

Ginger Fusarium yellows (292)

Summary

- Worldwide distribution. In the sub-tropics and tropics. On ginger, taro, and many more. An important disease.
- Soft rots on roots and buds of rhizomes from resting spores in soil or from rots in planting pieces.
- Leaves yellow and collapse in patches. Spread occurs as spores in ground water or in rhizomes.
- Cultural control: seed only from monitored source: preferably farmers' own seed; small beds, isolated by deep drains, or plant on ridges, or on a slope; 4-year crop rotation; weed.
- Chemical control: Previously, carbendazim or benomyl as seed treatment, but both have been withdrawn from use on this crop in many countries because of human health concerns. Use captan or thiram, dipping seed pieces in these chemicals after cutting.

Common Name

Fusarium yellows

Scientific Name

Fusarium oxysporum f.sp. *zingiberi*. The f.sp. stands for 'special form'. It means that the fungus is similar in appearance to other *Fusarium oxysporum* fungi, but it differs genetically and only infects ginger.

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Information from *Diseases of vegetable crops in Australia* (2010). Editors, Denis Persley, et al. CSIRO Publishing, and Pegg KG, et al. (1974) *Diseases of ginger in Queensland*. Queensland Agricultural Journal 100(12): 611-618, and CABI (2019) *Fusarium oxysporum* f.sp. *zingiberi*. Crop Protection Compendium. (<https://www.cabi.org/cpc/datasheet/24717>); and from *Fusarium oxysporum* f.sp. *zingiberi* (undated) Ginger Fact Sheet. (<https://www.australianginger.org.au/wp-content/uploads/2016/08/8.8.2-Fusarium.pdf>).

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Photo 1. External symptom on ginger rhizome showing infection by *Fusarium oxysporum* f.sp. *zingiberi*.



Photo 2. Internal symptoms caused by infection by *Fusarium oxysporum* f.sp. *zingiberi*; the fungus has infected the cortex or ground tissues of the stem, and also the vascular tissues - the tissues that contain the xylem and phloem which carry water and food.



Photo 3. After putting the cut rhizomes with rots at high humidity for 24 hours, the cottony growth of the fungus develops. Often the fungus can be seen on the rots on the rhizomes sold in stores.

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