Pest Control without Pesticides

Looking for a safe, organic way to keep pests and disease under control in your vegetable patch? Using pesticides in your garden can be very counterproductive as they cannot distinguish between the ‘good’ insects and the pests and you end up killing the very things that are trying to keep the pests in check. Just allowing nature to take its course however, can be a little disheartening so here are some sustainable strategies to stack the odds in your favour.

CROP ROTATION

Insect pests are often plant specific. When plantings are mixed, pests are less likely to spread throughout a crop. Crop rotation is all about moving vegetable groups from one bed to another each year. Crop rotation is one of the simplest things you can do to create a healthy strong vegetable patch. Done correctly, crop rotation will reduce the likelihood of diseases and pests attacking your crops and has the added advantage of adding nutrition to the soil for the following crop. No matter the size of your garden, if you can divide your garden into four sections and follow this simple guide you can master crop rotation.

**Section 1** Heavy Feeders – Corn, Lettuce and other leafy crops, Pumpkin, Potato, Silverbeet, Tomato, Spinach, Cucumber, Zucchini, Squash

**Section 2** Soil Improvers – Bean, Pea, Clover, Alfalfa

**Section 3** Light Feeders – Beetroot, Carrot, Garlic, Leek, Onion, Parsnip, Capsicum, Chilli, Eggplant, Celeriac

**Section 4** Brassicas and friends – Broccoli, Cabbage, Radish, Turnip, Chinese greens, Rocket.

You can experiment with combinations but keep in mind the family of the vegetable you are planting and avoid growing members of the same family in the same spot year after year.

AVOID STRESSED PLANTS

Pests often take advantage of weak or stressed plants so do everything you can to keep your plants healthy. The condition of the soil is vital but also consider the micro climate you plant into. Vegetables need a reliable, steady water supply to stay productive and even with careful watering may suffer from heat stress. The most common signs of heat stress in vegetables are sunburned foliage and wilting. During a prolonged hot spell, water regularly and deeply, mulch the soil with at least 75mm of organic mulch to reduce moisture loss and shade crops, such as leafy greens and lettuces, to slow bolting and going to seed.
ATTRACTION BENEFICIAL INSECTS

By growing plants that provide nectar for beneficial insects you can increase pollination and attract 'good' insects to help keep pests in check. A beneficial insect is an insect (or other arthropod) that helps you grow healthy plants. There are three kinds of beneficial insects; predators, parasitoids and pollinators. Ideally try to attract all three kinds of beneficial insects to your garden. Predators prey on other arthropods, eating pests like aphids and beetles. Parasitoids parasitise pests, eventually killing them and pollinators help the gardener by pollinating crops, ensuring a good harvest.

Examples of beneficial insects are – Lacewings, Ladybugs, Assassin Bugs, Praying Mantids, Caribid Beetles, Braconid Wasps, Cotesia Wasps.

Try growing the following plants near your productive garden beds to attract 'good' insects – Calendula, Gaura, Shasta and Marguerite Daisies, Gazania, Feverfew, Salvia, Yarrow, Gallardia, Cosmos, Nasturtium, Dianthus, Alyssum, Ageratum.

You can also use chickens and ducks to clean up under fruit trees and keep snails and slugs in check.

However, even with all these measures, you will inevitably have some pest or disease problems. If you are not sure what you are dealing with try to get the problem identified by a local nursery - they can give you some tips to control that particular problem or even advise whether control is necessary. General hygiene, such as picking up all affected fruit, destroying diseased plants and keeping the surrounding areas clear and weed free will help to minimise the damage. By quickly responding to any problems that arise you can contain the issue before it gets out of control.

Lastly, learn to share. If you have possums or bird life in your area you will need to grow enough for everyone!

MORE INFORMATION
www.abc.net.au/gardening/factsheets/pests_diseases_weeds.htm

For more information on sustainable programs available in the ACT
Website: www.actsmart.act.gov.au
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