



## Tending and Preparation

Preparing landscapes for the winter season is important to preserving their future health. There are many autumn activities that will help prepare your landscape trees and plants for the upcoming winter. The fall is an excellent time to determine a tree's pruning needs. A fall fertilization regimen can help to prepare plants for productive spring growth. Other practices can also help prepare landscape plants for the winter season.



Biological efficiency and structural integrity can be effectively managed through pruning, generating long-lived, safe, and healthy trees. More importantly, trees receiving appropriate pruning while young, generally require little corrective pruning as they mature. After leaf fall, with branch and canopy structures exposed, quick detection and correction of problems is possible. Large tree removals are advantageous in fall and winter by utilizing frozen ground and allowing better access for equipment.

Fall fertilization is important for spring growth as well as long-term plant vigor. Fertilization is beneficial and easy preventative maintenance to correct nutrient-deficiencies in high value, or otherwise important, landscape trees.

Additional precautionary care, such as a fall application of anti-desiccants to broadleaf and needled evergreens, is recommended. An anti-desiccant is a thin, wax-like coating which creates a barrier preventing evergreens foliage from moisture loss and becoming "winter burned".



Supplemental watering of trees leading into the winter season can be very beneficial. Watering, while extending fall colors, increases moisture in the root zone which helps reduce stress from winter's harsh weather. The addition of composted wood mulch will help retain moisture and insulate roots from cold temperatures.

Fall is an ideal time to explore and plan landscape design improvements. The winter season allows ample time to draft design plans that will make fall dreams a spring reality.

If you haven't reviewed your landscape with your arborist recently, schedule some time to walk your property to ensure your favorite and valuable landscape plants are prepared for our unpredictable, and often harsh, New England weather. ■



# Helping Restore a Giant

The American chestnut was once a plentiful and important component of eastern forests. Chestnut trees were a productive and important food source for wildlife, as well as a cash crop for rural communities for timber and the annual nut harvest.

In 1904, there were an estimated 4 billion American chestnut trees in eastern forests. Unfortunately, a fungus was introduced through the importation of Asian chestnut trees, which has rendered the once numerous American chestnut nearly obsolete. The blight, dispersed by airborne fungal spores, spreads into the bark and underlying vascular tissue, thus disrupting the flow of nutrients and leading to the eventual death of the tree.

Fortunately, there are efforts underway to restore the American chestnut to its native range of the eastern United States. The American Chestnut Foundation, a not-for-profit organization, is dedicated to developing a blight-resistant American chestnut tree through scientific research and a unique breeding program. Their goal is to breed blight-resistance from the



*The goal of breeding is to produce fruit containing disease resistant genes*

Chinese chestnut tree into the American chestnut while maintaining the American chestnut's characteristics.

Recently, Hartney Greymont was contacted by the Massachusetts chapter to help in this exciting restoration program. Amazingly, two healthy 40-year old American chestnuts were identified in Newton, Massachusetts and deemed ideal candidates for their breeding program.

Under the direction of the foundation, and with the use of aerial lift equipment, two of our arborists helped researchers to pollinate by hand the Newton chestnuts with pollen from trees exhibiting resistance to the blight. The hope is that the chestnuts produced in the fall will contain disease resistant genes. After the fall harvest of the chestnuts, they will be planted in a research orchard at Moore State Park in Paxton,

Massachusetts. The seedlings will be well-cared for and protected. In about 6 years the trees will be injected with the blight-causing fungus, and further studied to determine their disease resistance.

The American Chestnut Foundation hopes to see a blight-resistant American chestnut hybrid restored to the eastern forest in the next decade.

To learn more about this organization's efforts, contact The American Chestnut Foundation at: [www.acf.org](http://www.acf.org) ■



*The American chestnut was once a giant within the eastern forests of the United States*

PHOTOGRAPHS: COURTESY THE AMERICAN CHESTNUT FOUNDATION

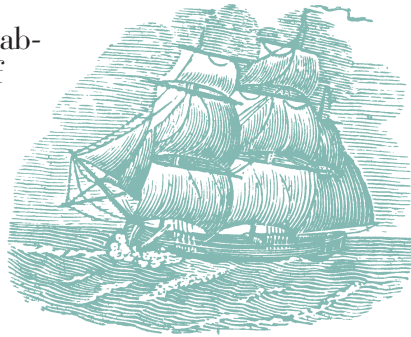
# All That Glitters

Purple loosestrife, an herbaceous perennial with showy purple flowers, is often a familiar sight in late summer within the wet areas and marshes of Massachusetts. It is especially noticeable in shallow water marshes and along vast stretches of waterways, such as the Charles River. What may not be commonly known about this prolific bloomer is that it is not native to our area. In fact, this invasive species has become a problem, displacing many native plants to the detriment of wildlife.

Although the first appearance of the European native (*Lythrum salicaria*) is unknown, it became established in the estuaries of northeastern North America by the early 1800s. By the late 1800s, purple loosestrife had spread throughout the northeast, but caused few problems until the 1930s, when it became aggressive in the flood plain pastures of the St. Lawrence River. Since then, the plant has steadily expanded its local distribution and now poses a serious threat to emergent, indigenous vegetation.

The plant was inadvertently spread by several methods. Loosestrife was often hidden in the fleece of sheep and in shorn wool, which was widely imported in the early and mid-1800s when Boston was the center of the wool trade.

Ship ballast was another source of infestation. Ships sailing from Europe with light loads of wool, people, or goods required ballast in the hull to have the necessary stiff-



*Purple loosestrife dominated the Charles River in Millis mid-summer*

PHOTOGRAPH BY SEYMOUR LEVY

ness and trim for efficient sailing on their westbound passage. This ballast was commonly moist sand from the tidal flats and often contained plant seeds. The ballast was dumped in North America and heavier cargo was loaded for the return trip.

Purple loosestrife is tolerant of many soil types, climates, and has no natural enemies. Therefore, once introduced to our area, it grew with abandon. Accordingly, with frightening speed, loosestrife now out-competes native vegetation and quickly establishes as a monoculture.

Loosestrife displaces native vegetation from the wetland ecosystem. Because the foreign species are not a suitable food source, this causes significant problems for wildlife populations. Thus the challenge of containing and eliminating this plant is currently being undertaken.

In an effort to find effective control measures, an insect which feeds on purple loosestrife in its native Europe has been imported and introduced to infested areas. One of the biological controls currently being researched is the black marginal loosestrife beetle (*Glerucella californiensis*). In areas where this beetle

has been introduced, loosestrife has been reduced 70 – 90 percent.

Foreign species can become problems when introduced to environments that lack many of the normal checks and balances present in native environments. By bringing obligate predators to this country, naturalists are beginning to control purple loosestrife spread, and are helping to bring nature back into balance. ■

## Setting Roots

In the fall of 2002, Hartney Greymont was involved in a project to preserve and transplant a giant Ginkgo tree. The 40-inch diameter, 70-foot tall tree, with a 165-ton root ball was moved on-site to allow for construction. This has been an exciting and unique project. We had such a positive response to this original article, we thought an update on the success of this tree would be well-received.

As we predicted, the critical activity ensuring the success of the transplant has been the ongoing after care program. The program includes monitoring soil moisture and fertility levels. Maintaining proper soil conditions is essential to ensuring transplant re-establishment. In addition, a special irrigation system was designed and installed within the tree's canopy to syringe the foliage and regulate transpiration rates. Other activities have included proper mulching techniques, as well as fencing to protect the regenerating root system from harm as the construction process continues. ■



*Technological innovations in tree moving are a result of improvement in equipment.*



*The Ginkgo two years after relocating to allow for construction*

## For Your Convenience...

Notify your arborist when you schedule work and we will see that your credit card is debited in lieu of invoicing when work is completed.



### GUARANTEE OF SATISFACTION

If you are not satisfied with any treatment or completed job, let us know. We will resolve the situation to your satisfaction; no questions about it. Our goal is to not only make sure your trees, shrubs, and lawn are as healthy as possible, but also to provide you with the peace of mind a satisfaction guarantee can bring.

## Did You Know?

Hartney Greymont provides:

### LANDSCAPE SERVICES

- Design
- Planting
- Large Tree Moving

### TREE AND SHRUB CARE SERVICES

- Shade and Ornamental Tree Pruning
- Shrub Pruning
- Cabling and Bracing
- Tree and Shrub Fertilization
- Insect and Disease Diagnosis/Control
- I.P.M. and Plant Health Care Programs

### LAWN CARE SERVICES

- Fertilization, Weed, Insect and Disease Control Programs
- I.P.M. Lawn Health Care Program
- Seed and Sod Installations
- Over-Seeding, Aeration, Thatching
- Organic Treatment Programs

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