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Important Emerald Ash Borer Update

Since Emerald Ash Borer (EAB) was first identified in the United States in 2002, there has been an extensive ongoing effort made by the scientific community to better understand the problem. The goal has been to develop effective control tactics for this destructive invasive pest. In the fall of 2011, several important findings on borer population dynamics and EAB control were released to the public.

New studies have shown that EAB populations tend to build in a predictable fashion that follows three basic phases called the "Cusp," the "Crest," and the "Core."

In the first 4-5 years, the Cusp phase, EAB populations build slowly and tree losses seldom exceed 10% of the entire ash population. In the Crest phase, which also lasts about 5 years, borer populations explode and tree mortality rates are very high. After year 10, most unprotected ash trees are dead and EAB populations collapse. This period is referred to as the Core phase.

These findings have helped us better understand the challenges of borer control, and have influenced industry-wide guidelines for effective pest management. The most significant change is a shift in focus on the products that are used to manage this pest as outlined below.

Cusp Phase Treatment
During the early Cusp phase, all ash trees can be adequately protected with an annual soil application of the insecticide Imidacloprid.

Crest Phase Treatment
When populations explode during the Crest phase, researchers have found that soil applied insecticides do not consistently provide adequate protection. This is especially true on large ash trees that are greater than 20 inches in stem diameter. During this phase, trunk injection of the insecticide Emamectin Benzoate is recommended. This product is effective for two growing seasons, providing ample time for the small wounds created in the lower stem from the injection to heal. We do not expect that tree injection will be required for more than 2-3 cycles (4-6 years) before EAB populations enter the Core phase.

Core Phase Treatment
Once an area reaches the Core phase, we may be able to return to soil applications of Imidacloprid to effectively protect ash trees. There are now research projects that are evaluating required treatments for managing ash trees in the Core Phase that may lead to more efficient and economical programs.

If your tree is located in an area in the Cusp or Core phase, we may continue to rely on Imidacloprid soil treatment. If the ash is in an area where EAB is in the Crest phase, we are recommending stem injections of Emamectin Benzoate during this period. On very large trees, over 36" stem diameter, we

often recommend a combination of therapies including Emamectin Benzoate injections and Imidicloprid soil treatment for optimum protection.