

Caring For Your Garden

Unity
Gardens



KeyBank 

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Purdue Master Gardener

Unity Gardens Manager

Weed Control


Watering

Harvesting

Plant Care

Fall Planting



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- An aerial photograph of a garden. In the foreground, there is a wooden trellis structure on the left and a small red shed in the center. The garden is filled with various green plants and trees. In the background, there are residential houses and a road. The image is partially obscured by a white circular graphic on the left side.
- # 1 Walk Your Garden
 - # 2 Keep it Clean
 - # 3 Know What Goes In Your Garden

Soil Amendments

- A good rule of thumb is to only fertilize lightly after 4th of July - Especially tomatoes
- Soil test the garden the area to check pH level
- Incorporate 4 to 6" of organic material into soil; Manure , Leaves etc...



Broadcast

- Scatter the material uniformly over the surface.



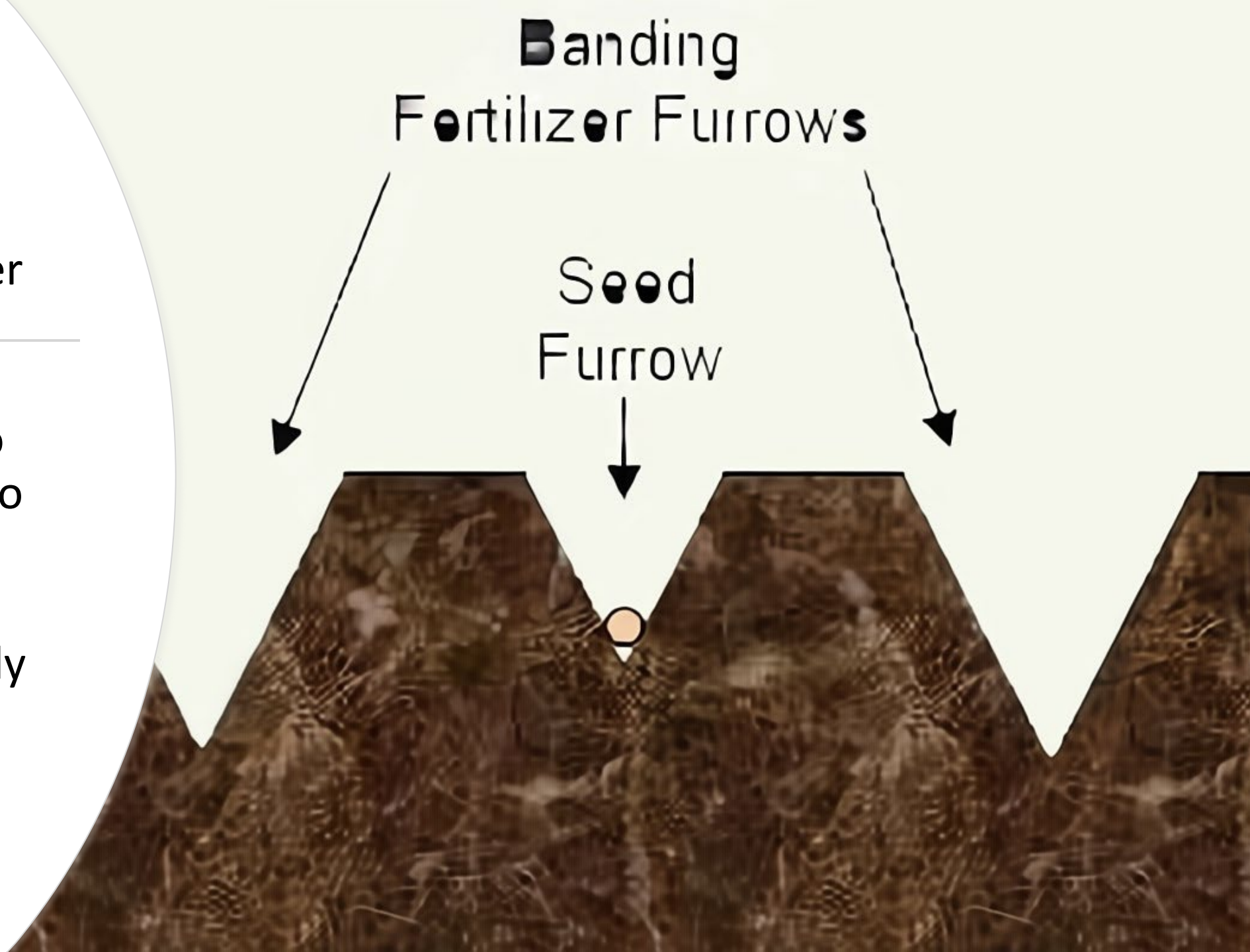
Banding Fertilizer Furrows

- **Band**

1. Place the fertilizer in a trench about 3 inches deep.

2. Sow seeds 1.5 to 2 inches above and to the side of the fertilizer.

3. Plant roots quickly absorb the nutrients and grow rapidly.



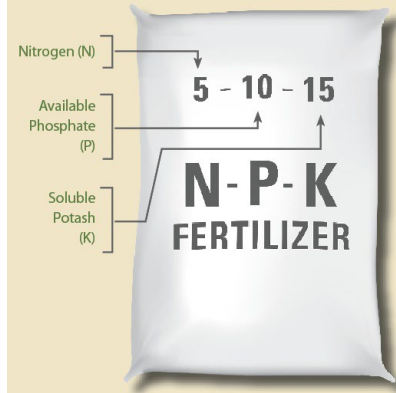
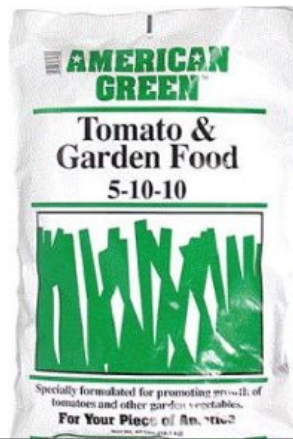
Side dress

- Scatter the fertilizer alongside plants.
- Keep fertilizer granules off leaves to prevent burning.
- Lightly scratch into soil.
- Apply irrigation before and after so the plants can absorb the nutrients.



Hose End Sprayer





Fertilize

- Early you can use starter fertilizer like a 5-10-10
- Basic 10-10-10 or 12-12-12 can be used also





- **Nitrogen** helps plants make the proteins to produce new tissues.
- In nature, nitrogen is often in short supply, so plants have evolved to take up as much nitrogen as possible, even if it means not taking up other necessary elements.
- If too much nitrogen is available, the plant may grow abundant foliage but not produce fruit or flowers. Growth may be stunted because the plant isn't absorbing enough of the other elements it needs.



Phosphorus stimulates root growth, helps the plant set buds and flowers, improves vitality and increases seed size. To absorb phosphorus, most plants require a soil pH of 6.5 to 6.8. Organic matter and the activity of soil organisms also increase the availability of phosphorus.

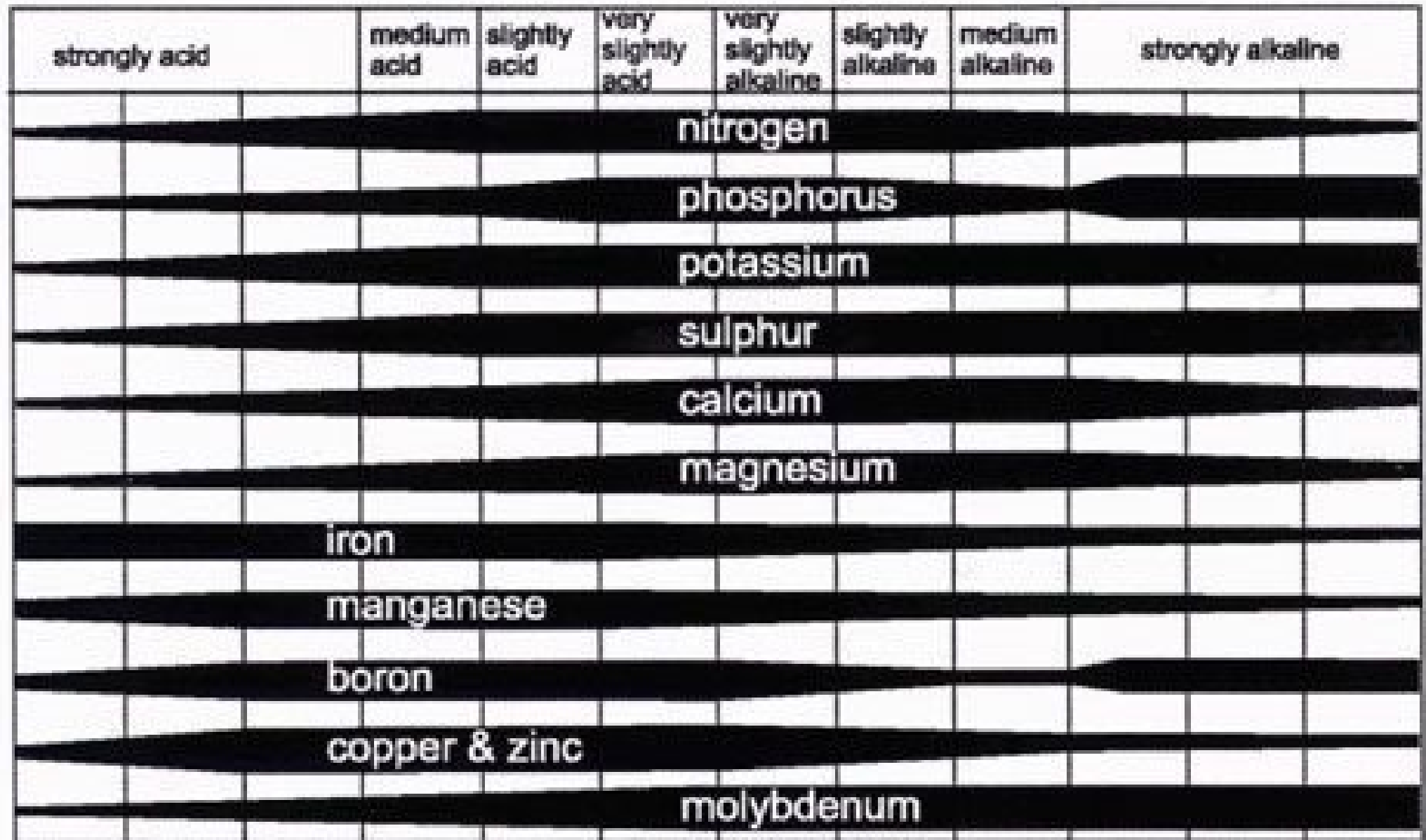
Potassium improves overall vigor of the plant. It helps the plants make carbohydrates and provides disease resistance. It also helps regulate metabolic activities.



Other Nutrients

- There are 7 essential plant nutrient elements defined as micronutrients: *boron (B), zinc (Zn), manganese (Mn), iron (Fe), copper (Cu), molybdenum (Mo), chlorine (Cl)*. They constitute in total less than 1% of the dry weight of most plants.





4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0 9.5 10.0

The Simple Difference Between Organic Fertilizer and Not Organic

- **Organic fertilizers** contain only plant- or animal-based materials that are either a byproduct or end product of naturally occurring processes, such as manures, leaves, and compost.
- Organic fertilizers work over time to create a healthy growing environment.
- **Inorganic fertilizer**, also referred to as synthetic **fertilizer**, is manufactured artificially and contains minerals or synthetic chemicals.

Both Provide Needed Nutrients

- Non-organic fertilizers are immediately available to your plants, but they are subject to leaching, a process that occurs when fertilizers are washed by rain or irrigation water.
- Heavy applications can burn your plants and build up toxic salt concentrations in the soil, which can create chemical imbalances.
- Organic fertilizer may also build up concentrations of some nutrients, but buildup of toxicity is unlikely as long as the organic material is able to fully decompose. In addition, because organic fertilizers are made from natural sources, limited amounts of fossil fuels are used in production.



Fish Emulsion
Worm Compost
Can be used
anytime
It's a soil great
activator

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MONSTER WEEDS™

Written by
Michael Stang



Illustrated by
Betty Wick

Weeds

- Weeds are any undesirable plant
- Weeds rob nutrients from the soil
- Weeds harbor pests
- Weeds can take over your garden quickly

Mulch for Weed Control

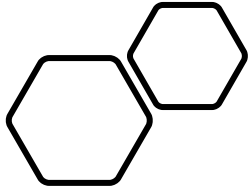
- Start early & keep weeds down
- Keeps ground cool
- Holds in moisture
- Keep Mulch 2" from stem of plant
- let ground warm before mulching around tomatoes



Grass Clippings

- 2 to 3 layers of newspaper
- One layer cardboard
- Poke holes in cardboard
- 2" to 4" of grass clippings
- Know where your clippings come from
- Re-apply after 2 to 3 weeks



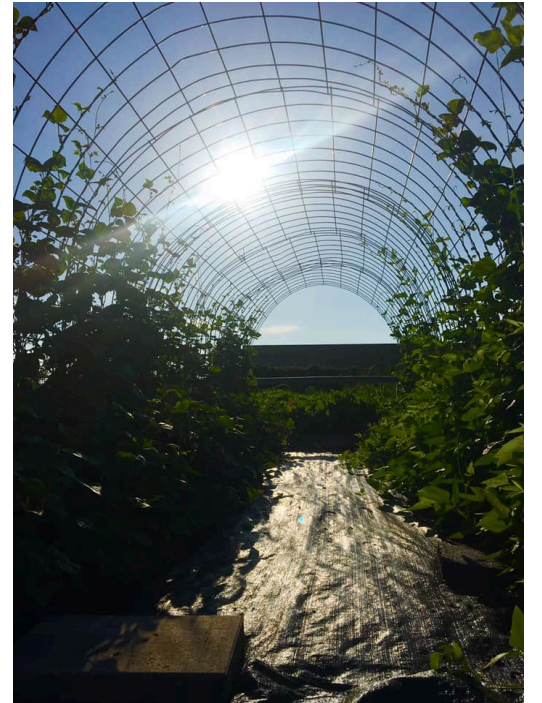


Other Mulch

- Straw
- Pine Needles (Acidic)
- Leaves
- Compost
- Sawdust



Plastic & Cloth



Weed Guard Plus



Biodegradable
Fertilized Rolls
Pre Punched

- <http://www.weedguardplus.com>



Weed Guard Plus
<http://www.weedguardplus.com>
Biodegradable
Fertilized Rolls
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Chemical Weed Control

- Read the Label
 - Follow instructions (it's the law)
 - Glyphosate enters the plant but becomes inert when it enters the soil.
 - Careful of extended control
 - Weed preventers; Preen etc..
- ** This does not mean its safe, Handle with care care



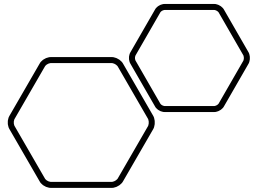
Chemicals are Harmful

- They can reduce beneficial insect population
- They can create super weeds
- Remain in soil for years
- Best practice is to reduce or eliminate the use of chemicals





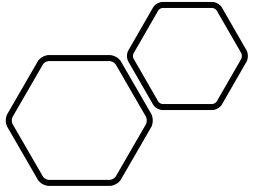
Corn gluten meal works as a **high-nitrogen fertilizer** and **pre-emergent herbicide**. Corn Gluten is a byproduct. In this case, it's a byproduct of manufacturing corn starch or oils to produce ethanol.



Hand Weeding

- Hoe (best for my money)
- Pulling (get the roots)
- Cultivating (move the soil)
- Get weeds and grasses before they go to seed.





- Hoeing works well
- When hoeing, stay
- in the top $\frac{1}{4}$ to $\frac{1}{2}$
- inch of soil



Bad Idea > >



Other Weeding Tools



Maybe Something More Manageable



Watering

- **When watering is necessary, thoroughly irrigate about once a week.**
- **It is better to water deeply. Plants that receive frequent Shallow water will develop unhealthy shallow roots.**
- **Check soil to see if it needs water.**
- **Rule of thumb 1 to 1-1/2 inch a week**





Drip

- Saves water
- Puts water where you need it

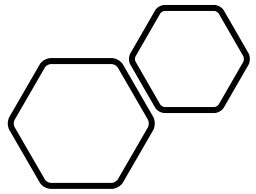




Overhead

- Hard to control
- It wastes water
- Cover large area cheap
- Water early in the morning to reduce waste, and give leaves a chance to dry





Soaker

- Similar to drip
- Less complicated
- Not as accurate
- Best to bury it
- Dries out
- Cuts easily
- The flat cloth type works best

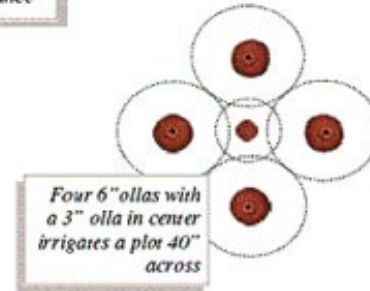
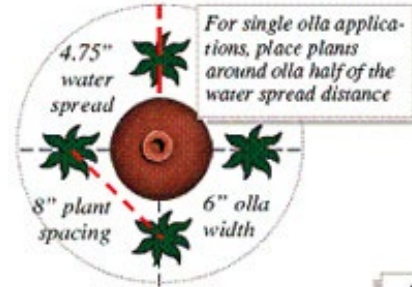
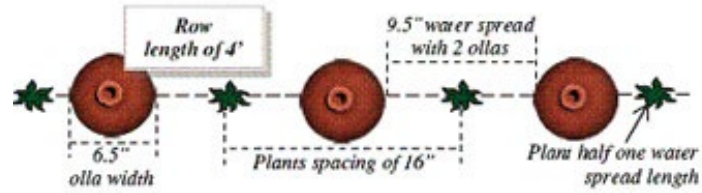


Rain Barrels

- Uses Rainwater
- Decreases Sewer Use
- Saves on Water Bill



Ollas



Round container
Olla width: 8"
Container size: 18" diameter
Water spread: 18" diameter
Plant spacing: varies with plant type

Make an Ollas

- >Silicone or glue that will work on porous materials – waterproof
 - >Two #4 terra cotta pots
 - >1 tube of waterproof epoxy putty
 - >masking tape
- <http://www.closetothedirt.com/experimenting-with-ollas/>



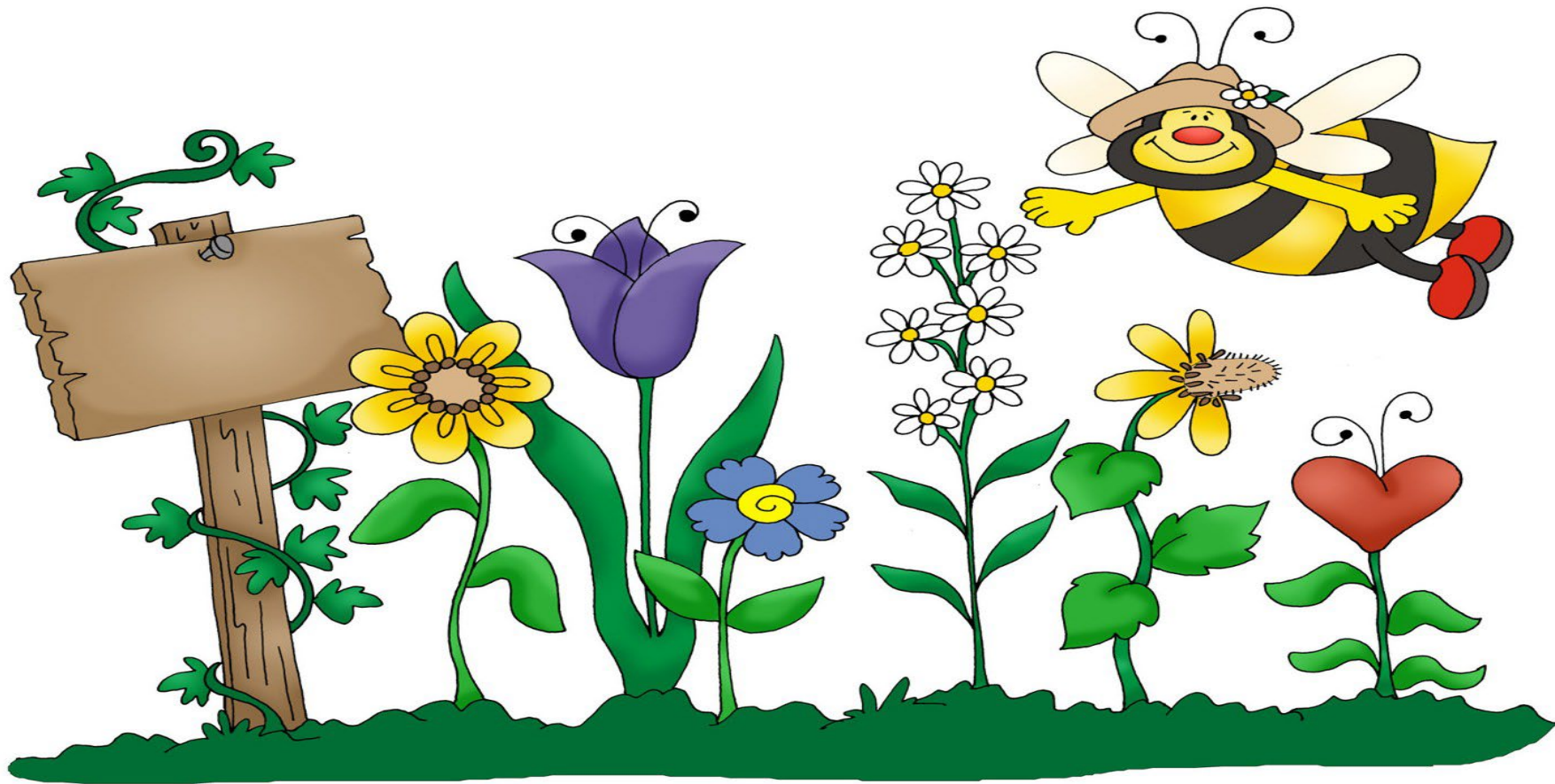


Insects

- Less than 1% of insects are harmful.
- Be careful with pesticides, you may harm the good insects.
- Bees pollinate, but so do flies, butterflies, beetles, hummingbirds, bats, ants, and more.

Encourage Pollinators

- Plant a Variety of colors that bloom all season



Some Rules to Follow

- Healthy plants resist insect invasion
- Good airflow prevents disease & insect invasion.
- Crop Rotation helps keep harmful insects from coming back to same location.



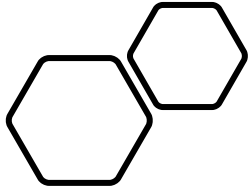
Harvesting

- **Your garden is alive & changes everyday.**
- **Harvesting mature fruit often to produce more fruit.**
- **Leaving rotting fruit on the plant invites pests and drains energy from the plant.**



Keep Your Garden Clean

Remove any plants with disease or fungus take them away from garden and burn them.



- The fall harvest can be extended even further by providing protection from early frosts or by planting in cold frames or hotbeds



Revitalize your Garden

- Early cole crops like lettuce can be replaced with warm weather crops like zucchini or beans
- Later you can plant fall crops
- Many vegetables are well adapted to planting in the summer for fall harvest.
- Planting a fall garden will extend the gardening season.



Fall Planting

- Growing a productive fall vegetable garden requires thoughtful planning
- July and August are the main planting times
- Vegetables that have a 60 to 80 day maturity cycle should be planted around August 1
- Planting of quick maturing vegetables, such as turnips and leafy greens, can be delayed until late August
- For a more accurate planting schedule, determine the average date of the first killing frost in the fall. Count backwards from the frost date, using the number of days to maturity to determine the best time to plant in your area.
- Farmers Almanac is a good source! You can plug zip code in online.



Fall Planting

- Spinach will not germinate if the soil temperature exceed 85 oF. You may need to cover the seeded area with burlap cloth to keep the soil cool and moist.
- Shading the soil or using a light mulch over the seed row will help keep the temperatures more favorable for germination. The shading material must be removed as soon as the seeds begin to germinate.

Fall Planting

- Direct seeding or starting plants indoors both are viable options.
- Extra water is needed for seedlings actively growing after germination.



Thank You!

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www.theunitygardens.org