

TREE TIPS

TREE & SHRUB CARE FROM BARTLETT TREE EXPERTS

The bagworm, a serious defoliating pest

The bagworm, *Thyridopteryx ephemeraeformis*, is an unusual caterpillar and defoliates many ornamental trees and shrubs throughout the eastern half of the United States. The name comes from the bag-like structure made of leaf fragments bound together with



Bagworms' distinctive structures are often overlooked by property owners until defoliation damage is significant.

silk produced by the larva. Most of this insect's life is spent within this protective bag. Bagworms blend in and often go unnoticed until significant defoliation has occurred.

Host Plants Bagworms feed on more than 125 species of plants. Conifers such as arborvitae, juniper, cedar, cypress and white pine are preferred hosts, and in parts of the Midwest, deciduous trees, particularly maple, sycamore and locust, are frequently infested.

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Fall is for fertilization by Tom Smiley, PhD

Fall is a great time to fertilize trees and shrubs! With cooler temperatures and regular rainfall, root development is usually vigorous at this time of the year. As roots grow, they can absorb nutrients, which then are translocated to the leaves or stored until next spring. When spring arrives, the new leaves and twigs will have a ready and abundant source of nutrients that can be used to produce the food that trees need to survive and prosper.

At Bartlett Tree Experts, we are interested in both tree health and the environment. Our goals are to provide the nutrients your plants need without over-supplying any of them, and to eliminate nutrients that are not needed. Soil nutrient samples are recommended to determine how to fertilize. If a soil analysis has not been conducted within the past three years, ask your Bartlett



Arborist Representative to collect a sample and send it to our laboratory for analysis. The report that you receive will let you know the conditions of your soil and provide you and your Plant Health Care Specialist with a detailed prescription of the nutrients essential to maintain your trees' health.

Applying a layer of organic mulch over the root system is one of the best actions you can take at this time of year to prepare your trees for winter. Mulch insulates the soil, allowing water and nutrient uptake further into the fall. As mulch breaks down, it improves organic matter that encourages root growth. Arborist wood chips are one of the finest forms of mulch available.

Bartlett Tree Experts provides a full line of soil care services that can improve the health of your trees and shrubs. Many of these services are best done in the fall. Now's the time to arrange for a consultation.



The bagworm, a serious defoliating pest *(continued from page 1)*

Favored species are identified readily in the dormant season by the presence of bags on the plant.

Description The spindle-shaped bag structures are the principal evidence of a bagworm infestation. Bags are approximately 1/8 inch long when first visible and can reach approximately 2 inches long and 1/2 inch in diameter when fully developed. Larvae are approximately 1 inch long when fully grown. The body is dark brown with a yellow head region and is hairless. The female moth is worm-like and lacks wings, legs, antennae, and eyes; it is yellowish white and nearly hairless. The male moth resembles a wasp with a black body and dense hairs; its wings are clear and approximately 1 inch across.



Bagworm eggs overwinter in the bags, and hatch in late spring.

The male bagworm moth resembles a wasp.



An example of some trees suffering bagworm damage.

Life Cycle Bagworms overwinter as yellowish eggs within the bag. Some bags contain only male larvae, so eggs will not be found in every bag. Eggs hatch from late-May through mid-June, and as larvae emerge they begin feeding and constructing new bags. As larvae continue to feed and grow, they enlarge the bag to accommodate their increased body size. In late-July through early August, fully grown larvae secure their bags to a twig with silk and pupate within the bag. Male moths emerge in about one month and fly to a bag

containing a female. Mating occurs and eggs are deposited in the protective bag so larvae can emerge the next year.

Control Removing and destroying the bags can reduce light bagworm infestations on shrubs and small trees. This should be done in the dormant season before eggs hatch.

On conifers and other plants with heavy infestations, management is frequently necessary. Please contact your Bartlett Arborist Representative for information on effective control of this pest.

An amazing 1400-year-old ginkgo tree

This 1400-year-old ginkgo biloba tree grows inside the walls of Gu Guanyin Buddhist Temple, in the Zhongnan Mountain region of China. Still going strong, every autumn as the leaves fall, it creates a dramatic carpet of gold that tourists flock to see.

Ginkgo trees do not decline much as they age: centuries-old ginkgoes produce as many seeds and leaves as young ones. Plus, scientists have found that the genetic coding for producing antioxidants and antimicrobials is highly active in both young and old trees, so old ginkgo trees continue to produce protective chemicals that ward off infections. Research also showed that these trees don't express genes that prompt senescence, the final stage of life.



FUN WITH TREES

Paper + paint + leaves = leaf prints!

Young children will enjoy all aspects of this autumn project. Help them follow these easy steps:

- Find and gather a variety of fallen leaves (include extras)
- Arrange the collection of leaves, small cups of tempera paint, a paint brush, a glass of water and a paper towel around a piece of paper to create a work area
- One at a time, paint the back of a leaf, press it onto the paper and then peel the leaf up to see the print!
- Experiment with changing the wetness and amount of paint on the leaf to create different effects



TREE FOCUS

American beech (*Fagus grandifolia*)

History

American beech is the species of beech tree native to the eastern United States; it is common in most of the region's deciduous forests. Extensive groves of old trees still exist because the wood is so hard and tough that early loggers, lacking power tools, left this tree uncut. Today, beech wood is harvested for uses such as flooring and furniture.

Beech trees are fairly easy to identify; the bark is smooth and uniform and the fruit is a triangle-shaped shell containing 2 to 3 nuts.

Culture

- Prefers well-drained, slightly acidic soils, but tolerates a wide range of conditions
- Does well in full sun, but tolerates shade
- Often casts dense shade that prevents growth of grass or other plants beneath. Roots tend to be shallow
- Not generally a good urban species

Concerns

- Beech leaf disease (BLD), caused by an invasive foliar nematode, is of utmost concern
- Does not tolerate wet or compacted soils, drought, or other root zone disturbance
- Beech bark disease—the beech scale insect, *Cryptococcus fagisuga*, attacks the bark, creating a wound that is then infected by fungi in the genus *Nectria*.

Bartlett Management Practices

- Requires little pruning to develop good structure
- Branch breakage is infrequent, but co-dominant stems may be cabled to improve support. Low branches are sometimes removed for clearance
- Soil management focuses on maintaining a slightly acid soil with adequate organic matter
- In affected areas, BLD management programs are necessary



Groves of old beech trees still exist because the wood is so tough early loggers skipped them.

SAFETY ABOVE ALL ELSE

Safety Above All Else is in the details! by Fred Fisher, Regional Safety Manager

Everyone has heard the quotation, “The devil is in the details.” In the tree care industry the details definitely matter, and here at Bartlett Tree Experts, we definitely mind them. Whether it is buckling a chin strap on a hardhat or making sure all the members of the crew are taking part in the Job Site Safety Briefing before work begins on a client’s property, covering the small details has a big impact on safety.

Safety is everyone’s responsibility, from the Arborist Representative who must communicate at a high level with the client and the crew, to the last person hired, who must feel comfortable learning new tasks and taking guidance

from a mentor. During the average work week there are hundreds, if not thousands, of details that need to be managed by our employees: pre- and post-trip inspections on vehicles and equipment, pre-climb inspection before entering a tree, hazard and obstacle recognition on jobsites, and work zone setup to control vehicle traffic, just to name a few.

At Bartlett we recognize that it does not take a monumental event for a near miss or an accident to occur; exposure can come from something as minor as a vehicle breakdown or an employee calling out sick in the morning. When it comes to putting *Safety Above All Else*,



A Bartlett team discusses hazards and obstacles before beginning work.

at Bartlett we realize that the little details are a big deal!