

Anthracnose on Mango

Glomerella cingulata (asexual stage: *Colletotrichum gloeosporioides*)

	Prevention	Monitoring	Direct Control
 <p data-bbox="76 496 374 571">Anthracnose symptoms on mango fruit (Scot Nelson, University of Hawaii at Manoa)</p>	<ul style="list-style-type: none"> • The disease is produced on dead branches and leaves, and is spread by water • From nurseries, select tolerant varieties and disease-free young plants • Avoid planting host fruit trees nearby (ex: citrus, banana, papaya, avocado, coffee and cashew) and avoid areas where rainfall is more than 40 cm per year. • Plant trees with sufficient spacing, with 6-8 m between rows and 2.5-3.5 m between trees, depending on the cultivar and environmental conditions. • To increase air circulation within fields and keep anthracnose under control, prune lower branches at least once a year. Prune during dry weather when anthracnose is less likely to infect wounds. Keep trees less than 4 m tall so they can be easily managed. • Before flowering, cut-out all dead or necrotised parts (branches, leaves, twigs) • At the beginning of fruit set, regularly pick up all plant material (leaves, branches, fruits) from the ground and destroy by burying or burning • At harvest, carefully handle mangos and do not allow them to touch the ground • Remove and burn any fallen plant debris on the ground. Otherwise anthracnose can develop and survive on this. 	<ul style="list-style-type: none"> • Mark 10 trees per hectare and observe them weekly from flowering to harvest. Observe the flowers, fruits, leaves and branches for symptoms: <ul style="list-style-type: none"> • Stem, leaves, flowers: look for small black spots; or black sunken spots. They first appear on the leaves and gradually get bigger. They may develop a pinkish-orange covering when conditions are wet • Leaves: Spots create holes in leaves, causing parts of a leaf to die off • Ripe fruit (symptoms cannot be seen on green fruit, even if infected): sunken, dark to black decay spots. Rotting. Premature fruit drop. Possible tear stains - linear necrotic lesions with cracking of the skin • Monitor more frequently during flowering (very susceptible stage) and rainy season • The symptoms can look similar to those caused by Bacterial Black Spot (BBS) and diseases caused by <i>Stigmina</i>. BBS - there is a yellowish halo around the black spots. Anthracnose - no halo. <i>Stigmina</i> - small spots, about 6 mm wide, surrounded by light greenish halo. Anthracnose - bigger spots, no halo. • Consider taking action as soon as symptoms appear on leaves. Damage only on the leaves does not directly affect the fruit but anthracnose will gradually spread to the fruit • Foggy weather, high temp (25°C), high humidity, rainy conditions all favour the disease 	<ul style="list-style-type: none"> • Spray with neem products during evenings immediately after the preparation is prepared. Consult the label for dilution and application rates • Remove rotten fruits from the tree and destroy by burying away from the mango trees, at a depth of at least 50 cm • Prune only plant parts that show severe symptoms of infection as wounds are entry points for the disease • Post-harvest hot water treatment: <ul style="list-style-type: none"> • Dip newly harvested fruits in a tank of hot water at 50-55 °C for 5-10 minutes (depending on the variety) • The water should have a uniform temperature within the tank • Then, to cool the fruits down, soak them in tap water for 2 hours or place them in a well-ventilated room • Handle fruits with extreme care to avoid damaging the fruits • Post-harvest refrigeration treatment: <ul style="list-style-type: none"> • Keep mangos at 10 °C, but do not chill fruits before they are ripe as this may cause chilling injury
 <p data-bbox="76 788 374 863">Mango anthracnose leaf symptoms (Scot Nelson, University of Hawaii at Manoa)</p>			
 <p data-bbox="76 1070 374 1166">Anthracnose symptoms on mango panicle (Wayne Nishijima, University of Hawaii at Manoa)</p>			

Note: Pesticides may be available to control this pest. Please check with the Ministry of Agriculture in your country to find out which pesticides are registered in your country and the local restrictions for their use.