



Yellow Sigatoka (sigatoka leaf spot) (FUNGUS - *Mycosphaerella* species)

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- Initial light-green narrow specks on upper leaf surface. Specks enlarge to form narrow streaks running parallel to leaf veins.
- Streaks expand and broaden to form rusty red then dark brown spots with a well-defined darker margin.
- Leaf tissue surrounding spots becomes yellow. Leaves become yellow, dry and die. Symptoms more severe on older leaves.



Black Sigatoka (black leaf streak) (FUNGUS - *Mycosphaerella fijiensis*)

- Initial tiny reddish-brown specks on lower leaf surface. Specks enlarge to form reddish-brown-black streaks parallel to leaf veins and visible on upper surface.
- Streaks broaden to become spots with dark margin (photo inset)
- Leaf tissue surrounding spots becomes yellow. Entire leaf blackens and dries. Symptoms more severe on older leaves.



Fusarium wilt (Panama disease) (FUNGUS - *Fusarium oxysporum* f sp. *cubensis*)

- Gradual yellowing, wilting and drying of leaves.
- Yellowing first noticeable and more severe on older leaves. Leaf petioles may snap.
- Reddish-brown to purple-black discoloration of internal tissues of pseudostem and corm
- Pseudostem may split longitudinally at base
- Plant eventually dies.



Burrowing nematode (NEMATODE - *Radopholus similis*)

- Yellowing of leaves.
- Reduced plant growth and vigour, small fruit bunches.
- Plants loosely rooted and topple, particularly when fruiting, in windy conditions or flooding. Exposed roots are blackened.
- Internal root tissues between central core and outer surface become dark purple-black. Core tissue remains white.



Root weevil (INSECT - *Cosmopolites sordidus*)

- Yellowing of leaves. Reduced plant growth and vigour, small fruit bunches. Plants loosely rooted and topple.
- Adult insects (inset) seen around base of plant.
- Holes and tunnels caused by feeding larvae visible in corm (arrowed). Insect larvae ('grubs') present in tunnels.



Moko disease (BACTERIUM - *Ralstonia solanacearum*)

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- Yellowing, wilting, necrosis and collapse of older leaves at petiole. Younger leaves develop pale green/white panels that become necrotic.
- Suckers wilt. Flower buds blacken and shrivel.
- Fruit development stops or fingers ripen prematurely or split.
- Reddish-brown- black discoloration of fruit pulp and internal tissues of pseudostem.
- Pseudostem tissues release creamy bacterial ooze when cut.



Banana Xanthomonas Wilt (BACTERIUM – *Xanthomonas campestris* pv. *musacearum*) (© E. Boa)

- Drying and withering of male bud. Yellowing, wilting, necrosis and collapse of leaves. Fruit ripens prematurely and unevenly.
- Yellow-orange to rusty brown discoloration of fruit pulp. Internal tissues of pseudostem and rachis release creamy-yellow bacterial ooze when cut.
- Present only in East Africa.



Banana bunchy top disease (VIRUS)

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- Leaf edges become yellow and roll inwards. Narrow, dark green dots and streaks develop on leaves and petiole and may extend into pseudostem.
- Plant has 'rosette' appearance as leaves are narrow, upright, shorter than normal and bunched.
- Affected plants rarely produce a bunch or produce a distorted bunch.