Northern blight in crop residues of maize

Recognize the problem
Northern blight, also called maize leaf blight, is a fungal disease that affects maize, sorghum and millet. It mostly affects the leaves, especially the older ones. The disease starts as small oval brown-greyish spots on the leaves, which later join together to form large light brown distinct areas which can become nearly as wide as the leaf. When severe, the disease also attacks young plants and young leaves or cobs on older plants. Northern blight disease looks a bit like gray leaf spot disease but the latter usually causes numerous, and often angular leaf spots which remain thin and small in size and rarely join together.

Background
Northern blight spreads fast when maize and sorghum leaves are covered by water during moist periods. The fungus survives in the crop leftovers after the cobs are harvested. This is where the fungus grows to attack maize the following season. Management of crop leftovers after harvesting reduces the spread of the disease, but proper disposal of leftovers is needed. If the disease is not in your area, crop residues should remain in the field to improve soil properties.

Management
After harvesting maize from disease-free fields:

- Plough under the crop leftovers to a depth of 10-25 cm to improve the soil
- When using maize leftovers for compost, ensure that they are mixed with rests of legumes such as groundnut and soyabean if available. This improves the compost.

After harvesting maize from northern blight-diseased fields:

- Leftovers, including the roots, should be removed and buried at least 200 m away. Leftovers should be buried about 50 cm deep and then covered with soil to prevent further spread of the disease.
- Do not feed leftovers to animals because the fungus produces toxins
- The field should be planted with varieties of maize that are resistant to northern blight such as PHB30G19, DKC90789 and MRI 644
- Where varieties of maize resistant to northern blight are not available, the field should not be planted with maize, sorghum or millet the following season. Legumes and other non-grassy crops can be planted (crop rotation).

Scientific name(s) > Setosphaeria turcica

The recommendations in this factsheet are relevant to: Zambia

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