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**Sojourners' Shelter
 Project Off and
 Running!**

After their June 11 Board meeting, WVNLA Officers and Directors visited the Sojourners' Shelter site on Quarrier Street, Charleston, to view the progress made on site since launching of the project on February 28, 2008. Official ground breaking began on June 2 with the removal of concrete and other debris, installation of new drains and putting site on grade by Josh Raynes of Raynes Excavating, Eleanor, WV. Bruce McClanahan, McClanahan Construction Company, Poca, WV, then took over the project. Completion is expected in early August 2008.



On June 11, 2008, WVNLA Board Members stand in the new doorway cut to provide access to the neighboring vacant lot from the Sojourners' Shelter Building. The lot will be landscaped as a gathering space for Shelter residents. From left to right: Treasurer Mark Springer; President Cary Levenson; Vice-President Brett Merritt; Past-President Norman Cole III; Bruce D. McClanahan of McClanahan Construction Company, Poca, WV, managing the project; Director Becky Morris; Director Bill Mills; and Director Tracy Cutlip.

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Above left: Contractor and project manager for the Sojourners' Shelter project Bruce McClanahan (second from right), McClanahan Construction Co., Poca, WV, shows project plans to WVNLA Board members (left to right) Bill Mills, Tracy Cutlip, Mark Springer, Cary Levenson, and Brett Merritt on June 11, 2008. Above right: spreading gravel in the new Game Court area. Main entrance and entrance court will be built at the right, accessible from Jackson Street behind the wall. This will be a safer entrance than the present one which opens on to Quarrier Street.



These pictures are of the vacant lot between Sojourners' Shelter (on the right) and a neighboring building. Picture on the left was taken February 29, 2008, by Margaret Taylor, Program Director of YWCA Sojourners' Shelter and shows the large piles of concrete pieces and other debris making the area unusable. The picture on the right was taken on June 11, 2008. The debris has been cleared, the lot has been filled and graded and markers for the drainage system have been placed. Note the new door at right in the wall of the Sojourners' Shelter building.

ATTENTION: All Members of WVNLA

On July 9, President Cary Levenson made the following announcement. "I'm pleased to announce that the project is right on schedule. Our contractor should be done within the next two weeks, which leaves the landscaping to us. I wish all members to know that landscaping dates are set for August 4th through 6th, with completion on Friday, August 8th. Further details will follow after next week's construction meeting, however, I would like all members who wish to participate in the completion of this project through direct labor or donation of money/materials to contact Bill Mills 304-925-4754, Email: terrasalisgarden@aol.com ; Becky Morris 304-755-0581, Email: riversidesod@citynet.net ; or Cary Levenson 304-342-2255, Email: valleygardens@gmail.com. Monetary donations would go toward site furnishings such as benches, tables, etc. Call me with any questions."



West Virginia Garden Club Blue Star Marker Dedication #59 was held on Sunday, May 25, 2008, at 3:00 pm at the State Route 33 E-Exit 13/Morton Avenue, Buckhannon, WV. Sponsors are the Fred Brooks Garden Club, Buckhannon; WV Garden Club Tygart Valley District; and WV Nursery & Landscape Association.

Top left: Color Guard of American Legion and Veterans of Foreign Wars prepared for a Rifle Salute. The Blue Star Marker at right foreground is covered. Middle left: The 249th WV Army National Guard Band gave a concert. Bottom left: Members of the Fred Brooks Garden Club unveil the Blue Star Marker. Above: A small garden was installed around the base of the Marker.

A similar dedication was held at the Department of Veterans Medical Center in Huntington on May 17, 2008. Mark Springer attended that event.



The West Virginia Nursery & Landscape Association has sponsored 8 Blue Star Markers so far in 2008: 2 Blue Star Byway Markers at I79 South at Roanoke and Frametown exits; 2 Highway Markers at the Buckhannon exit and at Kearneysville; and 4 Memorial Markers at the World War II Black Soldiers Memorial Building, Bluewell; at the Veterans Affairs Medical Center, Huntington; the Veterans Home, Barboursville; and the Courthouse lawn, Summersville. Total cost for the 8 Markers was \$6,730, leaving \$8,270 of the \$15,000 pledged by WVNLA for this project. The Barboursville and Summersville markers have been purchased but have not yet been delivered or installed. The sponsoring Garden Clubs have in each case promised to maintain the memorials and the gardens where gardens have been planted.

WVNLA MEMBERSHIP APPLICATIONS

The following firm has applied for membership in the West Virginia Nursery & Landscape Association, Inc. Members are requested to forward to WVNLA any comments they may have on the qualifications of this applicant.

**HALIAN & ASSOCIATES
LANDSCAPES
Brian Branthoover
53 Wagner Road
McHenry, MD 21541
ASSOCIATE**

WVNLA AWARDS SCHOLARSHIPS

At the June 11, 2008, meeting of the WVNLA Board of Directors, \$1,000 was awarded to each of the following WVU students.

**Robert J. Barbor
Buckhannon, WV
Horticulture**

**Christopher Lee Gross
Morgantown, WV
Horticulture**

**Gabriel Mongold
Arthur, WV
Landscape Architecture**

Congratulations to you! We hope these WVNLA awards have a positive effect upon your education and your careers.

THANK YOU, WVNLA!

From Gary W. Gibson, Director, Plant Industries Division, WV Department of Agriculture, on January 7, 2008.

On behalf of the Eastern Plant Board (EPB) I would like to thank the membership of the West Virginia Nursery & Landscape Association for their generous contribution to the annual EPB meeting that will be held April 1-3 in Charleston. Your financial assistance will help ensure that the meeting West Virginia hosts is successful and memorable for all those attending. During our meeting last November, I was so proud to hear the warm words of friendship and cooperation used to describe the relationship between the West Virginia Department of Agriculture and the WVNLA. I know that our plant regulatory staff have always tried to work with, and for, the betterment of the state's nursery industry. From what I heard at the Board of Directors meeting the industry

must recognize and appreciate those efforts.

I look forward to years of continued cooperation with the WVNLA. If there is anything I can do in my position that will help improve our state's nursery industry, please contact me.

**From Charles H. Gilliam,
Professor, Horticulture, Auburn
University, Auburn, AL, on
May 21, 2008**

On behalf of our research team composed of myself, Drs. Glenn Fain, Jeff Sibley, Cheryl Boyer (all Horticulture-Auburn), Tom Gallagher (Forestry-Auburn), and Allen Torbert (USDA_ARS, AL), I want to thank you for your donation to the Horticultural Research Institute (HRI). Your generous gift is funding our work on alternative nursery substrates. We are very excited to be pursuing this avenue of applied research research as it has the potential to lower costs for growers as well as ensure a local, sustainable substrate alternative to pine bark.

Your donation to HRI through the West Virginia Nurserymen's Association Fund says much about your commitment to horticultural excellence. I do hope that you will continue to support our research efforts through the HRI in the future. Your contribution has made a great impact in our research program and, again, we thank you very much.

WVNLA Supports Keynote Speaker at 2009 Master Gardener State Conference

At the June 11 meeting, \$1,700 was donated to the Monongalia and Preston County Master Gardeners to sponsor keynote speaker Parker Andes, Director of Horticulture, Biltmore House, Asheville, NC., at the May 1-3, 2009, Master Gardeners State Conference in Morgantown, WV. Mr. Andes is a graduate of the Horticulture program at WVU.

Update From May & June, 2008 Connecticut NLA

Tidbits heard at last week's forum on immigrant labor in the green industry. Some legal experts advise not making copies of employee IDs and attaching them to I-9 forms, because in some instances across the country that has provided evidence to federal inspectors that the employer accepted obviously fake IDs-and the employer got penalized. Consider using the "J" program that brings in foreign students in exchange programs to take the place of H2B workers, advised attorney Rita Provtas; they're allowed to hold jobs here. Prospects are slim-to-none for enacting reform of federal foreign worker laws and increasing the H2B cap this years, said ANLA's Craig Regelbrugge. Chances are better next year with both candidates for President supporting reform, and election-year anti-immigration pressures lessened.

(Continued on page 5)

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(CNLA update continued from page 4)

CT moved this week to launch a study on crumb rubber in gardening mulch.

Attorney General Richard Blumenthal asked that the CT Agricultural Experiment Station study the material which is ground-up recycled vehicle tires. Some have charged there may be toxic elements in it, which is worrisome especially when the synthetic turf crumbs are used in athletic fields at schools. Pushing for the study was Nancy Alderman, president of Environment and Human Health, a North Haven-based nonprofit group that has successfully urged the state legislature to ban pesticides in and around schools and day care facilities.

Oregon will ban the production and sale of English Ivy and Butterfly Bush

by the end of 2009, a move by that state's Department of Agriculture that surprised the nursery industry. For Butterfly Bush (*Buddleja davidii/ varabilis*), Oregon's draft rule first proposed to allow nurseries to still grow the plants so long as the plants were not sold in the state or allowed to go to seed, but instead a total ban was issued in March, to take effect December 2009. Both plants are considered invasive in Oregon.

What is 'sustainability' in agriculture all about? You can read the draft 127-page document titled *Sustainable*

Agriculture Practice Standard being developed by the Leonardo Academy for the American National Standards Institute by going to the Connecticut Green Industries web site. Click on the "Key Documents" section or this link: www.FlowersPlantsInCT.com/pdf/AgSustain_draft_standard.pdf. The deadline for the green industry to comment was July 7.

CT's landscape architects have published a new brochure explaining their work

titled *Landscape Architecture in Connecticut*. The brochure is intended to help the public better understand the contributions of landscape architects and how to find and work with landscape architects here in Connecticut. It's available for viewing or downloading on the CTASLA website at <http://www.ctasla.org/pdfs/LA.C.%20brochure.pdf>.

New (2nd Edition) Best Management Practices: Guide for Producing Nursery Crops Available at WVNLA Office

This 2007 Guide, published by the Southern Nursery Association, in addition to the updated sections on irrigation, container management and water and nutrition management, contains a brand-new section on **Field Production of Nursery Stock.**

The SNA has sent several copies to this office. Those members wishing to receive a copy should contact Brad Bearce at 800-239-0796 or email him at wvnl@prodigy.net. First come, first served!

Journal of Environmental Horticulture: Selected June 2008 Abstracts. Utilization of Mixed Municipal Solid Waste Compost as a Soilless Potting Component in Greenhouse Production of Four Floricultural Crops.

Wienliang Lu, Xiaomei Yang, Jeff L. Sibley, Charles H. Gilliam, James S. Bannon, and Yaoqui Zhang. *Journal of Environmental Horticulture* 26(2):75-79. 2008.

Various organic waste composts have long been regarded as alternative substrate components. As an organic waste, municipal solid waste (MSW) or household garbage, is always locally available and composting is encouraged as an effective pathway to reduce volumes of MSW. However, growers in the nursery industry have often been skeptical about the quality of municipal solid waste compost (MSWC) and are also reluctant to shift to substrates other than pine bark (PB) unless absolutely necessary. The results of two experiments using four popular floriculture crops grown in 0 to 100% MSWC based substrates reported here provides useful information for both sides of an emerging market for compost utilization. Replacement of PB with MSWC at a low ratio (30% or less) often increased plant growth. At a higher ratio (up to 75% MSWC in the substrate), plants often grew equally well as in 100% PB.

Results suggest that MSWC can be a viable alternative to pine bark for container grown floricultural crops. **Drip Chemigation with Imidacloprid and Nematodes for Control of Scarab Larvae in Nursery Crops.** Michael E. Reding, Heping Zhe, and Richard Derksen. *Journal of Environmental Horticulture* 26(2):93-100. 2008.

White grubs are serious pests of nursery crops in many eastern and Midwestern states. Control of white grubs is usually done by applying insecticides to the soil surface, followed by supplemental water to leach the materials into the soil. Drip irrigation systems have the potential to deliver insecticides and insect pathogens to the root zones of crops to control insects below ground. Drip chemigation is the application of nutrients or pesticides through a drip irrigation system. Some of the benefits of drip chemigation for application of pesticides are reduced costs for labor and fuel, less drift, and reductions in worker exposure to pesticides compared to standard surface sprays. In the following study, drip chemigation was tested for control of white grubs in field-grown nursery crops. Insecticides and entomopathic nematodes applied through drip irrigation successfully reduced numbers of white grubs in field-grown Kousa dogwoods and crabapples. During three years of testing, drip chemigation with imidacloprid reduced numbers of grubs from 62 to 83%. Clothianidin was tested during one year, and it reduced the numbers of grubs by 65%. Our data indicates that drip chemigation is a viable application technique for control of white grubs in nursery crops. Drip chemigation has not been used in nursery crops for control of white grubs or other subterranean pests. The presented research was conducted in a field production nursery, but the drip chemigation technique should also be appropriate for control of white grubs in container grown crops irrigated by drip systems. To read entire articles, contact Brad Bearce at wvnl@prodigy.net.

Success: What Great Managers Do

by Linda Talley

Have you ever told anyone or someone might have said to you: "The best boss I ever had was" You don't hear that a lot and when I do, I listen up! What makes that boss so good? I say it is when the boss knows how to play to the strengths of his/her staff, manage around their weaknesses, and get the best out of their people.

A great boss is a great coach. They ask questions, they observe, they listen, they create a plan to help that person grow. And, they do this for each person on their staff. They find out the unique abilities of each person and then focus on those abilities—usually their strengths. Most performance reviews are about a person's weaknesses. We want to help the employee become aware of those weaknesses to help them overcome them. This is really not "good medicine." Research by Albert Bandura, who some call the father of social learning theory, says that self-assurance (self-efficacy) and not self awareness is the strongest predictor of a person's ability to set high goals, bounce back from adversity and persist against obstacles. There has been no research to indicate that self-awareness is a predictor of any of these outcomes, and, in some case, it appears to retard them.

To find out a staff member's strengths, ask them to tell you about the best day at work within the last 3 months. What was the person doing? Why did s/he enjoy it so much. This will get you staff member to begin thinking about and remembering what really excites him/her.

If you want to discover their weakness, ask them what their worst day was in the past 3 months.

What was she doing? Why did he hate it so much? Why did they want to stop it?

From here you have a good understanding of the person's strengths and weaknesses. Now, you can focus on their strengths and make them aware of these. When the staffer succeeds, don't acknowledge the hard work, acknowledge her/his ability to use their strengths. When you do this, you build a foundation for the staffer's feeling of self-assurance, which leads to feeling better, more optimistic and more resilient in the face of adversity.

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Big Tree of the Month Northern Catalpa

West Virginia of Forestry
 Charleston, WV

<http://www.hort.uconn.edu/Plants/c/catspe/catspe>

Although not native to West Virginia, the Northern Catalpa, *Catalpa speciosa*, is commonly planted throughout the State and thrives in the Ohio Valley. In June of this year, it has made quite a show with its large clusters of white flowers. The tree produces long, woody fruits that resemble a cigar, and commonly is called Cigar tree or Indian Bean.

When thoroughly seasoned, Catalpa wood is quite durable and used for fence posts and railroad ties. It is planted as an ornamental tree because of its unusual fruit and beautiful fall foliage. Heart-shaped leaves turn almost black in autumn months.

Catalpa is native to the midwest United States and hardy to zone 4 . It is a medium sized deciduous tree with an irregular, rounded crown. It has a

fast growth rate, reaching a height of 40-60 feet and a spread of 20-40 feet. Its summer texture is medium and winter coarse. Summer foliage consists of opposite leaf arrangement, whorled towards stem tip.

Leaves are simple, deciduous, 6" to 12" long and half as wide, and are heart-shaped to arrowhead-like form with entire leaf margins and kelly green leaf color. Autumn foliage is yellow-green.

Flowers are perfect, white, 2" in diameter and bell-shaped with wavy, petal edges and spotted throat. They are borne in long panicles (terminal) 4" to 8" long and bloom in June.

Fruit is a long, bean-like capsule 8" to 20" long, green and persistent through the winter.

Bark is grayish-brown in color, ridged and furrowed. Young branches are stout, smooth, pubescent with lenticels and large, circular leaf scars.

Catalpa transplants readily and is tolerant to a wide range of soil types. It prefers full sun to partial shade. In the Landscape, it is valued for winter characteristics, as a lawn or park tree and for its flowering effect.

Liabilities of Catalpa are its susceptibility to leaf spots, powdery mildew and twig blight. An additional problem is fruit litter.

Propagation is by seed and root cuttings.

Our Northern Catalpa Big Tree is located at 1808 Jefferson Boulevard, Point Pleasant, Mason County. It was nominated by Larry Six in 1982 and updated by Lance Tabor in 1998. It has a trunk circumference of 197 inches (62.7 inches DBH), a height of 70 feet and an average crown spread of 65 feet. According to Dirr (1998), National Co-champions are 107 feet high by 85 feet spread on State Capitol Grounds, Lansing, MI, and 86 by 79 in Walla Walla, WA.

Special Note: This species has demonstrated an invasive tendency in Connecticut, meaning it may escape from cultivation and naturalize in minimally managed areas.

Plant of the Month

Sambucus nigra, Common or European Elder

http://en.wikipedia.org/wiki/Sambucus_nigra

Sambucus nigra is a species of elder native to most of Europe, northwest Africa and southwest Asia. It is most commonly called just Elder or Elderberry, but also Black Elder, European Elder, European Elderberry, European Black Elderberry, Common Elder, or Elder Bush when distinction from other species of *Sambucus* is needed. It grows in a variety of conditions including both wet and dry soils, primarily in sunny locations.

It is a deciduous shrub or small tree growing to 16-24 feet (rarely to 40 feet) tall. The leaves are arranged in opposite pairs, 4-12 inches long, pinnate with five to seven (rarely nine) leaflets, the leaflets 2-5 inches long and 1-2 inches broad, with a serrated margins. The perfect flowers are borne in large corymbs 4-10 inches diameter in mid summer, the individual flowers white, 0.2-0.4 inches diameter, with five petals; they are pollinated by flies. The fruit is a dark purple to black berry 0.1-0.2 inches diameter, produced in drooping clusters in the late autumn; they are an important food for many fruit-eating birds, notably Blackcaps.

There are several other closely related species, native to Asia and North America, which are very similar, and treated as subspecies of *S. nigra* by some botanists. Dirr (1998, p.929) writes that its foliage is dark green in summer and has a disagreeable odor when bruised. It appears to be more shade tolerant than *Sambucus canadensis*, however may be just as invasive.

This plant is used as a medicinal plant and also used as a ornamental plant. It is cited as a poisonous plant to mammals as well as cited as a weed.[4] All parts of the plant except for the flowers and ripe berries (but including the ripe seeds) are poisonous, containing the cyanogenic glycoside sambunigrin (C₁₄H₁₇NO₆, CAS number 99-19-4).[5] The bark contains calcium oxalate crystals.

Dirr lists several cultivars: "Aurea" - bright yellow new foliage that fades with time and heat. 'Laciniata' - finely dissected, green leaflets resembling those of *Acer palmatum* var. *dissectum*.

'Filigree Lace' - "wonderfully fine-textured shrub".

'Purpurea' ('Guincho Purple' proposed) - new leaves are bronze-purple and flower petals are pinkish. 'Madonna' - bright and marbled golden yellow leaves.

'Marginata' - leaflets initially margined yellowish white, fading to creamy white.

Aphids and spider mites can be a problem, especially in hot weather.

Sambucus nigra is hardy to zone 5 to 6 (7).

Some more interesting details from wikipedia are:

The flowerheads are commonly used in infusions, giving a very common refreshing drink in Northern Europe and Balkans. Commercially these are sold as elderflower cordial, etc.

The berries are edible after cooking and can be used to make jam, jelly, chutney and cordial. They go particularly well with blackberries and with apples – for example in apple pie.

The strong-smelling foliage was used in the past, tied to a horse's mane, to keep flies away while riding.

Stembark, leaves, flowers, fruits, root extracts are used to treat bronchitis, cough, upper respiratory cold infections, fever.

In Beerse, Belgium, a variety of Jenever (Jenever [also known as junever, genievre, genever, jeniever, peket or in England as Holland gin], is the juniper-flavored and strongly alcoholic traditional liquor of the Netherlands and Belgium, from which gin evolved.) called Beers Vlierke is made from the berries.

Elderberry flowers are sold in Ukrainian and Russian drugstores for relief of congestion, specifically as an expectorant to relieve dry cough and make it productive. The dried flowers are simmered for 15 minutes and the resulting tasty and aromatic tea is poured through a coffee filter. It is better hot, but can be drunk cold. Some individuals may experience an allergic reaction.

Oak Decline

From an article by Wayne K. Clatterbuck, University of Tennessee, and Bruce W. Kauffman, US Forest Service, <http://www.utextension.utk.edu/publications/spfiles/SP675.pdf>

Oak decline is a slow-acting disease complex that involves the interaction of predisposing factors such as climate, site quality and advancing tree age. Trees over 70 years of age growing on drier sites such as rocky shallow soils on ridgetops and south-to-west facing slopes are most affected. Mortality of rootlets in the upper 12 inches of the soil initiates dieback in severe droughts. Secondary insects and diseases (red oak borers, two-lined chestnut borers, armillaria root rot, defoliating insects, hypoxylon cankers) are contributing factors that cause further stress and damage to the trees.

The first indication of oak decline is the progressive dieback of one-third to one-half of the upper crown leaves from the tips of the branches. Other accompanying symptoms may include chlorotic, dwarfed or sparse foliage; development of epicormic sprouts on the main bole and larger branches; premature autumn color; and foliage browning but remaining on the tree. Often, diameter growth is reduced before the appearance of the symptoms. Defoliated trees that re-foliate the same season may exhibit dieback symptoms the next year. Usually the progression of decline is slow, with tree mortality occurring two to five years after the initial stress.

Most of the trees affected by oak decline are in the red oak family, commonly black oak, scarlet oak and southern red oak. Other species, such as hickories and species in the white oak family (chestnut oak, post oak, white oak, chinkapin oak), can also have decline.

Trees react to the stress of prolonged drought and defoliation by converting starch stored in the roots to sugar to support continued

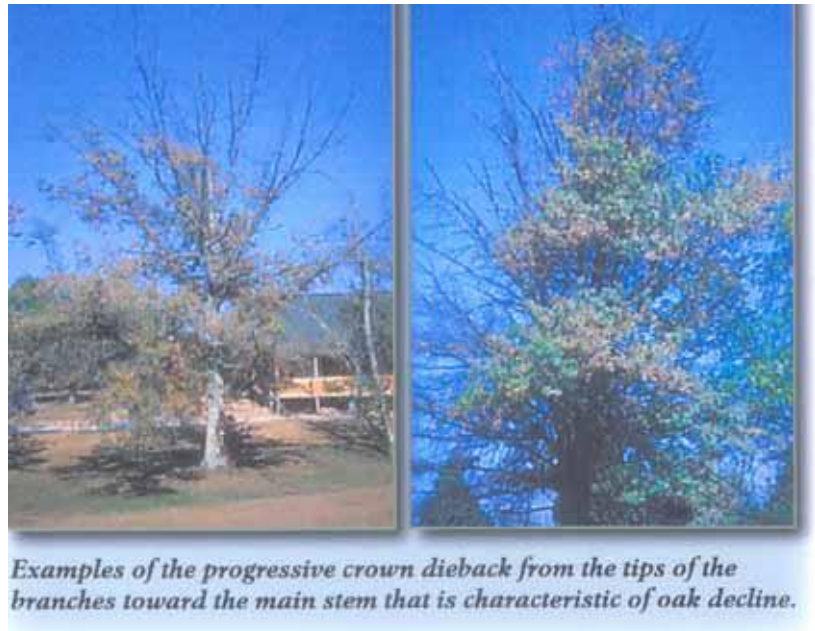
(Continued on page 8)

(Oak Decline continued from page 7) metabolism. Once these stored reserves are depleted, trees are not able to maintain the status quo and begin to decline. The fungus *armillaria* is a saprophyte living on dead organic materials such as stumps or roots of dead trees. It produces rootlike structures (rhizomorphs) that grow through the soil and over the surface of healthy roots. *Armillaria* can successfully colonize living root systems that are under stress, resulting in the girdling of the roots. Stems can also be girdled by the *hypoxylon* fungus. The red oak borer and two-lined chestnut borer also attack weakened trees. Both adult insects lay eggs in bark crevices; the larvae then bore into the phloem and create meandering galleries. Two-lined chestnut oak borer attacks begin in the upper crown and progressively work their way down the tree in two or three years.

Root disease and stem girdling progressively impair the movement of internal water and food in the tree, causing the dieback of the crown. Although some trees die within a year, most decline two to five years before succumbing. Mature trees may not have the capacity to resume normal growth with the return of favorable growing conditions, because the tree demands more resources (internal water and stored food) than it possesses. Damage to water and food conducting systems may be so extensive that rate of movement in these systems is insufficient to meet the needs of the trees. Younger and smaller-sized trees recover more quickly and can rebuild their crowns because they require fewer resources to maintain themselves.

Prevention of oak decline starts with site selection favorable to these long-lived trees. Ideal site conditions are loamy soils with few rocks, deep soils (>18 inches). Good locations for oaks are coves, terraces, bottoms and lower slopes with north and east exposures. White oaks are less susceptible to decline than are red oaks. Fast-growing trees are also more resistant to decline.

Cultural practices can prevent decline, especially when coupled with good site selection. Prevention of defoliation by pests and maintaining good soil moisture levels increase resistance to decline. Removal of declining trees from the site relieves stressful crowding of remaining trees and reduces spread of pests and



disease to healthier trees. Where trees have begun to decline, restoration of soil moisture and prevention of defoliation throughout the growing season may bring about recovery, especially with younger trees and trees that have just begun to decline and where site conditions are favorable.

At right: Upper picture shows *Catalpa speciosa*, with fruit hanging from the bare branches in winter. The bottom picture shows developing catalpa fruit. Pictures from www.hort.uconn.edu/Plants/c/catspe/catspe1.html.



**SNA 2008 Green Industry
Trade Show on for August 7-
9, 2008, at the Georgia World
Congress Center, Atlanta, GA.
This is the largest plant material
and hard goods market in the
Southeast.**

**To register or to get information
from the SNA (Southern Nursery
Association), email: mail@sna.org,
or call (770) 953-3311.**



Top left: *Catalpa speciosa*, Northern Catalpa tree in full bloom. Top right: closeup of Catalpa flowers. Next picture down: Catalpa twig. Next picture down: Catalpa leaves. Catalpa pictures from www.hort.uconn.edu/Plants/c/catspe/catspe1.html.



Above left: *Sambucus nigra*, European Elder, shrub in full bloom. Above right: fruit of European Elder. Pictures from http://en.wikipedia.org/wik/Image:Sambucus_nigra_004.jpg



Redheaded pine sawfly

Neodiprion lecontei

Order Hymenoptera, Family Diprionidae;

conifer sawflies

Native pest

Host plants: Mugo, red, jack and Scotch pines that are less than 4–5 meters high are preferred, but many different species of pines are also susceptible.

Description: Adults are wasp-like, brownish, and approximately 12 mm long. Mature larvae are 20–30 mm long. They have reddish brown heads, and yellow bodies with six rows of irregular black spots.

Life history: Eggs are deposited on needles and cause rows of brown spots. First generation larvae feed between mid June and late July. Second generation larvae feed between mid August and late September.

Overwintering: Prepupa or pupa in debris.

Damage symptoms: Larvae feed in groups and can completely defoliate a tree from the top down. Young and stressed trees are particularly susceptible to damage. Heavy infestations may defoliate and kill small pines.

Monitoring: Look for egg spots on needles and for larvae from mid June to late July and again from mid August to late September. Look for groups of larvae on terminal twigs of pines and for signs of defoliation. One colony from a clutch of eggs (100–120) can defoliate a 0.6 m tree, while 15 to 20 larval colonies can defoliate a 1.8 m tree.

Physical control: Prune small populations that are accessible.

Chemical control: Horticultural oil sprays are most effective against young larvae. Use a residual insecticide when older larvae are present in large numbers. If larvae are nearly full grown, treatment should not be undertaken. Chemicals will not be as effective, and most of the damage that the plant will sustain will already have been inflicted. Any sprays that are made should be directed at larval feeding aggregations only, when possible.

Biological control: Little information is available on the impact of natural enemies on regulating this insect, although 58 beneficial insects are identified. NPV virus is transmitted by females to eggs and from larvae to larvae.

Plant mortality risk: Low to moderate

Biorational pesticides: azadirachtin, horticultural oil, insecticidal soap, spinosad, pyrethrin

Conventional pesticides: acephate, bifenthrin, carbaryl, chlorpyrifos (nursery only), cyfluthrin, deltamethrin, diazinon, fluvalinate, imidacloprid, lambda-cyhalothrin, malathion, permethrin



Defoliation damage caused by redheaded pine sawfly. (212)
Photo: John Davidson



Redheaded pine sawfly adults, female (left) and male (right); note the difference in antennae. (213)
Photo: David Laughlin



Redheaded pine sawfly adult female. (214)
Photo: David Laughlin



Redheaded pine sawfly (continued)



Redheaded pine sawfly adult female emerging from cocoon. (215) Photo: John Davidson

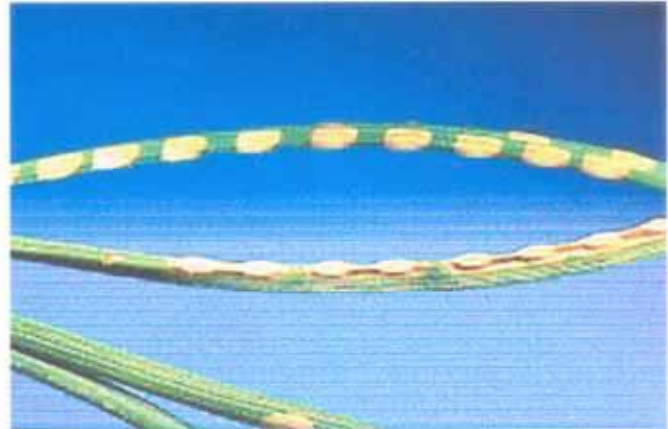


Photo: John Davidson
Eggs inserted in pine needles by the redheaded pine sawfly. (218)
Photo: John Davidson



Redheaded pine sawfly larvae. (216)
Photo: Clemson University Cooperative Extension Service



Close-up of redheaded pine sawfly larva. Notice larvae have 7 pairs of abdominal prolegs. (217)

WVNLA member John Chidester, owner and operator of North Hills Nursery, had his nursery featured in the July 6, 2008, Charleston Gazette. Above is a picture of his "Tigger" lying in front of his terra cotta containers filled with John's specialty crop, Sempervivums. John grows more Sempervivums than any one else East of the Mississippi River. Hit the link, <http://www.sundaygazettemail.com/HomeandStyle/200807030683>, to see five more pictures and read a nice article about John and North Hills Nursery in Rock Cave, WV..

Early Reminder! The WVNLA Winter Meeting will be held January 22-23, 2009, at the Embassy Suites in Charleston. Once again, we will have an excellent slate of educational speakers and Pesticide Application Recertification credits for WVNLA Members. Put it on Your calendar!



Siberian Elm

Ulmus pumila L.

Native Origin: Northern China, eastern Siberia, Manchuria and Korea

Description: Siberian elm is the hardiest of all elms and is a fast growing deciduous tree in the elm family (Ulmaceae). Mature trees reach a height of 50-70 feet with a round crown of slender, spreading branches. The bark is rough, gray or brown, and shallowly furrowed at maturity. Twigs are nearly hairless with small, blunt buds. The small, smooth, dark green toothed leaves are about 1-2½ inches long wide, and pointed at the tip. Small green spring flowers lack petals and occur in drooping clusters of 2 to 5. After flowering, a single seed forms in the center of each smooth, flattened, circular, ½ inch wide fruit. It reproduces by seed.

Habitat: It tolerated a wide range of growing conditions. It can be found in wet and dry soils, grasslands, roadsides, and pastures.



Distribution: This species is reported from states shaded on Plants Database map. It is reported invasive in AZ, IA, ID, IL, IN, KS, KY, MA, MD, MI, MN, MO, NE, NM, NV, OH, OK, OR, PA, TX, UT, VA, WA, WI, and WV.



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Ecological Impacts: Dry to mesic (middle moisture) prairies and stream banks are vulnerable to Siberian elm invasion. Thickets of seedlings soon form around seed-producing trees, bare ground areas, animal and insect mounds, and other disturbed areas. Wind carries seed to distant areas where new colonies can form. This tough exotic survives under conditions not easily tolerated by other species, allowing it to take advantage of open ground and resources otherwise used by native plants. Fast growing seedlings of Siberian elm quickly overtake native vegetation, especially shade intolerant species. This often leads to invasion by additional weedy species, compounding the problem.

Control and Management:

- **Manual-** Girdling trees in late spring to midsummer is the preferred management technique. During the growing season, seedlings can be hand pulled and girdled. On sites with few seed sources, the large trees can be cut down and resprouts trimmed.



- **Chemical-** It can be effectively controlled using any of several readily available general use herbicides such as glyphosate or triclopyr. Use cut-stump treatment with glyphosate or basal bark treatment with triclopyr. Follow label and state requirements. A regular regime of prescribed burning in fire-adapted communities will kill seedlings as well.

References: www.forestimages.org, <http://plants.usda.gov>, www.nps.gov/plants/alien, Czarapata, Elizabeth J. Invasive Plants of the Upper Midwest, An Illustrated Guide to their Identification and Control, 2005 p. 96-97