

Pest Alert

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Florida Department of Agriculture and Consumer Services, Division of Plant Industry
Charles H. Bronson, Commissioner of Agriculture

The Grenade Scale, *Cerococcus deklei* (Hemiptera: Cerococcidae)

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INTRODUCTION: The grenade scale, *Cerococcus deklei* (Kosztarab & Vest 1966), was first discovered in Florida in 1962 on *Acalypha* sp. and *Hibiscus* sp. (Dekle 1962). It was considered to be economically important in Florida during the late 1960s and early 1970s, but has rarely been of economic importance in Florida since. Occasionally, isolated populations would pose a problem for nurseries or landscapes, but not on a large scale. Samples of this scale have been arriving more frequently since the fall of 2002. This may be due, in part, to the increase in surveys for pink hibiscus mealybug and lobate lac scale in and around nurseries.

IDENTIFICATION: The grenade scale (Fig. 1) is covered by a wrinkled, salmon-colored to dark grey waxy cover. Females are generally broadly oval and convex in body shape with three longitudinal body ridges (tri-carinate) on the dorsum giving it the appearance of the explosive pineapple hand-grenade. The male cover is elongate-oval, weakly tri-carinate with a flap (emergence hole for the adult male) at one end. The adult male resembles a small crimson-colored gnat.

BIOLOGY: Very little is known about the biology of the grenade scale and the number of generations per year. Its natural enemies are unknown. Like other scale insects, the grenade scale possesses piercing-sucking mouthparts it inserts into the host plant. Males tend to settle in close proximity to one another giving them a clumped distribution, but females distribute themselves randomly on host plants (Kosztarab and Vest 1966). The grenade scale is spread by mechanical means (e.g., cuttings, pruning shears with crawlers) and by the wind. The first instar, or crawler, is rather small (0.3-0.5 mm long) and dorso-ventrally flattened. The small size and body shape allows the crawler to be dispersed easily by air movements.

ECONOMIC IMPORTANCE: The grenade scale is considered an economic pest of Hibiscus (Dekle 1971; Reinert 1976). Populations can reach high densities on the woody portions of host plants. Feeding damage by the grenade scale can cause limb or twig die-back, premature loss of foliage and possible death of host plant if populations go unchecked. In many portions of South Florida, the grenade scale occurs concurrently with the lobate lac scale on Hibiscus (Fig. 2). The presence of both scales can weaken host plants severely.

DISTRIBUTION: Grenade scale is known to occur in Florida and Texas within the United States, and also in Brazil, Cuba, Haiti, Panama, Puerto Rico and the U.S. Virgin Islands (Miller and Gimpel 2001). In Florida, the current distribution is as follows: Brevard, Broward, Collier, Duval, Lee, Levy, Martin, Miami-Dade, Palm Beach, Pinellas, Sarasota, St. Lucie and Volusia counties.

COMMON HOSTS: *Gardenia angusta* (L.), *Hibiscus* sp., *Ixora coccinea* L., *Pittosporum* sp. and *Trema micranthum* L.

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Figure 2. Grenade scale and lobate lac scale on *Hibiscus* twig.
Photo credit: Lyle Buss, University of Florida



Fig. 1. Grenade scales on *Hibiscus* twig.
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