



Natural Pest Control

Prevention

Build healthy soil (Compost, Mulch etc.)

Plant for ecological checks and balances (Companion planting, pollinator plants)

Record pests and good bugs you find each season.

Seclude plants (cover with a cloth etc.)

Early Detection: Scout and get to know your bugs (pests/beneficial)

Hand pick, or once needed spray:

1. **Insecticidal Soap:** Soft bodied pests like aphids, mites, whiteflies or the nymphs of some tough bodied creature.
 - Must come in contact with the insect
 - Avoid spraying good bugs. For example spray early in the morning before the bees come out.
 - This can burn your plant. So spray in the morning or evening. If Very hot wash soap off leaves in a few hours.
 - Recipe: mix 4 parts water, 3 parts rubbing alcohol, squirt of liquid dish soap
 - Buy
2. **Oil Sprays:** Suffocate aphids, beetles, leaf minors, caterpillars, trips, leafhoppers, and whiteflies.
 - Must hit pests directly, look for them and spray.
 - Do not spray in the middle of a hot day.
 - Do not spray during peak flowering time, this can hurt pollinators too.
 - Spray early in the morning before bees become active.

Some Natural Pest Control Teas

When pest start to arrive, below are some teas to brew and experiment with. Please apply only when needed. Please apply in the morning or late afternoon. Please take notes, so you can tweak your system.

- **Powdered Kelp Tea**
Deters Japanese Beetles and Aphids. Spray once a week before and during infestation periods.
- **Lemon Balm Tea**
Repels squash bugs and aphids. Apply 2 or more times a week as needed.
- **Powdered Diatomaceous Earth**
A good all purpose insect prevention and treatment for any insect pest larvae. Sprinkle on plants as needed. But with great thought because it kills all bugs (good/bad). Food grade PDE is even as an internal cleanse for parasites in humans and animals]
- **Neem sprays** are made from the seed of the NEEM tree in India.
This effects all bugs, so only apply in the early morning or late afternoon when beneficial are less active. Once it dries it will only affect sucking or chewing bugs.
- **Worm Tea**
(See recipe) adds good microbes to soil. Helps plants repel pests and fight disease.
- **Garlic and hot pepper spray**
(See recipe) repels many garden insects and wildlife pests. It is probably the most inexpensive option to make at home and isn't harmful to you while applying. Use once a week or more for several weeks before and during infestation times.
- **Baking Soda Tea**
Mix 1.5 TBS of baking soda with 1TBS of vegetable oil. Dissolve in 1.5 gallons of water to prevent or treat fungus and powdery mildew on plants.

Worm Tea Recipe

Why:

- Worm Castings are slow release; the plant can immediately use worm tea.
- By spraying on the soil or plants you speed up the growth rates of beneficial microbes: bacteria, fungi, actinomycetes, and protozoa to the soil, exponentially.
- The microbes out-competing anaerobic and other pathogenic organisms
- Occupy infection sites on plants' root and leaf surfaces.
- Helps increase crop growth and yields
- Boost the plants immune system: able to resist aphids, root knot nematodes. Also helps plant resist disease.
- Helps plant create a hormone that some pest find distasteful.
- Helps plant create a wax layer on the top of the epidermis that protects against pest and elements.
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Ingredients:

- Two cups – worm castings
- Two tbsps – molasses
- Rain water / water that has sat overnight.
- Bucket
- Pump
- Cheese cloth + twine

Steps:

1. Fill Bucket with rainwater, or water that has sat overnight.
2. Add molasses (food for microorganisms). Dissolve in ½ warm water.
3. Put castings into cheesecloth, close, add to water.
4. Let water or castings bubble 24 hours.
5. Use within 48 hrs, or put in the fridge for up to three days. Apply to plants and soil.

Natural Hot Pepper Garden Spray Recipe

Crop Up's Source: Organic Garden Magazine.

Ingredients

- 2-4 Cloves of Garlic
- At least 4 hot cayenne (or hotter) peppers
- 2 Tablespoons of vegetable or other oil
- 1-Tablespoon Liquid Castille Soap like Dr. Bronners
- 2-3 cups hot water
- blender
- towel, strainer or cheesecloth

Steps:

1. Put garlic, peppers, oil, soap and water on high for several minutes.
2. Let mixture sit in a bowl overnight to intensify the effects of the garlic and peppers.
3. Strain through cheese cloth
4. Store in a glass jar
5. Pour 2 TBSP in a 16-ounce spray bottle (or 3 TBSP in a 24 ounce) and shake well.
6. Spray directly on plants as needed.
7. Can be used as often as needed for preventative and pest.