

INTEGRATED PEST MANAGEMENT: A COMPREHENSIVE GUIDE



Integrated pest management is a key part of the horticulture and agriculture industries. It's also key to a lot of peoples gardens. In this article we will explore what it is, how it works, and how you can use it in your own garden.

WHAT IS IT?

Integrated pest management is a style of controlling garden pests that uses a combination of different practices. It is used as a more sustainable method of pest control that doesn't involve as many pesticides, bringing together measures of detection, prevention, and control. It is widely used in the horticulture and agriculture industries but can also be implemented in gardens for a more eco-friendly approach to pest control. As well as pests, this approach can encompass control of diseases and weeds.



HOW DOES IT WORK?

Integrated pest management combines different methods of prevention and control, including:

- Chemical
- Physical
- Biological
- Cultivation

In essence, all available methods are considered and integrated into one pest management plan. When done correctly, integrated pest management prioritises long-term prevention of pests, weeds, and diseases.

Prevention v treatment

Both prevention and treatment are involved in integrated pest management. Let's go over which is which.

Prevention involves putting in place measures to stop pests from getting to plants in the first place. Detection is another crucial component of prevention; keeping an eye on your plants and knowing if a pest has entered your garden can help you stop it from spreading too far and causing too much damage.

Treatment is done after an issue is detected. Chemical methods are often used at this point, but it depends on the specific issue and the scale of it.



EXAMPLES OF INTEGRATED PEST MANAGEMENT MEASURES

Chemical

Chemicals are usually used as a last resort in gardening and are strictly legislated in the UK. However, when used properly, they can be an effective addition to integrated pest management.

Pesticides should be used minimally, and be specifically targeted. Always avoid spraying pesticides on flowering plants – this can end up hurting the pollinators that visit them. When formulating your plans, keep in mind that regular pesticide use can build up resistance in pests, so they shouldn't be used too frequently.

Make sure you do your research before buying a pesticide to use in your garden. Make sure it's right for the job and right for your plants. Follow any instructions carefully and avoid making any physical contact with the chemicals.

Another chemical method used in gardens is pheromones, which are naturally used by insects and other organisms to communicate amongst their own species. These natural chemicals are sometimes used to lure insects into traps or to interfere with their mating by blocking their signals to each other.



Physical

Physical controls create actual barriers to stop unwanted visitors from getting to your plants as well as physical measures you take as the gardener. Here are some examples:

- Using screens and fences to keep out insects or mammals.
- Mulching to suppress weeds.
- Using traps for insects or mammals.
- Pulling out and digging up weeds.



Biological

Introducing and encouraging natural enemies to control pest populations. This can include natural predators, pathogens, and parasites. Here are some examples of natural enemies to garden pests:

- Green lacewing larva feed on aphids and mites.
- Two-spot ladybirds are notorious for controlling aphid populations.
- Leptomastix species of parasitic wasps control mealybugs.
- Amblyseius andersoni, a predatory mite, feeds on whitefly eggs and larvae.

Cultivation

Cultivation measures in integrated pest management are those implemented in the actual raising of your plants, and the techniques you use in your gardening. Here are some examples of cultivation methods you could use:

- Growing plants that are less susceptible to – or tolerant of – pests and diseases.
- Limiting the use of fertilisers, so you're only using what the plants need. This will keep your plants healthy enough to tolerate pests and diseases without leaving excess nutrients in the soil, which can be bad for the environment and benefit weeds.
- Understanding your soil type and pH level and choosing your plants accordingly. Having the appropriate soil will help with the strength and health of your plants, making them less susceptible to damage. Click [here](#) to learn about soil pH and [here](#) to find out about soil types.
- Cleaning your tools between uses will limit the possibility that you're spreading a pest or disease from one area to another. This is especially important for cutting tools like secateurs and loppers. Click [here](#) for our full guide to keeping your garden tools clean.





IMPORTANT THINGS TO CONSIDER

When you're planning out your integrated pest management, keep in mind how some measures may impact others. For example, a lot of natural enemies to pests will be susceptible to pesticides, so the use of one may cancel out the other. Do some research on the specific insects and pesticides that you're using to make sure they're compatible.

As well as this, check that the natural enemies you're introducing won't have detrimental impacts on any other part of your garden. Generally, natural enemies used in gardens won't cause any damage to the plants themselves, but it's better to be safe than sorry.

Here are the key things to consider when you're planning your pest management:

- Try to use as few chemicals as possible, and never mix them unless the manufacturer has advised it
- Consider the impacts of seasons and weather on your plants and any natural enemies you're using
- Don't overdo it – not every little creature is a threat to your plants