Why make a change?

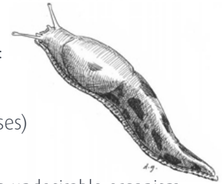
Health and Safety Risks
Pesticide health and safety risks can range from minor skin or eye irritations to poisoning and death, depending on the product and type of exposure. If not used properly, some pesticides can produce noxious or explosive gases.

Environmental Risks
Pesticides can pollute the soil and groundwater and can remain in the environment for long periods of time after application. Pesticides pollute our streams, creeks and waterways if they run off into our stormwater collection system.

Risks to Non-Target Species
Pesticides can cause accidental injury or death to aquatic organisms, birds, mammals and beneficial insects such as bees and butterflies. Microorganisms in your lawn and garden can also be harmed, reducing their ability to enrich the soil and provide nutrients for plants.

Join the Movement
Many communities across Canada are exploring ways to reduce pesticide use. A large number of municipalities have adopted bylaws limiting the application of pesticides for certain uses; other regions have created a model bylaw for consideration and adoption. Collectively, these initiatives reflect a movement toward a safer and environmentally conscientious approach. The Capital Region, with its reputation for healthy living and beautiful landscapes, is aptly suited for pesticide-free places and spaces.

What Is a Pesticide?
"Pesticide" is the general term for any substance designed to eliminate undesired insects, weeds, rodents, fungi, bacteria and other organisms. Pesticides come in many forms and even include household bleach and swimming pool chemicals.



Pesticides can be categorized as:
- Insecticides (for insects)
- Herbicides (for weeds)
- Fungicides (for fungus diseases)

What Is a Pest?
A pest is generally considered an undesirable organism. However, most bugs in your yard aren't all bad – far from it. They pollinate plants, decompose waste material and prey on many pesky insects that wreak havoc on your lawn and garden. Common yard and garden pests include ants, aphids, moths, cutworms, earwigs, slugs and tent caterpillars. Many insects, parasites and small animals are not pests, but were actually doing all the work in your yard long before you got there. These beneficial creatures include spiders, honeybees, ladybugs, frogs, snakes, bats, and mice. Resist any initial "get-rid-of-it" response when you see these critters in your yard.

Preventing Pests
The first step is ensuring your lawn and garden get a good start with healthy soil and plants that are suited to the site. This will greatly reduce or eliminate pest problems from the outset. Think of it as a landscape health management program. Plants are more susceptible to invasions if they are already struggling with inadequate growing conditions. Minimize potential pest problems by making changes in the management of your soil and plants and in the design of your yard and garden.

Landscape Health Management

The first step to a pest-free lawn and garden is to build healthy soil. Key elements for improving the health of your soil are microbes, mulch, moisture and biodiversity.

Microbes – Increasing the biodiversity of your soil will help to keep any pests in check. Microbes break down organic matter, providing nutrients for your plants. Compost is a great source of microbes and nutrients, and it also improves the structure of your soils water holding capacity. Top dress your lawn and garden with compost twice per year.

Mulch – Applying mulch to your lawn and garden will help to suppress weeds, provide habitat and food for microbes and also shade the soil and prevent evaporation. As the mulch decomposes, it helps to improve the structure of the soil. Recommended materials for mulching are fall leaves, composted garden waste, aged manure, plant trimmings, grass clippings and straw.

Moisture – Microbes require moisture to function properly. Water deeply and infrequently, and always be sure to follow the CRD's Water Conservation Bylaw.

Biodiversity – Biodiversity is essential to the function of ecosystems. You can help to preserve biodiversity in your garden by planting a variety of native plants. Creating habitat for vertebrates such as birds, frogs, snakes, bats, mice and squirrels – who snack on eggs, larvae, pupae, adult insects, mites and slugs – can help to control pests.

Visit **www.crd.bc.ca/gardening** to find more tips on building a healthy, pest resistant lawn and garden.

Tips for minimizing the risk of pests:
- Use native and disease-resistant plants.
- Use companion planting techniques.
- Plant marigolds throughout the garden to repel many insects.
- Plant aromatic herbs such as chives, dill and mint to attract pollinators and ward off pests.
- Avoid overhead sprinkling in the evening which can cause mildew on sensitive plants – instead water early in the day at the plant bases.

Become informed – find information on your plants from books, the Internet or garden centres.

Natural Pest Management
Many options are available for managing pests in your lawn and garden without the use of pesticides. These can include manual removal, and biological and natural controls.

Low-risk pesticides permitted by municipalities in the region with a pesticide bylaw include:
- Acetic acid
- Corn gluten meal
- Methoprene
- Botanically derived pesticides such as pyrethrins and rotenone
- Insect bait stations and pheromones
- Insecticidal and herbicidal soaps
- Mineral oils
- Sulphurs, ferrous sulphate
- Diatomaceous earth
- Biological pesticides including Bacillus thuringiensis (Bt) and nematodes

A full list of low-risk pesticides and our specific pest information sheets can be found at **www.crd.bc.ca/pesticidefree**

Tips for a healthy garden:

- Ensure soil is healthy, well conditioned with organic compost, and has adequate drainage (remember that plants get most of their nutrients from the soil).
- Plan your garden so plants are put in areas where they naturally thrive – dry and sunny versus wet and shady.
- Use native plants that are already acclimatized, require low maintenance and have a natural resistance to local pests and diseases.
- Plant in raised beds (good for the plants, good for the back!).
- Fertilize regularly in spring and fall with organic compost.
- Water deeply but infrequently to maintain strong root structure.
- Protect and attract native beneficial species – give them a place to live and a source of water, and they will do the rest. Practice annual crop rotation for each type of vegetable. This keeps patterns of disease or insect invasions in check.

Native Plants

Consider a native plant ground cover or garden instead of a lawn. Native plants are adapted to the local climate, are drought tolerant and are low maintenance. Many native plants also have a natural resistance to pests and diseases, which means you are less likely to have a need for pest controls.

Ground covers that like shade include Woodland strawberry, False Lily of the Valley, Wood sorrel, Vanilla leaf, Foamflower, Fringecup, Piggyback plant, Alumroot, Sword fern, Licorice fern, Wild ginger, Salal, and Mosses.

Some ground covers that like sun are Kinnickinick, Wild strawberry, Coastal strawberry, Creeping Oregon grape, Common juniper, Yarrow, Nodding onion and Stonecrop.

For more information about native plants, visit **www.crd.bc.ca/nativeplants**

Fawn Lily

Shooting Star

What Can I Do?

Get informed – knowing why we want to create healthy and safe environments starts with education.

- Join your local horticultural society
- Search the internet
- Look for books on organic gardening at your library or local garden centre

Find out who the villains really are! If your yard happens to be lacking certain beneficial insects, like ladybugs, they can be purchased and released into your yard in large quantities at the right time to ward off specific pests.

Disposing of Old Pesticides

Do you have old pesticides you need to get rid of? When it comes to disposing of unwanted pesticides, ALWAYS follow the disposal rules on the label and never pour unwanted portions down the drain, into storm drains, or onto the ground. Take them to an approved depot. In the CRD, you can dispose of some of them for free at:

- Hartland Landfill and Recycling
  Hartland Avenue 250.727.3331
- Ellice Recycle
  524 David Street 250.386.4342
- Alpine Disposal & Recycling
  1045 Dunford Avenue 250.474.5145
- CRD Hotline at 250.360.3030

"If ... we have concluded that we are being asked to take senseless and frightening risks, then we should no longer accept the counsel of those who tell us that we must fill our world with poisonous chemicals; we should look about and see what other course is open to us."
— Rachel Carson, Author, Silent Spring

A good start towards a healthy lawn

- Ensure you have the best grass and soil for the area and climate – adequate drainage and sufficient organic matter content is just as important for lawns as gardens.
- Use a variety of grasses that can tolerate a range of growing conditions for both sun and shade.
- Top dress with finely screened compost in the spring and fall for proper drainage and root development.
- Remove individual weeds by hand.
- Reduce lawn size.
- Lawns go into a natural dormancy period in the summer in our region. If you water, water deeply, but infrequently. At the hottest time of the year, lawns only need one inch (25.4 mm) of water per week to stay green. Rainwater counts towards the amount. Less water is needed during cooler times of year. Use a rain gauge or tin can to make sure you don't overwater. Early morning is the best time.

- A bit of thatch on your lawn protects the grass from damage. Excess thatch can be turned into valuable lawn food by applying compost tea, or other microbial solutions a couple of times a year.
- Mow high and use sharp blades. Maintain an ideal grass height of 2.5 to 3 inches – it shades the soil, prevents evaporation and allows the grass to better compete with the weeds.
- Mow often enough – no more than 1/3 of grass blades should be removed each time you cut.
- "Grasscycle" – use a mulching or hand mower to finely cut your grass clippings. Leaving grass clippings on your lawn can supply 25 per cent of your lawn's nutrient needs every time you mow.
- If you need to re-seed your lawn, do it during the rainy season.

"An Ounce of Prevention is Worth a Pound of Pesticides."
— Natural Gardening, A Guide to Alternatives to Pesticides (Metro Regional Services, Oregon)

For More Information:

CRD Pesticide Use Reduction Education (PURE)
www.crd.bc.ca/pesticidefree

CRD Hotline
hotline@crd.bc.ca or
250.360.3030

BC Ministry of Environment
www.env.gov.bc.ca/epd/ipmp

BC Landscape and Nursery Association
www.bclna.com

Victoria Horticultural Society
vhs.homestead.com

The Greater Victoria Compost Education Centre
www.compost.bc.ca

Society for Organic Urban Land Care
www.organiclandcare.org/

Society Promoting Environmental Conservation
www.spec.bc.ca/

Georgia Strait Alliance
www.georgiastrait.org/

Growing Green

Healthy gardens, naturally.

The way we choose to manage the health of our landscapes is important to the well-being of our families and the environment.

Join the movement and find out how easy it is to be pesticide free.