





Technical Bulletin for: Red Turpentine Beetle

Dendroctonus valens (LeConte) • Coleoptera, Scolytidae • DENVAL



DISTRIBUTION	North America (Canada southward), Guatemala, Honduras, and Mexico. Introduced to China.
HOSTS	Ponderosa, Jeffrey, Sugar, Lodgepole, Western White, Manchurian Red and Chinese White Pine, White Fir, various spruce species.
DESCRIPTION	
ADULT	6-10 mm in length, initially tan in color, turning a dark reddish-brown with maturity.
LARVAE	White and legless, with brown head and brown abdominal tip. Mature larvae reach lengths of 10-12 mm.
EGGS	Cylindrical with rounded ends, white, opaque and shiny, about 1 mm long
LIFE HISTORY	In the southern parts of this beetle's native range, it may be active all year and there may be one or two overlapping generations. In more northerly regions, it may be active from May to October and have a single generation each year, or larvae may take more than a year to mature. On living trees, the beetles excavate a hole within a meter or two of the ground. On stumps or recently dead trees, the presence of the beetles can be seen from the frass they produce which is mixed with dried resin. On successfully reaching the cambium layer, a pair of beetles mate and the female excavates a vertical gallery, on one side of which she lays her eggs in small clusters. When the eggs hatch, the larvae tunnel out a large communal gallery in the phloem and cambium which becomes filled with frass, pupating after two months.

MONITORING INFORMATION

LURE ACTIVE INGREDIENTS, SUBSTRATE & FIELD LIFE	(+)- α -pinene, (-)- β -pinene, and (+)-3-carene absorbed on sponge in a plastic bag. Lure longevity: 45 days.	
TRAP TO USE	Panel Trap	
MONITORING STRATEGY	Hang traps at least 1m off the ground, where bore holes in live trees are commonly present. Check with local Forestry Service for more information and recommendations.	
CULTURAL & PHYSICAL CONTROL	Inspect for shortened needles, poor needle retention, stunted growth, sparse crowns, dead branches, bore holes and galleries within the trunks of live trees, as well as for frass in recently dead trees or stumps. Removal and incineration of tree stumps in areas of high infestation likelihood, as well as removal and incineration of any infested branches, is recommended. In extreme cases, removal of live infested trees may be necessary.	

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