

More Alternatives to Pesticides

Outside Insect Killer

2 or 3 chili peppers (hotter the better), ½ onion, 1 clove garlic and ½ mild green pepper. Blend ingredients in 2 cups water. Steep this mix for 1 or 2 days. Strain the mix through a cheesecloth and spray on your unwanted insects.

General Bug Killer ("bug juice")

Collect ½ cup of problem insect. Place in blender with 2 cups of lukewarm water; liquefy; strain and dilute ¼ cup of the solution with 2 cups water. Pour into a spray bottle and head for the garden.

Diamataceous Earth

Product sold at informed garden centres or mail order.

Gardening Tips

You can plant garlic, radishes or onions around your crops. (Used as a bug repellent)

Insect Repellent for Indoor/Outdoor Plants & Trees

Use any non-detergent soap (biodegradable-most dish soaps and "pure" soaps that are available at health food stores). Soap dissolves better with 1 tsp. alcohol to each litre of water. Spray liberally on underside of leaves, as well.

Killing the SLUGS

There is a special device that will trap slugs or simply put out a saucer of beer, which has been embedded to the soil level in your garden, keep it overnight, and collect the guys who are enticed into this trap. They might have drowned or simply eliminate any survivors when you check the trap the next morning.

Weed Killer

Nothing beats hand-pulling weeds. However, a mixture of vinegar and apple cider can be sprayed on the weeds to kill them. If this mixture is boiling hot it will be more effective.

Fungi Killer, "GARLIC SPRAY"

3 cloves of garlic, 1 medium onion, 1 tsp. very hot pepper sauce, combined with 1 litre of water in blender. Steep for 10 minutes; strain through cheesecloth or stocking. This may be further diluted with water – 1 part to 4 parts water.

Repellent for RABBITS

Spread a band of scented talcum powder around the garden's border to keep them out. Put more down after it rains.

Flea collars and sprays

Use herbal collars or ointment with citronella. Put brewer's yeast in pet's food. Ask your veterinarian about tablets for flea control.

GRUB Killer

There are destructive nematodes and there are beneficial nematodes. The "good" guys are available by mail order or check out your local, well-stocked, garden centre. They are selective and eliminate many of the insects that are damaging – not just the grubs. They also do not destroy the beneficial micro-organisms, bacteria and fungi that are arbitrarily eliminated by any chemical compound found in most pesticide products, such as, MERIT.

General Lawn Care Tips

1) Mow lawn tall (2 ½" to 3") regularly, with a lawn mower that has sharp blades. Finely mulched lawn clippings left on top of the lawn make great, nutritious mulch that keeps in moisture, reducing the amount of water you pour into your lawn. There is a special mulching blade that can be retrofitted to most existing lawnmowers. You can save money. You will not need as much commercial fertilizer that commonly has strong chemicals and artificial ingredients.

2) Identify the specific pest or source of the problem. You will find there are more natural, home remedies that are specific to the garden problems than many of the commercial pesticide products that kill a broad spectrum of BOTH the "Good" and "Bad" types. They tend to kill indiscriminately and over time produce a sterile, non-productive soil in which none of your plants will survive.

3) Like any product, commercial pesticide or natural, home remedy – the liquid or granular products must be reapplied after watering by you or a rainfall.

PROTECT YOURSELF

Buy local; buy in season. Local food is fresher and food in season is less likely to be preserved with irradiation or chemicals. Check out local sources of organic produce and food products. For further information on organic food suppliers contact the Gentle Rain 519-271-0388, or other, local suppliers of organic food products.

Insect Elixir

1. Boil a concoction of water, 3 onions, 1 globe of garlic, and cayenne pepper (ground dried hot peppers) for 10 minutes. Strain and cool. Alternatively, mix in a blender and let sit over night. Put into a gallon of water for a spray. This mix is particularly good for roses, azaleas, and chrysanthemums, which suffer from ants, spiders, caterpillars, and fleas.

2. Combine 1 cup of dish detergent, 1 bottle of beer, 1 cup of Listerine, 1 cup of chewing tobacco solution. (Soak 3 finger's length of tobacco in 1 quart of water for a week to make the solution, of which 1 cup is used in the recipe.)

3. Plant garlic around flowering plants as an insect deterrent.

4. Kelp: adds potassium, small amounts of nitrogen, trace elements, and plant hormones to make plants hardy and more resistant to disease/insects.

Ants

1. See above.
2. Coffee grounds (used), placed on anthills.
3. Diatomaceous earth. Use a mask when distributing. Use sparingly, as it kills earthworms.
4. Plant tansy.
5. Bone meal or powdered charcoal used to provide a barrier strip.

Aphids

1. Spray with water from the garden hose, paying attention to the underside of leaves. *
2. Mix 1 tbs. detergent/dish soap with 1-cup vegetable oil. Take 1 tsp. of this and add to 1-cup water and spray on aphids and mites.
3. For inside plants: make a solution of detergent and water and spray.
4. Rhubarb leaves: Boil 1 lb. leaves in 1 qt. water for 30 minutes. Strain and cool, then add detergent as adherent for spraying.

Bush Leaf Scale

Mix of 1 part detergent to 30 parts water in a hose-end spray bottle, and then rinse the plant. (Ed Lawrence, CBC Radio Noon, Head Gardener of the grounds of our Nation's Capitol.)

Chinch Bugs

1. Sprinkle Ivory Snow soap flakes dry, over grass.
2. Spray with soapy water for 10-14 days.
3. A handful of wood ash and lime dissolved in 8 L. of water. Spread a flannel sheet on the ground and wait 15-20 minutes: the bugs will cling to the sheet and can be collected. Dethatch in September. Provide shade with plants, trees. Patch with "quick patch" grass seed or perennial rye. Don't use nitrogen fertilizers as it encourages greening with shallow root growth.

Cucumber (Striped) Beetles and Flea Beetles

Ground rock phosphate, lime, tobacco, or road dust. Dust on the tops and undersides of leaves when they are wet with dew.

Cut Worms on New Plants

Place a cardboard collar 1 inch into the ground and 2 inches above encircling the new transplant.

Earwigs

1. Use diatomaceous earth to trace their path indoors; use with a mask and sparingly, as it kills earthworms.
2. Stale beer.
3. Place grapefruit or orange halves upside down and collect them.

Flies

Use preventive spraying of annuals with soap and water before they emerge in the spring.

Fungi and Mites

1. Granite meals or dust.
2. Make a spray from 1 tbsp. baking soda and 2.5 tbsp. horticultural oil in 1 gal. of water. Use oil Spring/late Winter.

Fungus Preventive

1. If possible, give sun exposure, Dethatch, and water in the morning, drying between watering.
2. Soil analysis for nutrient deficiency.
3. Replant seed with mulch for brown patch.

Garden Fungicide

As a non-toxic alternative to chemical fungicides, spray a solution of four teaspoons baking soda per gallon of water on rosebushes to prevent damage by black spot fungus. If you like, add a few drops of liquid soap to the solution to help spread it more evenly on the leaves. This same spray can be used on grapes and vines to help prevent grape fungi, especially black rot, from forming. Apply once when the fruit starts to appear and then once a week for about two months. Reapply after each rain.

Grubs, Click Beetle (Wireworm Larvae)

1. Aerate, high potassium fertilizer (seaweed) applied in the fall to help the lawn resist cold. Spread diatomaceous earth and soap flakes/powder (6-9 kg per 100 square meters) four times a year.
2. Beneficial nematodes must be applied on a cloudy day on wet grass and kept wet (high water use).

Horse Chestnut Beetles

Use Neem oil, vegetable oil, detergent, and water.

Iris Borer

In the fall, remove dead leaves and burn to remove over wintering larvae.

Japanese Beetles

1. Hand pick the 1/2 inch metallic bronze coloured beetles and put them in a few inches of alcohol or water with kerosene.
2. Milky spore powder.
3. "Doom" or "Japidemic" as prescribed on the label.

Mildew (Powdery)

Use 1-2 tbsp. soap in 1 gallon of water for a spray.

Mould

Spray with garlic water. Particularly for seedlings or germinating seeds.

Potato Bugs

Hands pick and drop into any solution. Coal oil (kerosene) was used in the '40's.

Red Spider Mite

1. Wood ash dusted on foliage. Columbine is a host to red spider mite.
2. See other in Fungi and mites.
3. Use alcohol on a swab of cotton and wipe mites off all surfaces.

Rodents

Place toy pinwheels or empty bottles in their runways, as the noise is a repellent. Use plant castor bean plants and annuals with a deep root system, which robs the soil of water reducing insect population for moles in particular.

Rose Black Spot

1. 1 tsp. baking soda in 1L. water, sprayed weekly.
2. Safer's Natural Fungicide. Or 2 tbsp. soap flakes in 1L. water. Rinse.
3. Diatomaceous earth, sparingly and use with a mask.
4. Mulch and sprinkle baking soda directly on the ground beneath bushes.

Slugs

1. Wood ash or sand, on the ground beneath the plants acts as a repellent. A dish of beer lures slugs to their death. Hosta and vegetable gardens are likely hosts for slugs. The darker leafed plants are safe from slugs.
2. Homemade beer-like solution: 1cup water, 1tsp.sugar, and 1/4 tsp. yeast. Put into a container.

Snails

1. Egg shells, crushed. Use with caution, as worms are vulnerable.
2. Wood ash.

Sow Bugs

Halved cantaloupe shells, left cut side down near the plant.

Pill Bugs

Used corncobs placed under a tipped plate or pot. Each morning they can be collected and moved or destroyed.

Webworm

1. Use soapy water at rate of 1 part soap to 40 parts water, once a week for four weeks. (25-ml. detergent in 4 L. of water).
2. Garlic juice (2-3 cloves) in 4 ml of rubbing alcohol in 4 L. of water.

3. Spread wood ash, lime, or rye flour to smother caterpillars.
4. Dethatch and aerate, re-seed bare spots.

Weed Growth Prevention

1. Shading with close propagation of plants.
2. Mulch with saved clippings from grass or decomposed leaves (6 month lead time as they composted over winter). Straw, hay, bark, and others.
3. Regular attention to pulling when the soil is moist, or dead heading seed heads.
4. Hand digging at least 2/3 of root. Harvest identified herbal varieties.

Fertilizers:

Rose Food Recipe

- 1/2 tsp. 15-30-15 Super K water-soluble plant food
 - 1/2 capful of fish fertilizer
 - 1 oz. hydrogen peroxide
 - 1 cup of beer
 - 2 tsp. instant tea granules
 - 1/2 oz. of liquid soap
 - 2 gallons of warm water
- Mix all ingredients and use 1 pint of liquid every 3 weeks until July 15th.

Green Houseplants

"C" food emulsion or seaweed powder for plants, shrubs, vegetables and trees. (Slow release and non-burning).

Garden

1. Slow release fish emulsion.
2. Hard and soft rock.
3. Mushroom compost from mushroom farms.
4. Use green manure with nitrogen rich cover crops, which improves soil tilth and adds organic matter to poor soils.

Successive planting and tilling or digging under of buckwheat, alfalfa, oats, or clover improves soil aeration and drainage while building layers of organic matter. Cover crops can provide 150 lbs. of nitrogen per acre, equivalent to 12 1/2 Tons of cow manure.

Liquid Sheep Manure

Tie up several handfuls of sheep manure in cheesecloth with a long string; dangle from handle of large garbage pail filled with water and steep a few days. Dilute and give to perennials and roses.

Bone Meal

For peonies, delphiniums, & roses, Spring and Fall.

Wood Ash

For delphiniums. Keeps all plants active.

Nitrogen

Keeps plants green, supports new growth. Don't use in the fall.

Phosphorus

Encourages fruiting and flowering.

Beneficial Insects

Lady bugs/beetles

Lacewings- "aphid lions"

Wasps, small parasites: larvae devour caterpillars, whiteflies, and aphids from the inside out.

Tachinid flies: Larvae eat tent caterpillars, cutworms, and corn borers. Rove beetles or ground beetles: eat root maggots. The former for grubs, and the latter for slug eggs and cutworms.

Nematodes for grubs.

Food Plants For Beneficial Insects

Queen Anne's Lace, stinging nettle, goldenrod, dandelion, and wild mustard. Perennial bunch grasses in the shade help nourish green lacewings.

Pest Diagnostic Advisory Clinic

University of Guelph: 1-519-824-4120.

Tips

- 1) Fertilize in the Spring unless Nitrogen is left out from the mix. Compost Spring and Fall.
- 2) If too acidic, raise the pH by adding lime dandelions indicate acidity. Azaleas and rhododendrons thrive in acidic soil.
- 3) If too alkaline, lower the pH by adding sulphur or ash. Clematis and lilacs prefer neutral or alkaline soils.

Garden Information Service

1-800-694-GROW of the Royal Botanical Gardens.

Soil Nutrition

Please see book source, chapter 4 of: The Rusty Rake Gardener, by Kathy and David Cummins.

Soil Testing

Civic Garden Centre in Toronto 1-416-397-1340.

Nutrite, Box 160, Elmira, On., N3B 2Z6. 1-800-265-8865.