

Crop Knowledge Master



Adoretus sinicus (Burmeister)

Chinese Rose Beetle

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Authors

Ronald F.L. Mau, Extension Entomologist

Jayma L. Martin Kessing, Educational Specialist

Department of Entomology

Honolulu, Hawaii

HOSTS

The plant host for this species is composed of over 250 plants from a wide variety of ornamental and cultivated crops. Major crops attacked include asparagus, beans, broccoli, cabbage, cacao, Chinese broccoli, Chinese cabbage, chiso, corn, cotton, cucumber, eggplant, flowering white cabbage, ginger, grape, green bean, okra, rose, soybeans, strawberry, and sweet potato.

DISTRIBUTION

Originally from Japan and Taiwan, this beetle currently enjoys a widespread distribution throughout Southeast Asia and many Pacific Islands. Introduced to Hawaii before 1896, it is now a common pest on all major islands in the State.

DAMAGE

Adults feed on plant foliage at night, creating a [lace-like or shot with holes appearance on leaves](#) by feeding on plant tissue between leaf veins. In severe cases most leaves are skeletonized.

Larvae are commonly found in the soil of lawns, gardens, flower beds, and sometimes in cultivated fields, wherever considerable humus is present. The grubs do not attack living vegetable tissues and apparently are humus and detritus feeders.

BIOLOGY

The life cycle (egg - adult) is completed in 6-7 weeks.

EGGS

The small, elliptical eggs of this species are laid in the soil within 1-1/2 inch from the surface. Eggs are

about 3/50 inch long by 1/25 inch wide. Appearing shining white at oviposition, the eggs gradually become dull creamy white before hatching in 7-16 days (Habeck, 1963).

LARVAE

There are 3 larval stages of this insect that last about a week each. The larval forms of this insect are stout, [C-shaped, white grubs](#) with a conspicuous head and short legs. The larval stage lasts for 3-4 weeks. Refer to Habeck (1963) for a detailed description of the larvae.

Grubs do not attack live plant tissue, but preferably live in loose rich soil, leaf litter, or compost (Williams, 1931).

PUPAE

Pupae are yellowish white when initially formed and gradually become brown. Its entire surface is densely covered with minute hairs. The pupa is about 1/4-1/2 inch. Development is completed in 1-2 weeks.

ADULTS

The [adults](#) are sturdy, pale reddish brown beetles, and about 1/2 inch in length. Its body is covered with fine white hairs that can give the beetle a grayish appearance.

BEHAVIOR

This beetle is nocturnal in habit. However, they are attracted to lights at night. During the day they remain under leaves, loose bark, or are shallowly buried in the soil, and emerge at dusk to feed (Williams, 1931). Peak feeding and mating activity occurs about 30 minutes after sunset (Tsutsumi, *et. al.*, 1993). Arita, *et. al.* (1993) reports that this beetle preferentially feeds on leaves and plant species that are relatively high in non-structural carbohydrates. It also prefers to feed on leaves with feeding or other types of damage (Pemberton, 1959). These leaves release ethylene gas which serves as an attractant to beetles (Arita, *et. al.*, 1988).

MANAGEMENT

NON-CHEMICAL CONTROL

Several introductions of natural enemies were made to control this pest, but none became established. Insignificant control has occurred from the parasites *Campsomeris marginella modesta* (Smith) and *Tiphia segrgata* (Cwfd.) that were introduced to the State to control another pest.

The "green muscardine" fungus, *Metarrhizium anisoplia* (Metsch), that during its fruiting stage resembles pulverized green cheese, destroys many grubs and adults particularly during the wet season (Williams, 1931). Cultures of this fungus have been used with some success against this beetle (Koebele, 1897).

CHEMICAL CONTROL

No information available.

REFERENCES

Arita, L. H., S. C. Furutani and J. J. Moniz. 1988. Preferential Feeding by the Chinese Rose Beetle (Coleoptera: Scarabaeidae) on Ethephon-Treated Plants. J. Econ. Ent. 81(5): 1373-1376.

Arita, L. H., S. C. Furutani, M. T. Fukuda and T. R. Nakayama. 1993. Feeding Response of the Chinese Rose Beetle (Coleoptera: Scarabaeidae) to Non-Structural Carbohydrate in Plants. J. Econ. Ent. (To be published)

Clausen, C. P. 1978. Chinese Rose Beetle, (*Adoretus sinicus* Burmeister). pp. 277-278. U.S. Dept. Agric. Handbook. No. 480.

Gordon, R., US Dept. of Agriculture. 1988. Pests not known to occur in the United States or of limited distribution No. 94: Chinese Rose Beetle.

Habeck, D. H. 1963. Description of Immature Stages of the Chinese Rose Beetle, *Adoretus sinicus* Burmeister (Coleoptera: Scarabaeidae). Proc. Hawaiian. Entomol. Soc. 18(2): 251-258.

Habeck, D. H. 1964. Notes on the Biology of the Chinese Rose Beetle, *Adoretus sinicus* Burmeister in Hawaii. Proc. Hawaii. Entomol. Soc. 18(3): 399-403.

Koebele. 1897. Hawaiian Planter's Monthly XVI. pp. 83-85.

Marsden, D. A., Cooperative Extension Service. 1979. Insect Pest Series No. 10: Chinese Rose Beetle, Fuller Rose Beetle. University of Hawaii.

Pemberton, C. E. 1959. In Report of the rhinoceros beetle technical advisory committee meeting held in Suva, Fiji. February 16-19. South Pacific Commission, New Caledonia. p. 11.

Tsutsumi, L. H., S. C. Furutani, M. Nagao, V. Sworts and A. Vargo. An Integrated Approach to *Adoretus* Control in Hawaii and American Samoa.

Williams, F. X. 1931. Handbook of the Insects and Other Invertebrates of Hawaiian Sugarcane Fields. Honolulu, Hawaii: Hawaiian Sugar Planters' Association. Advertiser Publisher Co., Honolulu, Hawaii. pp. 194-198.

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