



Control

- Practice field hygiene
- Prune to remove all dead and weak diseased plant parts
- Use copper Sprays in serious infected plants

Phytophthora blight (*Phytophthora nicotianae* var. *parastica*)

Symptoms

- Affected leaves are water-soaked and light-brown in colour, falling readily.
- Affected areas of the stem are first purple and later brown above the graft union completely girdling the stem causing wilting and collapse of the vine.
- Fruit symptoms comprise of large, water-soaked areas.
- Diseased fruits fall readily and in wet weather become covered with white, fungal growth. Another strain of the fungus causes root rot.
- The disease is favoured by wet, windy weather

Control

- Good field sanitation
- Pruning and keeping a grass sward under the vines to minimize spore splashed up to the lower leaves
- Graft to resistant rootstocks (e.g. *P. caerulea*).
- Apply copper-based fungicides every 2-3 months during the wet season to reduce disease incidence in areas where the disease is likely to be serious.



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IDENTIFYING AND CONTROLLING MAJOR PASSION FRUIT DISEASES



...for increased yields of quality passion fruits.

Introduction

Passion fruit is a key fruit produced commercially in Kenya and ranks third among the export fruits. The production of passion fruits and its growth as a profitable enterprise however, depends on the maximum utilization of the factors of production while reducing costs. One of the major challenges encountered by passion fruit farmers is the incidences of diseases. These can reduce yields of fruits by upto 90% or lead to total crop failure. Identification of the disease and controlling them at their initial stages is a sure way of increasing yields of quality fruits that will compete effectively in the market with fruits from other areas. The major diseases of economic importance include the following:

Brown spot (*Alternaria passiflorae*)

Symptoms

- Elongated dark-brown lesions appear near leaf axils or where stems have rubbed against the supporting wire.
- Infection spreads from these points and later the stem becomes completely girdled
- The shoot suddenly wilts and fruits collapse.
- On fruit, spots first appear as pinpricks, which enlarge into sunken circular lesions with brownish centres.
- Eventually the rind round the diseased area becomes wrinkled and the fruits shrivel and drop.

Control

- Resistant varieties
- Field sanitation
- Pruning vines

Timely sprays with copper based fungicides.



Woodiness (*Cucumber mosaic virus*)

Symptoms

- Yellow spots appear on leaves, flecks, or mottling, and in foliage there is crinkling or distortion.
- On fruit it causes thick, hard, distorted woody rinds, often with characteristic scabs and cracks with reduced pulp yields.



Control

- Plant only virus-free seedlings
- Remove and replace severely infected vines.
- Control the vector (aphids) that transmits the disease

Fusarium wilt (*Fusarium oxysporum f.sp. passiflorae*)

Symptoms

- This is most likely if resistant rootstocks were not used.
- Leaves turn yellow and drop off.
- The collar region of the plant at the soil level turns brownish and vertically cracks.
- Rapid wilting of the entire plant, especially in very hot climatic conditions



Control

- Use resistant rootstock to graft the scions
- Use disease free seeds.
- Remove and destroy all infected crop residue from the field.

Septoria spot (*Septoria passiflorae*)

- On leaves, tiny, superficial, irregular, brown to black spots appear, quickly followed by severe defoliation as infection spreads.
- Spots develop on stems
- On fruit, the infection initially appears as small spots, similar to those on the leaves and stems.
- The spots develop into extensive superficial lesions causing premature drop and fruit decay.