

PEST AND DISEASE CONTROL BASICS

Keeping pests and diseases under control means a lot more than grabbing for a chemical spray - especially if you're an organic gardener. I've already raved on about why organic is better and why you should ditch chemical gardening practices. It's better for your soil, it's better for your little microenvironment, and of course, it's better for you.

So how do you achieve this organic bliss? The answer is easy - instead of fighting nature, make nature work for you. It just requires a little planning beforehand.

Pests and diseases can be combated in the organic garden by breaking reproduction cycles, confusing pests - which keeps them away from your garden, getting good insects to eat your bad insects, getting other animals to eat your pests, and making your veggies and fruit unpalatable to pests.

I've titled this web page 'Pest and Disease Control Basics' as it introduces the basics and what to look for when dealing with these problems.

Crop rotation

Cutting a long story short, crop rotation is about moving your vegetables around your little patch each year. This way not only do you give your soil a rest from having specific nutrients depleted each year, you also help break the reproductive cycle of soil borne diseases and some pests (ex. nematodes).

Companion planting

This is another one of those little organic miracles. By planting certain vegetables, or herbs, together you can ward away pests, plus boost your garden's growth.

One of the best known examples is planting onions and garlic with carrots (the allium's smell confuses pests, keeping them away from your carrots, and the carrots help loosen the soil for the onions. Both plants win!). Any organic vegetable gardener should make companion planting an important part of their planning.

Keeping a tidy garden and breaking the cycle of disease

This sounds pretty obvious but it's amazing how many gardeners slip up. Organic gardeners get fanatical about our compost - it's fantastic stuff, full of basic elements and packed with micronutrients and microorganisms. But make sure you never put diseased plants in your compost bin or heap. All you'll end up doing is bringing the disease back into your garden. So toss diseased plants in the garbage instead. Also make sure to thin any infected plants so that air can flow through the plant and not be a landing spot to spores or other air-borne fungus. You can rid your lilacs of powdery mildew by simply thinning out the plants to create areas where air can pass through. Another good control of powdery mildew is a spray of a product called "Wilt-Pruf". It puts a coating on the leaves which makes it difficult for the spores to attach themselves to the leaves. This spray also works wonders for black spot on roses.

If you need a spray to help control diseases on your plants, a sulfur spray will help control most diseases, and in conjunction with proper garden cleanliness, you should be disease free before you know it!

Beneficial insects

Get rid of bad insects with good insects. Confused? Don't be. There are many insects you can encourage into your garden that prey on pests, or use pests as the host for their young.

To get them into your garden try growing herbs with umbrella-style flowers like coriander, fennel, parsley and Queen Anne's Lace (a beautiful plant often found on roadsides). Their flowers attract parasitic wasps (good wasps) that like laying their eggs into grubs, aphids and other pests in the garden. The eggs hatch, and the larvae feast on the host. Gruesome sounding stuff, but use it to your advantage.

These flowering herbs will also encourage ladybugs, which also enjoy chewing on aphids. If you sow your beneficial herb mix but still don't get any good insects, you might need to buy them in, try mail order, the Internet or even some nurseries, such as Gardens Alive (a banner ad is on the home page).

Other beneficial friends

You can also keep down the number of insects in your garden with other animal friends. If you've got chickens or ducks you let them loose into your garden and can just about guarantee you'll have no snails or slugs left. Plus

they'll dig up and eat other insect eggs on or just under the soil. But keep an eye on your feathered friends, as they'll start into your veggies too if you're not watching! Also, there are plenty of our feathered friends that can eat a ton of insects in a day, so encourage birds to stop by and stay in your garden.

Or try turning to your natural environment and build a frog pond. Native frogs and toads (not cane toads - for the Aussie audience) can make their way into your veggie patch where they'll feast on your insect population (indiscriminately though!) But you can't go past their croaking in summer storms, or finding an amphibian acquaintance when you're out harvesting.

Pyrethrum and Insecticidal Soap

When you want to indiscriminately (but organically) kill bugs you can't go past pyrethrum sprays. A sweet smelling flower extract (bought from nurseries) it should only be used on pests that you know.

But be warned, pyrethrum residue lingers for a number of weeks, so it can also kill beneficial or neutral insects that come by even weeks after you have sprayed.

Another good "safe" pesticide is insecticidal soap, which is a salt of potassium that will kill all soft bodied insects. The key is to make sure you spray all of the plant, both top and undersides of the leaves for an effective kill. If the soap does not contact the pest, it won't kill it. Remember, even though these pesticides are safer than chemical formulations, they can still harm you, so use proper safety equipment when spraying.

Deter pests with organic sprays

If you don't want to kill everything organically using pyrethrum or insecticidal soap, you can always deter plant-eating pests using handmade organic sprays.

These are aimed at any leaf-eating insects - grubs, caterpillars, grasshoppers, snails, slugs, etc, for almost all plants.

The idea is to create a foliar spray that will make the plant taste so terrible, the pests will go away and annoy your neighbors, leaving your vegetable patch alone. Not nice for your neighbors, but hopefully this'll help you convert them to organic gardening!

Try mixing water with either (or a mix of) crushed garlic, chili (hot pepper - my favorite) or onion. You might need to water it down, otherwise it might be so strong you won't want to eat your homegrown vegetables either! You can also go to your local garden center and purchase pre-made mixtures of these products in ready-to-use bottles.

Don't forget with any spray you'll need to reapply it after rain, or if you water overhead with a sprinkler.

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