

This Final Year Project Report, entitled "The Host Plant Preferences of Giant Whitefly, *Aleurodicus dugesii*" was submitted by Mohamad Shafiq Bin Seri in partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons.) Biology, in the Faculty of Applied Sciences, Universiti Teknologi Mara.

THE HOST PLANT PREFERENCES OF GIANT WHITEFLY (ALEURODICUS DUGESII)

Hazni Bin Awang Jemil
Supervisor
Faculty of Plantation &
Agrotechnology
Universiti Teknologi Mara
88997 Kota Kinabalu
Sabah

MOHAMAD SHAFIQ BIN SERI

**Final Year Project Report Submitted in Partial
Fulfillment of the requirements for the Degree of Bachelor
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Sciences Universiti Teknologi Mara**

Ajzar Jewan
Project Coordinator
B.Sc. (Hons.) Biology
Faculty of Applied Science
Universiti Teknologi Mara
88997 Kota Kinabalu
Sabah

Abdul Manap Mahmud
Head of Programme
B. Sc. (Hons.) Biology
Faculty of Applied Sciences
Universiti Teknologi Mara
88997 Kota Kinabalu
Sabah

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ABSTRACT

HOST PLANTS PREFERENCES OF ALEURODICUS DUGESII

This study was conducted in order to identify the most preferred host plant by a common species whitefly in Malaysia, particularly in high altitude farm in Sabah. It is also done in order to determine the fecundity of whitefly in different host plants and also study their behavior in each of the host plants. The experiment was conducted at Entomology laboratory of UiTM Sabah and the samples of whiteflies was collected from Fasa 3 of UiTM Sabah. One common species of whitefly will be studied; **Giant whitefly (Aleurodicus Dugesii)**. After the samples are collected, they were reared under suitable conditions in the laboratory. The methods that were used during the course of the study are **no choice method & multiple choice methods**. In **no choice method**, the whiteflies are released into a cage that only contains one type of host plant species. Meanwhile, in **multiple choice methods**, the whiteflies are released in a cage that contains several types of host plants that the whitefly would mostly populate. The most preferred host plants was identified by looking at the most populated number of adults and eggs that are laid on particular plants. These have given us some ideas on what kind of plants that the whitefly preferred and how they have behaved with each of the host plants. Overall, this study was done to identify and plan a solution on managing the populations of whitefly and it has given us on how to do so. This is because the Giant Whitefly species in particular has been known to be a major pest in the agricultural sector. The results from the study show that the Giant whitefly preferred eggplant/brinjal as the most suitable host plants. Pumpkin plant on the other hand was the least preferred host plant. Chili, bougainvillea, and hibiscus plant all shows favourable preferences from the whitefly. It was also found out that both bougainvillea and hibiscus have the ability to become intercrops/barrier plants; plants that act as a 'sacrifice' or guardian that can protect the main crop/plants. From the study, it is highly recommended that these plants are to be planted in a rotation or cycle. During high activity of whitefly, the pumpkin should and can be