

Fruit Cracking of Tomato

Symptoms

Two types of fruit cracking are common in tomato fruit production. Radial cracking is the most typical and cracks develop at the stem scar and towards the blossom end (Fig. 1). Concentric cracking is typically seen as splitting of the fruit tissue around the stem scar (Fig. 2). Symptoms are usually observed when tomatoes are close to being mature but immature green tomato fruit can also be susceptible.



Figure 1. Typical appearance of radial cracking on a tomato fruits. Note secondary fungal infection in lower crack. Photo: Ronald French

Cause

Fruit cracking is not caused by a plant microorganism. It is a physiological disease or disorder that is affected by the strength and elasticity of the fruit epidermis. Normally, this is related to rapid uptake of water by the fruit, after a rain or heavy irrigation.

Fruits that grow too fast, or plants that are succulent due to high nitrogen levels or low potassium levels, are more likely to produce such cracks. Fruits that are constantly exposed to sunlight are more prone to cracking.



Figure 2. Typical appearance of concentric cracking on a tomato fruit. The black areas inside the crack is due to secondary fungal infection by the fungus *Alternaria* sp. Photo: Ronald French

Management

Tomato cultivars or varieties that are more tolerant to cracking are available. Keeping a constant soil moisture by mulching and timely watering will prevent rapid fluctuations in water availability to the plants. Protecting leaves from insects and diseases will allow for fruit not to be exposed to the sun. A sound plant nutritional program that prevents plants from being succulent will lower levels of fruit cracking.

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