

WESTERN SPRUCE BUDWORM



WHAT IS THE THREAT:

The Western Spruce Budworm (WSBW), (*Choristoneura occidentalis*), is the most widely distributed defoliator of coniferous forests in Western North America. As more people settle in the wildland interface, this insect is rapidly becoming more of a problem. Forested areas with severe WSBW outbreaks often come under attack from bark beetles and become more susceptible to wild fire risks.

WHERE IS THE THREAT:

This insect is active in the Rocky Mountains from Arizona and New Mexico northward into Colorado, Utah, Wyoming, Montana, and Idaho; in the Pacific Northwest in Oregon and Washington. WSBW primarily attacks fir (Douglas, white, subalpine and corkbark) and spruce (blue, Engelmann and white). It is sometimes found on other fir, hemlock (western and mountain), and pine (lodgepole, ponderosa, western white, limber and whitebark). WSBW has been found feeding on Norway spruce and Scotch pine.

SYMPTOMS:

Larvae do not feed immediately but spin a silken tent called a 'hibernacula' underneath the bark scales and within lichen masses. They overwinter within hibernacula and emerge in late May early June to mine new needles and cones. Larvae leave traces of silken webbing and bits of excrement at entrance sites. As needles elongate, the larvae weave several needles together resulting in twisting and stunting of new growth.

WHAT TO DO ABOUT IT:

Arborjet recommends a trunk injection of TREE-äge® in the fall as this allows the product to distribute upwards in time for late spring emergence. If new outbreaks are found, use ACE-jet™ initially and follow with a sequential application of TREE-äge as a piggy back treatment.



Western Spruce Budworm larva.



Aerial view of defoliation



Adult Western Spruce Budworm

Photo Credits: Header Western Spruce Budworm Moth: Dave Powell, USDA Forest Service (retired), Bugwood.org WSBW Larva: William M. Ciesla, Forest Health Management International, Bugwood.org Defoliation William M. Ciesla, Forest Health Management International, Bugwood.org Adult: William M. Ciesla, Forest Health Management International, Bugwood.org

TREE-äge® Insecticide is a Restricted Use Pesticide and must only be sold to and used by a state certified applicator or by persons under their direct supervision.