



Legend

 Major tomato producing Counties: Kajiado, Kirinyaga, Machakos, Taita Taveta, Narok, Makueni, Bomet, Muranga, Bungoma, Homabay, Laikipia, Nakuru, Lamu, Kitui, Kiambu and Trans Nzoia (AFA-Horticulture Crops Directorate; 2021 Report)

 Emerging tomato growing counties: Siaya, Meru, Migori, Kericho and Kisumu (AFA-Horticulture Crops Directorate; 2021 Report)



CONTROLLING TOMATO FRUIT CRACKING

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Introduction

Environmental stresses can lead to several common physiological disorders in tomatoes, with fruit cracking being a key issue. This occurs on the fruit's surface at the stem end and is very frequent, particularly in completely ripe fruit rather than mature green or breaker stage fruit. The development of fruit cracking is often associated with dramatic fluctuations in water supply, causing fast fruit growth and subsequent breaking.

Types of Fruit Cracking:

- There are four types of fruit cracking, namely radial, concentric, circular, and burst.
- Radial cracking mostly occurs at the ripe stage, while concentric cracking occurs at the mature green stage around the shoulder of the fruit.

Causes:

- Cracking is very common during the rainy season, especially when the rains follow a long dry spell.
- The presence of water on the surface makes

the fruit more susceptible to cracking than soil moisture.

- Radial cracking is associated with the high elasticity of fruit skin.
- Cracking is also linked to wider spacing

- Cracking is linked to fast fruit growth and large variations in the plant's water supply.
- It may also result from a prolonged period of drought followed by a burst of intensive irrigation, as well as a broad range of day and night temperatures and high humidity.
- Additionally, fruit cracking may occur due to a lack of boron.



Radial Cracking on tomato fruits

Source: Raman Selvakumar. e-mail: selvakumarsingai@gmail.com

- Concentric cracking is a circular breaking of the epidermis surrounding the stem scar.



Concentric cracking on tomato fruits

Source: Raman Selvakumar. e-mail: selvakumarsingai@gmail.com

Management

- Sunscald may be controlled by careful pruning and harvesting, foliar disease management, and planting cultivars with thick leaves that do not split open and expose the fruit.
- Harvesting fruits before reaching the full ripe stage is advisable.
- Apply 10-15 kg/ ha of borax in the soil at planting or spray boron at 0.25 percent during the fruiting stage.
- It is essential to maintain proper soil moisture, particularly during the ripening stage.