

Arkansas Forestry Commission

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BLACK TURPENTINE BEETLE

IMPORTANCE: Attacks from black turpentine beetle (*Dendroctonus terebrans*) are observed on all pines native to the South. It is most serious in pines stressed by serious drought, flooding, storms, wildfires, and cutting operations. Use of large, mechanized harvesting equipment can damage residual trees, compact the soil, and injure the roots, thus increasing damage by black turpentine beetle.

IDENTIFICATION: The adult beetle is 1/5 to 3/8 inch long and is dark brown or black. This beetle may be confused with *Ips* bark beetles, but it is larger, more heavily bodied, and does not have a scooped out posterior. Found in groups, the creamy white larvae are small with a reddish-brown head, and are approximately 1/3 inch long. The yellowish-white pupae are about 1/4 inch in length.

SIGNS OF ATTACK: The most obvious sign of attack is pitch tubes on the lower trunk and stumps. Pitch tubes are large, sometimes about the size of a walnut, and white to reddish. Older tubes have a sugar-like texture. Foliage color is not a satisfactory indicator, since large infestations may develop before any trees are killed or foliage turns brown.

LIFE CYCLE: Adult beetles are attracted to injured or weakened trees and fresh stumps in spring and summer. They bore into the cambium layer and excavate a broad vertical gallery. Eggs are laid in clusters along the gallery. After hatching, larvae feed side by side, destroying large patches of the cambium and phloem area. The lack of individual larval galleries distinguishes it from other bark beetles. When enough larvae are present, they can girdle the cambium causing tree death. When ready to pupate, larvae separate from the group. After pupation occurs between the bark and the wood, adult beetles emerge and seek new host trees. Two to four generations a year may be produced in Arkansas.

CONTROL: Build up of this insect is comparatively slow and, if stands are watched carefully, many attacks can be headed off. Proper forest management practices regarding harvesting can reduce beetle attacks. In logging areas with active black turpentine beetle infestations, fresh stumps can be sprayed with an insecticide. Salvage cutting trees will also reduce additional losses. Spraying trees that have been attacked is usually successful if infestation is light or if the trees are not too severely weakened. Spraying to prevent attacks on adjacent trees is also practical. Contact a forester who is a certified pesticide applicator for specific chemical to use.



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