7. Maize streak virus





Symptoms

- The bottom and top surfaces of the leaves always show the disease symptoms,
- In young plants, the leaves have yellowish and light green streaks while in mature plants the leaves have whitish, yellow or light green streaks in the direction of the leaf veins.
- The plants are small with poor yields

Control /Management

- Early planting
- Inspect the field frequently and in case of infected plants uproot, the plants bury, burn or feed to the animals
- Plant resistant varieties like Longe 1
- Intercropping with dense crops like beans or millet to control the number of maize plants the leafhopper infects. (Millet is a cereal, don't encourage intercropping it with maize)

8. Bean rust

(Uromyces appendiculatus)



Symptoms

- Rust colored spots with yellowed areas
- Small brown dots containing brown powder that later turn black
- The leaves fall off and pods get deep dark pits

Control /Management

- Use clean seeds from certified dealers
- Plant varieties that are resistant/tolerant to the disease
- Pick the infected leaves and bury as soon as symptoms are seen to reduce disease spread.
- Plant beans at the end of rainy seasons not at the beginning, since bean rust require cool wet condition for mass infection. (This can help if there will be enough moisture at that time).
- Use chemicals like macozeb, copper oxychloride to spray
- Crop rotation for at least two years to reduce disease pressure in infected fields

9. Anthracnose *(collectotrichum lindemuthianum)*

Symptoms

- Seedlings have dark brown to black lesion on the cotyledons and stems
- Dark brown to black sunken lesions on seedlings and pods
- Bottom of the leaf shows linear, dark brick-red to black lesions on leaf vein
- Circular reddish brown



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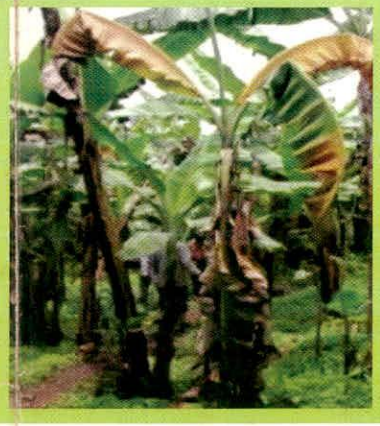
Complied by Jackie Atim , Plant Pathologist and assisted by Mohamed Kyambadde Kyeyune and Seruwu Godfrey.

Major diseases affecting the six priority crops of the Lake Victoria Crescent Agro-ecological Zone







1. Banana bacterial wilt

(Banana Xanthomonous Wilt)

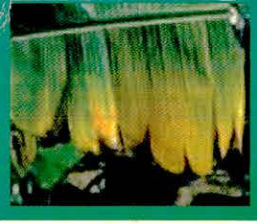
Symptoms

The symptoms are similar to those of Fusarium wilt (Kiwotoka) but with bacterial wilt,

- The fruit ripens prematurely and when the fruits are picked they are hard even when boiled and also dark brown spots when cut.
- The fruit rots as soon as it starts ripening
- The young leaves turn yellow
- The leaves dry as if they have been affected by drought even during rainy seasons
- When the stem is cut pus like liquid/sticky yellow substance comes from the pseudostem(middle stem) and often has a bad smell
- The male buds dry and die
- Most susceptible are the improved varieties and early introduction e.g Kisubi, Ndizzi, Bogoya, Kayinja

Control /Management

- Plant clean suckers, always get suckers from healthy plantation
- Uproot inffected plants and bury them to avoid spread of diseases to healthy plants
- All tools used in cutting the male parts or infected plants should be disinfected with chemicals (jik) or passing over fire to kill the bacteria.





2. Banana Fusarium wilt- Kiwotoka

(Fusarium oxysporum f.sp.cubense)

Symptoms

- The lower leaves turn yellow around the margins, and the plant wilts and later dies.
- When the pseudostem (middle part) is cut, the xylem is discoloured and reddish brown

Control /Management

- Do not use infected suckers
- Plant only healthy suckers from none infected plantation or use tissue culture planting materials since they are free of diseases.
- Plant resistant varieties like the FHIA series.
- Dig out infected plants, including roots, dry and burn them
- Clean soil from shoes and tools when moving to a new plot to prevent spread of disease.
- Sterilize farm tools by passing over fire or use disinfectants like bleaching solution (Jik 10ml in 50ml of water)

3. Coffee wilt disease *(Fusarium xylarioides)*



Symptoms

- Die back, from the shoot backwards
- The infected leaves become yellow, wilt and fall off
- Blue-black staining of the wood below the bark
- The tree loses all leaves and dies
- Coffee berry do not drop but remain attached to the primaries

Control /Management

- Inspect trees often for symptoms like blue-black staining of the wood, if stained cut the tree from the base and roots if possible and burn.
- Disinfect tools, footwear and hands after holding diseased plants or pass tools over fire.
- If the tree is dry burn it and when not dry give it time to dry than burn it down.
- Replant with an alternative crop or leave the area under fallow for a year
- Plant resistant varieties like Arabica coffee and the Robusta coffee lines R1-7

4. Coffee leaf rust *(Hemileia vastatrix)*



Symptoms

- Yellow powdery spots on the underside of the leaves
- Infected leaves fall off resulting in death of the branches
- It is severe in the dry and warm periods

Control /Management

- Planting should be done at recommended spacing and pruning often to prevent development of the disease and for easy spraying
- Use copper oxychloride for preventive measures and spray cyproconazole for control measures
- Plant resistant varieties if available



Cutting infection



Whitefly infected

5. Cassava mosaic

Symptoms

- Patches of cassava leaves become yellow, interspersing the normal green colour, resulting in 'mosaic' pattern
- Leaf curling resulting into asymmetrical shape of leaflets, thus leaf distortion, and reduction in leaf size
- Severe attack leads to reduced plant vigour, short internodes and stunting
- Few and small storage roots, resulting in yield reduction

Control measures/Management

- Use of clean planting materials i.e. select cuttings from plants not showing symptoms of CMD
- Uproot (rogue) diseased plants after sprouting to reduce on sources of inoculum
- Use tolerant/resistant varieties like TME

6. Cassava Brown Streak Disease







Symptoms

- Cassava Brown Streak Disease (CBSD) symptoms are expressed on the whole plant i.e. leaves, stems and storage roots
- On the leaves, the disease appears as a feathery chlorosis on either side of the small veins.
- Chlorosis on leaves mostly appears on the mature lower leaves of the cassava plants and the young expanding leaves are often symptomless
- Brown streaks/lesions on stems
- On storage roots; brown or yellowish necrosis, shrinking and constriction of storage roots. Some cracks may appear on outer surfaces of theroot.
- There seem to be variants of the symptoms, depending on cultivar (e.g. reversal of chlorosis; most of the leaf turns yellow with only the area along the small veins remaining green), crop age, and weather conditions

Control /Management

- Use clean/healthy planting materials
- Resistant/tolerant varieties like Nase14/MM 96/4271 can be planted
- Destroy plant debris by burning or burying the remains

