

Banana Rust Thrips

A Pest New to Hawaii

¹Ronald F. L. Mau, ²Ronald Heu, and ¹Arnold H. Hara

¹UHM College of Tropical Agriculture and Human Resources

²Hawaii Department of Agriculture

The banana rust thrips, *Chaetanaphothrips signipennis* (Bagnall) (Thysanoptera: Thripidae) is a pest new to Hawaii. It was collected from *Dracaena* at a commercial nursery at Panaewa, Hawaii in June 1996 by B. Bushe. Thrips infestations were scattered throughout the 3-5 acre farm. The specimens were identified by D. Tsuda, entomologist at the University of Hawaii Agricultural Diagnostics Service Center. Subsequently, the pest was collected from commercially grown ti (*Cordyline terminalis*) at Hilo, Hawaii; anthurium (*Anthurium andreaeanum*) from a commercial nursery at Pahoa, Hawaii, and from banana (*Musa cavendishii*) at Keaau, Hawaii.

The pest was first collected in 1954, but it wasn't until 1975 that it was reported by K. Sakimura. According to an article in the Proceedings of the Hawaiian Entomological Society (22: 131), Sakimura collected 5 adults and 1 larva from anthurium leaves at Manoa, Oahu. Extensive and repeated searches were made in years following the collection but no additional specimens were found. Sakimura concluded that the pest failed to become naturalized. It was never collected again until it was found in Hilo in 1996.

Damage was varied according to the host plant. On *Dracaena*, the thrips were observed feeding in the whorls of immature leaves. Thrips feeding caused discoloration and silvering of leaves. Similar feeding behavior was observed on ti. The damage was characterized by white streaks near the basal area near the petiole end of the leaf blade. Damage to anthurium is characterized by white streaks on the front and back of the spathe. Injured tissue turns bronze colored with age.

On banana, damage by this pest was observed on pseudostem as well as on the fruit. Characteristic dark, v-shaped marks to the outer surface of leaf petioles resulted from thrips feeding in the leaf sheaths. Damage to the fruit occurred on fingers soon after petals dried. The damage was characterized by a water-soaked appearance. Damaged tissue turned bronze or rust colored with age. Many young fruits exhibited dark or smoky curly-cue feed-

ing tracks on the surface. Characteristic oval shaped, reddish "stains" were observed on mature fruit where the fingers touch. Some of the fruit were extensively covered by reddish-brown or black damage, and the skins of some of damaged fruit bore superficial cracks.

Infestations are composed of males and female thrips. Kidney shaped eggs are deposited in plant tissue where the thrips feed. Upon hatching, the neonate thrips feed for a few days before molting into the second larval stage. This larval stage feeds also feeds for a few more days. Mature larvae molt into the first pupal stage. There are two non-feeding pupal stages that usually occurs in the soil. Adults emerge from the pupal cells and reinfest the host plants. The entire life cycle (egg to adult) is completed in about 28 days (Figure 1).

References

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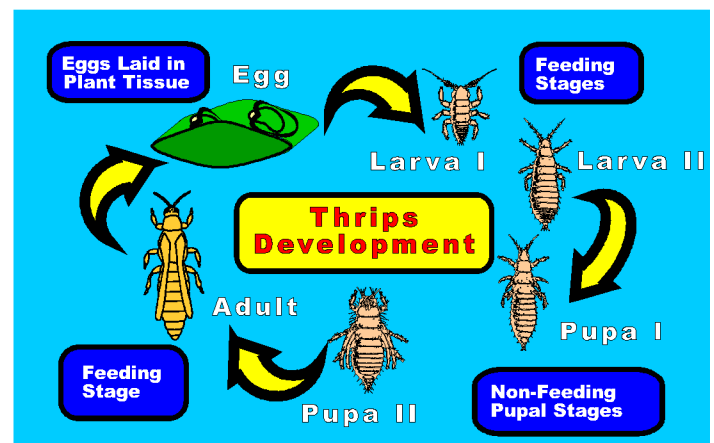


Figure 1. Diagram showing life stages in the banana rust thrips life cycle