

plant volatiles and may contribute to the development of effective attractants for the Asian citrus psyllid.

## 8:59

[74] **Performance of predatory beetle *Cryptolaemus montrouzieri* on diets of Asian citrus psyllid *Diaphorina citri*, citrus mealybug *Planococcus citri*, green citrus aphid *Aphis spiraecola*, corn leaf aphid *Rhopalosiphum maidis* and flour moth *Ephestia kuehniella*.** Jawwad A. Qureshi and Philip A. Stansly. South West Florida Research and Education Center, University of Florida, 2685 SR 29 N, Immokalee, FL 34142. [jawwadq@ufl.edu](mailto:jawwadq@ufl.edu)

Management of the Asian citrus psyllid (ACP) *Diaphorina citri* is critical to reduce the incidence of its vectored huanglongbing or citrus greening disease in regions where both are established. Florida citrus industry faces serious challenge from this pest disease complex. Both biological and chemical control tactics are required for sustainable management of *D. citri* and other pests such as aphids and mealybugs which colonize citrus. Naturally occurring populations of lady beetle species known to be effective against *D. citri* and several other pests of Florida citrus are being decimated through wide spread use of broad spectrum insecticides targeted against *D. citri*. None of these species are commercially available for mass release to augment biological control. Very few species are commercially available that could be potential predators of psyllids and additional pests. *Cryptolaemus montrouzieri* commonly known as an efficient predator of mealybugs was never tested against *D. citri*. Here we report results of our experiments designed to study survival, development and reproduction of *C. montrouzieri* on diets of *D. citri* and some other pests such as citrus mealybug *Planococcus citri*, green citrus aphid or spirea aphid *Aphis spiraecola*, corn leaf aphid *Rhopalosiphum maidis* and flour moth *Ephestia kuehniella* which could be useful to help support its survival in citrus and other agro-ecosystems and to maintain its colonies in the laboratory.

## 9:11

[75] **Replication of *Candidatus Liberibacter asiaticus* in its psyllid vector *Diaphorina citri* (Hemiptera: Psyllidae).** El-Desouky Ammar, Robert G. Shatters and David G. Hall. USDA-ARS, USHRL, 2001 S. Rock Rd., Fort Pierce, FL 34945. [eldammar@hotmail.com](mailto:eldammar@hotmail.com)

The Asian citrus psyllid, *Diaphorina citri* (Hemiptera: Psyllidae), is the primary vector of *Candidatus Liberibacter asiaticus* (CLAs) implicated as causative agent of citrus huanglongbing (citrus greening), currently the most serious citrus disease worldwide. CLAs is transmitted by *D. citri* in a persistent circulative manner, but the question of replication of this bacterium in its vector has not been resolved so far. Thus, we conducted two large experiments to study the effects of various acquisition access periods (AAP) on infected citrus plants by nymphs and adults of *D. citri* on CLAs acquisition and transmission as well as on CLAs replication in this vector. RT-PCR analysis indicated that following 1-7-day acquisition access period (AAP) by nymphs 34-52% of *D. citri* became infected, whereas only 11-23% were infected after 1-7 day AAP by adults. Also, the CLAs titer in *D. citri* (relative to that of psyllid S20 ribosomal protein gene) was: 1) generally higher in nymphs than in adults, 2) higher with longer AAP, and 3)