

Elm Leaf Beetle

Pyrrhalta (=Xanthogaleruca) luteola (Müller)

Coleoptera: Chrysomelidae

Dreistadt, S. H.; Dahlsten, D. L.; Rowney, D. L.; Tait, S. M.; Yokota, G. Y.; Copper, W. A. 1991. Treatment of destructive elm leaf beetle should be timed by temperature. California Agriculture 45: 23-25.

Objective: To develop optimal timing of insecticide applications for *P. luteola* based on accumulated degree-days.

Abstract: Elm leaf beetle, *Pyrrhalta (=Xanthogaleruca) luteola* (Müller), is one of the most important pests of urban elms, *Ulmus* spp., in the western USA and Canada. Larvae injure the host tree by skeletonizing leaves.

Management decisions for *P. luteola* in northern California can be timed using degree-day (DD) accumulation, although elms should still be sampled to confirm the presence of this pest. Eggs of *P. luteola* eclose between 370 and 600DD above the base temperature of 11°C, while densities of first and second instars peak around 700DD. Insecticide applications against larval *P. luteola* should be made around 700DD if larvae are present.

Sampling Procedure: Beginning March 1, monitor degree-day accumulation above the threshold temperature of 11°C. Densities of first and second instars peak around 700DD in northern California. Insecticide applications should be made around this time if *P. luteola* populations are present. Temperature data are available from the University of California's Statewide IPM Project.

Notes: This research was conducted in northern California and the degree-day accumulation correlated to eclosion and peak density of young larvae may not be valid in other areas. Use these recommendations with caution until validated in other regions.