



REPUBLIC OF UGANDA

MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY AND FISHERIES

Management of Red Rust Thrips of Banana in Uganda

A new Pest of Banana and other plants

What are Red Rust Thrips of Banana?

Red Rust Thrips of Banana, *Chaetanaphothrips leeuweni* (Karny) are small yellow insects with narrow fringed wings. They are becoming a significant pest of banana in the country especially in the south-western region. The pest is predominantly affecting banana, but can also affect citrus, mandarin, tomatoes, green peas and a number of species of weeds. It is believed to have been introduced through importation of infested planting material. In banana, it causes superficial damage to the skin which can result in fruit downgrading or rejection during marketing; though the fingers remain edible.

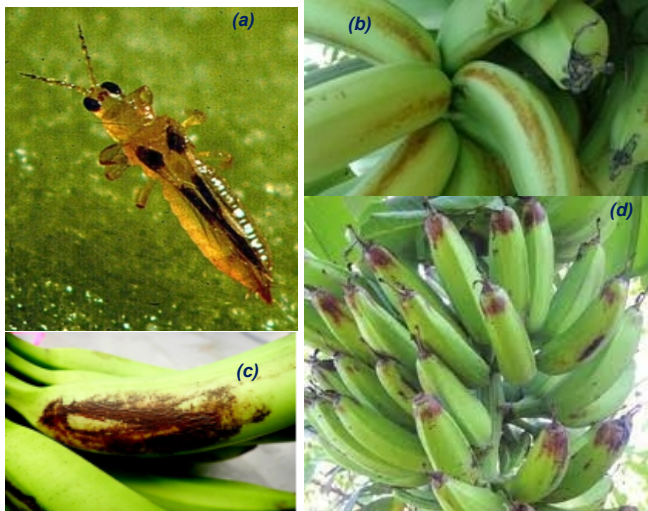


Fig1. Adult Red Rust Thrip (a) and Initial stages of Red Rust Thrips damage (c-d)

Symptoms of Red Rust Thrips of Banana

Red Rust Thrips of Banana prefer to feed on very young, tender, succulent, immature fruits, flowers, and foliage; they sucking out cellular components from surface cells. In leaf sheaths, feeding causes characteristic dark, V-shaped marks on the outer surface of leaf petioles. Damaged tissue becomes bronzed or rust-colored with age. Feeding damage to the fruit occurs on fingers soon after the flower petals dry, on mature fruit, oval-shaped, reddish "stains" may be seen where the fingers touch. Extensive damage may cover more of the fruit surface with reddish-brown or black discoloration and superficial cracks. The cracks expose the inner fruit tissue to opportunistic pathogens that may cause fruit rotting. Though unmarketable, such fruits are still edible.



Fig 2. Severe infestation of Banana fruit by Red Rust Thrips (Rusted appearance on Fruits e-f, V-shaped marks on stem-g)

Biology of the Red Rust Thrips of Banana

Rust Thrips are very tinny-microscopic insects. Females lay eggs in plant tissues and newly hatched yellow nymphs feed for a few days. The mature nymphs migrate off the host into the soil and undergo pupation. Adults hide inside the flower bud. The entire life cycle is completed in approximately 28 days. The pest is spread by movement and planting of infested propagative material.

Prevention of Red Rust Thrips Infestations

1. Acquiring Thrips-free plant material
2. Controlling volunteer banana plants
3. Hot water treatment of propagative material at 120°F (49°C) for 10 minutes prior to planting
4. Bunch sleeving at shooting stage (100gauge thickness and 6% ventilation in the form of holes)
5. Monitoring plants for early pest detection. examine five immature bunches per hectare for rust Thrips every 2 weeks.

Control measures for Rust Thrips' Infested fields

1. Routinely monitor your plants for any symptoms of Banana Red Rust Thrips infestation
2. Clean weed your plants to avoid alternative hosts and also alter the micro-climate around the plants
3. Routinely remove dry banana leaves and excess plants per mat. (maintain 3 -5 plants per mat)
4. Avoid biomass transfer of crop debris from infested farms to non infested farms
5. Remove infested flowers and foliage from the field
6. Chemical Control may not be cost effective and safe for use on Banana. However, safer applications can be done using Neem products (Azadirachtin -1% @ 5ml/l, neem seed kernels extract - 5%, and neem oil -1% @ 2 ml/l)

NB: When handling pesticides, always wear protective clothing and follow instructions on the product label

For more information about the Golden Dodder weed management please contact; The Sub-County Agricultural Extension Officer or District Agricultural Officer; or Commissioner, Crop Protection Department, Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), P. O. Box 102 Entebbe. Tel: 0414 320115 or 0414 320801 or Email: ccp@agriculture.go.ug