



**Anthracnose**  
**FUNGUS** - *Colletotrichum gloeosporioides f. sp manihotis*

- Sunken pale brown spots/lesions on the stem
- Black fungal bodies are visible in the spots (inset)



**Cassava Green Mites**  
**MITE**- *Mononychellus tanajoa*

- Speckling on leaf, similar to mosaic in severe cases
- Presence of mites on the underside of leaves



**Cassava Mosaic Virus**  
**VIRUS**

- Mosaic pattern on leaves
- Distortion and twisting of leaves
- Reduced root size



**Cassava Brown Streak Virus**  
**VIRUS**

- Mosaic pattern/chlorosis around leaf veins. No leaf distortion (top right)
- Brown spots and streaks on stem
- Roots become knotty (bottom). Brown staining of internal tissues (top left)







## Leaf bacterial rot

**Bacteria** - *Xanthomonas axonopodis* pv. *manihoti*

© Graham Jackson

- Greyish, angular, water-soaked spots on underside of leaf
- Die-back. Gummy exudate on the stems
- Necrotic areas enlarge and coalesce



## Nitrogen Deficiency

© Bill Krenz/ Naitabu organic farm

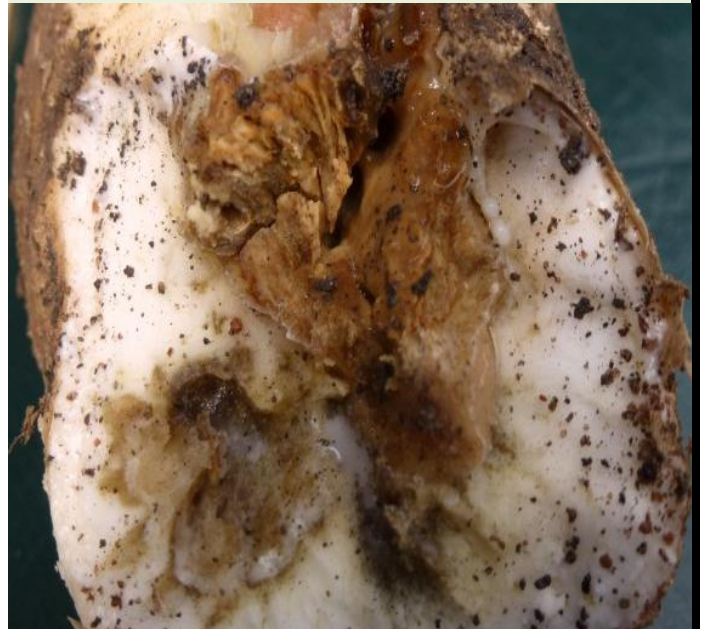
- Uniform yellowing between the veins
- Smaller size of crop and tubers



## Mealybugs

**INSECT** – (*Phenacoccus manihoti*)

- Leaves are small, distorted and bunched together
- Often sooty mould and ants are seen on leaves
- Presence of mealybug



## Root Rot

**Fungus** (various eg *Fomes lignosus*)

- Wet / soft rot of tubers with a bad smell
- Possible fans of white fungal hyphae on lower stems