# Introduction to Gardening

How to Garden in California Schools



#### 40 Years of Service





#### Who are the Master Gardeners?







- 6,154 current volunteers in California
- → 350 active members in SD County
- **■** 450,000 hours donated in 2022
- Trained by University of California Cooperative Education
- Supported by County Extension Offices
- → 70+ MGs serving 300+ SD schools







# How to Grow Vegetables

Plant, Grow, Eat, Compost, Repeat





## Basic Needs of a Garden

- 1. The Right Plant in the Right Place
- 2. Container or Bed
- 3. Nutritious Soil (Amended)
- 4. Sunlight
- 5. Water



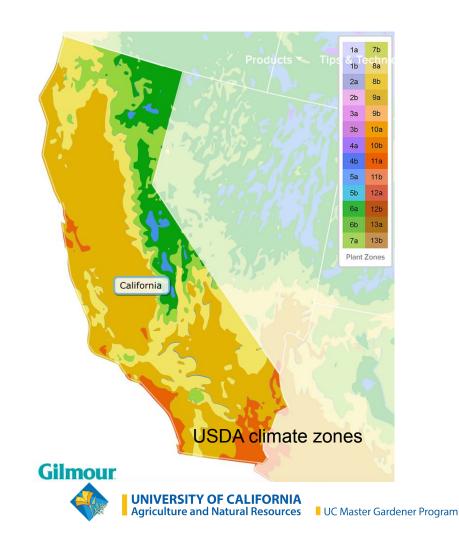






# California Climate Zones

- 13 zones mean a wide range of growing conditions
- Subzones within zones



# Two Planting Seasons for Most Areas

Warm: Plant March - Summer







Cool: Plant Oct - Feb



























#### Warm Season Plants

Grown from Spring through Summer

#### For example:

- Beans
- Eggplant
- Melons
- Peppers
- Tomatoes

You eat the reproductive, seed bearing parts









### **Cool Season Plants**

Grown in late summer through February or March

#### For example:

- Beets
- Broccoli
- Cabbage
- Cauliflower
- Celery
- Lettuce
- Peas

You eat the vegetative parts











## **Container Ideas**

- Half wine barrel
- Grow bag
- Large pot (5 gallon)
- Bigger container the better
- Drainage holes required









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## Soil



Amended soil is dark, earthy and pliable



Clay



Sandy



Rocky





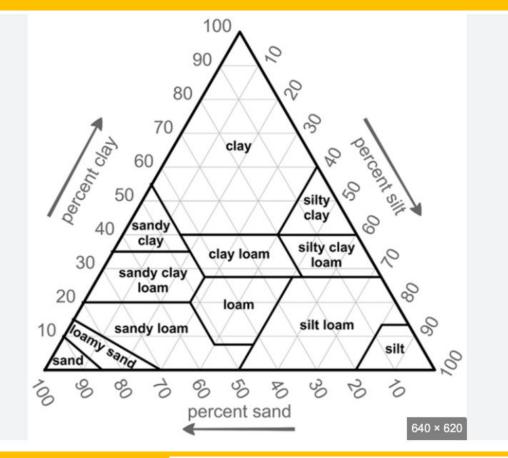


# Soil Triangle

To Assess your Soil

A Soil Jar Test Ribbon Test





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### **Amendments**



- Soil amendment: 20%
  - Amendment could include compost, worm castings, fertilizer and composted chicken manure. I recommend a mix of all ingredients
- Potting soil (bagged or by the cubic yard): 80%



- Mix well and fill soil to top of container
- Water well before planting
- Plan to amend soil annually







# Sunlight

• Edibles need 6-8 hours of direct sun to grow fruit









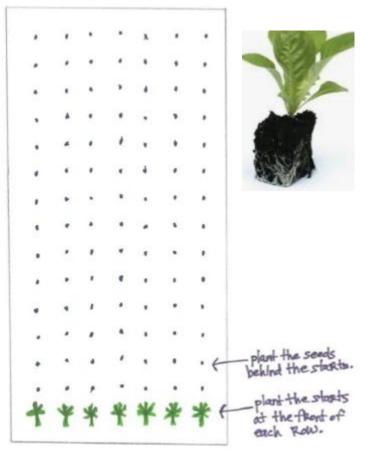






### How to Plant

- Moisten the soil before planting
- To extend the harvest, plant a plant and sow the same seed behind it
- Starts are 1-2 months older than seeds
- Sow seeds 4x deep its width, pat down
- Do NOT let seeds dry out = certain death
- Cover seeds with burlap to aid germination
- Thin seeds when 1-2 inches tall to give them room to grow



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# Water & Irrigation



Veggies aren't drought tolerant!

Keep root ball moist but not too wet; Water deeply

Inline drip irrigation provides reliable irrigation and is most successful

Avoid wetting the leaves

Water in the morning







# **Inline Irrigation**

1/4 inch tubes emit water every 6 inches



Inline drip irrigation provides reliable irrigation and is most successful



It wets the soil, not the leaves which abates disease

Use with a battery operated controller









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# Raised Bed Irrigation

Vegetables thrive when given a consistent, reliable source of water.

In a sunny raised beds during growing season:

Sown seeds likely need watering twice daily Young plants daily

Most established vegetables every other day Turn off irrigation in the rain

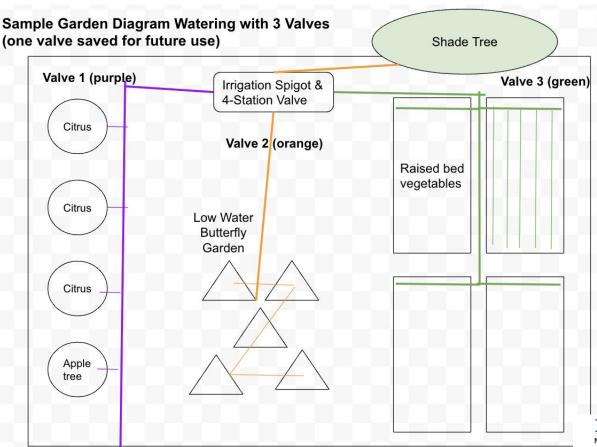
Don't water empty beds







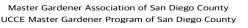




# Irrigation Beyond Raised Beds

Group similarly watered plants on the same irrigation zone operated by a multi zone controller

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# Watch your Plants Grow.

- As plants grow bigger, water deeper and less frequently, water when top inch is dry
- Vines need supports
- Mulch veggies with straw
- Harvest regularly







### Don't Hesitate to Harvest

It is important to harvest frequently to keep the plant

producing

 When fruit is present it is a race between you and the

critters













## **Dealing with Wildlife**

IPM (Integrated Pest Mgmt.) recommends:

hand removal

exclusion





#### **Composting Closes the Loop**

Whether you use a worm bin, a commercial compost bin, or a deluxe composting system, you'll reduce garden waste and make your soil more productive.



#### A Final Tip: Everything you need to know is right here

Seed packets can teach you how to garden. It's all on the label.



