

## **Parasitism rate, host stage preference and functional response of *Tamarixia radiata* on *Diaphorina citri***

### **Abstract**

The Asian citrus psyllid *Diaphorina citri* (Kuwayama) (Hemiptera: Psyllidae), is a serious pest and main threat to citrus production worldwide. The present study was carried out to assess the performance of *T. radiata*, as biological control agent of *D. citri*, under insectary condition. The result shows *T. radiata*, to preferred late (4th and 5th) instar nymphs than early (1st, 2nd and 3rd) instar nymphs of *D. citri*, with mean parasitism rate of 0%, 0%, 43.3%, 76.9% and 86.0% for 1st, 2nd, 3rd, 4th and 5th instar nymphs respectively. The binomial logistic regression analysis of *D. citri* nymphs attacked by *T. radiata*, as a function of host (*D. citri* nymphs) density offered, shows *T. radiata*, to display a functional response type II with attack rate of 39.99 and 34.04, and handling time of 0.60 and 0.71 for 4th and 5th instar nymphs of *D. citri* respectively.

**Keyword:** *Diaphorina citri*; Functional response; Malaysia; Parasitoid; *Tamarixia radiata*