Gardening Basics

LESSON 7:
PEST MANAGEMENT - INSECTS

Common Garden Pests

Aphids
Not all aphids are the same!

- Many species of aphids target a variety of crops. Some are generalists, some are specific to certain plants
- Aphids are small, sap-sucking insects that weaken plants significantly and multiply quickly
- They come in many different colours, but carry the same characteristics
- What to look for on plants: curling, stunted, yellowing leaves – aphids like to hide on the underside of leaves or on the buds of flowers
- ID: Under ¼", soft bodied, pear shaped bodies with long antennae. Varied colours. Nymphs (juveniles) look similar to adults
- Treatment: Spray leaves with a hose daily, plant things like nasturtiums to draw aphids away from crops, apply an insecticidal soap

Slugs
One of the most common pests in the Pacific Northwest.

- Although not actually an insect, slugs are voracious eaters and cause a lot of damage in gardens
- Prefer cooler, wet weather, they can decimate seedlings and do serious damage to mature plants overnight
- Many species of slugs are great decomposers, and help digest dead plant and animal matter into a useable form for your garden, but some prefer living plant material
- Mostly feed at night, and leave tell-tale slime trails to show their trail of destruction
- Treatment: Mulch around gardens, copper wire around plants, eggshells to deter

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Common Garden Pests (Continued)

Cabbage Moths
Cabbage moths are not the problem, their young are.

- Cabbage moth larvae are caterpillars that do significant damage to crops in the brassica family – cabbage, broccoli, Brussel sprouts, and cauliflower, to name a few
- Cabbage moths lay their eggs in the leaves of plants. When the caterpillars hatch, they feed heavily for around 2 weeks before pupating
- Damage looks like large, irregular holes chewed through leaves, or a translucent layer of leaf left behind from what they have eaten. With cabbages, the caterpillar bores holes straight through the head, contaminating them with fecal pellets
- ID: Caterpillars are 1-1/4" long, velvety green with short fine hairs and faint yellow stripes down its' back. Moths are white or pale yellow with a 1-2" wingspan, with 3 or 4 black spots on their wings

Integrated Pest Management (IPM)

Cultural Control
Cultural control is manipulating your growing environment for the most favourable growing conditions, and conditions that are unfavourable to pests.

- Cultural control methods are *preventative* not curative
- Cultural control is a combination of a few things:
  - Site design
  - Site maintenance
  - Harvesting procedures
- All aspects are done with common pests in mind, to reduce the attractiveness of your garden and crops
- Not designed to be used when you already have a bad pest problem

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Integrated Pest Management (Continued)

Physical Control
Refers to physical methods of controlling pests.

- Includes things like traps, row covers, and pheromone stations – any physical means of trapping or deterring pests
- Beware that some products are ineffective, look for ones that come with good reviews or come from reputable sources
- Physical control methods are a great way to help keep pest populations at a manageable level
- Physical controls usually have little impact on non-target pests

Biological Control
Refers to using beneficial insects to control insect pests.

- Uses the natural enemies of pests to supress or control pest populations
- Many garden pests have natural enemies that will reduce pest numbers by eating or parasitizing
- Need to consider your setting when using biological controls – releasing insects could have negative impacts on your ecosystem, or they may not stay where you release them!
- Not designed to be used when you already have a bad pest problem, but to help you control pest populations before they become an issue

Chemical Control
Integrated Pest Management uses chemical control as a last resort, but there are ways it can be done effectively and with the environment in mind.

- Should be the last tool in your toolkit. There are many types of chemical controls that can be used, both organic and synthetic
- If chemical control is necessary, use a product that is selective so that it only targets your pest problem – this will reduce harm to beneficial or non-target insects
- **Most important** is to read the label, ensure you are using the right product, and are aware of **all** of the safety and environmental precautions needed. **Chemical control should only be done by an adult**

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