

EXOTIC PEST FACT SHEET 1

Cucurbit Yellow Stunting Disorder Virus (CYSDV)



What is it?

CYSDV is a virus belonging to the genus Crinivirus that affects the health and vigour of plant leaves to such an extent that infected plants are unable to support the development of quality fruiting vegetables. Vegetables may appear normal but may be smaller, not as sweet, and not store as well.

What are the main hosts?

CYSDV is associated with cucurbits (melon, watermelon, cucumber and pumpkin), alfalfa, lettuce and beans.

What does it look like?

Initial signs of CYSDV are yellow (chlorotic) spotting on the leaves (Fig 1). This will develop until the entire leaf turns yellow except the veins which will remain more or less green (interveinal chlorosis) (Fig 2). Leaves will often roll upward and become brittle and older leaves may drop off the plant. Symptoms of CYSDV may easily be mistaken for nutrient deficiency or water stress.

Why is it important?

CYSDV has been identified as one of the major virus pathogens in countries where it exists. It has been listed as a quarantine pest by some countries so may limit export market access.

How does it spread?

CYSDV can only be transmitted by whitefly (*Bemisia tabaci*). It cannot be spread from plant to plant mechanically (by touch) or by seed. Whitefly can move long distances particularly with high winds. Whitefly may accompany plant material that has been transported e.g. ornamentals. It can take 3 – 4 weeks for symptoms to develop following infection therefore symptomless plants may be transported providing a source of infection. CYSDV is infectious as long as it is present in living plant material.



Fig 1. The first symptom of Cucurbit yellow stunting disorder virus is a yellow spotting of leaves.

Where are they present?

CYSDV is currently present in China, South Korea, the Middle East, Turkey, Iran north Africa (Egypt, Sudan, Tunisia, Morocco), Europe (Spain, Portugal, Italy, Greece, Cyprus), the Mediterranean, Mexico, and USA.

How can I protect my industry?

Check your production sites frequently for the presence of new diseases and unusual symptoms. Make sure you are familiar with common pests and diseases of your industry so you can recognise something different.



Fig 2. Leaves of plants infected with Cucurbit yellow stunting disorder virus develop interveinal chlorosis, veins remain green while the rest of the leaf turns yellow.

Images: UC Pest Management Guidelines, How to manage pests - Cucurbit Yellow Stunting Disorder Virus. L Gilbertson