RESEARCH LABORATORY TECHNICAL REPORT

BARTLETT TREE EXPERTS
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Black Olive Staining

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Black olive tree (*Bucida buceras*), also known as Oxhorn bucida, is commonly attacked by a defoliating caterpillar (*Garella nilotica*) and a gall-forming eriophyid mite (*Eriophyes buceras*). While pest feeding is generally not a significant concern for healthy trees, pest waste causes discoloration and staining of surfaces below the canopy (Figure 1). Black olive tree and *G. nilotica* are present in southern Florida and southern California, but *E. buceras* has not been reported in California.

Description

Eriophyid mite feeding causes string bean-shaped galls to form from the flowers (Figure 2). Caterpillars will feed on the foliage as well as the galls, and the waste (frass) they excrete contains tannins and other plant compounds, which are likely responsible for the discoloration. When moistened, the accumulated frass becomes an oily, dark-staining residue. As caterpillars feed within galls, frass accumulates and exudes from the galls when moist. This leads people to mistakenly attribute the staining to galls.

Figure 2: Foliar galls of E. *buceras*

Figure 1: Surface staining below the canopy of an infested black olive tree

Caterpillar feeding occurs between May and August. The caterpillar is known to have at least two generations per year and the staining may become progressively worse during this period.

Management

Preventing gall formation can reduce staining as there is less tissue for caterpillars to consume after early defoliation. Tree injections in early spring prior to pest infestations have proven effective at managing the mites and reducing the severity of staining. Treatments are also available for the caterpillars as they may become a nuisance when hanging from the canopy on silken threads. Please contact your Bartlett Arborist Representative to learn more about management strategies.