

# Creating a *Successful* ORGANIC Garden

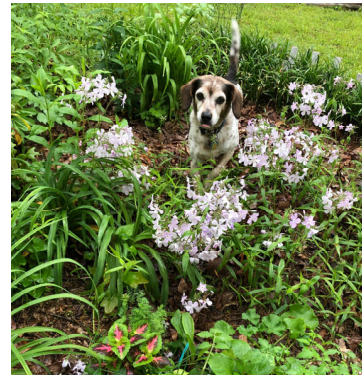
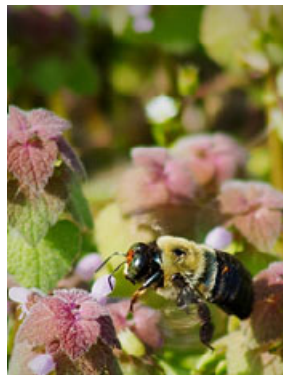


# What *IS* Organic Gardening?



The garden is  
an **ecosystem**  
not just a  
plant collection

All elements affect each other  
and work together harmoniously



The whole environment is nurtured  
in addition to the plants



Synthetic and dangerous products that disrupt the natural balance are avoided





How Can YOU  
Create an **Organic Garden**  
That is safe for your **family**,  
your **pets** AND your  
**environment?**

It Begins with the SOIL

A good gardener grows soil,  
not just plants

# Keys to Healthy Soil

## ❖ Soil Improvement

- Compost
- Vermicompost
- Manure

## ❖ Soil Testing

- A pH of 6.0 – 7.0 is good
- Check plant requirements

## ❖ Mulch



# 10 Benefits of COMPOST

1. Supplies organic matter
2. Supplies nutrients and micronutrients
3. Improves soil structure
4. Loosens heavy soils
5. Improves water holding capacity and drainage
6. Increases water penetration into soil
7. Encourages beneficial organisms
8. Decreases landfill waste
9. Carbon sequestration (reduces greenhouse gas emissions)
10. Builds soil



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# Make Your Own Compost

## 1. Choose a container (or not)

- **pallets or wood** slats on 3 sides of the pile
- a circle made of **chicken wire**
- Store bought “**compost tumbler**”

## 2. Collect and pile up materials

- alternate 2 parts “browns” and 1 part “greens”

## 3. Water the pile and keep it moist

## 4. Mix it every few days to heat and speed it up

- only a HOT pile (140-160°F) will kill seeds and disease



# What to Compost



## BROWNS/CARBON

Shredded leaves  
Shredded paper  
Cardboard  
Pinestraw  
Mulch  
Wheat Straw  
Dry plant material  
Coffee filters  
Eggshells

## AVOID

Herbicide treated materials  
Fats, Oils, Grease  
Meats  
Bones  
Dairy  
Waxy Paper  
Treated wood  
Bad weeds with seedheads  
Nutgrass  
Diseased plants

## GREENS/NITROGEN

Vegetable scraps  
Fruit scraps  
Fresh/green plant clippings  
Coffee grounds  
Manure (no dog/cat/pig)  
-for Hot Compost only  
Tea bags  
Fresh (grass clippings)





# Vermicompost

(Composting With Worms)

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# Benefits of Vermicompost

All the benefits of typical garden compost



Promotes seed germination

Increases plant yields

Reduces pest populations

Suppresses disease





# How to Make Your Own Worm Bin

## What You Need

- Dark Container (worms don't like light)
- Drill (to drill drainage holes and airholes)
- Shredded Paper/Cardboard (for bedding)
- Bucket of Water (for soaking paper)
- Worms (red wigglers)
- Kitchen scraps (to feed 'em)
- Grit (powdered eggshells or a little sand)

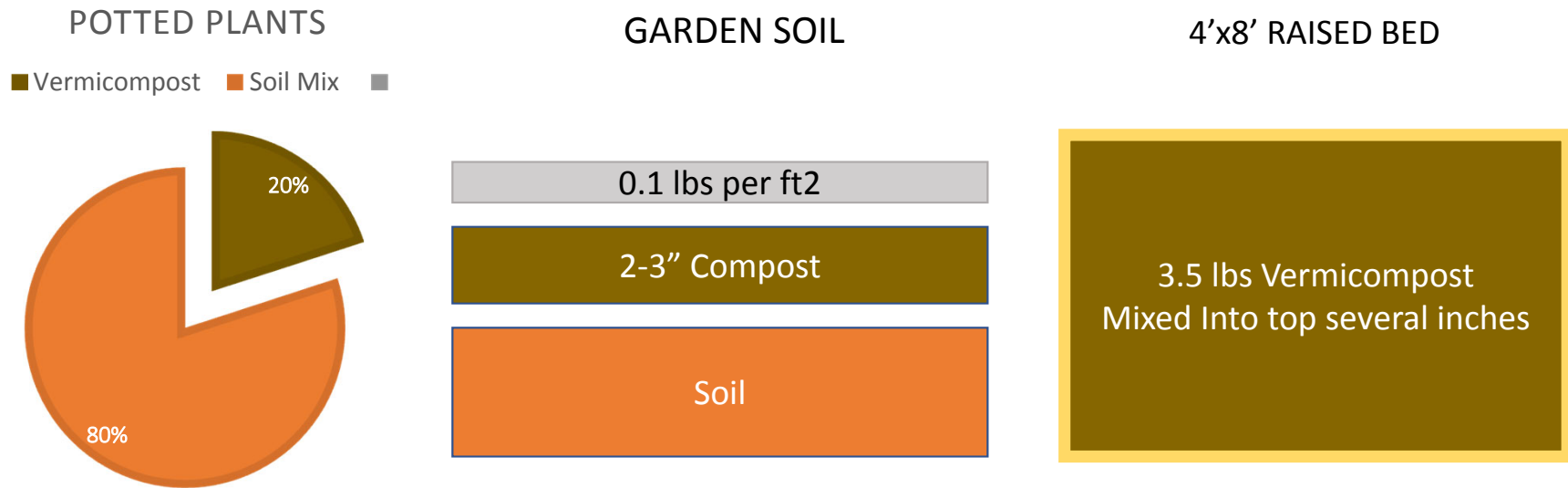




# Worm Bin Creation

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# How Much Compost and Vermicompost Do You Use?





# Prepare Your Soil

Remove vegetation by covering or tilling & removing all grass rhizomes.



Add compost, fertilizers and amendments according to soil test results. Mix into top 6"-8" of soil.



Start with high quality plants!

When purchasing transplants, choose health, disease free plants that are not rootbound.

# Choosing the Right Plants

Heirloom  
vs.  
Hybrid

## Heirlooms

### Pros

- Withstood the test of time
- Passed down through generations
- Abundance of varieties
- Seeds can be saved

### Cons

- Not always disease/pest resistant
- Harder to obtain transplants

## Hybrids

### Pros

- Bred for a superior trait
  - disease/pest resistance
  - high yields
  - color
- Most common varieties are available as transplants

### Cons

- Cannot save your own seed
- Less diversity

# Right Plant Right Location

Select varieties for your region

Plant in good soil

Ensure good drainage

Ensure water access

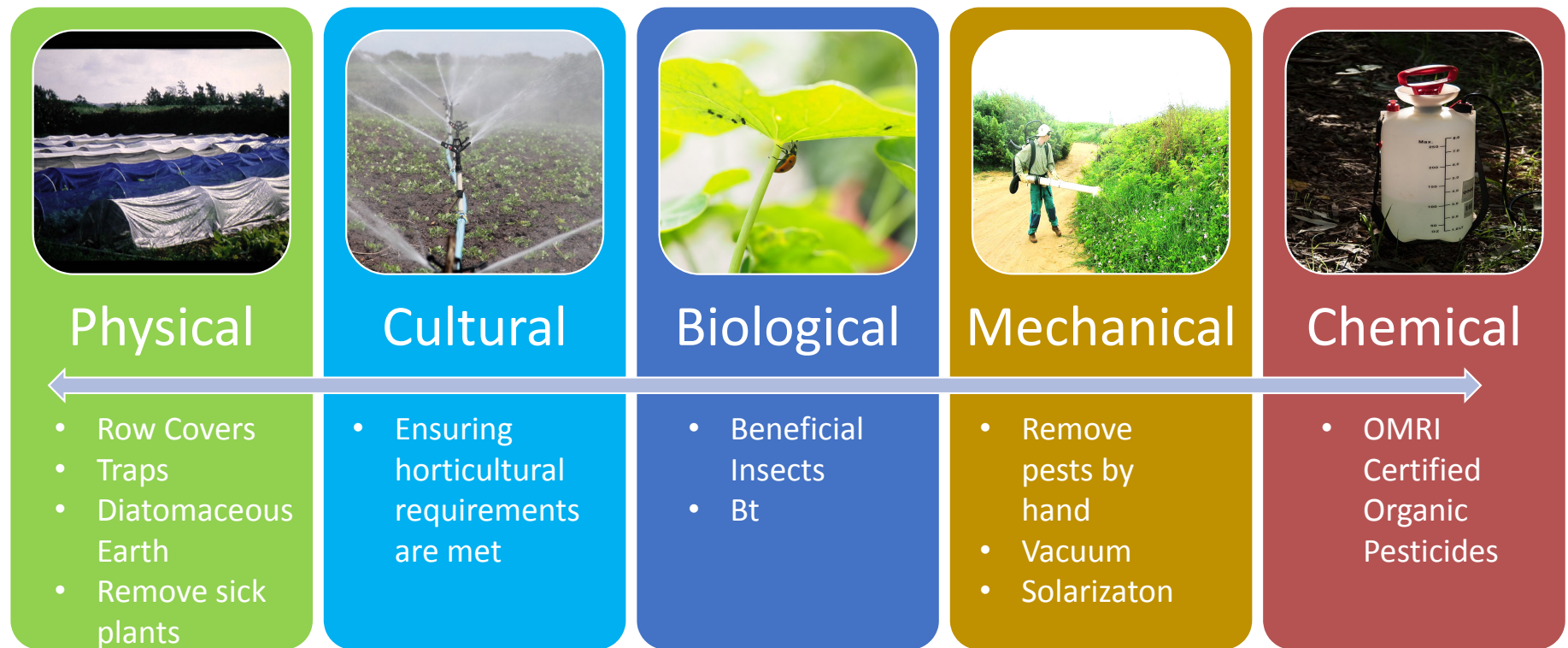
Appropriate sunlight

# Managing Fertility

- Soil testing
- Composted Manure
- Green Manures/Cover Crops
- Compost/ Vermicompost
- Rock Dusts
- Organic Fertilizer Blends
- “Ala carte” Organic fertilizers
  - Alfalfa Meal
  - Fish emulsion, etc.



# Organic Pest Control





# Organic Pest Control cont'd

## Pest Monitoring

- Check plants OFTEN for pests and disease
- Some pests multiply QUICKLY!
- Most pests are easier to control when young and less numerous
- You can remove a sick plant or two before disease spreads
- Monitoring areas close to the garden can be helpful too


## Thresholds

- With Organic Gardening, there is a balance between allowing some insects to survive, because they attract and feed beneficial.
- The threshold is the point at which a pest becomes present in numbers that will significantly reduce plant health and yields.

# Consider Companion Planting

- **Basil** repels flies and mosquitoes.
- **Dill** repels aphids, squash bugs, spider mites, cabbage loopers and tomato hornworms.
- **Rosemary** repels cabbage looper, carrot fly, slugs, snails, and the Mexican bean beetle.
- **Petunias** repel aphids, tomato hornworm, asparagus beetles, leafhoppers, and squash bugs.





# Monoculture vs. Polyculture

Where's the Beef?

All You Can Eat Buffet!!!

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# Crop Rotation

Pest Disease Control – Rotate Families every 2 years

Rotate every 4 years for severe problems

Nutrient Management- Heavy Feeders vs Light Feeders

Note: Companions vs Antagonists



# Organic Pest Control Products to Keep on Hand

- Pest ID book or guide
- Bt - *Bacillus thuringiensis*
- Neem Oil
- Horticulture Soap
- Horticulture Oil
- Spinosad
- Copper Fungicide
- Insect row covers & Animal Barriers
- Vermicompost
- Compost/Worm Tea
- Pyrethrum (NOT Pyrethrin/Pyrethroids)
- Mulch for weed suppression
- Sluggo



## Bad Bugs

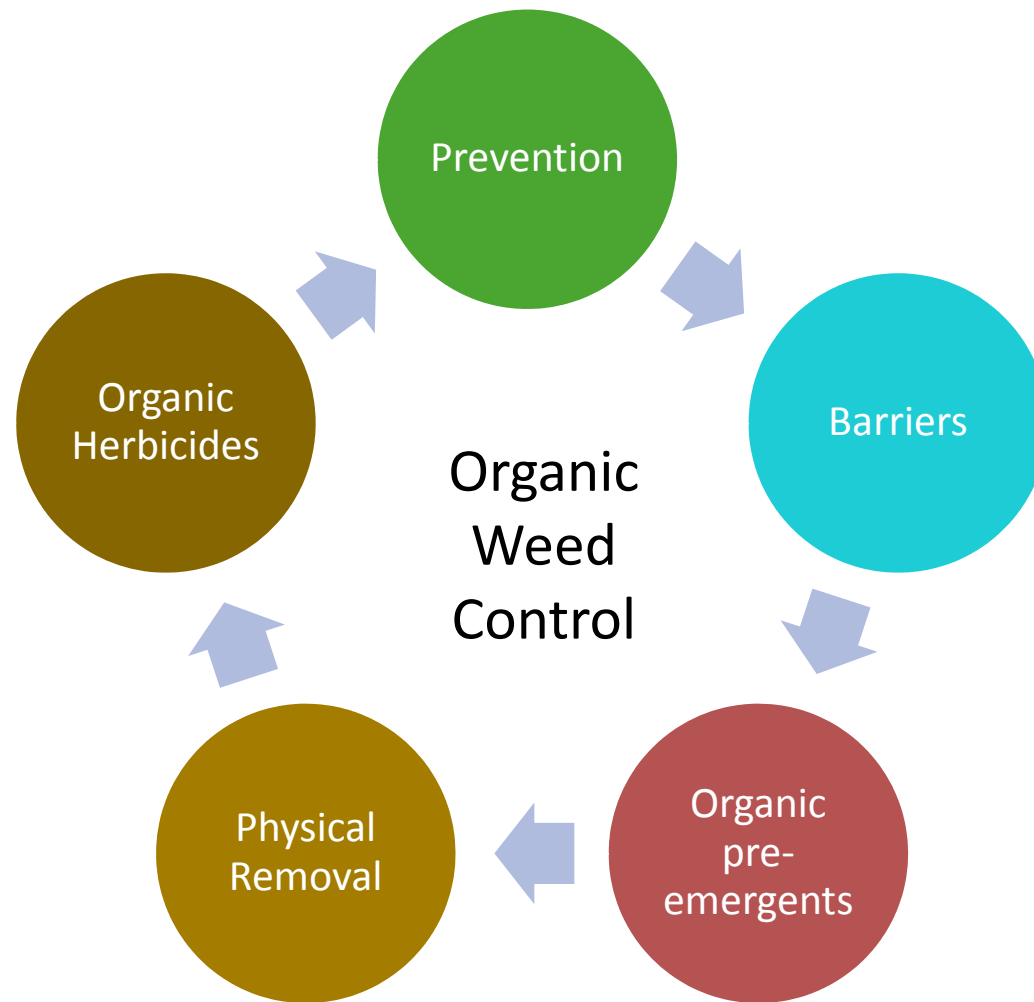
- Aphids
- Whiteflies
- Mites
- Leafhoppers
- Some Caterpillars
- Some Beetles
- Cutworms
- Borers
- Nematodes
- Slugs/Snails
- Thrips
- Leaf footed bug
- Stink bug

KNOW  
YOUR  
BUGS



## Good Bugs

- Ladybug
- Lacewing
- Assassin Bug
- Parasitic Wasps
- Pollinators
- Minute Pirate Bug
- Syrphid fly



# Why You Need Mulch

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- Suppresses Weeds
- Retains Moisture
- Reduces erosion
- Inhibits disease
- Shelters beneficials
- Maintains temperature
- Prevents soil cracking
- Prevents frost heaving

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