

Options for Managing Maize Grey Leaf Spot

The Disease

Grey Leaf Spot (GLS) is a disease of maize caused primarily by the fungus, *Cercospora zeae-maydis*. It is an economically important disease of maize and occurs in many countries around the world. It was first reported in Kenya in 1995 and small-holder maize farmers in some parts of Kenya are currently experiencing significant yield losses as a result of the disease.

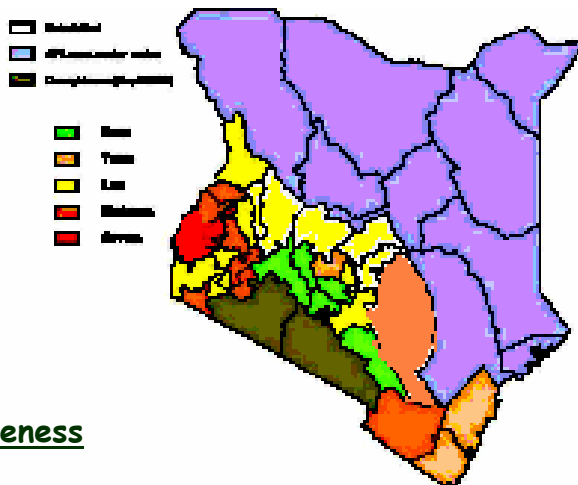


Symptoms

The disease causes long narrow lesions on the leaves which are brown-grey in colour and have parallel borders. Initially the symptoms appear on the lower leaves. The lesions may coalesce leading to extensive necrosis. Yield losses ranging between 30% - 60% have been reported.

Distribution

In a survey of small-holder maize farms carried out in 2002, the disease had spread to all of the key maize growing areas, but is most severe in Western Kenya.



Awareness

Awareness of the disease in Kenya is low but increasing and it is important that farmers can identify the disease, and are aware of how to manage the disease.

Recognition

At present, in most parts of Kenya, there is no cause for alarm because the disease is present at low levels. However, as a precaution, you should do the following:

1. Obtain a copy of the 'Awareness-raising poster' which shows the symptoms of maize grey leaf spot.
2. Study your maize crop - if there are no symptoms, you don't have a problem. Keep a copy of the poster as a reminder.
3. If there are symptoms of GLS on the crop, but they appear after grain-fill or they are trace/low severity (<10% leaf area diseased), you probably don't have a problem, but keep the poster as a reminder!

If the symptoms are severe (>50% leaf area diseased) or if they occur before grain fill, you may be losing some of your crop to the disease, but....



For further information:

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Kenya Agricultural Research Institute

Options for managing Maize GLS

To enable farmers to manage the disease effectively, there is a range of options appropriate for small-holder farmers which can be incorporated into an integrated strategy for managing the disease - **an IPM strategy for GLS!**

- If you have had a severely affected crop, avoid planting maize back onto the same piece of land for at least one season.

If this is not possible, combine the following measures:

- Any maize debris left over from the infected crop should be buried deeply, well before you plant the next maize crop; burying the debris soon after harvest is preferable.
- Avoid use of excessive nitrogen (more than recommended rates) as this encourages disease severity.
- Plant resistant varieties/hybrids. Hybrids such as H614, H625 and H627 and varieties like Kakamega Synthetic I & II and KH634A are tolerant to maize grey leaf spot.



Maize varieties resistant & susceptible to maize grey leaf spot