

## 7. Pests and diseases

Brachiaria grass is affected by pests and diseases which often cause losses, and significant reduction in herbage yield and nutritive quality. The major insects of Brachiaria grass observed in East Africa are red spider mite and shoot fly.

*Red spider mite:* Red spider mite is a serious threat to Brachiaria grass production affecting both quality and quantity of herbage. In Kenya, it is widespread in all the region except the coastal lowlands. Mite infestation is common when the grass is stressed particularly during the dry season and begins with a few mites underneath of leaves with isolated chlorotic patches on the upper surface of leaves. The mite feeds by sucking grass leaf tissue cell sap leading to plant withering and eventual drying. Mite infestation can be reduced by irrigation, harvesting grass at the beginning of dry season, and growing the Brachiaria cultivars that are less susceptible to mite attack like Basilisk and MG-4.



**Figure 4:** Red spider mite infestation in the Brachiaria grass. Initial symptom of mite infestation (left) and symptoms of severe infestation (right) and red colored mites (inset)

### *Shoot fly*

Shoot fly attack is observed at early stages of seedling development and on developing young tillers during the production. The larvae eat through the leaf sheath, cut the growing point of *Brachiaria* seedling which results in shoot wilting, yellowing and the death of the seedlings or tillers of older stand. Shoot fly can be controlled by planting treated seeds and spraying systemic insecticides.



**Figure 5:** *Brachiaria* grass with Shoot fly infestation

### *Diseases*

The most common diseases of *Brachiaria* grass reported in East Africa are leaf rust, leaf spot, leaf blight, honeydew or ergot and smuts. Among them leaf rust, leaf spot and leaf blight are widespread in Kenya and Rwanda, whereas the prevalence of ergot and smut diseases is low in both countries. There is also a report on presence of virus like symptom on *Brachiaria* grass. A recent study has shown difference among the *Brachiaria* cultivars against leaf rust, leaf spot and leaf blight diseases.





**Figure 6:** Rust disease symptom and damage of *Brachiaria* grass



**Figure 7:** Leaf spot symptoms (A) and symptom of leaf blight (B) in *Brachiaria* grass.





**Figure 8:** Honeydew/Ergot disease (left) and Smut disease (right) of Brachiaria grass.



**Figure 9:** Virus infected Brachiaria plant with chlorosis and stunting symptoms with adjoining healthy plants on the sides