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Intercropping against leaf spot in eggplants

Recognize the problem

Leaf spot disease, called "Madoa ya Majani" in Swahili, is a fungal disease. At early infection, several small (less than ¼ cm) circular to oval chlorotic spots appear on the upper side of the leaves. As time goes on, spots grow up to 1 cm, become light brown, and visible on both sides of the leaves. Later they become greyish brown and continue to concentrate at the centre of the leaves.

Background

Leaves may become infected by the disease when in wet conditions. Fungal multiplication starts when the fungal spores are dispersed through irrigation water, rain, wind, agricultural gardening tools, people or when animals are feeding on different crops. Spores can survive for at least one year in plant residues or soil. The disease does not infect eggplant fruits but damages leaves so that yield is reduced. Intercropping is one of the practices used to manage the problem. Intercropping is the practice of planting two or more crops of different characteristics close to each other to reduce disease infestation. Maize may be one of such crops to intercrop with eggplants. Leaf spot is not an economic disease in maize. Therefore, maize plants act as guard rows from the dispersing fungal spores.

Management

- On new land, dig out or plough under all stumps and weeds.
- Till the land deep at 20cm.
- Thoroughly rake the ploughed land.
- Raise bed rows at 60 cm apart.
- It is important that the first crop to be planted is eggplant (on 2nd bed) for better plant establishment. This is to be done two weeks before planting maize (on 1st bed). In costal Tanzania, eggplant seedlings should be transplanted in mid-May, followed by maize in early-June
- Transplant eggplant seedlings that are 10-15cm high to the second bed at a space of 60 cm between plants
- Then, plant the first bed with maize (short varieties for example Katumani) at a space of 60cm between plants
- Continue establishing those two crops at the same alternating pattern of rows until the whole plot is covered.
- Harvest maize crop in mid-December, followed by eggplants. At that time the wet weather will be almost at minimum level for eggplant growing.

Early symptoms of leaf spot disease on eggplant leaf. (Photo by Scot



Late symptoms of leaf spot disease on eggplant leaf. (Photo by Scot Nelson)



Scientific name(s) > Cercospora spp.

The recommendations in this factsheet are relevant to: Tanzania



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