

KVH Information Sheet

Leaf Phytotoxicity



Q: Am I seeing leaf phytotoxicity?

Background

The most characteristic phytotoxicity symptoms are leaf burn along the leaf margin. However, leaf speckling, cupping, the death of buds, oozing and cane death can also be seen as severe instances of phytotoxicity.

What causes phytotoxicity?

Phytotoxicity is usually associated with excessive absorption of a chemical into the leaf, or excessive application of a chemical onto the leaf to the point of run-off. Some key factors that play a role in phytotoxicity problems are listed below.

- Using products that are not designed as agrichemicals.
- Excessive chemical rates.
- Tank mixing of multiple chemicals.
- Poor tank agitation.
- Slow drying conditions.
- High temperatures during application.
- An excessive use of spreader/super-spreaders at high water rates.
- An excessive build-up of chemicals on leaves.

Phytotoxicity can express itself with the following symptoms (see photo illustrations on the following pages that correlate to the symptoms listed below).

- A) Leaf speckling.
- B) Leaf burn seen at the leaf margin.
- C) Large dead areas between the veins of leaves due to chemical run-off (with or without leaf rolling).
- D) Premature leaf-drop.
- E) Bronzing of the upper leaf surface.
- F) Brown staining of leaf veins.



A) Leaf speckling on Gold



B) Leaf burn at the leaf margin—GOLD



C) Large dead areas between the veins of leaves due to chemical run-off – GOLD



E) Bronzing of the upper leaf surface—GOLD



F) Brown staining of leaf veins—GOLD

Growers should contact their Packhouse Psa Manager to confirm if the symptoms they are seeing are Psa. The Packhouse Psa Manager may organise sampling and testing.

KVH's [Identification of Psa symptoms](#) is a useful tool for growers who are not familiar with the symptoms expressed by Psa-affected vines.

Scoring system




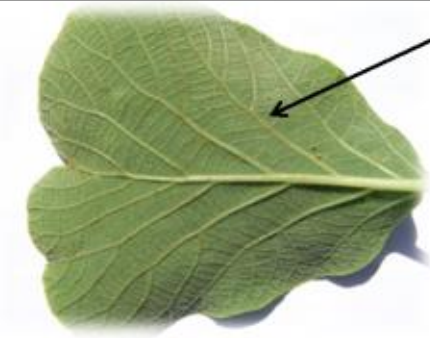




This system scores leaf condition based on the presence and severity of phytotoxicity symptoms. The scoring system is outlined below.

0 = No symptoms

1 = Light symptoms (vein staining, bronzing)

2 = Moderate symptoms (vein staining, 'cross hatching', mild yellowing)

3 = Severe symptoms (vein staining, 'cross hatching', heavy yellowing and leaf breakdown)

Level	Upperside of leaf	Underside of leaf	Description/details
0			No effects
1			The early symptom of light vein staining can be seen on the underside of the leaf. Vein staining may darken over time.
2			Cross hatched vein staining/darkening. Early signs of yellowing may appear on the topside of the leaf.
3			Severe yellowing and leaf beginning to breakdown. Leaf may deform as a result.