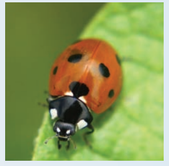
Beneficial Insects

Not all insects are bad for your garden - many of them can be your best allies to help you control pests. The beneficial insects that you may find in your garden include ladybugs, hover flies, lacewings, ground beetles, wasps, and spiders. Three of them are shown below.

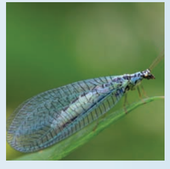


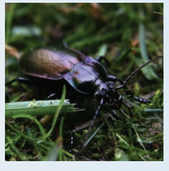
Ladybugs

The familiar round, orange spotted ladybug feeds on aphids and other small soft-bodied insects.

Lacewings

The larvae of these pale green or brown lacewings are voracious predators that feed on aphids, thrips, scales, moth eggs, small caterpillars and mites.





Ground Beetles

These are large, fast-moving, shiny blue-black or brown beetles. They hide under stones or other objects on the soil during the day and are active at night. Ground beetles feed on slug eggs, snails and root maggots.

New Pesticide Use Bylaw

In order to reduce the amount of chemicals entering the natural environment, New Westminster is introducing a pesticide use bylaw which goes into effect March 1, 2010. This bylaw restricts the use of pesticides for cosmetic purposes in maintaining outdoor plants on residential and public land. It applies to homeowners, municipal government and landscape professionals. While most pesticides are not allowed, the bylaw does permit certain products to be used (e.g. insecticidal soaps, sulfur, nematodes).

Please visit the City's website *www.newwestcity.ca* for a list of permitted pesticides and for more information on the Pesticide Use Bylaw 7288, 2008.

What is a pesticide?

Pesticide is a general term for any substance used to eliminate undesired organisms or pests. Pesticides are categorized as:

- herbicides (for weeds)
- insecticides *(for insects)*
- fungicides *(for fungal diseases)*

Fertilizer and herbicide blended products *(e.g. "Weed and Feed")* contain pesticides and are not permitted for use under the bylaw requirements.

Who to call for more information

If you wish to hire an eco-sensitive landscaper to help maintain your lawn and garden, please visit the **PlantHealthBC website:** *www.PlantHealthBC.ca*. The website provides a list of landscape professionals specifically with pest management accreditation.

You may also search for an organic landscaper through the **BC Landscape and Nursery Association website:** *www.bclna.com*. Please fill out the Landscape Services Search Form from the home page or call 604-574-7772 for assistance.

For organic gardening, pesticide use or composting questions:

Please contact the **Vancouver Regional Compost Hotline** at 604-736-2250 or check with your local nursery.

For website tips on sustainable gardening in our area, you can check out:

www.gardenwiseonline.ca/sustainable-gardening.

For more information on the City's Pesticide Use bylaw:

check out the **City's website**: *www.newwestcity.ca* or call 604-527-4592.

NEW WESTMINSTER
Engineering Services

511 Royal Avenue
New Westminster, BC V3L 1H9

Phone 604 527 4592
Fax 604 527 4564

Printed on FSC certified paper.

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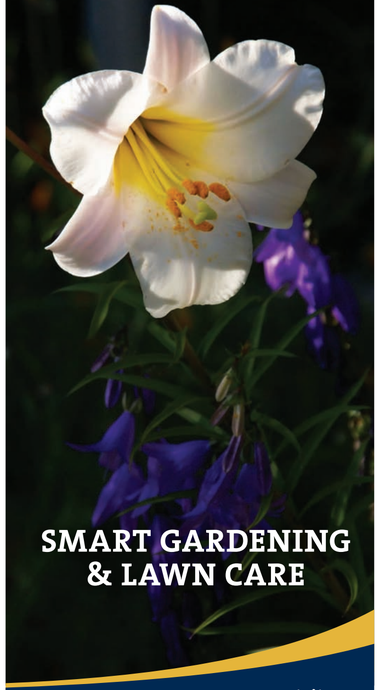
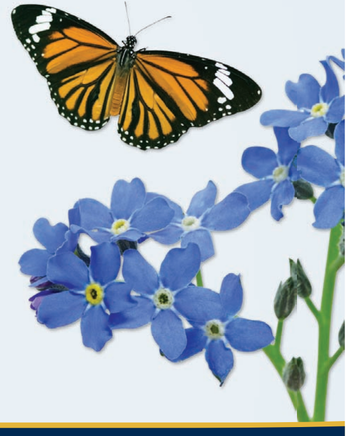


SMART GARDENING & LAWN CARE

Who doesn't want a healthy lawn and garden?

The City of New Westminster shares your desire for a healthy urban environment with lawns, gardens and parks that are beautiful for everyone. One way to get there is by using gardening techniques that help prevent the spread of weed, insect and disease problems which in turn reduces the need for pesticides.

This brochure is full of smart gardening tips for keeping your lawn and garden healthy and outlines some information on pesticide use in the City.



Safe Pesticide Disposal

Domestic pesticides are considered hazardous substances and must be disposed of in a safe manner. If you have any remaining pesticides, DO NOT pour them down the drain or place them in the garbage.

What should you do with them?

Call the RCBC Recycling Hotline
at 604-732-9253, or...

Visit the Product Care website at
www.productcare.org

to find the nearest hazardous material disposal depot (i.e. Paint Plus Depot).

Empty pesticide containers are to be placed in the garbage, not recycled.

Tips for a Healthy Garden

Test your soil. A complete soil test will provide you with your soil's pH and nutrient level. The test can be completed by a professional soil testing lab or a simple kit can be purchased from your local garden centre. The best pH level for a healthy garden is 6.0 – 7.0. Soil can be loosened by adding compost, manure and earthworms if needed. If you need to add soil, purchase it from a reputable supplier. An 8 cm (3") layer of leaf mulch, compost and wood chips will help keep soil cool and moist in summer, retain nutrients and reduce weeds.

Choose the right plants. Buy from a reputable nursery or garden centre and ask about plants suited to our climate zone. When choosing your plants look for a well-developed root system and healthy growth and consider those that are more resistant to pests and disease. Check out these websites for a list of plants that grow well in our region: *www.greatplantpicks.org*, *www.evergreen.ca* (native plants).

Go for variety. Consider including different plants rather than just one species. A combination of plants *(e.g. perennials, annuals, vegetables, herbs, fruit trees)*, in gardens attract birds and butterflies as well as beneficial insects that feed on insect pests. Consider native plants—they can look great alongside annuals and perennials and are ideally suited to our local conditions.

Don't buy invasives. Invasive plants are non-native species that have the ability to establish quickly, displace natives and disturb the ecosystem. English ivy, Himalayan Blackberry and Holly are just three examples in our region. For a current list of plants considered to be invasive in British Columbia, check out website: *www.invasiveplantcouncilbc.ca*.

Locate plants in the right place. Before planting, carefully read the label to make sure the plant you are considering is suitable to the area where you want to place it *(e.g. sunny, shady, wet, dry areas)*. Make sure there is adequate space and air circulation in the landscape to reduce the incidence of diseases.

Water the right amount, at the right time. As a rule, a thorough soaking of your garden is the best method of promoting deep root development. Consider using a soaker hose or hand watering to avoid wetting the foliage *(to reduce foliage diseases)*. Watering in the morning or early evening is best as it reduces evaporation and conserves water. Adding compost will also help to retain the moisture in the soil.

Practice proper pruning. Pruning is beneficial in allowing more air and light to penetrate into the landscape. Practicing good pruning techniques *(e.g. clean cuts)* will also reduce the incidence of diseases and pests. Gardening tools should be disinfected to reduce the spread of diseases.

Monitor plants regularly. Regular plant inspection will allow you to note any signs of pests or diseases *(e.g. discoloured leaves, misshapen shoots, leaf spots)* and provide an opportunity to address problems before they get out of hand.

Tips for a Healthy Lawn

In the Spring...

Test your soil. A complete soil test will provide you with your soil's pH and nutrient level. The test can be completed by a professional soil testing lab or a simple kit can be purchased from your local garden centre. The best pH level for a healthy lawn is 6.0 – 7.0. If the pH is lower *(more acidic)*, use dolomite lime to raise the pH which allows more nutrients to be available.

Aerate and dethatch, if needed. Aeration reduces soil compaction and allows oxygen, nutrients and water to easily penetrate to roots. Dethatching may also be necessary if thatch buildup has occurred.

Fertilize and/or top-dress your lawn. Fertilize with a slow-release product or add a thin compost layer about 0.6 cm (¼") deep. Note that compost encourages earthworms which aerate lawns naturally.

Overseed. After aerating, dethatching, liming or adding a compost layer, add grass seeds into your lawn to create a more dense lawn which will prevent weeds from getting established.

Year-Round Tips...

Choose suitable grass species. Consult your gardening centre to help select species that are suitable for our local environment. These cultivars will tolerate a wider range of growing conditions and be more competitive with weed species.

Water your lawn wisely. Lawns require about 2.5cm (1") of water per week. If you need to water, do it in the early morning or evening *(follow regional lawn sprinkling restrictions: www.metrovancouver.org)*. Too much water starves the soil of oxygen and invites disease and can result in shallow roots.

Mow smarter. Check that your mower has sharp blades and mow grass when it reaches a height of 8 cm (3"). Slightly longer grass provides shade for roots, crowds out weeds and conserves soil moisture.

Leave clippings on the lawn. This is called 'grasscycling' and can provide up to 1/3 of the nitrogen the lawn needs and reduce the need for fertilizer. Contrary to popular opinion, leaving the clippings does not result in thatch and it's less work!

Dig out weeds. A healthy lawn is very resistant to weeds, but if a few do become established, the best approach is to dig them out before they go to seed. Add grass seed to re-establish the lawn.

Manage chafer beetle. One of the most frustrating lawn pest problems in the New Westminster area is the European Chafer beetle. The grub *(which is the most destructive life stage)* feeds on grass roots from the summer through to the following April. Lawns are destroyed by birds and skunks that feed on the grubs. The City of New Westminster recommends the use of beneficial nematodes to manage this pest. These microscopic worms attack the grubs and are best applied to lawns mid-July to mid-August. Maintaining a healthy lawn is your best line of defense against the European Chafer beetle.

Managing weed, insect and disease pests

A healthy plant can withstand a few pests, but if you do decide to act:

1. Try improving the growing conditions by adding mulch and compost or pruning, if required. A healthy plant or lawn is less likely to have pest problems.
2. Hand pick insects, dig out weeds or prune diseased stems or shoots.
3. You can use sticky traps for winter moths or a cup of beer to capture slugs, or consider purchasing beneficial insects, such as ladybugs. Note that some bugs, such as ground beetles, are considered beneficial and will eat certain pest species *(e.g. aphids, slug eggs)*.

If you have to use pesticides as a last resort, the table below gives you a few examples of permitted pesticides that may assist you:

Pest	Permitted Pesticide (ingredient)
Dandelions on lawn (prevention)	Corn gluten meal
Dandelions on lawn (established)	Acetic Acid
Powdery mildew, blackspot and rust	Sulphur
Ants	Borax
Aphids or white fly	Insecticidal soap
Chafer beetle	Nematodes

Read and carefully follow product instructions for dosages, application methods and treatment intervals. If you use a lawn and garden care service, check that they are accredited or offer an organic landscaping program.