

Cucumber Green Mottle Mosaic Virus (CGMMV)

Tobamovirus viridimaculae

Crop affected: Cucumber

What is it?

CGMMV is a member of the genus Tobamovirus, which are known for their long-term survivability. CGMMV reduces fruit yield and quality. There is no known cure for the disease. CGMMV is associated with **cucumber** and other cucurbits such as watermelon, zucchini, squash, pumpkin, and melon.

What should I look for?

Symptoms include light green mottling or mosaic patterns, blistering, distortion, and occasionally stunted growth (Fig 1 & 2). At low temperatures, when plants grow slowly, leaf distortion is more severe. Mature leaves can become bleached and fruit drop is common. Fruit are usually unmarked, but some strains cause severe fruit mottling and distortion, particularly in cucumbers, while others may cause yellow or silver-coloured streaks and flecks on fruit, especially at high temperatures. Symptoms can vary greatly, depending on the strain of the virus and the plant.

How is it transmitted?

CGMMV is a seedborne virus transmitted from contaminated seed to seedlings and from plant to plant by mechanical contact. Imported seed for sowing is the most likely pathway of entry. Mechanical transmission of CGMMV is by wounds made with cutting tools, farming equipment, or by the mouth-parts of chewing insects such as beetles. Sucking insects (e.g. aphids, mites, whiteflies) do not transmit this virus.

Why is it important?

CGMMV is the most economically important disease of cucurbit production worldwide. For cucumbers, financial loss from CGMMV has been reported to be up to 24% based on reduced yield and fruit quality. CGMMV is reported to reduce yield by 5-16%.

Where is it present?

CGMMV is widespread across Europe, Asia, the Middle-East, and North America, and is also present in Nigeria and Australia.

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. Symptoms of CGMMV on young cucurbit leaves.
Photo credit: [Texas A&M AgriLife Extension](#).



Fig 2. Typical CGMMV symptoms on greenhouse cucumber plants.
Photo credit: <http://www.agriculture.alberta.ca>.