

# DRIPPY ACORN AND DRIPPY SHOOT BLIGHT OF OAK



Symptoms of drizzly acorn blight on coast live oak acorn cupules - Colorado, USA.  
Courtesy R. Sitz



Rotting acorns as a result of drizzly acorn blight infection - Colorado, USA.  
Courtesy R. Sitz

## Causal organism: *Lonsdalea quercina*

This bacterial species attacks different parts of the oak tree and is the cause of both drizzly acorn blight and drizzly shoot blight (sometimes just called drizzly blight).

## Host species

Coast live oak (*Quercus agrifolia*) and interior live oak (*Quercus wislizeni*) are affected by drizzly shoot blight, while northern red oak (*Quercus rubra*), pin oak (*Quercus palustris*) and Shumard oak (*Quercus shumardii*) are susceptible to drizzly acorn blight.

## Distribution

Drizzly acorn blight was first reported in California in 1967, but by 2018 it had made an appearance in Colorado, together with drizzly shoot blight. However, these two forms of the disease now have a wider global distribution and are present in North America (California and Colorado), China and Europe (Italy and Spain).

## Occurrence in the UK

*L. quercina* has not been detected in the UK.

Status: Based on preliminary assessments, statutory action may be taken against disease findings.





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Symptomatic oak exhibiting symptoms of drizzly shoot blight including witch's broom and dieback - Colorado, USA.

Courtesy R. Sitz



Internal symptoms of drizzly shoot blight including streaking and cankers - Colorado, USA.

Courtesy R. Sitz

## Symptoms of the disease

Acorn drizzly blight is characterised by clear gummosis of acorns in their cupule, and the fluid may appear frothy. Once infected, the acorns do not develop further but rot and fall from the cupule where a brown lesion remains. Bacteria establish at wound sites caused by seed-feeding weevils, filbertworms, and cynipid gall wasps.

Drizzly shoot blight is initially characterised by leaf scorching and leaf drop, followed by dieback of thinner twigs throughout the canopy. Branch cankers form and twigs become brittle and snap off. At the point of breakage, new shoot growth often results in small witch's brooms, or twig dieback from successive years may result in major limb dieback. Copious exudate drips from cankered or damaged twigs, particularly in northern red oak. Wounding associated with kermes scale-feeding injuries may provide entry or exit courts for the pathogen.

## Control measures

There are no effective methods to control *L. quercina*-associated dripping from oaks. However, dripping is sporadic and does not occur every year. Where dripping is a problem, wash residue from surfaces with soap and water. Physically removing acorns from the trees may reduce dripping, and pruning branches to reduce canopy overhang in sensitive areas (e.g., driveways, patios, roof surfaces) can reduce potential dripping. However, extensive pruning or removing large limbs does wound trees. Reduce as much stress as possible in infected trees through proper fertilisation, watering and pest control practices to avoid long-term damage. Always surface sterilise equipment before and after pruning and dispose of the pruned material by burning on site.

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