Preliminary Evaluation of Natural Enemies of the the Sugarcane Aphid (New Pest of Sorghum) in Voluntary Host Plants of the Rio Grande Valley

Rocio D. Davila[1], and Raul T. Villanueva[2]

[1]*National Agrarian University La Molina. Lima -Peru.*

[2]*Texas A&M University, Department of Entomology - AgriLife Extension Service*

rdavilae@hotmail.com

Abstract

An aphid outbreak occurred in grain sorghum fields from eastern Mississippi; southern Oklahoma; Louisiana, south and east Texas; to northeastern Mexico in 2013. This aphid was identified as *Melanaphis sacchari,* the sugarcane aphid. To identify the natural enemies of this pest, several sorghum fields were scouted in the Rio Grande Valley from January- February 2013. Ratooning and windbreak sorghum, and other grasses were included in this evaluation. Samples of adult predators were identified and their larvae were reared in the laboratory on a single diet of sugarcane aphids until they became adults. Also, random samples of aphids were collected to evaluate parasitism. Predators belonging to the Syrphidae, Coccinellidae and Chrysopidae families, and hymenopteran parasitoids on the Braconidae (probably *Lysiphlebus* sp.) were the most abundant. The most common cocinellid (ladybeetles) species were *Cycloneda sanguinea*, *Harmonia, axyridis*, *Hippodamia convergens* and *Scymnus* sp., followed in low numbers by *Coccinella septempunctata*, *Olla-v nigrum* and *Hyperaspis* spp. Syrphid flies species found were identified as *Allograpta* spp. and *Eupeodes* spp. *(*probably *volucris*). Only one adult green lacewings (chrysopid) was found (*Chrysoperla* sp.) during this period. Johnson grass was found to be a preferred host of the sugarcane aphid. The different species of natural enemies found suggests that they are abundant; and they might eventually found a natural balance with the pest in a year or two. However, due to the initial outbreak in 2013 that cause 50-100% losses; control of this pest should rely on continuous monitoring, use of resistant/tolerant varieties, and use of insecticides that that are soft to natural enemies.