

High-performance control for borers and beetles.



OnyxPro® Insecticide

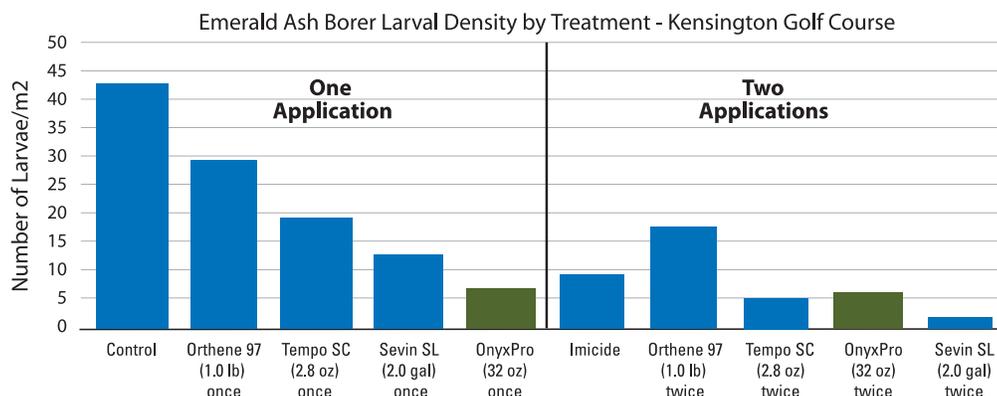
OnyxPro® insecticide was developed as a preventive treatment specifically to meet the demands of nursery professionals and Christmas tree growers for control of borers and beetles, particularly emerald ash borers and southern pine beetles, in restricted use environments.

Formulated with FMC's bifenthrin, a proven and effective active ingredient, combined with a proprietary carrier that optimizes trunk spray applications, OnyxPro controls with low use rates and long residual activity.

Borers and beetles can cause a negative economic impact to your business. OnyxPro is one of the most cost-effective controls available to provide long-lasting protection for your trees.

OnyxPro® Insecticide

Provides Season-long Control in One Application



Statistically no difference between one application of OnyxPro and two.

OnyxPro applied to trunk and limbs at 4-5 gal/tree.
 Orthene, Tempo and Sevin were whole tree sprays at 12-16 gal/tree.
 1 application - May 30, or 2 applications - May 30 and July 2.
 Orthene, Sevin and Tempo are not registered specifically for control of emerald ash borer.

McCullough & Smitley, 2003, MSU

Pest	Recommended rate for preventive control	Recommended spray volume	Specific instructions
Southern pine beetle	16 - 32 fl oz per 100 gallons (0.25 - 0.5 lb ai per 100 gallons)	1-4 gallons of finished spray per tree	Make applications to the trunk of the tree with a hydraulic sprayer in the early spring or prior to adult beetle flight and tree infestation. Apply spray directly to the main trunk from the base of the tree to at least halfway into the live crown. Spray until the bark is thoroughly wetted.
Emerald ash borer	16 - 32 fl oz per 100 gallons (0.25 - 0.5 lb ai per 100 gallons)	2-6 gallons of finished spray per tree	Make applications of a spray mixture to the trunk, scaffolding and limbs of the tree with a hydraulic sprayer in the early spring or prior to adult beetle flight and tree infestation. Spray until the bark is thoroughly wetted.



FMC Professional Solutions



Borers and beetles devastate trees.



Emerald ash borer
David Cappaert, www.forestryimages.org



Southern pine beetle
Texas Agricultural Extension Service Archives,
Texas A&M University, www.forestryimages.org

Bark beetles and borers are among the most devastating and difficult to manage of all insects that nursery professionals and Christmas tree growers encounter. OnyxPro® stops these damaging pests before they cause problems.

OnyxPro provides effective control of more than 20 different bark beetles and borers. Trials prove OnyxPro provides complete and long-term preventive protection for up to 12 months of even the most damaging pests, like the spruce ips beetle (Figure 1) and the southern pine beetle (Figure 2). OnyxPro also has long-lasting residual activity. University of Georgia trials show that 83% of the active ingredient in OnyxPro was still remaining four months after the original application. In the same amount of time, only 23% of the active ingredient in lindane was still remaining and only 5% for lambda (Figure 3).

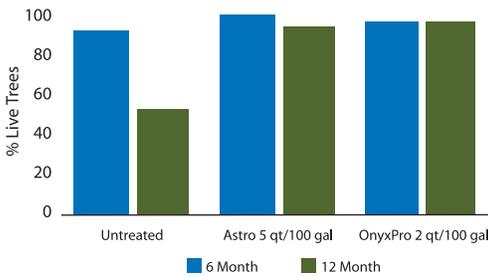
Emerald ash borer (EAB), *Agrilus planipennis Fairmaire*, first appeared in southeastern Michigan in the summer of 2002. Since then, it has destroyed more than 25 million ash trees in Illinois, Michigan, Ohio and Indiana.

Southern pine beetle, *Dendroctonus frontalis*, has been one of the most destructive insect pests, destroying pine trees across the southeastern United States for more than a century.

OnyxPro works best as a preventive.

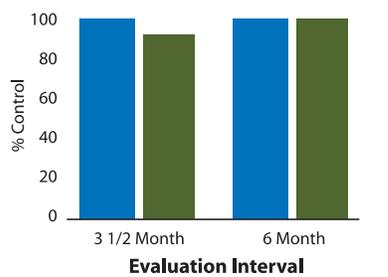
Beetles and borers can be a tremendous threat to your business. Use OnyxPro as a preventive treatment to protect your investment. Apply as a preventive, before adult beetles have attacked the tree. Flight timing may vary due to environmental factors. It is recommended to apply OnyxPro 1 to 2 months prior to expected adult beetle flight. Due to regional and local factors, always consult your local county or state extension specialist for specific recommendations.

Fig. 1 – OnyxPro® Insecticide
Preventive Control of Spruce Ips Beetle
in Colorado



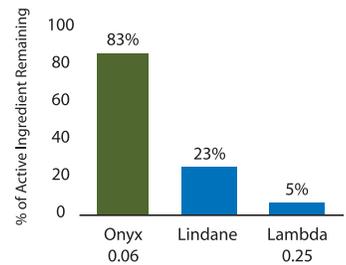
Whitney Cranshaw
Applications made 3/2004
Trials evaluated 9/2004 and 3/2005

Fig. 2 – OnyxPro® Insecticide
Preventive Control of Southern Pine Beetle
Loblolly Pine



Strom, 2002 USDA Forest Service

Fig. 3 – Bark Residue
(Parts Per Million)



Percentage of Active Ingredient Remaining 4 Months After Treatment

Berisford, University of Georgia, 2001

OnyxPro also controls ornamental insects

You can also use OnyxPro to control ornamental insects such as scale (crawlers), mites, bagworms, lacebugs, whiteflies, tent caterpillars and twig borers.

Application:

Apply OnyxPro insecticide at 2.6 to 12.8 fl. oz. per 100 gallons when insects appear or when you notice their feeding to prevent damage.

OnyxPro is tough on pests, applicator friendly.

OnyxPro can solve your toughest insect problems. And since it has no alpha-cyano in its chemical structure, OnyxPro is less likely to cause irritations. OnyxPro also tank mixes easily with other products.

For more information about controlling borers and beetles with OnyxPro, contact your FMC Sales Representative or visit fmcprosolutions.com.

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