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Whitefly, Aleurothrixus floccosus (Maskell): Caught in the Air Hint Guava Fruit

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Exotic species have a significant impact on native species and species. Invasive insects destroy crops and forests, causing major economic losses. Most countries, including India, have strict quarantine procedures to prevent the spread of the disease. But there are many factors that cause invasive insects to travel and occupy new places. The last few years have been stressful and difficult for doctors, plant protectionists and farmers across the country. Various diseases have been reported to cause serious damage to Indian agriculture. At least pest species have been recorded in the last two years. The autumn army Spodoptera frugiperda found in 2018 is the most destructive and has many control measures from many authorities.

During the same time span, three other invasive pests have been documented. Scientists from the ICAR-Central Plantation Crops Research Institute, Kasaragod, Kerala, have discovered two species of nesting whiteflies on coconut: Bondar's Nesting Whitefly (BNW), Paraleyrodes bondari Peracchi, and Neotropical Nesting Whitefly, Paraleyrodes minei Iaccarino. Unfortunately, both of these whiteflies target coconut, adding to the concern of coconut producers who are already concerned about the problem caused by the exotic rugose spiralling whitefly, Aleurodicus rugioperculatus Martin, which entered during 2016.

Following these two reports, another invasive woolly whitefly, Aleurothrixus floccosus (Maskell), has just been discovered on guava in Calicut, Kerala (Sundararaj et al., 2020). It is native to the neotropical region. The pest may infest over 20 host plants, and it is recognised to be particularly harmful to citrus in many other nations. It was first discovered on Guava in Kerala, and it is now found in many regions of India's adjacent states. More studies should be done to prevent it from spreading to other states, as well as parasitoids and their use.

The nature of damage: floccosus infects plants by absorbing sap from young leaves. Major diseases can damage plants. Damage from damage is also caused by the abundant honey sap produced by the nymphs. Fairies of A. floccosus also produces waxy filaments that adhere to nectar, thus forming a continuous layer of on the underside of the leaf that is almost insecticidal and provides a kind of protection for whitefly nymphs. Another indirect damage is the formation of mold , which disrupts the photosynthetic process in the affected plants.

Biology: Reproduction is sex. The eggs are round or semicircular and located on the underside of the leaf. Female inserts her mouth into the bottom of the leaf, then turns and lays eggs. Newly hatched reptiles travel a long distance before starting to feed. There are immature stars. The fourth period "chrysalis" stopped eating and went through metamorphoses. Winged adults are the main dispersal stage. Ants and other insects can be attracted to the colony by the honey sap secreted.

Egg: The eggs are small, less than 0.2 mm long. Eggs are usually arranged in circles or semicircles. This makes it easy to see the egg stage, which is usually with waxy powder. It takes 4-12 days for the eggs to hatch, but about eggs overwinter.

Nymph: Floccosus has four nymphal stages, the last of which is juvenile. The nymph stage is similar, the only difference being the size. The nymphs hatch a woolly covered with fluffy white wax that looks dirty. The nymphs may be yellow or brown in wax layer in some populations.

Pupa: Pupa is the most important stage for identification. It is tall and the is usually pale in color, although on rare occasions black people can also be seen. The is available in lengths ranging from 0.8 to 0.92 mm and widths 0.55-0.65mm.

Adults: Adult whiteflies are usually white, have normal wings, have wax on their bodies and provide some diagnostic tests for identification purposes. Adults can live up to days, with a maximum of 24 days. In warm climates, it takes about 21 days for whiteflies to complete the life cycle of 4,444 individuals.

Control Measures: The most important contribution to the control of 1. Floccosus is provided by the biological control. In many Mediterranean countries where the insect has been introduced, two species of parasites from the order Hymenoptera, Amitus spiniferus (Pipidae) and Cales noacki (Aphelinidae) have been introduced. In the northern region, 2. spiniferus has become a well-developed and disseminated parasitic disease (Arzone and Vidano, 1983). 2. noacki better transformed itself wherever it was introduced, reaching the highly parasitic on whitefly nymphs everywhere (Longo et al., 1985).

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