

Anthracnose

Anthracnose (*Colletotrichum gloeosporioides*) is a major disease that affects developing mango plants and fruits after harvesting causing direct yield loss both in the field and in collection points. Anthracnose inoculum remains on the crown in all seasons. On mango, anthracnose symptoms occur on leaves, twigs, petioles, panicles, and fruits. On leaves, lesions start as small, angular, brown to black spots that can enlarge to form extensive dead areas. The lesions may drop out of leaves during dry weather. The symptoms on panicles are small black or dark-brown spots, which can enlarge, coalesce, and kill the flowers before fruits are produced, greatly reducing yield. Petioles, twigs, and stems are also susceptible and develop the typical black, expanding lesions found on fruits, leaves and flowers. Ripe fruits affected by anthracnose develop sunken, prominent, dark brown to black decay spots before or after picking. Fruits may drop from trees prematurely. The fruit spots can and usually do coalesce and can eventually penetrate deep into the fruit, resulting in extensive fruit rotting. Most green fruit infections remain latent and largely invisible until ripening. Thus fruits that appear healthy at harvest can develop significant anthracnose symptoms rapidly upon ripening. A second symptom type on fruits consists of a “tear stain” symptom, in which are linear necrotic regions on the fruit that may or may not be associated with superficial cracking of the epidermis, lending an “alligator skin” effect and even causing fruits to develop wide, deep cracks in the epidermis that extend into the pulp (Figure 37). Wet, humid, warm weather conditions favour anthracnose infections in the field. Warm, humid temperatures favour postharvest anthracnose development. The pathogen survives between seasons on infected and defoliated branch terminals and mature leaves. Management of mango anthracnose consists of five approaches:

- site selection
- cultivar selection
- cultural practices in the field (sanitation, plant spacing, intercropping, etc), altering the time of flowering to ensure that fruit set and development occur during dry conditions, which can also increase off-season production for higher value
- fungicide sprays in the field
- postharvest treatments (physical, chemical).

There are varieties of mangoes that tend to be resistant to anthracnose but this vary from site to site as this follows the rainfall and sunshine patterns



Fruits affected by anthracnose



Panicle attacked by anthracnose