

SEASONAL OCCURRENCE OF *SCIRTOTHRIPS DORSALIS* HOOD (THYSANOPTERA : THIRIPIDAE) ASSOCIATED WITH WEEDS IN MANGO ORCHARDS

Affandi^{1*}, Celia dela Rosa Medina², Luis Rey Ibanez Velasco², Pio Arestado Javier², Dinah Pura Tonelete Depositario³, Ellina Mansyah¹, Hardiyanto⁴

¹Indonesian Tropical Fruits Research Institute, Jl. Raya Solok – Aripan Km. 8, Solok, West Sumatra, Indonesia

²Department of Entomology, Crop Protection Cluster, College of Agriculture, University of the Philippines, Los Baños, College, Laguna, Philippines

³Department of Agribusiness Management and Entrepreneurship, College of Economic and Management, University of the Philippines, Los Baños, College, Laguna, Philippines

⁴Indonesian Center for Horticultural Research and Development, Jl. Tentara Pelajar, No. 3C, Cimanggu, Bogor, Indonesia

*Corresponding author: affandi1970@yahoo.com

Thrips is one of the biggest constraints for high quantity and quality production of mango in Indonesia. A research to investigate seasonal occurrence of *Scirtothrips dorsalis* associated with weeds in a mango orchard was conducted in PT. Trigatra Rajasa, a private mango plantation in Situbondo district, East Java Province, Indonesia from January 2014 to January 2015. The population of *S. dorsalis* was monitored at the center of the orchard. Thirteen mango trees were randomly picked along a diagonally laid transect line in the 4 ha sampling area. Samples of leaves or flowers of mango including weeds under the canopy were collected biweekly for one year. The associated weeds were identified; the occurrence during rainy and dry season, relative abundance, including the mean number of *S. dorsalis* per sampling unit were recorded. Rainfall data were collected from the weather station of the plantation. Data showed that 18 species of weeds belonging to 9 families were found in the study site. The composition and occurrence of weeds varied across the seasons. Some weeds exist in dry or rainy seasons only while others were available in both seasons. Weed species *Desmanthus leptophyllus* Kunth and *Tephrosia vogelii* Hook. f. contributed as early breeding habitats for *S. dorsalis* before transferring to mangoes. Population fluctuation of *S. dorsalis* associated with mango was low during the rainy season with a sudden increase in early dry season during flushing stage (143 thrips/sampling unit), followed by gentle oscillations with densities peaking 56 thrips, after which the population remained low for the rest of the study. This research can be utilized for developing management strategies to prevent the initial build-up of *S. dorsalis* population.

Keywords: *Scirtothrips dorsalis*, mango, weeds, seasonal