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HORTICULTURE NEWS

Spring 2005

New Phone Number

We installed a new phone system this winter. The number for reaching John Farfaglia is 433-8839 ext. 226.

Fuel Prices Skyrocket

Oil prices continue to rise and will affect horticulture businesses across the board. Those heating greenhouses will be hit the hardest but expect to see container prices and products like fertilizers be indirectly affected. Wholesale prices of annual flats and other crops must be increased to help offset production costs.

Watch For Diseases

The long winter and persistent snow cover has resulted in more snow mold on turf than usual. Many cases of snow mold will respond to raking, but severely damaged areas may require aerification (as soils dry a bit) and reseeding. Bedding plant growers had some fungus problems last spring as we got into periods of rainy dark weather. Watch for Botrytis and similar problems before they spread. Phyton 27, Chipco and Dithane are just a few products available for control.

Growing Degree Days

I keep growing degree data starting March 1. This is especially useful for arborists or landscapers who are targeting the best time to make pesticide applications. Growing degree-days are figured by adding the high and low temperatures for the day and dividing by two. Any result over 50 counts as a growing degree-day. For example: 65° + 55° = 120 ÷ 2 = 60; 60 – 50 = 10 growing degree-days. Spray schedules for treating pests are often determined by growing degree-day totals. These target numbers can be found in the Cornell Pest Management for Trees and Shrubs book.

Growing degree-days as of May 5 were at 70. We are still in the optimal time for treating spruce gall, euonymus scale, and adelgid.

Diagnostic Lab at Cornell

The plant and insect diagnostic labs at Cornell are open to both professional and the public. While we can diagnose most problems on a local level there are cases (diseases on golf greens, unusual greenhouse diseases) where an accurate lab analysis is required. The Cornell Lab has a quick turn around time and provides control suggestions where needed. The cost for most samples is $25, a check made payable to Cornell University must be sent with the sample.

For more information contact our office. You can also check out the lab website at http://plantclinic.cornell.edu/

Diagnostic Visits

If you need farm, greenhouse, nursery, garden center, turf visits for problem diagnosis please do not hesitate to call. I can usually get out within a day or two.

Exotic Pest Upda

By Paul A. Weston, Department of Entomology, Cornell University

Asian Longhorned Beetle – The situation with the Asian Longhorned beetle has not changed much since last year, at least in New York City. Only a few new sightings were reported in the NYC area 2004, so the massive removal and treatment program may be working. Infested trees are still being taken down and destroyed whenever they are found, and uninfested host trees within the quarantine boundaries are being treated systemically with imidacloprid (Imicide). One disturbing piece of news was a beetle found in the upper East Side of Manhattan, an area thought to be free of the beetle. The quarantine areas in NY still encompass only portions of Manhattan, Queens, Brooklyn, and Suffolk County (near Islip and Amityville). The situation in Chicago is markedly improved, with the quarantine lifted from 2 of the 5 quarantine areas. Federal officials hope to lift the quarantine in additional areas in Chicago at the end of this year. The sizeable infestation in Jersey City, New Jersey seems to be under control after the 100 or so infested trees were removed, but an even bigger infestation was discovered in Carteret, NJ, near Rahway. Over 400 trees were found to be infested there in an industrial area. Interestingly, research at Cornell has shown that the genetic makeup of this population is significantly different from that of the population in NYC, meaning that this was a separate introduction from Asia (and not the result of spread from the beetles in NYC). As if all this were not bad enough, another sizeable infestation of ALB was found in Toronto, also in an industrial area. Thousands of trees have been removed there to eradicate the beetle (Canada has not yet approved use of imidacloprid).

Viburnum Leaf Beetle – The march of the Viburnum leaf beetle continues, with new finds reported in 2004 in Sullivan and Delaware Counties (thanks to Rick Hoebeke for his unflagging efforts to tract this and other exotic pests). Also, those close to the border with Massachusetts and Connecticut should be aware that the beetle was found in those states as well (MA: Berkshire Co., CT: Middlesex Co. and New Haven Co.).

The Viburnum Leaf Beetle Citizen Science saw its second year of action in 2004. This program, operation out of the Department of Horticulture at Cornell, seeks to get everyday citizens involved with making observations and collecting data that might be useful for researchers. The major objective is to demystify science, and to provide an opportunity for untrained citizens to become part of the scientific process. The program had healthy participation again in 2004. The site can be found at http://www.hort.cornell.edu/vlb/, or by googling "Viburnum leaf beetle" (the VLB Citizen Science site should be the first result shown).

Hemlock Woolly Adelgid – This fuzzy little beast continues its spread in NY, with the newest finds in 2004 coming from Albany County (thanks to Chuck Schmitt for first reporting the pest). The modest infestation in Rochester remains, but it appears that no eradication efforts are planned. The primary control options are horticultural oil sprays timed for late April/early May (complete coverage of trees required!) and systemic treatments with imidacloprid. Horticultural oil can also be used in late summer/ early fall, but fall applications need to be done with care because oil can have desiccating effects on conifers, resulting in winter dieback. To be on the safe side, do not make oil applications to conifers after the end of September. Remember, infested trees should not be fertilized because this has been shown to stimulate growth of the adelgids more than the trees.

Pine Shoot Beetle – This little beetle has nearly completed a sweep of the state, with new finds reported in 2004 in Clinton, Essex, Renssalaer, Warren, and Washington Counties. Although this pest does not cause life-threatening damage to trees, it disfigures trees badly enough that it is subject to regulatory action. Christmas tree growers are the most heavily impacted, but anyone who grows Scots pine in infest counties needs to know about this pest. For details on how to comply with federal regulations covering movement of host trees out of infested counties and more information about the biology of this insect, see http://www.ceris.purdue.edu/napis/pests/psb/index.html.

Emerald Ash Borer – (not here yet, but keep on the lookout!). This small buprestid, a close relative of the bronze birch borer, continues to spread in Michigan, and has a good foothold in Ohio, Indiana, and western Ontario as well. The most recent figures put the death toll of ash trees in Michigan at over 10 million and counting! You may have heard about the limited infestation in Maryland and Virginia that resulted from the transport of infested trees from Michigan. This infestation has apparently been eradicated. As with Asian Longhorned beetle, infested trees at the perimeter of the infested zone are cut down, chipped, and burned. This insect is not yet present in New York State, but the potential threat to the state is grave enough that I thought it important to bring it to your attention. The most telling sign is the presence of D-shaped holes in trunks and major branches of ash trees. The "D"s, similar to the exit holes of bronze birch borer, are about 5 mm (3/16") across. Infested trees also show splits in the bark and epicormic shoots (water sprouts) along the length of the trunk. All species of ash appear to be susceptible. You can read more about this pest at http://www.michigan.gov/mda (then click on Emerald Ash Borer Link). I will be glad to send you a fact sheet as well.

You might be interested in visiting the Exotic Pest Page on my Woody ornamentals web site. On this page, I post updated information about the photos of these and other pests, as well as maps illustrating the current range. The web address is:
<http://www.entomology.cornell.edu/Extension/Woodys/ExoticPests.htm>.

Residential Fertilization Practices Surveyed

The scarcity of data on residential lawn care practices makes it difficult to evaluate fertilizer, pesticide and water use. With concern growing throughout the United States over surface and ground water contamination from both nutrients and pesticides this information is critical for establishing sound turf management guidelines and educational outreach programs.

In an effort to characterize how turf fertilization practices in residential areas may contribute to water pollution, researchers at North Carolina State University conducted a survey in five North Carolina communities. Homeowners and lawn care companies were asked specific questions about how they fertilize lawns.

More than half of urban homeowners surveyed used fertilizer on turf. Some households used lawn care services, with the highest frequency of use occurring in the community with the highest median income. High and medium income households have significantly higher fertilizer rates than low-income households. Fertilization was based on soil testing for only 20% of the households, and none of the lawn care companies surveyed used soil tests on a routine basis.

Generally, fertilization rates for tall fescue lawns were appropriate, but for grasses with low N requirements, such as centipede grass, excess fertilizer was often applied. Both homeowners and lawn care services tended to fertilize during the wrong season. On average, only 52% of households removed fertilizers from impervious surfaces such as driveways and sidewalks.

The results of this study indicate areas of concern that can be addressed in order to reduce negative environmental impacts of fertilizer use. Surveys in other areas of the country would no doubt yield information necessary for educating people about safe lawn care practices in their own communities.

From: Osmond, D.L., D.H. Hardy. 2004 . Characterization of turf practices in five North Carolina communities. J. Environ. Qual. 33:565-575.

Pesticide Note: 'Twosome'

In the current (2005) edition of the *Cornell Pest Management Guide for Commercial Production and Maintenance of Trees and Shrubs*, there is a mistake that should be noted by persons in the Nursery or Christmas tree production industries. In **Table 15**: "Some fungicides, bactericides, and nematicides registered for use on trees and shrubs in New York State", the product 'Twosome' under the entry 'Chlorothalonil + Fenarimol' is listed as being registered for both landscape (L) and Nursery

(N) use. That is incorrect. That product is not labeled for use on plant material being grown "for sale or other commercial use". It should only be listed for landscape (L) use.

Fir Troubles

Growers all over central New York, approximately 20 miles north and south of the Thruway, are reporting death of foliage on concolor and Fraser fir. In some cases, new buds are breaking but in many others the trees appear to be dead. We're headed out to look on May 6 and will report our observations in the next issue of *Branching Out*. Most likely the problem is not due to an infectious agent but rather, freezing injury early last winter when there was little snow but occasional very cold temps. Source: Branching Out Volume 12, No. 3, May 6, 2005

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