Ecofarming
e-Magazine for Agriculture and Allied Sciences
http://www.ecofarming.rdagriculture.in
e-ISSN: 2583-0791

The first record of

leaf-twisting weevil *Apoderus tranquebaricus* Fab.

(Curculionidae: Coleoptera) on the Indian butter tree, *Madhuca longifolia*

1. **P. Manikandan**
Division of Eco technology, M.S.Swaminathan Research Foundation, Tamil Nadu, India
Email: rudhran323@gmail.com
2. **R. Rengalakshmi**
Division of Eco technology, M.S.Swaminathan Research Foundation, Tamil Nadu, India

Received: August, 2023; Accepted: September, 2023; Published: October, 2023

The leaf-twisting weevil *Apoderus tranquebaricus* Fab. (Curculionidae: Coleoptera) hosts were recorded mostly in tree crops like Mango, Jamun, Amaranthus, jackfruit, Cashew, Teak, Guava, Neem etc. Heavy infestation occurs in mango trees during the months of July to October (Manikandan et al., 2021). The adult weevil has the habit of cutting and twisting the leaves into shapely thimble-like rolls that remain attached to the branches (Fig.2) and lays the egg singly in the role (Fig.3). The grub feeds on the leaf tissue within the leaf roll and pupation occurs within the leaf roll. The adult weevil is medium-sized, reddish brown with a long snout (Fig.1). Adult with a long snout rostrum scrapping the chlorophyll content from the leaf surface, holes with lined structure show dark reddish-brown dried as an injury symptom.

Though weevils roll a single leaf per egg during the attempt of leaf rolling it affects many leaves (Fig.2). It can be manageable by spraying organic or inorganic chemicals, apart from agricultural or horticultural crops it also utilizes some other crops like avenue trees, ornamental crops example. Ornamental almond (Selvam, 2023) Knowing of host plants of insect pests is very important for effective pest management.

Madhuca longifolia is an Indian tropical tree found largely in the central, southern, and north Indian plains and forests, of Nepal, Myanmar and Sri Lanka. It is commonly known as Butter Tree Iluppai, Mahua etc**.** It is a fast-growing evergreen or semi-evergreen foliage crop and belongs to the family Sapotaceae. It is adaptable to arid environments, being a prominent tree in tropical mixed deciduous forests throughout India. It is cultivated in warm and humid regions for its oleaginous seeds, flowers and wood (Suryawanshi et al., 2020). The seed cakes obtained after extraction of oil constitute a very good fertilizer oil and also have some pesticidal effects. The leaves are fed on by the moth *Antheraea paphia*, which produces tassar silk, a form of wild silk of commercial importance in India. For the first time Infestation of leaf-twisting weevil *A. tranquebaricus* on the leaves of *M. longifolia* at Chathirapatti village (10.4683° N, 77.6500° E), Ottanchatram block, Dindigul district of Tamil Nadu. The leaves rolled by leaf-twisting weevils (Fig.4) and failure attempts for rolling on some leaves (Fig.5) were documented.

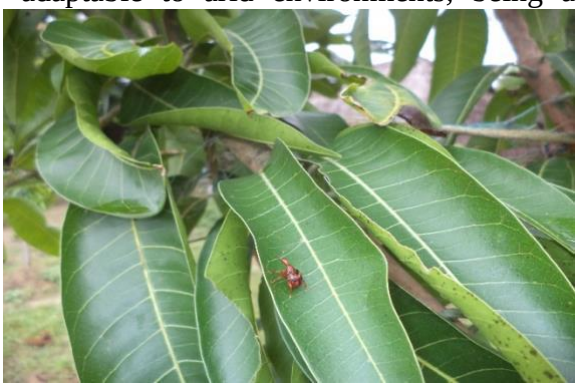

Figure 1. Leaf twisting weevil on mango leaf

Figure 2. Leaf twisting weevil infestation on mango leaves

Figure 3. Single egg of leaf twisting weevil inside the rolled mango leaf

Figure 4. M. longifolia Leaf rolled by *A. tranquebaricus*

Figure 5. Damage by A. *tranquebaricus* on M. longifolia leaf

References

1. Manikandan, P. Suguna, K. and Saravanaraman, M. Population dynamics of defoliating insect pests of mango in the coastal agroecosystem of Tamil Nadu (2021). *Pest Management in Horticultural Ecosystems*, 27(2): 196-200.
2. Selvam, K. First record of Leaf Twisting Weevil *Apoderus tranquebaricus* in almond tree (2023). *Ecofarming*, 3 (2): 112-114.
3. Suryawanshi, Yogesh, Mokat, Digambar. Variability studies in Madhuca longifolia var. latifolia flowers from Northern Western Ghats of India (2020). *Indian Journal of Hill Farming*. **33** (2): 261–266.