

Protecting Trees from Emerald Ash Borer

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Over the last few weeks, I've discussed the imminent threat of Emerald Ash Borer (EAB) on tri-state ash trees, including how to identify the insect, its damage, and the trees it attacks. This week, I would like to discuss how tree owners can protect their ash trees from this destructive pest.

The experts agree that we in the tri-state are at the best point in time to begin treatments. The borers are definitely in our general area, but as I write this, no trees have begun to decline from this pest. So, the chemicals will be working on healthy trees that will likely be attacked in the near future.

Insecticides that can effectively control EAB fall into four categories: (1) systemic insecticides (those that move through the tree) that are applied as soil injections or drenches; (2) systemic insecticides applied as trunk injections; (3) systemic insecticides applied as lower trunk sprays; and (4) protective cover sprays that are applied to the trunk, main branches, and (depending on the label) foliage. Most of these control options are available only to licensed commercial pesticide applicators, but there are a few homeowners can use.

The homeowner products include imidacloprid (sold as Optrol or Bayer Advanced Tree & Shrub Insect Control), sold as a liquid to be used as a soil drench, or dinotefuran (Ortho Tree and Shrub Insect Control Ready to Use Granules). These products may be applied only once per year in the spring, and they must be applied every year to protect the tree. The label directions explain how to measure the tree in order to know how much chemical to use. The soil drenches are mixed in water and poured on the ground next to the base of the tree, where the chemical is absorbed and carried through the tree. The granules are also distributed near the base of the tree, and are then watered in to dissolve them and release the chemical so that the tree can absorb it.

Commercial pesticide applicators have a wider range of chemicals they can use, including versions of imidacloprid, dinotefuran, and azadirachtin that can be either injected into the tree, or applied to the soil. A product called emamectin benzoate, sold as Tree-Age (pronounced "triage," like at a hospital) shows the most promise: not only does it offer excellent protection, but it can be applied once every two or three years.

Insecticide treatments for EAB are costly, and must be continued for many years. There are also some environmental concerns with using these chemicals, especially the soil

drench products. We'll talk about this and some of the other downsides to chemical controls in future articles in this series.

For more information on EAB and its control, contact me at the Purdue Extension Service at (812) 435-5287, or by email.