



Pests and Diseases: how to manage them

Notes from a talk by
Sarah Foss (M.Hort.)

Sustaining Healthy Soil

Sarah explained that the RHS is moving away from aggressively attacking plant pests and diseases and prioritises the importance of soil health and biological pest and disease management methods. The current thinking is that gardeners need to accept some level of pest and disease damage in order to sustain healthy soil. A healthy soil should have a balance of nutrients as well as organic matter which will help to bring the living organisms into the soil.

Pesticides are not acceptable because they will kill all insects including beneficial ones. Note that even so-called eco-friendly detergents are not natural to the soil and its creatures.

Non-chemical pest control includes:

reused plastic bottle cloches and collars

netting

pheromone traps to prevent fruit tree moths

grease bands for fruit trees

cabbage root fly mats

and for slug and snails 'slug pubs', control barriers such as wool pellets, copper tape and crushed eggshells (although Sarah recognised that large amounts to these are needed to be effective).

Slugs

Sarah mentioned that there are 44 species of slugs in the UK and only 9 eat living plant material. The remainder are detritivores, clearing up dead plant matter or cannibalising other slug species thus recycling organic matter into plant nutrients. She warned that wooden-sided raised beds harboured slugs and snails so keep a vigilant check. Encourage predatory creatures such as centipedes and ground beetles which eat slugs.

Blackfly

Blackfly on broad beans, runner or French beans can be controlled by squishing between finger and thumb. Advisable to monitor daily. A well-balanced ecosystem should provide many predators such as ladybirds and their larvae, birds, hover fly larvae, parasitic wasps, social wasps, mites and spiders.

Carrot Fly

Similarly, the widespread problem of carrot fly can be reduced by buying varieties that are more resistant, such as Resistafly. Resistance, however, does not mean immunity. Carrot root flies are usually on the wing between May and August so sow from the end of May. Avoid carrot root fly by covering carrots with a fine mesh barrier (sold in the Store).

Caterpillars

It is best to sow over-wintering varieties of brassicas to avoid cabbage white butterfly damage in the spring. Radish, rocket or brassicas can be left to flower over winter as they attract natural biological control.

Fertilisers

should be organic, e.g. fish, blood and bone and chicken pellets. Artificial (non-organic) fertilisers will undermine helpful organisms within the soil.

Do not overwater or flood as this pushes out air and creatures from the soil.

Sarah recommended the use of green manures (a range of these for use at different times of the year are sold in the Store). Avoid digging in, but cover with cardboard in early spring.

Keep living roots in the soil as they leach sugars back into the soil and provide food for soil organisms. Digging will destroy the essential structure of the soil as will compaction caused by repeated walking on the soil.

Plant diseases

can be spread by rain splash, wind, insects and humans. Ideally wash tools after using and wash boots so as not to spread diseases such as onion white rot and club root.

Monitor your plants for signs of pests or diseases and cut out diseased or damaged parts of the plants as soon as seen. Usually it is not necessary to take out the whole plant.

Tomato blight

is a common problem. It is a fungal disease carried on summer rains from July onwards that meet the 'Hutton Criteria': two consecutive days with temperatures above 10 degrees with a period of at least six hours of relative humidity above 90%. Growing more resistant varieties is a solution. These are likely to be F1 varieties and are probably more expensive. Magic Mountain tomatoes have good resistance.

Powdery mildew

on Cucurbits looks unsightly and can be reduced by spraying with milk solution, but it usually starts to occur when the plant is near the end of production and fruits are not compromised. Affected leaves can be composted.

Healthy plants are less likely to succumb to attack from pests and diseases. Advisable to plant out when plants are strong enough to withstand attack and probably better to avoid direct sowing.

We thanked Sarah for her useful and informed talk.

There was time for a few questions.

Q. There is club root in my soil. What do you suggest?

A. Buy resistant varieties such as Cabbage Kilaton, Cauliflower Clapton, Brussels Sprouts Crispus and Calabrese Monclano.

Q. Will cardboard get rid of couch grass?

A. Only over a long time. **Do not put couch grass in your compost heap.**

Q. Are small fruit flies in my compost heap doing anything bad.

A. No, but might indicate that your compost heap is too wet so add dry material such as paper.

Q. Can you eat potatoes left over from last year?

A. Yes, but not if they are green as green potatoes are toxic.

Q. How do I get rid of red ants without a chemical pesticide?

A. Keep the soil moist which will reduce the ant population but won't eradicate them.

Many thanks to Georgina O'Reilly for writing up these notes.

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