

Integrated Pest Management

Integrated Pest Management (IPM)

IPM describes an approach to pest management that does not rely on a single control strategy. It can be described simply as a “balanced” approach to pest management.

IPM is generally considered to consist of three components: (1) cultural controls (2) biological controls such as good bugs and (3) chemical controls. IPM is neither organics nor necessarily pesticide free, but rather just a strategy for ‘sustainable’ pest management.

Working with Nature!

The best way to think of IPM is as a philosophy of working with nature to control pests. Sometimes with natural systems, we need to intervene to get the balance right, but over the longer term the need for such intervention should get less and less.

IPM also requires a shift in attitude to accepting some damage. This does not mean a pest eaten garden, but it does mean an acceptance that a few pests are a good thing! Keeping a totally insect free garden opens the plants up to attack from pests.

Practical IPM

This fact sheet is intended to provide practical ideas to implement in the home garden. The most important part of successful pest management is to understand your garden. This is also extremely cheap! Every minute in the garden is an opportunity to relax, as well as undertake some pest management by observing what is happening!

By far the majority of insects in the garden are ‘neutral’ – they are neither pests nor good bugs, but rather just residents! If you see insects in the garden, but no damage or problems, then there is no need to act.

Cultural Control

The first strategy to implement is cultural controls. This refers to all the practical things you can do to help prevent pest problems.

Examples of cultural control include:

- Planting a mix of flowering plants, as most good bugs feed on pollen or nectar as well as other bugs. This alternative food source attracts a wider range of good bugs.
- Reduce dust from driveways, bare ground paths etc, as dust damages the outer shell of the small parasites that occur naturally in gardens. This is why pests such as scale insects are often worse near roads.
- Many plants have natural resistance to pests and diseases, so choose groups of plants, or varieties within a group that are more resistant.
- Design the garden to avoid problems. Maintain good air flow, don't place plants in areas that don't suit them and provide a range of environments within the garden.
- “Start clean and stay clean”. This means using only good quality plants when establishing the garden or replanting. Also, remove diseased or badly infested plants immediately. Keep compost piles active. Remove areas that harbour pest problems.
- Companion planting is a strategy to use plants that naturally repel insects. Many herbs are in this category and should be widely used in an IPM friendly garden.

Biological Control

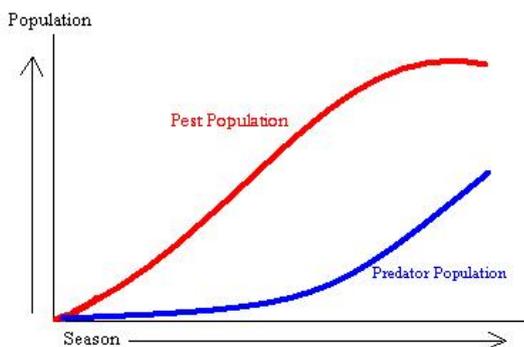
Biological control refers to the use of control agents that are themselves living organisms. The most common ones we think of are predators such as ladybirds and lacewings. However, there is a truly massive range and diversity of “bugs” on our side. These include “non-bug” predators like spiders, birds and even mice, lizards & frogs, as well as minute creatures such as parasitic wasps, nematodes and even fungus and bacteria.

Many of these occur naturally, and only require a bit of cultural management to encourage them to thrive and work for you.

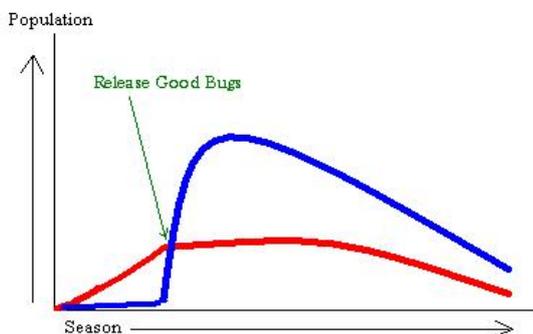
Mass Release of Good Bugs

Mass release of good bugs is what Bug Central specialise in. The idea behind this strategy is to release a huge number of good bugs that will quickly bring a problem pest under control. The aim is to bring a balance back into the garden and reduce the need to either release more bugs or use a pesticide.

The graph below shows the normal progression of a pest problem. The pest breeds up much more rapidly than the good bugs, and this lag phase in control is when damage can occur to plants.



This next graph shows the impact of releasing good bugs. Instead of the pests increasing dramatically, we release lots of good bugs, and keep the pest numbers down all season.



Chemical Controls

IPM recognises that sometimes a pesticide may be needed to manage a serious problem. However, IPM also requires this to be the last resort. It is important to understand all the impacts of using a particular pesticide, and whether it may well make the problem worse.

Choose a 'soft' pesticide that targets the problem. An example is to use an oil spray that targets stationary pests such as scale insects or aphids, but allows predators such as ladybirds to move away from the spray area.

Knowledge about all aspects of the pesticides is essential to make the right decision for long term pest management. IPM should not be considered a 'quick fix'!

Getting Started & Further Information

All you need to get started with IPM is the right information and attitude! A magnifying glass is also useful to see what is going on, as is a pen and notebook to keep records of what you see.

There are many sources of information that are useful in understanding better how to control pests. These include a range of books and websites that are listed on the Bug Central website. Go to the 'Links' page and select the information you require.



Lacewing larvae eating caterpillar eggs

Bug Central Fact Sheets are intended to provide information only of a general nature to assist in smarter pest management. Information is not specific to each customer, and should not be used in this way.

For further information visit

www.bugcentral.com.au

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