



Pubescent leaf kermes and Pin oak kermes

Nanokermes pubescens

Allokermes galliformis

Order Hemiptera, Family Kermesidae;

gall-like oak scales

Native pests

Host plants: White and several other oak species

Description: Adult females are approximately 6 mm in diameter, immobile, globular, and tannish-colored with brown specks. They are 3–6 mm in diameter. Males are fly-like.

Life history: Pubescent leaf kermes females are usually found at the base of leaf stems but can occur on the leaf midrib. Males remain on trunks and main branches. Eggs are deposited in July and hatch in September. There is one generation a year. Pin oak kermes occurs on approximately 40 species of *Quercus* throughout North America. It has the same life history as pubescent leaf kermes, except females develop on twigs.

Overwintering: Crawlers in cracks in bark.

Damage symptoms: Leaf distortion, flagging terminals, and considerable honeydew are symptoms of infestation. Infested trees have reduced growth and vitality. With severe infestations, leaf yellowing and twig dieback may occur.

Monitoring: Look for scales when leaves first start to appear. Adults are full-grown by June and lay eggs in July. Crawlers hatch in late summer.

Chemical control: Use oil as a dormant treatment on twigs in spring. Avoid residual insecticides when crawlers are present since predators and parasitoids usually control this insect.

Biological control: Parasitic wasps in the family Encyrtidae have been recorded. The twicestabbed lady beetle, *Chilocorus stigma*, feeds on this scale.

Plant mortality risk: Low

Biorational pesticides: horticultural oil, insecticidal soap, pyriproxifen

Conventional pesticides: acephate, bifenthrin, carbaryl, chlorpyrifos (nursery only), deltamethrin, fluvalinate, lambda-cyhalothrin, malathion, permethrin



Pubescent leaf kermes old adult females on white oak leaf midrib; note the vein distortion. (209)

Photo: John Davidson



Pubescent leaf kermes young female on white oak. (210)

Photo: John Davidson



Pin oak kermes adult female and immatures. (211)

Photo: John Davidson