

Utah Forest News

Utah Forest Landowner Education Program Newsletter

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EXTENSION

Utah State
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Utah Forestry Web Site Introduced

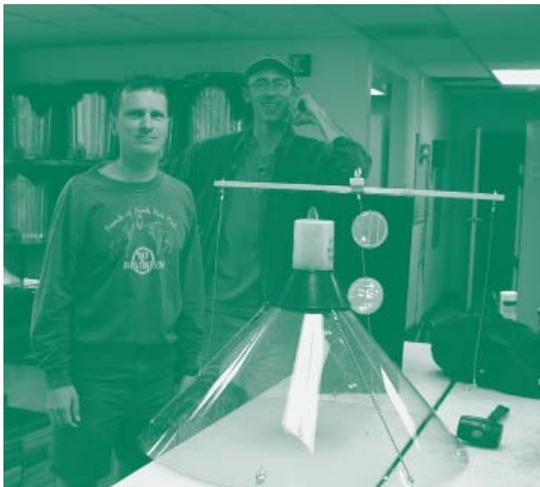
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Utah State University Forestry Extension is pleased to introduce its recently upgraded web site, located at extension.usu.edu/forestry. We believe that it is the best source of information about forestry in Utah available on the web. From descriptions of Utah tree species to the specifics of managing forestland taxes, the site offers something for everyone interested in Utah forests.



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Matt Hansen and Jim Vandygriff with the Handy-Vandy.

Suppressing Bark Beetles by Building a Better Beetle Trap: The Handy Vandy

At the USDA Forest Service, Rocky Mountain Research Station Forestry Sciences Lab in Logan they have been working on building a better beetle trap. The inspiration for the idea, says entomologist Matt Hansen, actually came from a home-made fly trap he remembered his grandfather using, with great success. As he explained the fly trap, it sounded like a simple screen and wood affair that was about the size and shape of a mailbox. When placed over some bait, basically anything stinky, it would fill with hundreds of flies, unable to escape, in no time at all. Hanson said that he wanted something that would have the simplicity and practicality of his grandfathers' old fly trap, but designed to catch a different prey: tree-killing bark beetles.

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In the creation of the site we were fortunate to have the expertise of Dr. John Shaw for several months, prior to his recent employment with the USDA Forest Service in Ogden.

Look under the “Utah Trees and Forests” link to find information about individual tree species, forest types, take a virtual forestry tour, see a Utah forest ecology slide show, and learn about Utah’s Champion Trees, Utah forest history, and more.

Click on the “Forest Management” tab for recommendations on managing your private forest land; conducting your own timber sale, understanding bark beetle outbreaks, applying Utah’s Forest Water Quality Guidelines, building forest roads, and more.

Explore the “Forest Products Business” link for a Utah and Nevada Woods Products Directory, explanations on logger’s insurance, and more.

Peek into the “Home, Farm and Community Trees” department for advice on how to select trees for your property, properly plant trees, suggested maintenance tips, and more.

Look also for listings on upcoming forestry events, links to useful forestry related web sites, or refer to the Reading Room for past issues of the Utah Forest News, the Forest Facts series, and other useful publications.

If you still have not found an answer to your forestry question then simply link to the “Contact Us” page and email your question directly; we will do our best to respond in a timely manner.

New Federal Cost-Share Program

A highlight of the 2002 Farm Bill includes the Forest Land Enhancement Program (FLEP), a forestry assistance program that promotes forest management on non-industrial private forest (NIPF) land. Eligible cost share practices include Forest Stewardship Plan development, reforestation, windbreaks, wildfire risk reduction and rehabilitation, and more. Program implementation and funding availability are projected to begin later this year, look for more information in upcoming issues of the Utah Forest News.

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FORESTRY EXTENSION

visit us at our web site - extension.usu.edu/forestry

State Farm: Reduce Wildfire Danger Or Risk Losing Coverage

In a move long-awaited by the firefighting community, State Farm is stepping up to provide homeowners in the wildland urban interface an additional motivation to reduce combustibles around their homes —clean up or risk losing insurance coverage.

The goals of the program are to improve the safety of policy holders, the general public, and firefighters by educating landowners about the importance of defensible space, according to Eric Olsen, with State Farm Public Affairs in Salt Lake City.

Olsen says that the company wants to be reasonable and will not be asking landowners to clearcut their forest property, but they will be encouraging people to maintain the area around their home or cabin to provide themselves with 30 feet of defensible space in order to increase their chances of surviving a wildfire. Overhanging vegetation, pine-needle cluttered roofs, and too close firewood piles are a few of the warning signs that inspectors will be looking for. The wildfire preparedness inspections will be performed by the same inspectors that do regular reinspections, who have been specially trained to handle the new task.

Utah has a list of “target communities” (currently unavailable) that inspectors will be looking at, and where they see problems homeowners will receive a letter describing the nature of the problem and

how the homeowner can go about getting help with addressing the issue. State Farm says they will be counting on local fire and forestry officials to provide the assistance, education, and contractor contacts to

help get the job done. Homeowners will have from 18 to 24 months to take the required steps, or risk losing coverage.

State Farm insures nearly one of every four homes in Utah, making this a significant move in the state, although only a small percentage of Utah at-risk homes will be inspected this year.



Utah homeowners in the wildland-urban interface may need to cut a few trees and keep pine needles cleaned up.

Sources of Information

Contacts:

- Utah State University Forestry Extension at 435-797-0560
- Fire departments
- Offices of the Utah Division of Forestry, Fire, & State Lands

Websites:

www.firewise.org
http://www.extension.usu.edu/forestry/HomeTown/HO_Firewise.htm

Handy Vandy *(continued)*

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Hanson says that he intended to call it The Natural Trap, but since he developed it along with technician Jim Vandygriff, it teasingly got the name Handy Vandy in the hallway one day, in reference to the HANSON VANDYgriff team effort, and the name just stuck. Hanson quipped that perhaps it should be spelled Handi, however it is not as small and easily portable or as handy as would be preferred by someone who has to pack it into the woods.

When I was told that the first prototypes of this invention caught three to five times the amount of beetles funnel traps were traditionally catching, my first question was: Can a landowner get these and use them to protect their forest? They both stressed to me, however, that it is strictly in the research and development phase. If it continues to prove effective, however, Forest Health Protection and other programs will reach out to interested landowners with this technology.

The trap portion is fairly simple; it is a plastic box, about the size of a bread box, with vents that allow the aroma of the bait to escape. The bait is simply a firewood sized piece of log from the type of tree the beetle is searching for. A recently dead portion of a tree continues to send out a “distress” signal that is sensed by the beetle. In this case however, the beetle is prevented from boring into the log by the box, and instead falls into a large funnel and collection cup beneath that catches the beetles and protects them from being eaten by other bugs, so they can be

further studied. The boxed log, being protected from attack, is then able to emit these chemicals that attract beetles. It does not sound like rocket science at the outset, but get into it much further and you might think that it was.



Traditional funnel traps use synthetic pheromones to attract beetles.

Photo Courtesy of USDA Forest Health Protection.

Traditionally, to catch beetles to study or control, scientists and managers used funnel traps with synthetic pheromones that attracted the beetles. Pheromones act like a scent that beetles emit to attract mates. Scientists are starting to find that pheromones that work well in a particular location, Minnesota for example, have no effect on beetles in the Rocky Mountains. An advantage of the Handy Vandy approach is that native material can be used for the bait. Hansen also suspects that synthetic pheromones don't necessarily capture the

full spectrum of scents that the incoming beetles are seeking, and one consequence of that is that sometimes funnel traps get spill-over: beetles are attracted to the area, but in the end go for a live tree near the pheromone-baited trap, causing infestation in surrounding live trees, which can defeat the purpose of trapping the beetles in the first place.

When I pressed Vandygriff about the difficulty of transporting and assembling these traps in the woods, as compared to funnel traps, he pointed out that perhaps I was making the wrong comparison: consider the difficulty of working with the other choice in beetle suppression — trap trees. Spruce

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beetles prefer dying and recently dead trees, so one method of controlling populations that foresters have used for years is to fall a reasonably large tree or group of trees in the spring, allow them to be infested with beetles over the summer, and remove the tree or destroy its cambium layer in the fall. Sounds easy, and with proper equipment and road access it might be, but this is often being done with little or no equipment or road access. Anyone who has spent a few days de-barking whole trees in the woods can tell you there is some work involved, and others who have tried burning wet spruce trees in the fall will attest to the many challenges of that approach. These methods have been used around Utah however, and some claim a fair amount of success in at least temporarily suppressing beetle populations.

Temporary suppression is about the best that can be hoped for with any technique used to control beetles or other forest disturbances. Hanson says that comparing it to fire suppression is a good analogy. Controlling a small wildfire may be possible and it might buy time, but if the fuel conditions in the forest remain unchanged the problem is likely to return and be worse next time. Similarly, this trap might be used to control a small population of beetles for a few years, but it will not fix the underlying reason for the beetle problem, which is stand structure. It appears that susceptibility to spruce beetle epidemics

is determined by stand structure, so a better solution is to periodically thin a stand to create a wider variety of tree sizes and ages, so the beetles that prefer the big, old trees will not kill such a high percentage of the trees in a forest.



Although hardly noticeable, this spruce stand on Wolf Creek Pass has been thinned four times in the past 80 years; creating an age class diversity that greatly reduces the damage potential of a severe insect outbreak.

Hanson and Vandygriff stressed that these are just prototypes and much work needs to be done to determine their practicality, effectiveness, and range of application. Last year they tested the first models on the Fishlake and Dixie National Forests, with encouraging results. Over the winter they went into small scale production of the units, contracting out much of the work to local plastic

fabricators. They are now getting ready to take the show on-the-road for the summer: trapping spruce beetles in Utah and Colorado, mountain pine beetles in Idaho and, if the added funding comes through; Ips beetles in Arizona. Vandygriff joked that if the traps work this summer they will be available in a flashy assortment of colors at Wal-Mart by next spring.

This is just one of many applied research projects being conducted at the Forestry Sciences Lab in Logan. Others include studying the interactions between wildfires and bark beetle populations, how temperature changes affect gypsy moth populations on the Wasatch Front, and how the pheromone verbenone can be used to protect small stands from mountain pine beetle attack. Their bark beetle ecology web site is located at www.usu.edu/beetle/.

Healthy Soils Video Recommended

There are some very simple steps we can make when harvesting trees that will go a long way toward promoting healthy soils, and in turn healthy ecosystems. That is the subject and the title of a new USDA Forest Service video called Healthy Soils Build Healthy Ecosystems. Written, produced and hosted by Gary Schmitt, a Forest Service Soil Program Manager in California, the 29 minute presentation helps the viewer recognize the connection between down-woody material, forest soils, and long term forest health.

The producer clearly identifies this important relationship in easily understood language that can be applied anytime you walk in the woods. Schmitt shows five categories of decaying logs and makes a clear association between what you see and the long-term moisture holding capacity of a forest soil. He shows that old rotten logs are like sponges, holding water that is available for living trees even at the end of a hot dry summer. The functions of some of the many soil critters are also simply sketched to allow the viewer to picture the complexity and interdependence that exists between forest soil health and forest productivity.

The introduction features several examples of forest soils and asks the viewer to determine their relative

health. When the conclusion shows the same sequence of examples you realize how much your perspective on the subject has changed in the last

half hour. While fancy graphics and effects are kept to a minimum, the production is as good as most we see in educational video. The main weakness is a low recorded volume on the VHS cassette — in order to hear it I had to max-out my television's volume setting.

I highly recommend this video to anyone with an interest in forest management; it can be equally useful to landowners, loggers and forestry professionals.

A copy is available for loan from the USU Forestry Extension video library; contact Darren McAvoy at Darren.

McAvoy@usu.edu, or by calling 435-797-0560. Copies can also be obtained by contacting the producer:

Gary Schmitt
Soil Program Manager
Pacific Southwest Region
1323 Club Drive
Vallejo, CA 94592
707-562-8941 gschmitt@fs.fed.us



Large woody debris like this log play an integral role in the formation of healthy forest soils.



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Skyline Forest Resources: Small Business Person of the Year

The five brothers of Escalante’s Steed family have been selected as the Small Business Administration’s recipients of the 2003 Small Business Person of the Year award. Stephen Steed, Sheldon Steed, Scott Steed, Shane Steed and Shannon Steed combined their personal savings and assets to purchase the Escalante sawmill after poor market and resource supply conditions forced the closure of the mill in December 2001. Now called Skyline Forest Resources, the company is Escalante’s largest employer and one of Utah’s largest remaining sawmills. Retaining wood processing facilities in Utah is an important component of an infrastructure that allows landowners to effectively practice proactive forest management.



The Steed brothers: Shannon, Shane, Stephen, Scott, and Sheldon.

Forest Water Quality Guideline Technical Manual Available



A TECHNICAL MANUAL
FOR LANDOWNERS,
LOGGERS & RESOURCE
MANAGERS



What size should that culvert be and should it be laid strait across the road or at an angle? How many skid trails are too many? How many water-bars does a road need to reduce its erosion potential? These are just a few of the questions that you will find the answers to in *Utah's Forest Water Quality Guidelines, A Technical Manual for Landowners, Loggers & Resource Managers*. The pocket sized booklet has suggestions and directions portrayed with simple graphics and clear text on how to implement forestry practices in such a way that protects water quality. It includes guidelines on pre-harvest planning, harvesting practices, road and skid trail construction recommendations, culvert installation, slash management, and more. The manual is the result of a cooperative effort between several organizations including the Utah Division of Forestry, Fire, & State Lands (DFF&SL) and Utah State University Extension Forestry. It is available through DFF&SL Area Offices, or by contacting Ron Gropp at 801-538-5457 or rongropp@utah.gov.

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Forest Landowner Education Program
 College of Natural Resources
 5230 Old Main Hill
 Logan, UT 84322-5230

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For More Information:

Regarding any of the information presented in this newsletter, please call Darren McAvoy at Utah State University, 435-797-0560, write to 5230 Old Main Hill, Logan, UT 84322-5230, or email darren.mcavoy@usu.edu.

State of Utah Division of Forestry, Fire & State Lands (DFF&SL) service foresters for your area can be contacted by calling 801-538-5555.

Ideas and written contributions to this newsletter are encouraged. Send your comments to the return address above or call 435-797-0560, or email darren.mcavoy@usu.edu.

COMING EVENTS:

- **Tree Climbing Series**, May 17, June 14, July 12, August 16, 2003, Provo. Arborist training sponsored by UCFC-Utah ISA, UVSC, Provo City Power. To register or for more information, contact Ruth Pickett at (801) 292-3205 or write UCFC, Box 961, SLC, UT 84110-0961.

- **2003 National Urban Forest Conference**, September 17-20, 2003, San Antonio, Texas. Theme is "Engineering Green." Organized by American Forests.