What's bugging you?

I'll cover this broadly; reach out with further questions.

# Synthetic vs. Organic

### Synthetic:

- Cheap
- Effective
- Chemically made
- Do more harm than good
- Used in large scaling farming
- Can kill good with bad
- Those chemicals can end up in food you're eating

### Organic:

- Derived from plant and animal parts or residue
- Can be more expensive
- Can also be made from items around your home
- Effective
- Much easier to use in small scale farming/gardening
- Sometimes all you need are your two hands and feet
- OMRI (Organic Matter Research Institute)

#### Home-gardening:

- Small garden = easy to manage problems before out of control
- Hands-on approach
- Pay attention
- A biologically diverse garden is the best bug control
- Find your County Cooperative Extension Office/Master Gardener Office/Hotline!

What's bugging you?

## Common Problems In Your Garden

Landscape damage can have many causes:

### **Living Pests:**

- Large (Deer, raccoons, squirrels, rats, birds, gophers, etc.)
- Small (aphids, earwigs, beetles, hornworms, slugs, snails, etc.)
- Disease-carrying microbes (in or above soil)
- Weeds

## Non-Living (Abiotic) Factors:

- Over/under watering
- Nutrient deficiencies
- Synthetic Fertilizer damage
- Herbicide damage

### Most Common Pests in Fall and Winter:

- Cabbage worms/caterpillars
- Aphids
- Slugs
- Snails
- Earwigs
- Fungal diseases
- Mold

What's bugging you?

# Fighting Bugs with Bugs

A Few of My Favorite Good/Helpful Bugs:

- Lady Beetles (Lady Bugs):
  - Larvae eat up to 100's of aphids in a day, adults eat less
  - Completely harmless to you and your plants
  - Before release, water down plants (including leaves)
  - Release bugs in cool of the evening
  - Followed by a cloudy day is best
  - Must have aphids on plants for them to stay and reproduce
- Green Lacewings:
  - Lacewings (eat 1,000 aphids a day)
  - Completely harmless to you and your plants
  - Before release, water down plants (including leaves)
  - Release bugs in cool of the evening
  - Followed by a cloudy day is best
  - Must have aphids on plants for them to stay and reproduce
- Praying Mantis
  - Eat a variety of bugs, not just aphids
  - Stay loyal to the plant they are put on
  - Completely harmless to you and your plants
- Spiders:
  - Help control bug population
  - Get rid of the dangerous spiders
  - Allow helpful garden spiders to remain

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How to Get These Bugs in Your Garden:

- You can buy/order many of these bugs
- You can also add things to your garden to attract them naturally (again, a biologically diverse yard/garden will naturally help attract birds and good bugs by providing natural habitats for them to live).

What's bugging you?

#### Home Remedies:

#### Egg Shells:

- Used to help fight slugs and snails
- Dried, crushed into small and medium pieces; chunky powder
- Make a wide ring around your plant
- Slugs can't cross the jagged edges, irritates skin
- Ask a local diner/restaurant to save shells for you
- Check after rain

### Epsom Salt (magnesium sulfate):

- Used to help fight slugs and snails
- Slugs and snails can't cross
- · Adds magnesium to soil
- Check after rain

#### Natural Weed Killer:

- Use around your garden, not in your garden itself
- 1 gallon white vinegar
- 1 cup salt
- 1 TB liquid dish soap
- Combine in a spray bottle and treat weeds at sunniest time of day

#### Tuna Can:

- Used to help fight earwigs
- Bury can to soil level
- Fill with equal parts soy sauce and oil
- Attracts earwigs, oil traps them
- Change out often

#### Berry Baskets:

- Helps prevent slugs, snails and birds from getting at young plants
- Staked down to cover young seedlings
- Plant can still breathe and get sunlight
- I use on lettuce and greens mostly

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# **Organic Pest Control Products**

(use only when necessary)

### Neem Oil Spray:

- Non-toxic
- Antibacterial and antifungal properties
- Spray on leaves of plants first thing in the morning
- Repels many harmful pests like aphids, white flies, nematodes, cabbage worms, gnats, moths
- OMRI listed

## Monterey BT Spray:

- Bacillus Thuringiensis, biological insecticide
- Great for cabbage worms (must ingest)
- OMRI listed
- Reapply after rain

# Diatmoaceous Earth (Organic, Food Grade):

- Powder made from fossilized remains of tiny aquatic organisms called diatoms
- Kills all garden pests- ants, slugs, etc.
- Doesn't harm worms in soil
- OMRI listed

### Sluggo Organic:

- Kills slugs and snails naturally
- Iron Phosphate is toxic to snails and slugs
- Lasts a little longer after rain than Epsom salt
- OMRI listed