

Cucumber green mottle mosaic (422)

Summary

- Worldwide. Asia, Africa (restricted), North and South America, Europe, Oceania. In Australia.
- A serious disease causing yield and quality losses in cucumber and watermelon. Also in bitter and bottle gourds, melon, and wild species in amaranth, cucumber, potato and other families.
- Symptoms:
 - cucumber – leaf crumpling, green mottling and mosaic patterns, irregular light green spots or streaks on fruits; plants may collapse;
 - watermelon - stunting, mottling and mosaic patterns on leaves, rots on stems and fruit stalks, fruits with internal discolouring or rots. Plants may die early;
 - melon - mottling and mosaics, deformities and mottling on fruit;
 - pumpkin - no symptoms or mottling/mosaics on leaves or fruits;
 - squash/zucchini - no mottling/mosaics; internal discolouring or rots in fruits.
- Spread is in seed and soil. Also handling, grafting, leaf-to-leaf contact, bees, manures, hydroponics/irrigation, tools, machinery, clothing, root-to-root contact. Survival in seed, crop debris and soil.
- Cultural control: certified seed; biosecurity plan for farm; disinfect pots, trays, machinery (1% sodium hypochlorite); use disposable gloves if grafting; check each seedling in the nursery; weed; monitor; collect crop remains after harvest, stakes, plastic mulch, and burn; use 2-year rotation if plants infected; resistant varieties.
- Chemical control: not a method recommended.



Photo 1. Mosaic on cucumber leaf caused by *Cucumber green mottle mosaic virus*.



Photo 2. Several leaves on cucumber showing irregular mosaic patterns caused by *Cucumber green mottle mosaic virus*.



Photo 3. Leaf of watermelon with mosaic symptoms caused by *Cucumber green mottle mosaic virus*.

Common Name

Cucumber green mottle mosaic

Scientific Name

Cucumber green mottle mosaic virus. It is a member of the tobamovirus genus. The official abbreviation is CGMMV. There are several strains.

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Information from CABI (2019) Cucumber green mottle mosaic virus. Crop Protection Compendium. (<https://www.cabi.org/cpc/datasheet/17123>); and Cucumber green mottle mosaic virus. A seed production and commercial growers guide. Asta and California Seed Association (<http://www.calseed.org/documents/Website%20Linked%20Articles/CGMMV%20Brochure%20rev2.pdf>); Cucumber green mottle mosaic virus (CGMMV) Fact Sheet. PIRSA. South Australia. (https://www.pir.sa.gov.au/_data/assets/pdf_file/0009/295767/Cucumber_Green_Mottle_Mosaic_Virus_Fact_Sheet_-_June_2019.pdf). Photos 1-3 Department of Primary Industry and Resources. Northern Territory, Australia.

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