

Millican Nurseries, Inc.



BRONZE BIRCH BORER AND ITS HOSTS

The Bronze Birch Borer (BBB) is a native insect which lives in and feeds on Birch trees. The role of the insect in the environment is to destroy unhealthy or weakened trees to maintain the vigor of the population as a whole. If you plant a white-barked birch tree (*Betula jacquemontii*, *Betula pendula*, *Betula papyrifera*, *Betula platyphylla*) and do not take any preventative measures and provide proper cultural conditions, your tree WILL GET BORERS!

We at Millican Nurseries would prefer not to sell you these trees, but so many people ask for them that we do so under duress. Millican Nurseries will be in no way held accountable for any injuries to Birch trees caused by Bronze Birch Borer. We strive to purchase only healthy trees to re-wholesale, but the life cycle of BBB makes it difficult to guarantee that all trees are devoid of BBB larvae.

If your client is asking that you plant a white-barked birch for them, here are some requirements to maintain a healthy tree. If your site prevents you from meeting all the following criteria, then DO NOT PLANT there!

-Cool, moist root zone

Location: Birch trees should NEVER be planted in an open lawn situation. They should be planted in a bed which provides shade on the root zone, but full sun on the canopy. They must be under planted with small shrubs and/or groundcover to prevent excessive sun on the soil.

Mulch: A generous 4-6" of mulch must be maintained on the root zone of the tree to maintain consistent soil moisture and temperature. Make sure the mulch does not touch the trunk of the tree, or the base will begin to rot.

Water: Even, consistent soil moisture is critical. A dry birch tree WILL GET BORERS. If irrigation is not an option, then birches are not an option.

-Chemical prevention

In New England, BBB has a two year life cycle. The first year, BBB hatches from eggs laid often in crevices where branches meet the trunk. The larvae enter the cambial tissue and begin to feed. The larvae feed in a zigzag pattern up the trunk; their habitats in the trunk are known as galleries. They feed in these galleries for one and a half years. It is not until the second year, that these galleries become swollen enough to become easily visible to the naked eye.

You MUST assume that the birch you are purchasing has borers in it, and treat it accordingly. A granular systemic pesticide labeled for use on Birch trees must be incorporated into the backfill soil at time of planting. This will take care of any larvae that may be present within the tree. Pesticides may need to be reapplied yearly for the next five years until trees are healthily established.

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-Maintenance and care

Pruning: If a birch must be pruned, NEVER do so between May 1st and August 1st. This is the period when adults are hatching and seeking out oviposition (egg laying) sites. A fresh prune during this time of year is an invitation for adult females.

Vigor: A healthy tree may have BBB, but the larvae WILL NOT survive. A larva feeding in a healthy birch will be crushed by vigorous growing callus tissue long before it can pose any threat to the tree. When trees aren't healthy and growing slowly, the larva will develop to maturity.

When estimating installation of white-barked Birch trees, keep these additional costs in mind. Installation of these Birch trees should cost your client more than an Oak, for example. If you cannot meet all the above criteria, your client's Birch WILL DIE. A properly sited, installed, and maintained Paper Birch is a beautiful tree and will thrive for its 40 year life expectancy.

If you cannot meet all of the above criteria, but you client still wants a birch tree, please consider planting a River Birch (*Betula nigra* 'Heritage' a.k.a. 'Cully') instead. They are much less susceptible to infestations of BBB and can tolerate more adverse conditions than its white-barked relatives. They may not get BBB as readily, but they still prefer to be planted in similar conditions as stated above for the best results. Meet as many of the above criteria as possible, and you should have a successful tree.

For additional reading on the subject, please refer to the following websites:

<http://extension.unh.edu/agric/AGPMP/Pubs/12brnzbrchbr.pdf>

<http://www.extension.umn.edu/distribution/horticulture/DG1417.html>

<http://www.na.fs.fed.us/spfo/pubs/fidls/bbb/bbb.htm>

<http://ento.psu.edu/extension/factsheets/bronze-birch-borer>