UC Riverside

Journal of Citrus Pathology

Title

Effect of Mineral Oil on Host Selection and Control of Diaphorina citri Kuwayama (Hemiptera: Psillidae) on Citrus

Permalink https://escholarship.org/uc/item/9dc2215g

Journal Journal of Citrus Pathology, 1(1)

Authors

Miranda, M. P. Micelli, M. L. Felippe, M. R. <u>et al.</u>

Publication Date

2014

DOI

10.5070/C411025084

Copyright Information

Copyright 2014 by the author(s). This work is made available under the terms of a Creative Commons Attribution License, available at <u>https://creativecommons.org/licenses/by/4.0/</u>

Effect of Mineral Oil on Host Selection and Control of *Diaphorina citri* Kuwayama (Hemiptera: Psillidae) on Citrus

Miranda, M.P.¹, Micelli, M.L.¹, Felippe, M.R.¹, Caldeira, R.E.¹, and Yamamoto, P.T.²

¹Fundecitrus, Araraquara, Brazil

²ESALQ/Universidade de São Paulo, Piracicaba, Brazil

This research was carried out to study the influence of mineral oil on landing and permanence; oviposition; and mortality of *Diaphorina citri* Kuwayama (Hemiptera: Psyllidae) on citrus plants. For all experiments, mineral oil (Argenfrut®) was sprayed on sweet orange plants at 1% concentration. Landing-permanence and oviposition were assessed using choice and non-choice tests. For the first parameter, 50 adult psyllids were released in the center of the screen house (5mx2.5mx2m) (n = 10) and the number of psyllids/plant at different time intervals were counted. For the oviposition trial, which was conducted under laboratory conditions, 20 psyllids were confined in a cage to oviposit (n = 10) and after three days the number of eggs/plant were counted. The effect of mineral oil on psyllid mortality was assessed by confining 10 adult psyllids per plant (n=4) with fully expanded mature leaves after spray. Assessment was conducted 7 days after confining the insects, by determining the number of live and dead psyllids. The results of this research indicate that mineral oil has repellent effect on adults of *D. citri*, which prefer oil-free plants to land, remain and oviposit. Moreover, mineral oil was effective on *D. citri* control (mortality≥80%).