Natural Pesticides

Natural pesticides are safer for your garden, your family, the natural wildlife and the environment. The easiest way to prevent insect damage in your garden is to discourage them from coming in. A healthy garden is the best defence.

- 1. Pull out any weak plants as they are probably already infected. The predators will sense their weakness and attack the plant.
- 2. Build your soil up to make it healthy and organic. You can do this with natural composting, mulching and top dressing with natural fertilizers. This way you will grow strong healthy vigorous plants which can help resist the onslaught of pests.
- 3. Clear your garden area from debris and weeds the help minimize the insects habitat. Always use clean mulch.
- 4. Insect pests are often plant specific. When planning your garden, you can confuse the insects by mixing up your plants. Rotating your crops every year will also avoid reinfestation of pests.
- 5. Water early so that the foliage will dry during the day. Wet foliage encourages insects and fungal damage to your plants.
- 6. If you have been working with infested plants make sure you clean your tools before moving to the next one. This will reduce the speed of invading insects.

Homemade remedies

There are a lot of homemade remedies that you can make yourself to deter those annoying pest that take joy in eating your food. Below is a list of a number of recipes that you can try and see which ones suit you best.

Most recipes can be used effectively with just a weekly treatment. Too much use can affect the plant as well as kill good insects you want to encourage in your garden. If you are not seeing the results in a 7 day treatment you can bump it up to 5 days, but just watch carefully to make sure your plants can handle it without being damaged.

Avoid using any sprays during the day in those hot sunny months. Do the spraying later in the day to reduce the risk of burning. If it looks like it is going to rain then wait until the weather is clearer or all your effort will be to no avail as it will just wash away. Also make sure your leaves are dry as well, otherwise your solution will be diluted with the moisture on the leaves.

When trying a new recipe, test on just a couple of leaves first (apply then watch how the test leaves react after two or three days, if no signs of damage, proceed with spraying the whole plant).

Caution: Sprays which kill harmful insects will also kill beneficial insects. Use these homemade remedies selectively, only spraying the infected plants. Re-apply after a rain. Wear protective clothing when spraying insecticides.

Rhubarb Leaf Mix

1 cup rhubarb leaves

6.5 cups water

1/4 cup liquid dish detergent or soap flakes

Cover rhubarb leaves with water and bring to a boil. Boil for 20 minutes then remove from heat and cool. Strain, and then add 1/4 cup liquid dishwashing detergent. Apply by spraying on foliage.

This is good for aphids, June beetles, spider mites, and thrips.

for thrips, aphids, grasshoppers, chewing and sucking insects.

Rhubarb leaves are poisonous, take care when preparing and handling. Do not use on food bearing plants.

Garlic water

Crush three or four cloves of garlic and infuse them in half a litre of hot water until it is cool and suitably smelly.

It is most effective against soft-bodied insects such as aphids or bean fly. It can even be used on vegetables in the harvest season-though they may taste a bit garlicky. It certainly makes the garden smell like a Mediterranean restaurant for a day or two!

Garlic, Peppers & Onion Insecticide

2 hot Chillies

1 large onion

1 whole bulb of garlic

1/4 cup water

Toss in the food processor and add water, blend until a mash is made. Cover mash with 3.5litres hot (not boiling) water and let stand 24 hours. Strain and spray on roses, azaleas and vegetables to kill bugs infestations. Bury mash in ground where bugs are heaviest. Good

Tomato Leaves Mix

Crush leaves from a tomato plant and soak in water for a couple days. Strain then spray. Good for grasshopper and white fly control.

Tomato leaves are poisonous, take care when preparing and handling. Do not use on food bearing plants.

Basil Tea

- 4 cups water
- 1 cup fresh basil (or 2 Tbsp. dried)
- 1 tsp liquid dishwashing detergent

Bring water to a boil then add basil. Remove from heat, cover and steep until cool. Strain and mix in the liquid detergent then apply.

Good for aphids.

Onion Insect Repellent for Plants

Save onion skins, peels and ends then refrigerate in an empty margarine-sized tub or Ziploc bag until the container is full. Once you have enough, place the onion pieces in a bucket and fill with warm water. Soak for a few days, up to a week. Optional: You can keep this in the garden under the sun too steep as well.

After a week, strain the onion bits out and store the onion water in spray bottles. Bury the onion bits around plants that are prone to aphids, spiders and other pests. Spray both house and garden plants with the solution to fight aphids and pests.

NB: You could also mix your garlic trimmings in with the onion pieces, bugs hate garlic too.

Salt Spray

2 Tbsp. salt

5.5 Litres of warm water

Mix salt and water to dissolve, allow cooling at room temperature.

Use for spider mites, caterpillars, cabbage worms and chewing insects.

Epsom Salt Spray

50 grams of salt

7.5 litres water

Mix together and spray on foliage

Helps with Black Spot, Mildew, Wilt and Rust

Slug Bait Trap

Set out beer in shallow containers to attract slugs (you can use lids). Make sure you bury the bottom of the container. The slugs will be attracted to the yeast and fall in and drown.

Diatomaceous Earth

Diatomaceous Earth (DE) is an all-natural solution for insects of all kinds (ants, snails, slugs, etc.). Sprinkle DE on top of soil around plants with pest problems. This natural powdery substance will poke insect bodies and dehydrate many soft body soil organisms, but not earthworms. This can be used on the soil or sprayed on the plant with soapy water. Unlike most natural pesticides, D.E. can stay in the soil working for decades. Available to purchase from our on-line shop.

White Oil Mix

1 Tbsp. vegetable oil 1 tsp liquid dishwashing detergent 500ml water

Fill a spray bottle with the ingredients then shake to mix.

Helps with aphids, scale, mealy bug, mites, citrus leaf miner and smooth skinned caterpillars.

Citrus Spray

2 cups orange peels (or lemons)

4 cups water

Bring water to a boil, remove from heat and add peels. Cover and steep until cool. Strain and use. Use the lemon mixture to repel white flies and kill fire ants. Hot boiling water mixed with garlic products, poured over the fire ant mounds will also kill the queens.

Peppermint Tea

1 Tbsp. peppermint essential oil (you can also use an infusion made with mint leaves, increase amount to 1 cup infusion)

1 litre water

Mix together and use as an insect spray. This one is good for ants and is also a form of Rodent control. As a deterrent, soak a rag or cotton balls in peppermint oil and place in areas of rodent activity. Place under an eve or under a cover so to keep the rain from diluting the peppermint. Rodents are allergic to peppermint and will avoid it. This method is also effective at deterring rabbits.

Japanese beetle Bait Trap

2 cups water 1 mashed banana 1/2 cup sugar 1/2 cup wine 1/2 tsp yeast

Mix ingredients together and put in an old margarine container, cover with lid and set container out in the hot sun for a day. The next day, remove lid and set in garden where the beetles have been spotted (use a shallow container).

Other simple inexpensive trap can be made by placing several small open milk jugs, cans, or buckets all over your garden. Inside the cans place some rotten fruit or fruit cocktail in 1/2 can of water with 1-2 tbsp. of liquid soap and 1-2 tbsp. of canola oil. You can also add dry molasses or liquid molasses for extra microbial power in the soapy tea mixture to attract and kill them.

These pests are best controlled by killing their larva during the winter and early spring seasons with mild topsoil tilling, or using milky spore or beneficial nematode soil applications. During the warm season, the best way to control them is with traps as mentioned above. Also planting a border of buckwheat will attract these pests away from your crops.

Neem Spray

- 1 Tbsp. Neem soap (shavings)
- 1 litre water

Add soap to water then let sit for an hour. Shake bottle then use.

It suffocates insects and is great to use against aphids, whiteflies, mealy bugs, caterpillars. Neem goes that extra step of destroying soft body insects' ability to reproduce and makes them starve by removing their appetites.

Easy Soap Flakes Spray

2 Tbsp. soap flakes (don't use detergents)
Dissolved in 1litre of water

Spray top and bottom of leaves to control Aphids.

Do not use much on flowering fruit or vegetable plants. Can hinder fruit production.

Apple Cider Vinegar

Use 1-2 tbsp. per litre of water for a mild fungicide or acidic liquid fertilizer. Apple cider vinegar can contain up to 30 trace elements.

Ground cloves

Use several tbsp. per litre of water Great repellent and can kill flying insects.

Barrier Paper

Scraps of waxed cardboard from milk cartons, or a scrap of roofing felt are a simple yet effective defence against cabbage moths. Cabbage moth larva kills young sprouts of the Brassica family (broccoli, cabbage, Brussel sprouts, kale or cauliflower).

Cut into 2" squares and slit one side into the centre; make another small slit crossways. Open the slit and slide the square so the seedling stem is in the centre. This prevents the cabbage moth from laying eggs at the base of the sprouts. Leave in place - as the plant grows it will simply push the slit open wider. Be sure to apply as soon as the sprout appears, or the moth will beat you to it!

Note: For recipes that require liquid dishwashing detergent, use the basic stuff—nothing fancy with added bleach, nothing concentrated and no special antibacterial formulas. You can also substitute with gentler liquid hand soap.

As with all pesticides, take care when applying to food bearing plants. No one needs reminding I'm sure, but wash all produce well before consuming.

<u>Planning your garden for natural pest control is always the best</u>

The best way to control harmful pests and insects is to design your garden landscape and annual vegetable gardens strategically. Incorporate continuous companion planting ideas in order to increase beneficial insect and animal populations. This will help to control the harmful animals and insect population. Intensive organic mulching through your garden landscape also controls many pests. With a little bit of planning you can help cut down on pests and diseases organically by growing natural repellents near problem areas.

Below is a list of some suggestions you can use;

Peppermint - Repels ants, white cabbage moth, aphids and flea beetle.

Garlic - Discourages aphids, fleas, Japanese beetles and spider mites.

Garlic Chives - Planted among roses to keep aphids away and to resist the disease black spot Basil - Drives away flies and mosquitoes

Borage - Deters monster vegetable garden insects, the Tomato Hornworm

Rosemary, Mint, sage and Thyme - Together repels cabbage moths, bean beetles and carrot flies.

Nasturtium – Position near cucumbers, melons and squashes to keep away squash bugs and whiteflies.

Radish - Can be planted near cucumbers to discourage cucumber beetles, squash bugs and stink bugs.

Summer Savory - Position near beans to repels bean beetles.

Wormwood - Deters slugs that are so devastating to foliage.