

## Caring for your garden naturally

Any good gardener knows that there is a lot more to gardening than just planting seeds and waiting for them to grow. One aspect of gardening that can become extremely frustrating is dealing with **persistent pests and weeds**. Although the easiest solution seems to be reaching for the chemical sprays, these products can do a great deal of damage to the health of your plants and soil. Using **natural pest and weed control** techniques is safer, less expensive, and ultimately improves the health of your garden rather than degrading it.

### *Why natural pest and weed control?*

Even if you grow plants in the city, your garden is a part of an ecosystem. There are **microbes** and insects that live under the soil, other bugs living on and around your plants, and creatures like birds who visit your garden and travel elsewhere. In this ecosystem there are predators and prey, there are the insects that eat your plants, but also the insects that eat them. Chemical pesticides kill bugs indiscriminately, meaning the "**good bugs**" such as predators and pollinators, die alongside the bad ones. The life forms in your soil, which break down organic matter and increase soil fertility fall victim as well, and ultimately these chemicals end up in the food you are growing as well. The benefits from using chemicals do not outweigh the damage done to the health of your garden and the creatures in it, which is what makes natural preventative methods, such as rotation and companion planting so appealing.

### **Pest controls**

*Keeping plants healthy:* It is generally agreed that pests are more likely to attack weak plants, in the same way that lions go after the weakest animals in a herd. Keeping your plants from getting **stressed** by watering them properly, not allowing soil to crack from dryness or stay wet too long, and protecting plants from temperature fluctuations will keep them strong enough to ward off attacks.

*Repellent plants:* Many plants repel certain insects because of their strong smell or chemicals they exude. Plant these around your garden to avoid pest infestations.

Plant	Insect Deterred
Anise	Aphids
Basil	Flies and mosquitos
Borage	Tomato worms
Chrysanthemum	Most insects
Coriander	Aphids and Colorado potato beetle

Garlic	Japanese beetles, other insects and blight
Marigold	Mexican bean beetles, nematodes and others
Mint	White cabbage butterflies and ants
Nasturtium	Squash bugs, pumpkin beetles, traps aphids

*Sources: Children's Garden and exploring Toronto Programs Training and Resource Binder*

*Crop rotation:* Planting the same crop in the same place every year can lead to pest problems, because the pests that prey on that plant can overwinter and multiply, attacking in full force come spring. Crop rotation, planting things in different areas of the garden each year, can help to confuse bugs and prevent infestation. See box 2 for plant families.

Family	Common Plants
Brassicas	Broccoli, Brussels sprouts, cabbage, cauliflower, kale, radishes, turnips, mustards
Carrots	Carrots, parsley, dill, fennel, coriander
Cucurbits	Cucumbers, melons, squash, pumpkins, watermelons
Grains	Wheat, oats, rye, corn
Legumes	Beans, peas, clovers, alfalfa
Nightshades	Eggplant, peppers, potatoes, tomatoes
Onions	Onions, garlic, leeks, shallots, scallions, chives

### *Promoting predators:*

There are many beneficial insects that prey on the bugs that would harm your crops.

Birds are also

excellent protection against many different types of insects, although they can eat beneficial bugs as well. By growing plants that are attractive to predators you create an attractive atmosphere for them and they pay you back by turning your pests into lunch.

### **Weed controls**

*Mulching:* Mulch is a gardener's best friend, as it serves to prevent weeds while preserving soil moisture, nutrient levels, and fertility. It's important to make sure your mulch doesn't touch the stems of your plants, because that can spread disease, but otherwise, much away!

*Spring tilling:* Water soil before planting crops and allow 7-10 days for weed seeds to sprout. Pull, and repeat. Do not allow weeds to go to seed, and if they do, make sure to throw them away rather than composting, as seeds can live on in compost.

### **Sprays**

#### **All purpose insect spray:**

*Chop and combine: 1 garlic clove, 1 litre water, 1 small onion, 1 tbsp cayenne. Let steep one hour, then add: 1 tbsp liquid hand soap. Use as a spray and store in refrigerator up to one week.*