

# Species of Coccinellidae (Coleoptera: Cucujoidea) associated with *Melanaphis sacchari* Zehntner (Hemiptera: Aphididae) in Tamaulipas, Mexico<sup>1</sup>

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**ABSTRACT:** Sorghum is one of the most important crops in the state of Tamaulipas, Mexico, and is threatened by the pest aphid *Melanaphis sacchari* Zehntner. The coexistence of 11 species of Coccinellidae with *M. sacchari* Zehntner is reported for this location. *Coccinella septempunctata* (L.) is reported for the first time for the state of Tamaulipas; *Brachiacantha decora* Casey and *Hyperaspis wickhami* Casey are reported for the first time in *Sorghum* sp., as is *Cycloneda sanguinea sanguinea* (L.), which was noted earlier by Gilstrap and Hall, but not identified to subspecies. Species of Coccinellidae should be considered as potentially useful biological control agents for *M. sacchari*, as they have been reported on various crops in different countries as major predatory insects, and have now been shown to be numerous and diverse in aphid-infested sorghum fields in Tamaulipas. The list of known coccinellid species of Tamaulipas is here updated.

**KEY WORDS:** sorghum, sugarcane aphid, yellow aphid, natural enemies

Sorghum in the state of Tamaulipas, Mexico, is the largest crop (in hectares and monetary value) produced in the autumn-winter cycle. In 2014 alone, between 711,399 and 782,430.04 hectares were planted and between 2.8 and 3.146 million tons were harvested, and 7,170,110.38 thousand Mexican pesos resulted (SIAP, 2014). In 2013 the presence of the pest aphid *Melanaphis sacchari* (Zehntner) was detected in sorghum crops in southern Texas, USA, and in the state of Tamaulipas, Mexico (INIFAP, 2013).

*Melanaphis sacchari* is a cosmopolitan insect and its worldwide geographic distribution corresponds closely with the distribution of sugarcane and sorghum (Eastop, 1955, 1965; Mead, 1978; CIE, 1981). The greatest economic losses in sorghum due to this aphid have been reported from China (Wang, 1961), Taiwan (Chang, 1981), Japan (Setokuchi, 1973), India (Young, 1970) and South Africa (van Resburg, 1973a). In heavy infestations, *M. sacchari* feeding causes wilting and chlorosis. The biological and physiological changes that affect the development of the host plant favor exponential growth of populations of *M. sacchari*, reaching up to 30,000 aphids on a single plant (Setokuchi, 1977).

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