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# VIRGINIA FOREST LANDOWNER UPDATE

Events, news, and information promoting the stewardship of Virginia's forest resources.

## VIRGINIA FOREST LANDOWNER EDUCATION PROGRAM

Jennifer L. Gagnon, Editor

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## Planting Trees on Your Property? Choose the Best Species for the Job.

By: John Peterson and Susan Day, Virginia Tech Dept. of Forestry

Spring planting time is here, so we can replace that ratty silver maple that finally died last fall. Sooo.... what do we choose? I saw Bradford pears at the Walmart and I saw an ad in the newspaper for hybrid poplars that are supposed to grow 8 feet per year.

Are these good choices?

If we really start looking, there are thousands of woody plants that will grow in USDA planting zones 6 and 7 (most of Virginia). We really need to narrow this down!

Planting the perfect landscape tree in the yard and managing timberlands require the same first step. We have to determine our objectives. Perhaps we want a small, flowering tree that will bear fruit and be tough enough for the grandkids to climb. Maybe a large shade tree that attracts wildlife would be a better choice. Planting native species may be the environmentally responsible choice. Also, with the recent fires in Bedford County, we are reminded that we need to be careful not to plant a tree that will contribute to a fire hazard. Pines in the front yard with azaleas next to the house may be beautiful, but may also become a fire risk.



Silver maple and green ash were poor choices for this site (left). They clearly grew too large for the amount of free space available. If you have a small space, select a small tree or a shrub.

Some trees such as sweetgum or Chinese chestnut produce sharp, spiny fruits (pictured here to the right). Although chestnuts are edible, they may not be a good choice for barefoot children.




Once our goals are decided, we need to take a look at the ground. Remember when the house was being constructed? A few trucks, a loader, a little grading...and the soil was shot! It makes a typical forest soil seem like an unattainable paradise. Before a species can be selected, we need to examine the soil, focusing on compaction, soil drainage and pH. Compaction can be corrected with tilling, forking in organic matter, or mulching continuously with organic materials (shredded bark, for example), although very hard soils may need bigger equipment. Drainage and pH are harder to adjust—so the best choice is to find a tree that will tolerate the existing pH and drainage. Truly poor soils may rule out site-demanding species. For example, paperbark maple and Stewartia, both beautiful shade trees, cannot survive on many of our scraped-over yard soils.

A new web resource (still under construction) at Virginia Tech is the Virginia Urban Street Tree Selector ([www.cnr.vt.edu/dendro/treeselector/](http://www.cnr.vt.edu/dendro/treeselector/)). It focuses specifically on suggesting possible species matches for a site the user describes—typically trees for Main Street in small towns, parking lots, residential or city streets. However, the site evaluation, site modification, and species selection features can be used to get a start on species choices for yards as well.

When we plant trees, we plant them for the long-term. There are many resources for thoroughly researching any tree species. Pest problems, breaking limbs, poor growth, and a host of other problems can be avoided with a little planning. When selecting a species, don't overlook cultivars - sometimes a good cultivar choice can keep pest problems or structural problems at bay. For example, before the introduction of Dutch elm disease, American elms used to grace streets. Many landowners are surprised to learn that Dutch elm disease resistant cultivars are now available.

It is nearly impossible to recommend specific trees for planting. After re-examining our objectives, which may include aesthetics, fruit production, and planting natives, the Bradford pear and hybrid poplar turn out to be poor choices; but a serviceberry would be a delicious alternative. The right choice depends on the planting site, specific goals and personal preferences. We regularly argue about good trees and bad trees (Susan likes boxwoods and John can't stand them). But, with a little planning, appropriate choices can be made. We DO hope that you will put a little planning into your planting.

For more information, visit <http://www.cnr.vt.edu/dendro/treeselector> and <http://www.cnr.vt.edu/dendro> (search the tree fact sheets) or contact Susan Day ([sdd@vt.edu](mailto:sdd@vt.edu)) and John Peterson ([jopeters@vt.edu](mailto:jopeters@vt.edu)).

John Peterson is a Multi-Media Programmer in Virginia Tech's Dept. of Forestry  
Susan Day is a Research Assistant Professor in Virginia Tech's Dept. of Forestry 

## Events Calendar

For the most complete listing of natural resource education events, visit the on-line events calendar at [www.cnr.vt.edu/foreupdate](http://www.cnr.vt.edu/foreupdate)

Contact	Date	Location	Event	Time	Fee
DCR	May, June & July	Virginia State Parks	A Variety of Events and Activities. For a Complete Listing Visit: <a href="http://www.dcr.state.va.us/parks">http://www.dcr.state.va.us/parks</a>	varies	varies
CD	May 6	Blacksburg, VA	Kid's Fishing Day	8-12	free
WVFA	May 13-14	Flatwoods, WV	11th Annual West Virginia Timber & Wood Products Show	10-6 Sat. 10-4 Sun.	\$5 adults
VJ	May 14-17	Park City, UT	5th Annual Natural Resource Extension Professionals Conference	-----	\$310 ANREP members; \$335 non-members
SW	May 16-18	Richmond, VA	Smallwood 2006	-----	\$325
MW	May 19-20	Richmond, VA	30th East Coast Logging and Sawmill Expo	9-5	\$10
AHPO	May 20	Warm Springs, VA	TNC Spring Wildflower Hike - Warm Springs Mountain Preserve	-----	free **please pre-register**
JG	May 22-26	Asheville, NC	North American Forest Insect Work Conference	-----	\$300
DGIF	June 10	Luray, VA	JAKES Event	6-9:30 pm	-----
BJ	June 12-14	Asheville, NC	5th Southern Forestry and Natural Resource Management GIS Conference	-----	-----
BW	June 16	Patrick County	SHARP Logger Chainsaw Safety Training	12-6	free
VDOF	June 19-24	Appomattox	Holiday Lake Forestry Camp	-----	\$55
OE	July 7-9	Green Bay, VA	Virginia Outdoors Weekend	-----	\$45
AD	August 25	Caroline County	SHARP Logger Chainsaw Safety Training	TBA	free

If you have a natural resource education event you would like listed, please submit details to [forester@vt.edu](mailto:forester@vt.edu)  
Upcoming submission deadlines for printed calendar:

Edition	Events Occurring...	Submission Deadlines
Summer 2006	Aug., Sept., Oct.	June 9, 2006
Fall 2006	Nov., Dec., Jan.	Sept. 9, 2006
Winter 2007	Feb., Mar., April	Dec. 3, 2006
Spring 2007	May, June, July	Mar. 8, 2007

## Event Contacts

Contact	Name/Affiliation	Phone	e-mail/website
DCR	Department of Conservation & Recreation	804/786-1712	<a href="http://www.dcr.state.va.us/parks">http://www.dcr.state.va.us/parks</a>
CD	Chris Dunnivant	804/367-6778	<a href="mailto:Chris.Dunnivant@dgif.virginia.gov">Chris.Dunnivant@dgif.virginia.gov</a>
WVFA	West Virginia Forestry Association	888/373-9663	<a href="mailto:wvfa@wvadventures.net">wvfa@wvadventures.net</a>
VJ	Vivian Johnson	435/787-0434	<a href="http://www.ANREP2006.org">http://www.ANREP2006.org</a>
SW	Smallwood	608/231-1361 ext. 308	-----
MW	Mike Washko	804/737-5625	<a href="mailto:info@exporichmond.com">info@exporichmond.com</a>
AHPO	Alleghany Highlands Programs Office	540/839-3599	<a href="http://www.nature.org">http://www.nature.org</a>
JG	Joani Groce	797/845-7694	<a href="mailto:j-groce@tamu.edu">j-groce@tamu.edu</a>
DGIF	Department of Game & Inland Fisheries	804/367-1000	<a href="http://www.dgif.virginia.gov">http://www.dgif.virginia.gov</a>
BJ	Ben Jackson	-----	<a href="mailto:ben.jackson@gactr.uga.edu">ben.jackson@gactr.uga.edu</a>
BW	Bill Worrell	276/889-8056	<a href="mailto:bworrell@vt.edu">bworrell@vt.edu</a>
VDOF	Virginia Department of Forestry	434/977-6555	<a href="http://www.dof.virginia.gov">http://www.dof.virginia.gov</a>
OE	Outdoor Education Program	804/367-6778	<a href="http://www.dgif.virginia.gov">http://www.dgif.virginia.gov</a>
AD	Adam Downing	540/948-6881	<a href="mailto:adowning@vt.edu">adowning@vt.edu</a>

## You Ain't From Around Here: Exotic Invasive of the Quarter

Tree-of-heaven (*Ailanthus altissima* (Mill.) Swingle)

By: Jennifer Gagnon, Virginia Tech Dept. of Forestry

*I will be featuring an invasive plant species in each newsletter. This section will provide resources to help you identify and control these plants, hopefully before they become more of a problem!*

Exotic invasives are non-native plants that are able to thrive and spread aggressively outside their natural range. When spread is extensive, they can alter ecosystem function by replacing native species, changing forest structure, and decreasing forest productivity and biodiversity. Some key characteristics include: prolific seeding, efficient dissemination, adaptability to different environments, rapid growth, and lack of natural controls. There are 115 exotic invasives in Virginia. Landowners can help stop invasives before they get out of control by 1. inspecting their property regularly, 2. maintaining a healthy forest with minimal disturbance, 3. treating invasives as soon as they are detected and 4. rehabilitating sites after eradication.

Tree-of-heaven, also known as Chinese sumac or stinking sumac, is one of the most common invasive trees in Virginia; it grows vigorously in sunny locations, even on poor sites, and is often seen along roadsides and in disturbed areas. This tree is allelopathic, meaning its roots secrete chemicals which reduce or eliminate the growth of other nearby plants. Once tree-of-heaven is well-established, it forms dense, impenetrable thickets and is very difficult to get rid of. The root systems grow vigorously and can damage sewers and foundations. It can reproduce either by root sprouting or seeds (one study estimated that a single tree could produce over 300,000 seeds a year!!).

Tree-of-heaven was introduced to the eastern United States in 1784 by a Pennsylvania gardener; in the 1800's, it was brought to California from Asia. By 1840, it was commonly sold in nurseries. Even today, despite the invasiveness of this tree, seeds can be purchased through on-line nurseries, making control and eradication difficult. Tree-of-heaven is currently found in 42 states, ranging from Maine to Florida, and west to California.

### Here's how to identify tree-of-heaven

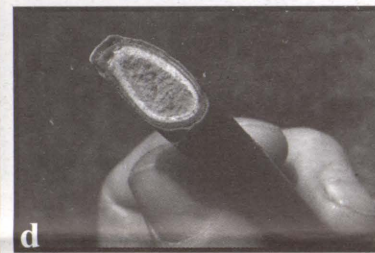
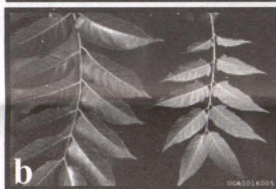
**Growth:** deciduous tree up to 80 feet tall and 6 feet in diameter; dioecious (male and female flowers are on separate trees).

**Leaves:** alternately arranged, odd or pinnately compound, 1 to 3 feet long with 11-25 lance-shaped leaflets with glandular teeth near the base; leaves smell like peanut butter, cashews or burnt coffee when crushed.

**Bark:** light-brown to gray, rough; twigs stout, chestnut brown to reddish-tan, smooth or velvety.

**Flowers:** April to June; large terminal clusters; small yellow-greenish with 5 petals and 5 sepals

**Fruit:** July to February; clusters of winged-shaped, twisted, tan to light-brown seeds on female trees; 1 to 1.5 inches long.



**Clockwise: (a) Tree-of-heaven seeds, (b) compound leaves, (c) bark; and (d) pith**

(photo credits: (a) Chuck Barger, University of Georgia, (b-c) James Miller, USDA Forest Service, and (d) John Siler, Virginia Tech)

### Here's what you can do to control tree-of-heaven:

**Mechanical:** Small seedlings can be pulled from moist soil as they appear – make an effort to remove the entire root system – any pieces left in the ground may sprout! Saplings can be cut at ground level, but this needs to be repeated several times to fully exhaust the carbohydrate supply in the root systems. A single cut can result in excessive stump sprouting and exacerbate the problem. If only one cut is possible, cut while the trees are blooming and root resources are at their lowest.

**Chemical:** Once tree-of-heaven is well-established, herbicides are usually needed for effective control. For larger trees, a midsummer stem injection of Garlon 3A, Pathfinder II or Arsenal AC is most effective (follow labels for concentrations). On felled trees, apply herbicides to stumps immediately after cutting. You do not need to be certified to apply herbicides with triclopyr or glyphosate as the active ingredients, but always carefully follow the application instructions on the label.



**Crown of a mature tree-of-heaven**

(photo credit: John Siler, Virginia Tech)

### References and Additional Information

Invasive Plants of the Eastern United States: Identification and Control <http://www.invasive.org/eastern/>

Miller, James H. 2003. Nonnative invasive plants of southern forests: a field guide for identification and control. USDA For. Serv. Gen. Tech. Rep. SRS-62. 93p. Free download available at: <http://www.srs.fs.usda.gov/pubs/5424>

Rhoads, A.F., and Block, T.A. 2002. Invasive species fact sheet: Tree-of-heaven. <http://www.paflo.org/Ailanthus%20altissima.pdf>

Swearingen, J.M. and Pannill, P. Tree-of-heaven. <http://nps.gov/plants/alien/fact/aial1.htm>.

The United States National Arboretum: <http://www.usna.usda.gov/Gardens/invasives.html> 

## Useless Weed or Valuable Wood? Tree of Heaven in Virginia

By: **Brian Bond**, *Virginia Tech Dept. of Wood Science and Forest Products*

The Tree of Heaven (*Ailanthus altissima*) is found throughout Virginia and is known as an ornamental shade tree or a difficult weed to eliminate. The tree grows very rapidly, thrives in most soils and climates and resists many insects and diseases. It has become a serious non-native woody species in the state. *Ailanthus* is an Indonesian-Mollucan name “*ailanto*” for *Ailanthus moluccana* - reaching to Heaven. The term *altissima* means tallest, referring to the height of the tree. *Ailanthus* grows rapidly, and can become quite large (up to 90 feet tall and 3-4 feet in diameter).

While the tree is considered a non-native weed species, it does have some value as firewood and for woodworking. The heartwood is pale green to yellow with dark streaks, while the sapwood is wide and cream-colored. The wood resembles ash, is reported to be easily worked with tools and glues, and takes a finish well. The question remains as to how easily such a fast-grown species could be processed into dry lumber and how much would be lost to machining and drying defects.



**Harvesting *Ailanthus***

Charlie Becker of the Virginia Department of Forestry teamed up with assistant professor Dr. Brian Bond in the Department of Wood Science and Forest Products to develop some information about the usefulness of wood from this tree in Virginia. Mr. Becker worked with a local sawmill to produce lumber from 20 year old *Ailanthus* trees. The lumber was then shipped to Blacksburg where it was dried in the Wood Drying Laboratory. The objectives of the project were to determine the proper drying schedule to be used for drying the wood and to determine defects that may occur in the drying process.



**Boards sawn from a large *Ailanthus***

Several pieces warped as the lumber was being sawn, indicating a large amount of growth stresses within the trees. The 5/4 inch thick lumber was dried in less than eight days. Significant warp was experienced with many of the pieces that had been sawn close to the heart center. This was expected as rapid grown trees often contain large areas of juvenile wood and reaction wood. However, much of the lumber produced was clear and defect free. Dr. Bond and Mr. Becker are putting together a publication on the wood properties and uses for this species, which should be available in the late spring. For more information on this project, contact Dr. Brian Bond, 540-231-8752 or [bbond@vt.edu](mailto:bbond@vt.edu).

Brian Bond is an Assistant Professor of Forestry, Brooks Forest Products Center at Virginia Tech. 

## Introducing Three New Forestry and Natural Resource Agents

By: **Jennifer Gagnon**, *Virginia Tech Dept. of Forestry*

At long last – all six Forestry and Natural Resource Agent positions are filled! These folks are a great source for local forestry and natural resource information and programs throughout Virginia and we welcome them. Replacing Dan Goerlich in the Central District is Jason Fisher. Jason has a Bachelor of Science (BS) degree in Forestry and Wildlife and a Master of Science (MS) degree in Technical Education, both from Virginia Tech. For the past 10 years he has served as a 4-H Extension Agent. He resides in Halifax County with his wife and 2 daughters. Jason started his new position in February, and is serving the counties of: Amelia, Amherst, Appomattox, Bedford, Brunswick, Buckingham, Campbell, Charlotte, Cumberland, Franklin, Halifax, Henry, Lunenburg, Mecklenburg, Nottoway, Pittsylvania, and Prince Edward, plus the cities of Danville and Lynchburg.

In March, Karen Cox started in the new Northeast District position. Karen was formerly employed by the Indiana Bureau of Forestry. She received her BS in Forestry from West Virginia University and her MS in Forestry from Purdue. Karen will be working with landowners in Charles City, Chesterfield, Essex, Gloucester, Goochland, Hampton, Hanover, Henrico, James City, King & Queen, King William, Lancaster, Matthews, Middlesex, New Kent, Newport, Northumberland, Powhatan, Richmond, Westmoreland and York counties.

Neil Clark joined us in April in the new Southeast District position. Neil is also a Virginia Tech graduate, with both a BS and a MS in Forestry. He previously worked for the USDA Forest Service in Blacksburg. Neil’s service area includes the following counties: Accomack, Chesapeake, Dinwiddie, Greensville, Isle of Wright, Northampton, Portsmouth, Price George, Southampton, Suffolk, Surry, Sussex and Virginia Beach.

Name	District	Location	Phone	e-mail
Neil Clark	Southeast	Suffolk County	757/657-6450	<a href="mailto:southeast@vt.edu">southeast@vt.edu</a>
Karen Cox	Northeast	King & Queen County	804/785-5979	<a href="mailto:kgcox@vt.edu">kgcox@vt.edu</a>
Adam Downing	Northern	Madison County	540/948-6881	<a href="mailto:adowning@vt.edu">adowning@vt.edu</a>
Jason Fisher	Central	Halifax County	434/476-2147	<a href="mailto:kefish@vt.edu">kefish@vt.edu</a>
Bill Worrell	Southwest	Lebanon County	276/889-8056	<a href="mailto:bworrell@vt.edu">bworrell@vt.edu</a>
Matt Yancey	Northwest	Augusta County	540/564-3080	<a href="mailto:mayancey@vt.edu">mayancey@vt.edu</a> 

## The Blue Ridge Forest Cooperative: Capitalizing on Sustainable Forestry

By: **Harry Groot, CEO and President of the Blue Ridge Forest Cooperative** and  
**David Robertson, Director of the Blue Ridge Forest Cooperative**

The Blue Ridge Forest Cooperative is an innovative approach to sustainable and profitable forestry on private lands in the Commonwealth of Virginia. The Cooperative was incorporated in 2004 and its primary operating region is the headwaters of the James, Roanoke, and New River watersheds.


The Cooperative will begin recruiting new members and investors in Spring 2006. Members must be residents of Virginia and own at least ten acres of forestland; investors need only be VA residents or businesses. The Cooperative helps its members practice profitable sustainable forestry by managing harvesting, processing, manufacturing, marketing and selling of forest products, all according to the standards of the Forest Stewardship Council (FSC), a nonprofit organization committed to the responsible management of the world's forests. The Cooperative's purposes are to support the sustainable forestry practices of its Members by providing a way to make those practices economically viable and to educate landowners.

The Cooperative is positioned to capitalize on a recent surge in the demand for FSC-certified wood products arising from the Leadership in Energy and Environmental Design (LEED) program of the US Green Building Council and state and federal mandates requiring "green" construction. A point system is used to certify building projects as sustainable. Points are awarded for actions such as using FSC-certified wood products and products produced within a 500-mile transportation radius. The Cooperative is located within 500 miles of most eastern seaboard, Southern and mid-Atlantic metropolitan areas, which comprise over half of the US population. As one of only a few businesses marketing certified forest products in the region, the Cooperative plans to capitalize on its access to these underserved markets.

Membership is especially attractive for forest landowners committed to long-term growth in the value of their forest. Harvesting to maximize the long-term value of the forest requires more initial resources - time, money, specialized equipment and techniques - than conventional "liquidation" harvesting. Obtaining and maintaining FSC certification requires expenditures not typical of conventional commodity market-driven forest product systems. However, many conventional forestry practices do not consider, or consider only minimally, indirect or non-economic costs and benefits, such as:

- aesthetics of the forest in which the landowner lives and/or recreates;
- clean water resulting from sound forest practices;
- enhanced wildlife and habitat creation or maintenance; and
- steady income generation as opposed to one-time liquidations.

Practicing sustainable forestry in cooperation with other owners of FSC-certified forests also introduces the opportunity to move forest products to market in an integrated system, without middlemen, allowing the landowners to improve their ultimate economic return and offset increased costs. This return is expected to increase as the Cooperative achieves economies of scale associated with a robust membership and the associated ongoing cycles of harvest, production, sales and marketing.

For more information or to join the Blue Ridge Forestry Cooperative, please contact Harry Groot, [harry@nextgenwoods.com](mailto:harry@nextgenwoods.com), 540-639-3077 or visit our website at [www.publicecology.org/brfc](http://www.publicecology.org/brfc). 

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## Landcare is Coming to a Forest Near You

In recent months, Virginia Tech's Department of Forestry and College of Natural Resources have played a leadership role in developing a series of new LandCare Initiatives. We are now working with partners within and beyond the University to establish The LandCare Center at Virginia Tech that will serve the needs of landowners and producers of agricultural and forest products throughout the Commonwealth and beyond. The LandCare Center will be the first university-based center in North America to promote, serve, and study the landcare movement that has only recently arrived in Virginia but is thriving internationally.

LandCare is an innovative strategy for natural resource management, sustainable agriculture, and economic development. Originating in Australia in the late 1980s (where there are now approximately 5,000 landcare organizations and 4 out of 5 Australians recognize the national landcare logo), the movement has since spread to a dozen other countries, including the United States where government agencies, commercial businesses, civic organizations, and local communities are now actively promoting the concept.

Internationally, landcare has generated the interest and energy to produce:


- thousands of organizations promoting landcare as strategy for local and regional sustainable development;
- good jobs, improved taxation, thriving industry;
- improved natural resource management and environmental conditions;
- redirected government funding for conservation and development programs;
- reorganized university outreach and community engagement;
- successful partnerships between government, civic organizations, businesses, landowners, and local communities;
- spin-offs: coastcare, rivercare, forestcare, urban landcare, etc.

In the United States, the USDA and partner organizations such as the National Association of Conservation Districts and National Association of Regional Councils have developed the "Landcare Pioneers" program to promote landcare as a holistic approach to regional sustainable development. These national leaders, along with their state and local partners, are now working with the Appalachian and Commonwealth LandCare Partnerships—which include Virginia Tech; landowner and producer groups such as the Blue Ridge Forest Cooperative and the Grayson-Carroll Cattle Growers Association; conservation organizations such as the Ward Burton Foundation, the New River Land Trust, and the Greater Lynchburg Environmental Network; and, new local chapters of


See Landcare Page 6

**Landcare Continued From Page 5**

landcare such as Grayson LandCare in Grayson County, Virginia. As part of this effort, faculty, staff and students in the Department of Forestry at Virginia Tech are now developing Forest LandCare Management Systems (LMS) and ForestCare programs that we hope to replicate from watershed to watershed throughout the Commonwealth. The common goal of these partners is to support the growth of landcare as an innovative model for sustainable and profitable land use and economic development here in Virginia and throughout North America.

To better understand the emerging landcare movement, visit the following websites: [www.landcareonline.com](http://www.landcareonline.com) and [www.publicecology.org/graysonlandcare](http://www.publicecology.org/graysonlandcare). For more information or to get involved, please contact David Robertson in the College of Natural Resources at [davidrobertson@vt.edu](mailto:davidrobertson@vt.edu); 434-847-1178. 

**Editor's Note:**

Thanks to all of you who signed up for electronic distribution of the *Virginia Forest Landowner Update*. I am working on incorporating this information into my database and developing a ListServ. In the meantime, you will continue receiving hard copies of the *Update*. I appreciate your patience during this transition. Jennifer 

Spring-time in the Catawba Valley



**CONTACT OUR SPONSORS AND STATE NATURAL RESOURCE MANAGEMENT AGENCIES:**



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804/367-1000  
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