



Winter Moth Update

You may have seen or experienced first-hand the devastating effects of the winter moth this spring. Total defoliation occurred in localized areas. Winter moth will continue to spread to more deciduous trees and shrubs in future years. During its larval stage, this small green inchworm feeds on a wide host of plants including blueberry, ornamental flowering fruit trees such as crabapples, and



shade trees such as maple and oak.

We have effectively treated and controlled winter moth with a biorational product derived from naturally occurring soil bacteria. This product is especially favored because of its low toxicity to non-target organisms, like beneficial insects, pets, and people. Promising new research is studying the efficacy of predatory flies that feed solely on winter moth. The goal is for a natural biological control for winter moth populations to become established in our area.

Parasitic flies (*Yzenis albicans*) that live on winter moth have been released by the U.S. Department of Agriculture. This fly is a natural predator of winter moth. Entomologists feel the flies' introduction will suppress winter moth populations to manageable or even harmless levels within the next five years. This parasite has proven effective at controlling winter moth in Europe, where both insects are native.

The flies feed specifically on the winter moth, laying hundreds of eggs inside tree buds. While caterpillars

are consuming tender young leaves, the parasitic fly eggs are also eaten. The eggs prevent the winter moth caterpillar larvae from developing using the caterpillar's body to spawn flies, which in turn, lay eggs and infect additional larvae. Since these flies are dependent on the winter moth to breed, both their populations are tied directly together.

Although this natural biological process should be effective, it may take years to control winter moth spread and damage on a large scale. In the meanwhile, it is critical to protect your trees from winter moth feeding. Repeated partial canopy defoliation has been shown to cause tree stress and eventual mortality.

If you experienced winter moth damage or defoliation this year, talk with your arborist about measures this year to help trees recover and develop plans to prevent future damage. Effective control requires precise timing to protect your trees from defoliating insects. Keep a watchful eye out for leaf damage and green caterpillars during early spring and summer as well

as for the male moths that will be flying during late fall and early winter, between Thanksgiving and New Years. ■



A mature oak canopy partially defoliated by winter moth



Winter moth consumed maple leaves

Here Today...

Soil moisture is a key component to happy, healthy, and productive landscapes. When adequate amounts of water are not available, roots dry out, die, and plants quickly fail. Conversely, over-watering prevents proper gas exchange, causing roots to suffocate from a lack of oxygen. Suffocation occurs because excess water displaces oxygen within soil pore spaces. Just as we need air to breathe, roots require oxygen for respiration.

Not surprisingly, we commonly find many landscapes in mid-summer suffering from a lack of water. When discussing our findings, homeowners are often perplexed because “we had so much rain this spring”. It is an all too common belief that large quantities of water received in previous months are still available for plants later in the season. This, unfortunately, is not the case.

A useful analogy is to think of your landscape soil as a kitchen sponge. A sponge holds only a finite amount of water. No matter how much water is poured on a sponge, once its water holding capacity is reached, it holds no more, and excess moisture drains away. Similarly, large storms delivering 2 or 3 inches of rain at one time provide no more benefit to the plants than the first inch. Once soils in the root zone reach the water-holding capacity, any excess water drains away to the water table, and is unavailable to the plant roots.

Continuing with our sponge analogy, consider what happens when a brand new dry sponge is placed in water. It floats for a long time before slowly absorbing water. Water does not enter a dry sponge easily. In fact, it is hydrophobic and actually repels water. Only after the surface tension is broken does the new sponge absorb water. This is the reason water cannot easily enter dry, hardened soils. This is why light showers after prolonged dry periods are often of little value to water starved plants. Prolonged soaking is required to break the soil surface tension, which then allows water to penetrate into the soils and ulti-

mately into the roots of the plants.

It is important to understand that plants need consistent watering, which penetrates soil 12-inches deep; this generally translates into one inch of water per week. Because soils hold only a finite amount of water, landscape plants cannot sustain themselves for the entire growing season from spring rains alone. Again, when soils dry out and become hard, they will likely become impervious to water. Accordingly, even more water is required to break the surface tension and allow water to penetrate into the soil.



For plants to thrive, consistent seasonal moisture in the appropriate amount is required. We experienced much overcast and rainy weather this spring and many plants have reacted with lush productive growth. But the wet weather this spring will not relieve us from our responsibility to water during the hot and dry weather this summer. ■

Look Familiar?

It starts as a mild skin irritation then turns to severe itching, later developing from red inflammation to blistering, and ultimately oozing sores. If you have experienced this unpleasant condition, then you have likely suffered with poison ivy. This troublesome plant is very common in our area and your yard may contain some of these invasive and aggressive plants.

Poison ivy is widely distributed in New England and varies much in form from low freestanding plants to tree-like vines.

Poison ivy is always characterized by its shiny three leaves, which have a serrated edge and pointed leaflet. The central leaflet has a longer stalk, and the lateral leaves are almost stalkless.

The allergic reaction is caused by urushiol oil within the plant. This pervasive oil is in all parts of the plant: leaves, roots, and stems. It has been shown that urushiol oil can remain active on surfaces, including dead plants, for up to five years. Urushiol oil causes an allergic reaction in over 85% of people who are exposed to it. The oil itself causes an annoying and potentially dangerous reaction. Although some people exhibit immunity, immunity levels can change with age. Often the first-time sufferer generally takes longer to show initial symptoms (up to 7-10 days). Always assume that you are susceptible, even if you have never experienced the rash before.

How to eradicate poison ivy? Cutting, handling, or pulling the stems can be very dangerous because stems and roots can hold urushiol concentration 10 times more than leaves. Ripping out poison ivy is difficult and often only encourages regrowth. Burning or mowing plants is extremely dangerous because smoke or dust can get into the lungs causing systemic reactions. Our experience has found that the most

effective control is through the systematic use of an herbicide. Because of the invasive nature of the plant, even chemical controls, although extremely effective, take time and multiple applications to fully eradicate the plant.

Be aware of what poison ivy looks like and remember “if it has leaves of three, let it be”. If you spot or suspect poison ivy in your landscape, call your arborist for proper identification and to discuss control options. ■



Poison ivy is characterized by three shiny leaves



Global Perspectives

Recently we had the pleasure of hosting Erk Brudi for an international conversation on tree care. Erk is recognized as the leading worldwide authority in the field of tree statics. Statics is the area of study using an engineering-based approach to address the challenge of tree safety. Erk is one of only a handful of arborists highly specialized in this area and was the first court certified expert witness for trees in his homeland of Germany.

Erk heard about Hartney Greymont and was interested in learning more about our specialized pruning and tree care techniques. When the opportunity presented itself, we too, were excited to share our knowledge and experiences with New England's trees. Erk's research has been able to quantify what our field experience has shown to be true. Namely, the selective removal of terminal growth modifying a tree's architecture and reducing canopy height and spread, often results in increased safety while additionally extending a tree's life.

Hartney Greymont's arborists brought Erk to several of our long-term clients' properties to see how our care techniques have helped preserve some very old specimen trees. There was lively interaction and discussion on the similarities and differences in American and European arboriculture.



German court certified arborist Erk Brudi



As arborists, we strive to continually learn about trees and the latest research to best care for our clients' trees. We plan to send a group of our arborists to Germany to learn more about Erk Brudi's research and European tree care methods. ■

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
- Installation & Construction
- Large Tree Transplanting

TREE AND SHRUB CARE SERVICES

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

LAWN CARE SERVICES

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



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