

FOREST HEALTH ALERT

Jumping Oak Gall

Problem: Leaves on entire crowns of white oak trees turn brown in early summer. In some cases, whole hillsides appear to be browning. Individual leaves turn brown starting at the margins, and sometimes curl up and turn black.

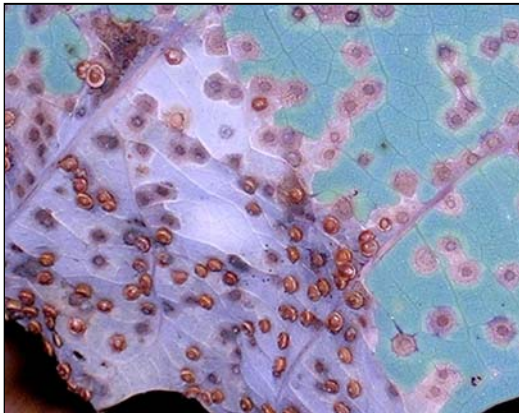
Tree Species: White oak (*Quercus alba*) primarily, and some other white oak group species.

Description: Leaf damage is caused by high populations of a jumping oak gall wasp (*Neuroterus* sp.) These very tiny, stingless wasps cause pinhead-size galls to form on the undersides of leaves. Each round, button-like gall contains one wasp larva. Galls begin dropping from leaves in early summer, but brown pockmarks remain where galls had been attached. Scorch-like necrotic areas appear on leaves where many galls are present. In more severe cases, leaves turn black, curl up and drop early from trees.

Gall development begins when adult female wasps deposit eggs on young expanding leaves in spring. As wasp larvae hatch out and begin feeding, trees respond with formation of a gall around each developing larva. Galls drop from leaves in early to mid-summer. Fallen galls are sometimes observed to “jump” due to vigorous movements of larvae within, much like the moth larvae



White oak leaves damaged by jumping oak gall wasp
(Photo: S. Madison)



Pinhead-size jumping oak galls
(Photo: C. Ellis)

of Mexican “jumping beans.” This larval behavior allows jumping oak galls to fall deeper into grass and leaf litter where they are sheltered throughout the coming winter. A new generation of adults emerges in the following spring.

Jumping oak gall outbreaks typically last for one or two years and then fade away as natural controls reduce gall wasp numbers again. For example, other species of minute wasps are known to parasitize *Neuroterus* spp. gall wasps.

Recommendations: Leaf galls rarely have a significant impact on tree health. Controls are not warranted and are not practical due to difficulty in timing treatment applications. The best tactic is using good tree care practices that reduce tree stress (mulching, watering during dry periods, avoiding root disturbances).

Further Information (Internet Sources)

http://ppdl.org/dd/id/jumping_oak_leaf_gall-oak.html

<http://waynesword.palomar.edu/pldec97.htm>