**Fusarium wilt in okra**

*Fusarium oxysporum f.sp. vasinfectum*

### Prevention
- Avoid fields with a history of Fusarium wilt disease. The fungal spores can survive in the soil for up to 7 years.
- Use certified clean seeds.
- Buy seeds treated with fungicide if disease is known in your area (see yellow list).
- Raise soil pH by applying lime / farmyard manure where soils are acidic.
- Keep the field free of weeds if disease is known in your area.
- Leave field fallow for 2-3 months after cropping, even if disease is not there.
- Rotate with cereals and other grassy crops. Do not rotate with Solanaceous family crops such as potatoes, tomato, pepper, eggplant or nightshade for 5 to 7 seasons after infestation with Fusarium wilt.

### Monitoring
- Fusarium wilt, also called basal rot, is a fungal disease.
- Monitor for wilted plants 2 to 5 weeks after germination.
- This should be done daily as the disease attacks seedlings and can kill the plant.
- Look for yellowish leaves, stunted plant growth, and shaded leaves.
- Lower leaves turn yellow (and may eventually die) and the stem becomes discoloured.
- Consider action when 10-15 young plants per acre are infected.

### Direct Control
- It is easier to prevent this disease than to control it.
- Uproot the infected young and old plants and destroy them to reduce the disease from spreading. Outside of the field, bury them or let them dry in the sun.
- Ask agro-input dealers to organise biopesticide products based on Trichoderma. Read product label for instructions.
- Chemical sprays have little to no effect because the disease moves inside the plant, from the roots upward.
- However, several seed companies now treat seeds to reduce infection. Seed treatments can only be handled by expert personnel. Never eat treated seeds and never feed to animals.
- WHO toxicity class II pesticides might not be allowed in local IPM schemes.
- Always consult recent list of registered pesticides of ZEMA.
- Use seeds treated with Benomyl-based products (such as Benomyl 500WP, and others); benzimidazole group of pesticide; systemic fungicide.
- Use seeds treated with Thiram +Carboxin based products. The fungicides are of dithiocarbamate & carboxamides group of action. Protective contact fungicides.
- WHO toxicity class U (unlikely to present acute hazard in normal use). Toxic to fish and earthworms.
- WHO toxicity class II & III (moderately acute hazardous & slightly hazardous); Seed treatment fungicides. Toxic to predatory mites, ladybird beetle and fish.

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**Zambia**

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