

## Kiwifruit *Verticillium* survey

### What is the survey?

Plant & Food Research, Kiwifruit Vine Health (KVH), and Zespri are working together on a survey of *Verticillium* species in kiwifruit orchards throughout New Zealand.

*Verticillium* species are soil borne fungal pathogens which can cause “wilt” or sudden collapse of apparently healthy plants at any time during the growing season. Some *Verticillium* species are known to have been in New Zealand for many years across a range of host species and have previously been associated with minor wilt in kiwifruit.

However, the Chilean kiwifruit industry has suffered serious losses in the Hort16A variety due to a very virulent form of the species, called *Verticillium nonalfalfae*, which is not known to be present here.

We want to increase our knowledge of current *Verticillium* species associated with kiwifruit, and test whether these are a risk. This will help determine whether the strains associated with kiwifruit in Chile will also create a biosecurity risk for New Zealand.



### How to get involved

If you have any vines with unusual collapse or wilt symptoms, like those symptoms highlighted to the right, and below, we encourage you to be involved in this survey.

We will collect a small portion of trunk material from kiwifruit vines which have been reported to show symptoms and forward this to Plant & Food Research for testing.

If you do observe any unusual wilt symptoms in vines, please contact Linda Peacock from KVH by email at [linda.peacock@kvh.org.nz](mailto:linda.peacock@kvh.org.nz). We will confirm with you the extra information we need – such as contact details, vine and orchard information, and Health & Safety details. KVH will then be in contact to arrange collecting a sample.

Results from visits will be documented and provided to orchard managers. They will be confidential to yourself, Plant & Food Research, KVH, Zespri and Biosecurity New Zealand.

## What to keep an eye out for:

Wilting may occur suddenly and with no known cause. In spring, leaves and flowers may suddenly wilt and die. Later in the season as conditions become drier, leaf necrosis, complete defoliation and dieback of canes and leaders may occur. Brown discolouration of cane tissue has been seen in Chilean vines and may also be seen here.



## What we'll do when we visit

Firstly, we assure you we'll leave your orchard as we find it and we'll meet very strict Health & Safety and biosecurity requirements.

From symptomatic vines we will take a few trunk shavings (sawdust) by drilling small holes close to the trunk base. This is how we'll do it:

- All the equipment we use will be sterilised before we start.
- At around 20cm from the base of the vine, we will drill a small hole about 5cm deep.
- We'll collect the sawdust material and then fill in the hole with wound protectant.
- We will take two samples per vine.
- Sampled vines will be marked with a KVH tag.

## Managing biosecurity risk

Advances in diagnostic technology have increased the likelihood of detecting new species. In such instances, Biosecurity New Zealand would be notified and may investigate.

The most likely scenario is that any such organisms would have been here a long time and are a new discovery rather than a new arrival and therefore they may not be a biosecurity risk.

However, should actions be taken to contain or eradicate the organism in a response, any restrictions would be eligible for compensation under the Biosecurity Act (these must be verifiable losses so good record keeping is essential).

Fruit is not considered a transmission pathway for *Verticillium* - in the unlikely scenario that restrictions are imposed these are unlikely to restrict any fruit movements.

## Questions?

Feel free to contact Linda Peacock from KVH ([linda.peacock@kvh.org.nz](mailto:linda.peacock@kvh.org.nz) and 027 475 2909).