





Technical Bulletin for: Douglas-Fir Beetle

Dendroctonus pseudotsugae (Hopkins) • Coleoptera, Scolytidae • DENPSE



DISTRIBUTION	North America and parts of China.
HOSTS	Douglas fir and occasionally Larch.
DESCRIPTION	
ADULT	Hairy dark brown to black, with reddish-brown elytra, measuring 4.4 to 7 mm in length.
LARVAE	White, c-shaped and legless. Head capsule is lightly sclerotized and amber with dark, well-developed mouthparts. There are four instars, with mature larvae reaching 4-6 mm long.
EGGS	Eggs smooth, ovoid, white and translucent, measuring roughly 1.02 mm long
LIFE HISTORY	Adults emerge and fly from April through August. This pest breeds only in injured, felled or diseased trees. However, there have been outbreaks where healthy trees have been colonized. Eggs are laid in niches within egg galleries packed tightly with frass. The egg galleries are almost entirely constructed in the inner bark but are in continuous contact with the cambium. The galleries may lightly score the wood. They range in length from 12 to 30 cm but may extend to 90 cm and are longer in wind-thrown trees. Eggs hatch in 8 to 24 days. The newly-hatched larvae mine outward in the phloem, in individual galleries that are approximately perpendicular to the main egg gallery. There is one generation per year with both adults and larvae overwintering inside trees.

MONITORING INFORMATION

LURE ACTIVE INGREDIENT, SUBSTRATE & FIELD LIFE	Multi-component (frontalin, sudenol and ethanol) lure in netting. Lure Longevity: forty-five (45) days.	
TRAP TO USE	Panel Trap	
MONITORING STRATEGY	Contact your local forester for more information on forest management practices.	
CULTURAL & PHYSICAL CONTROL	It is not desirable to eradicate all Douglas-fir beetles – they attack weakened or diseased trees and can be a sign of root disease. The beetles serve to thin weakened trees and allow for regeneration. To reduce the chances for an outbreak, choose tree species well-suited to the area in which they are to be planted. Do not overstock your stand.	

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