

Almond

Tree Borers



Scientific names:

Prune limb borer: *Bondia comonana*
American plum borer: *Euzophera semifuneralis*

(Reviewed 3/09, updated 3/09)

In this Guideline:

- [Description of the pests](#)
 - [Publication](#)
 - [Damage](#)
 - [Glossary](#)
 - [Management](#)
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DESCRIPTION OF THE PESTS

Prune limb borer and American plum borer are sporadic pests in young almond orchards and in bark injuries on mature trees. They occur from Tehama to Merced counties on all major almond cultivars, but in young trees are found mostly on Carmel, Sonora, and Price. Adult moths have gray forewings with brown and black marks and have a wingspan of about 0.75 inch. They overwinter in a cocoon within the tree. [Adult](#) moths emerge in April and May. The mature larva is about 1 inch long with a dull white or pinkish body. Females lay eggs near pruning wounds, in scaffold crotches of young trees, or in areas where bark has been damaged by trunk shakers on mature trees, or near graft unions or on crown galls.

DAMAGE

Larvae bore into trees leaving reddish orange frass and gum pockets. The boring is most damaging to the [scaffold crotches](#) or graft unions of young trees. Vigorous trees will heal over but with heavy, prolonged infestations, [scaffolds may break](#) with wind or a heavy crop. Boring in callus formed under trunk shaker bark injuries can greatly enlarge the initial injury and also introduces spores of the Ceratocystis canker fungus, leading to subsequent trunk cankers that can girdle scaffolds and may ultimately lead to tree death.

MANAGEMENT

Monitor young orchards in spring and summer for frass and gum pockets. If larvae are present, spray trees with a hand held sprayer from 1 foot above the scaffold crotch to 1 foot below, two to three times during the growing season. The first application should be mid- to late April and subsequent applications at 6-week intervals. Efficacy is improved if the trunk is painted with a latex paint to protect against sunburn immediately following a trunk spray. The paint helps to preserve the insecticide and give protection over a longer period of time. On mature trees, loose bark can be removed from trunk shaker injuries and wounds treated as described above for young trees.

Common name (trade name)	Amount to use	R.E.I.+ (hours)	P.H.I.+ (days)
 			

The following materials are listed in order of usefulness in an IPM program, taking into account efficacy and impact on natural enemies and honey bees. When choosing a pesticide, also consider information relating to environmental impact. Not all registered pesticides are listed. Always read label of product being used.

A. CARBARYL*

(Sevin) 80S	2.6–6.25 lb/acre	12	14
MODE OF ACTION GROUP NUMBER ¹ : 1A			
COMMENTS: Do not exceed 6.25 lb carbaryl 80S/acre.			
...or....			
(Sevin) XLR Plus	2 qt/acre	12	14
COMMENTS: Do not exceed 15 lb/acre/season.			

B. CHLORPYRIFOS*

(Lorsban) 4EC	3 qt/100 gal	4 days	14
MODE OF ACTION GROUP NUMBER ¹ : 1B			
COMMENTS: Apply 0.5–1.5 gal/tree trunk. Use allowed under a Special Local Needs registration. Avoid contact with fruit and foliage. Do not allow livestock to graze in treated orchards. Avoid drift or tailwater runoff into surface waters.			

- + Restricted entry interval (R.E.I.) is the number of hours (unless otherwise noted) from treatment until the treated area can be safely entered without protective clothing. Preharvest interval (P.H.I.) is the number of days from treatment to harvest. In some cases the REI exceeds the PHI. The longer of these two intervals is the minimum time that must elapse before harvest may occur.

* Permit required from county agricultural commissioner for purchase or use.

¹ Rotate chemicals with a different mode-of-action Group number, and do not use products with the same mode-of-action Group number more than twice per season to help prevent the development of resistance. For example, the organophosphates have a Group number of 1B; chemicals with a 1B Group number should be alternated with chemicals that have a Group number other than 1B. Mode of action Group numbers are assigned by IRAC (Insecticide Resistance Action Committee). For additional information, see their Web site at <http://www.irac-online.org/>.

PUBLICATION



UC IPM Pest Management Guidelines: Almond
 UC ANR Publication 3431
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