

Cucurbit Yellow Stunting Disorder Virus (CYSDV)

Crinivirus cucurbitae

Crop affected: Cucumber

What is it?

CYSDV severely affects leaf health and plant vigour, reducing the plant's ability to produce quality fruiting vegetables. Vegetables may appear normal but may be smaller, not as sweet, and not store as well. CYSDV is associated with cucurbits such as **cucumber**, melon, pumpkin, and watermelon.

What should I look for?

Initial signs of CYSDV are yellow (chlorotic) spotting on leaves (Fig 1) which develop until the entire leaf turns yellow except the veins which remain green (interveinal chlorosis) (Fig 2, 3 & 4). Leaves often roll upward and become brittle and older leaves may drop off. Symptoms of CYSDV can easily be mistaken for nutrient deficiency or water stress.

How is it transmitted?

CYSDV is only transmitted by whitefly (*Bemisia tabaci*) which can move long distances, particularly with high winds, and may accompany transported plant material e.g. ornamentals. It is not spread plant to plant mechanically or by seed. Symptoms can take 3 to 4 weeks to develop following infection therefore symptomless plants may be transported and become an infection source. CYSDV remains infectious while present in living plant material.

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.

Where is it present?

CYSDV is common in many tropical/subtropical production areas, and is currently present in China, India, Middle East, Turkey, Iran, north Africa (Egypt, Sudan, Tunisia, Morocco), Europe (Spain, Portugal, Italy, Greece, Cyprus), USA, Mexico, and the Caribbean.

How can I protect my industry?

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



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Fig 1. First symptoms of CYSDV - yellow spotting of leaves. Photo credit: UC Pest Management guidelines. How to manage pests – Cucurbit Yellow Stunting Disorder Virus. L. Gilberston.



Fig 2. Leaves of CYSDV-infected plants develop interveinal chlorosis. Photo credit: UC Pest Management guidelines. How to manage pests – Cucurbit Yellow Stunting Disorder Virus. L. Gilberston.



Fig 3. Yellowing symptoms on leaves from a CYSDV infected cucumber plant. Photo credit: Dirk Janssen



Fig 4. Interveinal mottle and yellowing symptoms on leaves from a CYSDV-infected cucumber plant. Photo credit: Dirk Janssen