

BOOK REVIEW

Semyanov V.P. 2006. Razvedeniye, Dlitelnoye Khraneniye i Primeneniye Tropicheskikh Koktsinellid Dlya Borby z Tlyami v Teplitsakh [Rearing, Long Storage and Use of Tropical Coccinellids Against Aphids in Greenhouses]. Tovarishchestvo Nauchnykh Izdanii KMK, Moskva 29 pp. ISBN 5-87317-289-7. (In Russian).

Plant protection specialists, engaged in biological and integrated pest management in vegetable and ornamental greenhouse crops, will find this book of great scientific and practical value. The author Dr. Valentin P. Semyanov is a research scientist at the famous Zoological Institute (ZIN) belonging to the Russian Academy of Sciences and located in Saint Petersburg. The author is a well known specialist in taxonomy, zoogeography, biology and practical application of predatory lady bird beetles (*Coccinellidae*) for biological plant protection. He published several scientific and technical papers on this subject.

In "Introduction" (p. 3) the author explains that during his scientific expedition in 1990 to the south-eastern region of China (city of Guan-shou) he collected specimens of four coccinellid species: *Leis dimidiata* (Fabr.), *Harmonia sedecimnotata* (Fabr.), *Lennia biplagiata* (Swartz), and *Menochilus sexmaculatus* (Fabr.). He successfully established their laboratory rearing in the ZIN in Saint Petersburg, and performed detailed studies on their biology, mass rearing and potential use throughout the entire year for biological protection of greenhouse vegetables and ornamentals against four aphid species: *Aphis gossypii* Glov., *Aulacorthum solani* Kalt., *Macrosiphum euphorbiae* Thom., and *Neomuzus circumflexus* Buckt.

Chapter "Biology of tropical coccinellids" (p. 4–12) provides detailed information on duration of life cycle at different temperatures, rearing output capacity, voracious feeding potential of males and females of four coccinellid species.

Chapter "Method of rearing and storing" (p. 17–22) provides practical information and advice on: (1) rearing facilities, (2) methods of rearing of coccinellids using either aphids or eggs of *Sitotroga cerealella*, (3) methods of storage of coccinellids for use as needed.

Chapter "Use Recommendations" (p. 23–25) provides very useful technical advice on: (1) monitoring of crops and plants to set a proper date of release of coccinellids; (2) recommendations on time and technique of release of coccinellids on various crops such as cucumber, sweet pepper, eggplant or various ornamentals. The basic use dose is "one pair" (male and female) per square meter of a protected crop.

Part "References" contains a list of thirty references in Russian language (nine by Semyanov) and nine references in English.

I recommend this valuable book to attention of biological control specialists, technical advisors and to all agricultural libraries.

Jerzy J. Lipa
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