

Key takeaway points from session 3: Organic Pest Management

A 'PLANT HEALTH' APPROACH

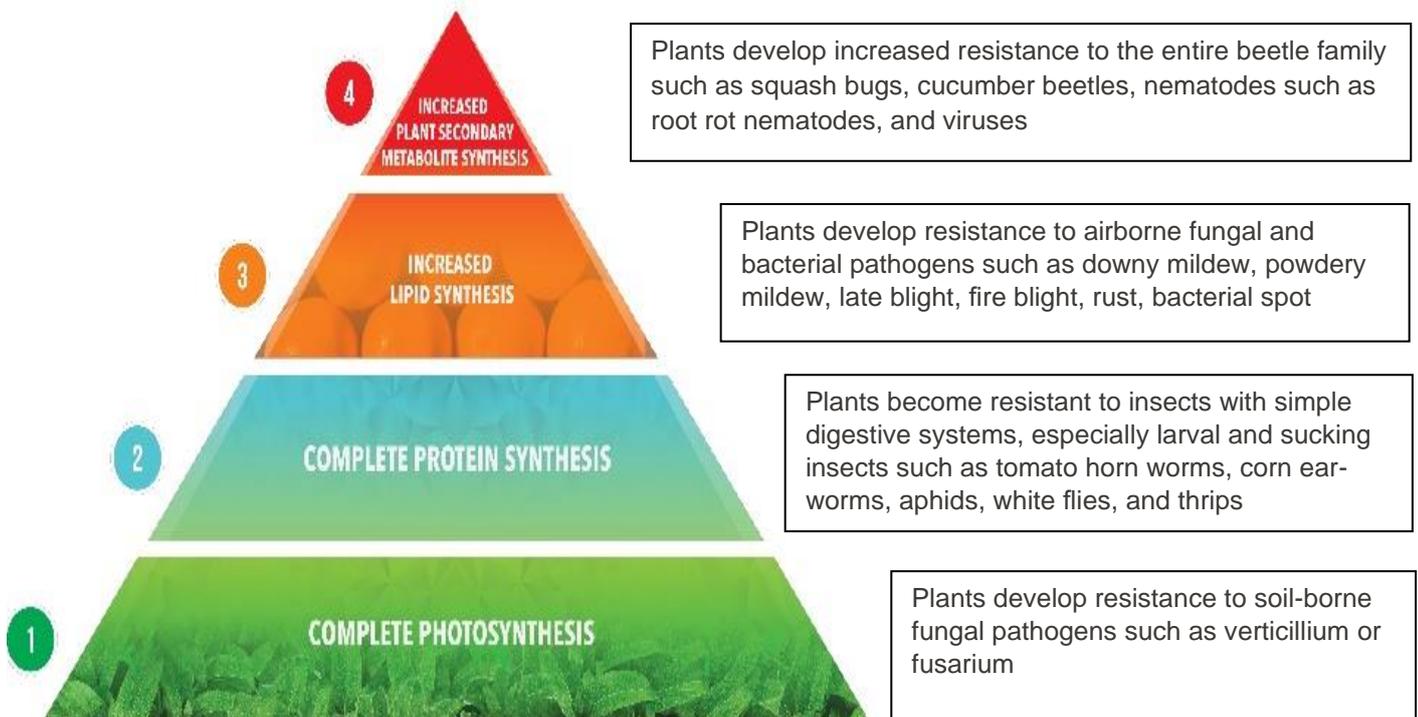
In organic gardening, we are not at war with pests. The aim is to support a balanced and diverse ecosystem that includes some of the organisms we might refer to as 'pests', understanding that the health of the ecosystem is our main priority, where preventing problems is always better than solving them.

It's also important to use a variety of methods to maintain the balance and manage (not control!) the 'pests' in our garden. We can therefore speak of an **Integrated Pest Management approach (IPM)**, which includes:

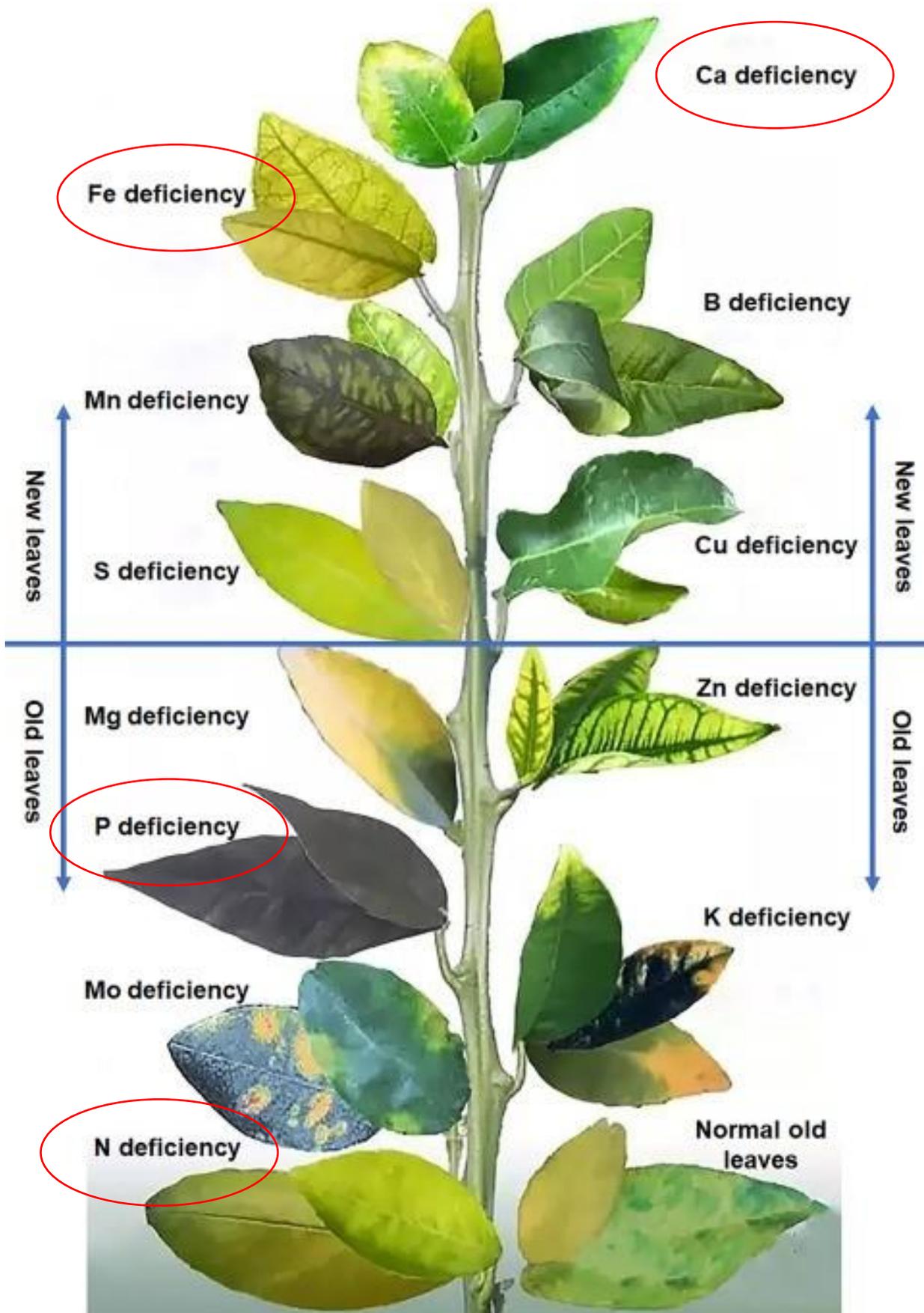
- **Physical methods** – physical barriers, such as netting for pigeons
- **Cultural methods** – a set of practices for the gardener, such as choosing certain varieties or using companion planting strategies
- **Biological methods** – the introduction of new organisms or increasing the number of a specific organism that will prey on a pest. This is **to be used as a last resort**, due to potential imbalances and risks to the ecosystem

In an IPM approach, we can keep in mind that the healthier the plant (quality of seeds, quality of soil, abundance of nutrients), the more this will be able to resist pests and diseases:

THE PLANT HEALTH PYRAMID



PLANT NUTRIENT DEFICIENCIES



PLANT DISEASES

Plant diseases derive from possible pathogens. These are classified into:

- Fungi
- Bacteria
- Viruses
- Nematodes
- Mycoplasmas

Some common plant diseases and what to do about them – worksheet:

Disease	Plants affected	Appearance	What to do
Cankers	Prunus		
Potato scabs	Potatoes		
Blights	Potatoes and tomatoes		
Damping off	All seedlings		
Club root	Brassicas		
Powdery mildews	Wide range of plants		
Mosaic leaf	Wide range of plants		

General tips to prevent plant diseases:

Choose varieties resistant to specific pathogens your crops might be susceptible to

Practice good hygiene in and around your garden

Prevent problems, rather than treat them

Ensure balanced levels of watering and aeration in your garden

Keep observing your plants



PLANT 'PESTS'

The organisms we generally refer to as 'pests' in our garden are usually divided into:

- Insects (e.g. white fly)
- Mites (e.g. red spider mite)
- Molluscs (e.g. slugs)
- Vertebrates (e.g. foxes)

Some common pests and what to do about them – worksheet:

Pest	Plants affected	Appearance	What to do
Aphids	Wide range of crops		
Cabbage root fly	Brassicas		
Cabbage butterfly	Brassicas		

Pest	Plants affected	Appearance	What to do
Slugs	Wide range of crops		
Pigeons and birds	Wide range of crops		
Carrot fly	Carrots, parsnips, parsley, celery, celeriac		
Foxes	Various crops, tools, environment		
Flea beetle	Mostly brassicas		

General tips to prevent pest problems:

- Grow healthy plants
- Know your pests' lifecycle
- Use a mix of methods
- Keep a tidy garden
- Prevent vs. treat
- Keep observing
- Encourage natural predators

COMPANION PLANTS

Companion plants are plants that, in various ways, can support the health of our crops. Based on how they provide support, a simple and arbitrary classification might be:

- Sacrificial plants
- Plants that deter pests
- Plants that attract predators for pests

Examples of sacrificial plants:



Nasturtium will attract aphids and cabbage white fly

Dill will attract rabbits



Examples of plants that deter pests:

Mint deters aphids, flea beetle, carrot root fly, onion fly

Tagetes deters root-knot nematodes

Allium family deters aphids, carrot fly and, reportedly, slugs



Examples of plants that attract predators:



Calendulas attract ladybirds, lacewings, hoverflies, among others

Borage attracts ladybirds, lacewings, hoverflies, spiders, honey bees, among others



Phacelia attracts hoverflies, bumble bees, honey bees, among others