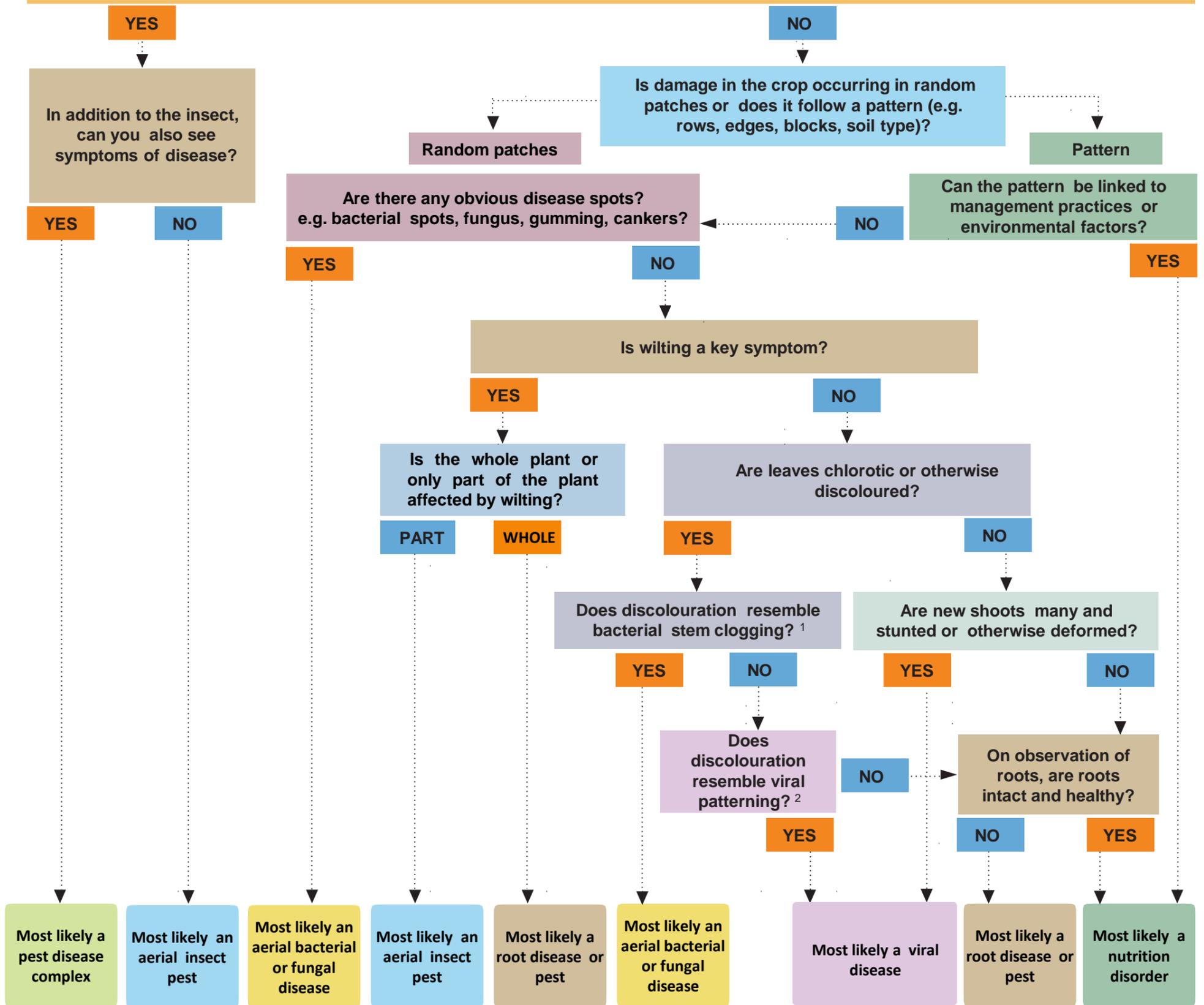


What's wrong with my crop?

Can you see evidence of an insect?



1 Bacterial stem clogging

occurs when bacteria live in the stem and block uptake of water and nutrients. Generally occurs in patches with leaves dying from the tips and outer edges.



Pierce's disease of grapevine (California PD/GWSS Board).



Bacterial canker of tomato (Cornell University, College of Agriculture and Life Sciences).



Bacterial blight of almond (Sam Livingston, Department of Plant Pathology, UC DAVIS, California).

2 Viral patterning

involves disease markings that seem to appear in an odd pattern, usually beneath the surface of fruit and leaves.



Citrus leprosis virus (Ron Bransky, UF, CREC).



Tomato spotted wilt virus on capsicum (Gerald Holmes, California Polytechnic State University at San Luis Obispo).



Tomato spotted wilt virus (NM State University, ACES).



Wheat streak mosaic virus (Phil Hamm).

What's wrong with my crop?

Common crop problems

A lot of common crop problems are usually caused by one of three things affecting your plants:

1. an **insect pest**
2. a **disease**, or
3. a **nutritional disorder**

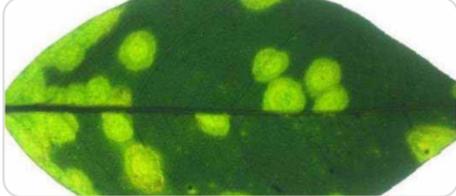
This table describes some common problems you may see in your crop that fall under these three categories.

Doesn't quite fit?

Not every problem will fit nicely into one of these categories. Here are some other things to consider when trying to find out what's wrong with your crop:

Herbicide damage: Has any spraying been done in the area recently? Herbicide damage may cause spots or discolouration.

One problem can lead to another: If a problem isn't picked up early enough it could lead to multiple problems. Poor nutrition can lead to weak plants that get attacked by pests and diseases. Physical pest damage can create wounds in the plant that let in diseases.

	Problem	Description	Example (s)
Insect	Aerial insect pest	An insect or mite that attacks above ground parts of the plant and causes damage by chewing, sucking sap or laying eggs in fruit.	 Aphids
Disease	Aerial bacterial or fungal disease	A disease that lives in or on above ground parts of the plant. Diseased spots can usually be seen on leaves, stems, fruit or trunks.	 Leaf and stem rusts
Disease	Viral disease	Viral diseases live in the sap of the plant. They don't cause disease spots like bacteria and fungi but rather produce patterns on the surface of leaves, fruit and under bark and often lead to the production of many, stunted, vegetative shoots.	 Citrus leprosis virus <small>Image: Ron Bransky, UF CREC</small>
Insect AND disease	Pest-disease complex	An insect pest that is feeding on the plant while simultaneously spreading a disease in sap.	 Glassy winged sharpshooter & Pierce's disease <small>Image: Roy Niswanger, Texas</small>
Insect OR disease	Root disease or pest	Pests and diseases that live and feed on the roots of plants won't be apparent from above ground. Plants will still seem unhealthy due to damage to the roots stopping nutrient and water uptake but roots must be examined to determine the cause.	 Phylloxera
Nutrition	Nutrition disorder	Nutrition disorders occur when there is too little or too much of a particular nutrient the plant needs in the soil.	 Zinc deficiency

What next?

Once you've narrowed down whether your problem is pest, disease or nutrient related it might take a bit of detective work to identify the specific pest, disease or nutrient that's causing the damage. Do a bit of research online for common disorders or get in touch with a technical expert, agronomist or diagnostic service to get a sample identified.

Found something unusual?

If you suspect a new or exotic pest or disease, make sure you report it to:

EXOTIC PLANT PEST HOTLINE
1800 084 881