

FIELD CAGE EVALUATION OF *SERANGIUM PARCESETOSUM*¹ AS A
PREDATOR OF CITRUS BLACKFLY² EGGSJesusa Crisostomo Legaspi³, M. A. Ciomperlik⁴, and B. C. Legaspi, Jr.⁵Texas Agricultural Experiment Station
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Serangium parcesetosum Sicard (Coleoptera: Coccinellidae) is a promising biological control agent against whiteflies in the *Bemisia* complex, both because of its voracity and its preference for whitefly prey. When offered several choices of food simultaneously, *S. parcesetosum* immatures refused eggs of the corn earworm, *Helicoverpa zea* (Boddie) (Lepidoptera: Noctuidae) and tobacco hornworm, *Manduca sexta* (L.) (Lepidoptera: Sphingidae). In contrast, nearly all nymphs of *Bemisia argentifolii* Bellows & Perring (Homoptera: Aleyrodidae) offered were eaten. Each immature *S. parcesetosum* consumed approximately 200 nymphs of *B. argentifolii* daily; whereas, each adult consumed approximately 600 whiteflies daily (Legaspi et al. 1996). Cohen et al. (1995) also suggested that *S. parcesetosum* is a specialist predator of whiteflies compared to the generalist *Geocoris punctipes* (Say) (Hemiptera: Lygaeidae). Nevertheless, *S. parcesetosum* was imported from India into Adzharia (former Soviet Republic of Georgia) where it was reportedly effective against the citrus whitefly, *Dialeurodes citri* (Ashmead) (Aleyrodidae) (Timofeyeva and Nhuan 1979). Kuchanwar et al. (1982) also claimed *S. parcesetosum* to be a promising control agent against the citrus blackfly, *Aleurocanthus woglumi* Ashby (Aleyrodidae). Despite its potential as a biological control agent against whiteflies, *S. parcesetosum* has received little research interest. In a field cage study, we evaluated *S. parcesetosum* adults as predators of citrus blackfly eggs.

The study was conducted in a commercial grapefruit orchard in Hargill, TX, that was heavily infested with citrus blackfly. *Serangium parcesetosum* adults were obtained from a colony reared at the USDA APHIS Mission Plant Protection Center in Mission, TX. Screen cages (15.2 cm length by 7.6 cm diameter) made of metal wire frame and organza cloth were placed around individual terminals consisting of six to ten leaves. Each screen cage comprised one replicate. Wire twisters were used to close the cages on both ends. Forty cages were used: 20 designated as treatment, 20 as control. Pre-release counts of citrus blackfly eggs were recorded. All other life stages were removed. The predators were starved for approximately 12 h and released at the rate of one beetle per cage into the

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