NOTE

THE EMERGENCE OF FULLER ROSE BEETLES, *PANTOMORUS CERVINUS* (BOHEMAN), IN A PEACH ORCHARD

Key Words: Fuller rose beetle, Peach insects, *Pantomorus*.

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The Fuller rose beetle, *Pantomorus cervinus* (Boheman), is a common pest of outdoor ornamentals and fruit crops in the southern United States, California, and Oregon (Johnson, W. T., and H. H. Lynon. 1976. Insects that feed on trees and shrubs. Cornell University Press, Ithaca, NY. 464 pp.). These parthenogenic females deposit eggs in masses at the base of trees, in bark crevices, or on fruit during late summer or early fall. After the eggs hatch, the larvae fall to the ground and enter the soil by falling through cracks in the soil where they feed on roots. Pupation occurs the following year ca. 10 cm below the soil surface. The flightless adults emerge between July and November with peak emergence occurring in September (Dickerson, R. C. 1950. The Fuller rose beetle. Calif. Agric. Exp. Sta. Bull. 718).

Numerous *P. cervinus* adults have been collected in South Carolina peach orchards but little information is available on where in these orchards adults emerge (Lee, G. T. 1981. The seasonal abundance of arthoropds on peach trees in South Carolina. Ph.D. Dissertation. Clemson Univ. Clemson, SC 82 pp.).

Observations on the pattern of adult *P. cervinus* emergence were made using 34 conical emergence traps placed in a mature peach orchard at the Simpson Experiment Station in Anderson County, SC. Traps were made from 18 × 16 mesh aluminium screen, 91 cm high with a 91 cm diameter base. A container was attached to the apex for collection of adults. Each trap was buried to a depth of 5 cm and sampled an area of ca. 0.66 m^2.

Traps were placed at three different locations, with respect to the trees, in the orchard. Fourteen traps were placed adjacent to the trunks, 14 traps were placed under the dripline of the trees and six traps were located in the sod middles between tree rows. Traps were monitored weekly from 1 September through 11 November of 1980.

A total of 46 beetles emerged during this 11 wk period. Peak emergence occurred between 13 September and 23 September (43% of the trapped beetles). Seventy percent of the trapped beetles emerged at the base of the tree (3.5 beetles/m^2 of soil). Twenty-eight percent of the beetles emerged at the dripline (1.4 beetles/m^2 of soil) and only one beetle was trapped in the sod middles.

The large number of adults emerging from the soil at the base of peach trees may be the result of increased oviposition by females on the trunks of the trees or increased larval survival in these areas. Horticultural practices used in peach orchards such as herbicide applications near the trunks of trees to control weeds may increase cracking in soil at the base of the tree. As more cracks form in the soil, the chance of larvae falling into these cracks increases resulting in more larvae finding roots and developing into adults. — J. Kovach, IPM Program, NYS Agricultural Experiment Station, Geneva, NY 14456, and C. S. Gorsuch, Department of Entomology, Clemson University, Clemson, SC 29634-0365. Published as Technical Contribution No. 2467 of the South Carolina Agricultural Experiment Station, Clemson. (Accepted for publication August 1, 1986).