can produce $175-300 of fresh produce and cost about $120 to build (without tools).



Your Starter Garden

Here is the plot as it might appear two months after spring planting. The key below mentions late crops such as lettuce and kale that you can plant in summer for a second harvest.



1. PARSLEY
2. TOMATOES
3. BASIL
4. POLE BEANS
5. SWEET PEPPERS
6. HOT PEPPERS
7. BROCCOLI, THEN LETTUCE
8. SUMMER SQUASH
9. CUCUMBERS OR SUGAR SNAP PEAS
10. SWISS CHARD
11. BEETS
12. EARLY CARROTS, THEN KALE
13. SCALLIONS, THEN KALE
14. LETTUCE, THEN FALL CARROTS
15. ALPINE STRAWBERRIES

3. Location

- Level ground; close to water source.
- Southern exposure; tallest plants on north side; at least 6-8 hrs. of direct sun.
- Protection from critters.

Critter protection

4. Testing the soil

- Well-drained; 6” of top soil preferred
- Friable - deep, crumbly; allows for maximum root growth.
- Test your soil; 6.0-6.8 is preferred range for soil pH.
  - *Sampling Lawn and Garden Soils for Analysis, A2166*
    - https://uwlab.soils.wisc.edu
  - Take a sample and send to soil testing laboratory
  - Amend soil as necessary
  - pH too low: add garden lime
  - pH too high: add sulfur
  - Urban/suburban soils are often low quality soils

5. Preparing the soil

Kill sod and control weeds-

- Dig up the area by hand or with a tiller OR
- Cover area with newspaper or cardboard, and cover with leaves, and compost

Sheet compost your way to a vegetable garden

- Start in fall for spring planting

- If start later, layer with newspaper instead of cardboard for faster breakdown of materials

Raised beds—4 ft wide or less!

Some advantages…

- Warm up quickly in spring.
- Drain well; less compaction and erosion.
- Increase available rooting area.
- Can produce greater yields per square foot.

and some disadvantages…

- Up-front labor and expense
  - Use top soil for best results
- Dry out quickly if weather is hot and dry.

Container Gardening (A3382)

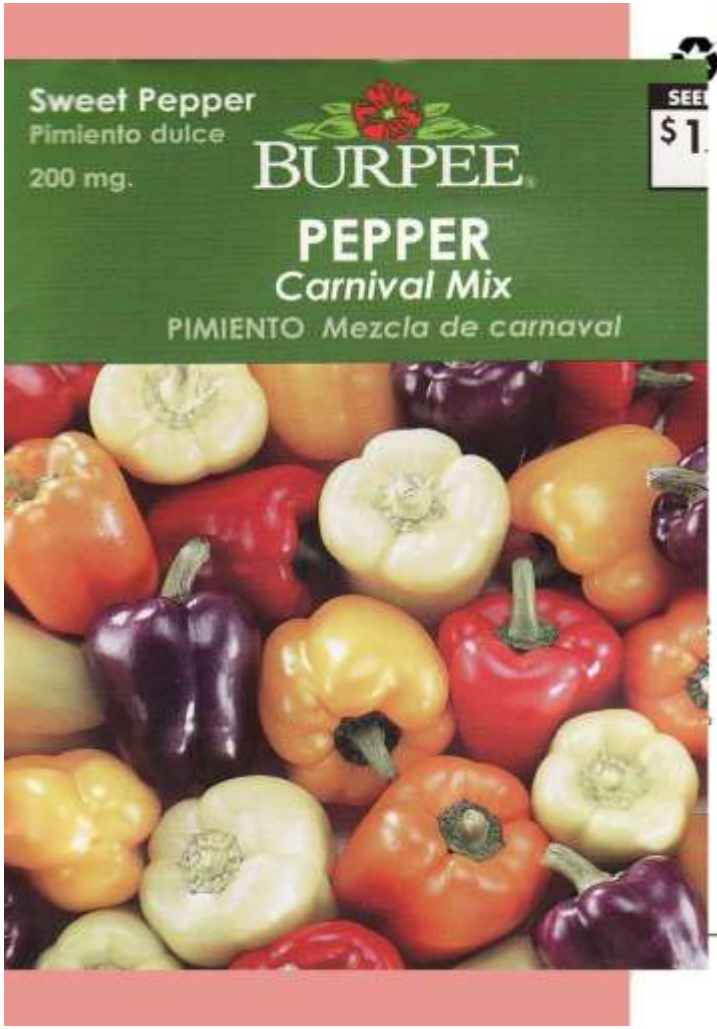
- Use just about anything that can hold soil
- Needs drainage holes
- Do NOT fill with garden soil
  - Too heavy and compact – not enough drainage
  - Use: commercial potting soils, soil-less mixes
- Plant crop in appropriate size container, e.g:
  - Tomatoes, broccoli require 4-5 gallon
  - Peppers, cucumbers, onions require 1-3 gallon
- Place in sunny location
- Water frequently
- Fertilize if potting soil isn't self-feeding

6. Improving the soil with organic matter

- Regular additions of organic matter will improve soil structure and create a reservoir of slow-release nutrients.
- Sources: manure, compost, shredded leaves, grass clippings, organic mulches, plant roots, cover crops, buried kitchen scraps.
- Large amounts of organic matter may be needed for several years.
  - Thereafter, 1 in. of compost will help maintain high yields

7. Seeds vs. Transplants?

- Seeds
  - Pros: cost-effective, more variety
    - 1 pack of seeds for $2 may last 2-3 years
  - Cons: more work, take longer to produce, greater risk of failure
    - If starting seeds indoors, 2 weeks (lettuce) to 8 weeks (eggplant) from seeding to transplant outside
- Transplants
  - Pros: less work, ready to plant when you are
  - Cons: more expensive, origin may be unknown, limited variety to buy
    - Some mail-order companies will mail transplants



Pepper *Carnival Mix*
Pimiento *Mezcla de carnaval*

Colorful blend of five delicious bell-shaped varieties. Includes 20% each of: Big Red, Chardonnay, Purple Beauty, Orange Sun and Diamond.

START INDOORS in a warm, well-lighted area about 8 weeks before planting outdoors. Sow seed ¼" deep into individual containers filled with seed-starting formula. Keep moist. Seedlings emerge in 10-21 days at 75-80°F. Before transplanting, move to a sheltered area outside for a week.

Colorida combinación de cinco deliciosas variedades con forma de campana. Incluye 20% de cada una de las siguientes: gran rojo, chardonnay, belleza púrpura, sol naranja y diamante.

COMIENCE a sembrar las semillas en interiores en un área cálida y bien iluminada, aproximadamente ocho semanas antes de plantar en exteriores. Siembre las semillas a una profundidad de ½ cm en envases individuales con la fórmula para germinación de semillas. Mantenga la humedad. Las plántulas aparecerán a los 10 a 21 días a 23 a 26 °C. Antes de trasplantarlas, páselas a un área protegida al aire libre durante una semana.

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PACKED FOR 2008 SELL BY 11/08
ORIGIN USA LOT 1

8. How to plant seeds

- Rake the soil smooth.
- Make a shallow furrow to plant a single row. Or sprinkle seeds over a wide row or bed (broadcasting).
  - Don’t plant too deep! Follow package directions
  - Plant seeds at the recommended spacing, thin as needed
  - Mounds: with a hoe create a small hill ~18” diameter, plant 4-5 seeds on top and thin to 2-3 plants when established
    - Zucchini, cucumbers, melons do well this way
- Tamp down lightly for good seed to soil contact
- Water in, and keep soil moist (but not soggy)

9. Using transplants

- ‘Harden off’ before planting outdoors
- Transplants fill the space quickly; no need to thin.
  - Don’t plant too close!
- Fertilize after planting; water every day for 1st week or so.
- When to use transplants: tomato, pepper, eggplant, cabbage, broccoli, herbs.
  - You can also grow or buy melon, squash, kale, lettuce, and other veggie transplants, but these are all relatively easy to start from seed

Spacing issues

Correct spacing for big onions

Don’t crowd! More plants will not necessarily improve yield (may reduce quality).

Okra plants are too tight

Stake/support

Grow vining crops up to save space (easier to pick, too!)

Peppers & tomatoes need support for heavy fruiting

10. Feed and water

- Use garden fertilizers according to label directions.
  - Organic and chemical fertilizers that are over-applied can burn plant leaves and roots, reduce fruiting, invite insect pests, and pollute waterways.
- Water the roots, not the leaves. Keep the root zone of your garden moist.
  - Preferable to water in early morning
- Use drip irrigation or a soaker hose to save time and water.
- Most vegetables need 1” water/week

Fertilizing tips

- Nitrogen is nutrient most often in short supply. Use one of the “meals” (kelp, fish, cottonseed, alfalfa) to supplement N from organic matter.
- Follow label directions.
- Any fertilizer can be over-applied and burn plants or stimulate excessive leaf growth at the expense of fruit.
- Add 1 inch of compost each year to contribute to long-term nutrient reservoir.

11. Weed & Disease Management

- Weeds are plants that thrive in disturbed soil.
  - Best control methods:
    - Manual: hand-pull, sharp hoe; don't hurt the good plants!
    - Mulch: grass clippings, newspaper covered with straw, shredded leaves, compost
    - Cover crop: dense planting of crops shades out weeds
  - Use weed preventers and herbicides with caution.
- Disease/pest control
  - Know what insect or disease you have!
  - Not all pests are bad; use non-chemical control methods
    - (hand-removal, insecticidal soap, Neem oil)

Synthetic mulches

- Black plastic mulch warms the soil for earlier, higher yields of warm-season crops.
- Red plastic mulch may produce higher yields of tomato than black plastic.
- Landscape fabric warms soil and allows water and air into soil. Can be re-used.

Keep the harvest coming with succession planting

- Requires planning
- Transplants fill the space quickly
- Special attention to water and nutrient needs
- Floating row cover for protection from pests and excessive heat

12. Harvest!

Besides enjoying your vegetables fresh (and sharing them with your neighbors and local food pantries), there are many ways to preserve your harvest to enjoy year round.

Canning

Drying

Freezing

Or all three!

Schedule (when to do what!)

- **January/February**: get seed catalogs, plan your garden
- **March/early April**: prepare soil – cultivate, mix in organic matter, start cool season seedlings indoors
- **Late March/April**: plant cool-weather crops outdoors, start tomato or peppers indoors, mulch
- **May:** plant warm-weather seeds outdoors by Mother's Day; plant tomato and pepper transplants outdoors by Memorial Day, mulch
- **June/July/August**: nurture, water, fertilize, harvest!
- **August**: plant cool-weather crops for fall harvest, preserve your vegetables for winter enjoyment
- **Fall**: start sheet composting over turf for new garden next year, clean up existing beds, mulch for the winter

Resources

- **The Learning Store: https://learningstore.extension.wisc.edu/**
- **Plant Disease Diagnostic Clinic: https://pddc.wisc.edu/**
- **UW Insect Diagnostic Lab:**
- **https://insectlab.russell.wisc.edu/**
- **Your local Extension office: https://columbia.extension.wisc.edu/**

Thank you—let's garden!