



The Plant Doctor's LANDSCAPE TIPS

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Photo 1: The Emerald Ash Borer is lethal to ash trees; however, a variety of techniques can provide protection from the EAB. In this case, Arborsystems Pointer applied by the Wedgle has provided long-term protection even though this tree is located within a few miles of the original EAB release site into North America.



Photo 2: Anthracnose infections initially result in tiny spots that later expand into large blotches, deforming the leaf and often resulting in significant leaf loss from trees by late May/June.



Photo 3: Severe anthracnose infections result in sparse foliage on branches of ash trees; the sparse foliage is often mistaken for EAB infestations. With careful examination and knowledge of the symptoms, anthracnose and the EAB can readily be distinguished from one another.



Photo 4: Leaf miners may also cause blotches on leaves and may be confused with necrotic tissue caused by anthracnose fungi.

ASH ANTHRACNOSE

INTRODUCTION:

Since the discovery of the Emerald Ash Borer (*Agrilus planipennis*=EAB) in southeast Michigan by the author in 2002, the future of native American ash (*Fraxinus* sp.) trees has looked bleak. In fact, the EAB has become the limiting factor for the health and survival of ash trees in landscapes and forests throughout North America. Fortunately, various techniques have shown to provide protection against EAB attacks (Photo 1); these techniques include trunk and foliar sprays, soil treatments and trunk injections. Because specific ash trees can be protected from the EAB, other problems may become more dominant in their apparent effects to the health and survival of ash trees being treated for the EAB. Anthracnose is one of the most common diseases found on ash trees. Anthracnose diseases on trees and shrubs are caused by fungi generally associated with a large group of anthracnose fungi and often include the genera *Colletotrichum* and *Gnomonia*.

SYMPTOMS AND DIAGNOSIS:

As with most other anthracnose diseases, during cool, damp conditions of the early spring, the ash anthracnose fungus attacks newly emerging foliage after overwintering in decomposing leaf litter from the previous season. Initial symptoms are tiny spots caused by infection by individual spores of the fungus. As time progresses into late spring, the spots enlarge into irregular blotches (Photo 2) that may deform the leaves. Infected leaves may hang on the tree or fall to the ground. Leaf loss may result in sparse foliage on the branches (Photo 3); this sparse foliage is often confused with symptoms caused by the EAB. Anthracnose may also be confused with some other problems such as leaf miner (Photo 4). Severe infections of anthracnose may cause significant defoliation with subsequent refoliation within several weeks if trees are sufficiently healthy. Ash trees affected by anthracnose can exhibit stress due to marked energy expenditure necessary for the refoliation process. White ash varieties (*F. americana*) appear to be most susceptible to anthracnose, but other species and varieties may also be affected.

MANAGEMENT:

Trees that are receiving treatment investments for protection from the EAB may benefit from anthracnose treatments; this is especially true for very high-value, highly visible trees. Anthracnose treatments can be administered in a variety of ways. Traditional treatments include several foliar sprays in the spring beginning at bud break and repeating every week to 10 days. Depending on the level of control and insurance of control, one to four or more sprays can be applied. Broad spectrum fungicides can be applied either as single formulations or as mixtures; mixtures may work best. Treatments can also be applied by trunk injections. Most of the companies that offer trunk-injection equipment for control of the EAB also offer fungicides for application through their equipment, usually through the same injection sites. Generally, fungicides applied through trunk injections should be accomplished in the previous fall so that the fungicide is distributed throughout the tree, ready to prevent early spring infections. Fertilizer nutrition may also help increase vigor in ash trees for better recovery from anthracnose and other problems. 🌱

For more information, please feel free to email me at robertsd@msu.edu or contact a professional plant health care provider. The author, MSU or MGIA do not endorse any particular products. If using pesticides, be sure to read and follow label directions.



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