Movement of contaminated materials as feed or seed from one farm to the other or bought on the market may be a source of inoculum. These materials may not necessarily show symptoms.


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STOP THE SPREAD OF NAPIER STUNT DISEASE

BY FOLLOWING RECOMMENDED DISEASE MANAGEMENT PRACTICES

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Introduction

- Stunt disease is affecting Napier grass mainly in western Kenya and is also spreading to other Napier growing areas.
- The disease appeared in western Kenya in early 1990s.
- The disease causes biomass yield loss between 40 to 90%, thereby reducing livestock productivity.

Causes and mode of spread of the disease

- Napier Stunt Disease (NSD) is caused by a small bacterium referred to as Phytoplasma 16Sr XII, that is transmitted by leafhoppers.
- The leafhoppers feed on the young leaves by sucking the sap.
- The pathogen is carried from one plant to the other through such feeding.
- Infected Napier canes and root splits spread the disease when used as planting seed.

Signs

- Stunted plants with yellowing of foliage.
- Production of many tillers.
- Stems with shortened internodes.
- Napier stools are severely stunted.
- Low crop yields.
- Eventually affected stools dry up.
- Uproot wild contaminated Napier from the field as they act as source of infection.

Management of Napier stunt

- Plant tolerant varieties.
- South Africa and Ouma varieties have good levels of tolerance.
- These varieties are currently being multiplied at KARI-Kakamega.
- Improve soil fertility.
- Growing healthy Napier on fertile soils will reduce disease pressure leading to increased yield and reduction in spread of the disease in the field.

- Minimize water stress through conservation tillage and apply manure and fertilizers to reduce disease effect.
- Well managed farms with good agronomic practices slow down the disease.