MAKING ENERGY FROM WOOD: INTRODUCING “FAST PYROLYSIS”

There’s a huge interest right now in opportunities for converting woody biomass into electricity, biofuels, and other bioproducts. Biomass utilization has been called the “triple win” for Oregon as it can restore forest health and fire resiliency, help meet renewable energy goals, and provide jobs and stimulate rural economies.

Bio-oil is perhaps the most valuable product of fast pyrolysis. It can be burned in standard boilers to produce electricity or upgraded to transportation fuel, although this is not economically viable at present.

MAKING ENERGY FROM WOOD: INTRODUCING “FAST PYROLYSIS” continues page 6........

NOTICE: NO MORE MAILED FLYERS

The OSU Extension office will no longer be sending out flyers advertising monthly small woodlands programs due to a large increase in mailing costs. Notification will occur primarily by email, and via this newsletter. So hold on to it, and mark your calendar! Check the Extension Forestry and Natural Resources website for updates: http://extension.oregonstate.edu/sorec/forestry

GREETINGS FROM MAX

Max Bennett, Area Extension Agent
Forestry

There are a lot of great forestry and natural resources education opportunities to take advantage of this fall. I hope to see you at one of these programs. As always, please call or email if you have questions, concerns or suggestions.

Max
max.bennett@oregonstate.edu
http://extension.oregonstate.edu/sorec/forestry

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Oregon State University Extension Service offers educational programs, activities, and materials without discrimination based on race, color, religion, sex, sexual orientation, national origin, age, marital status, disability, and disabled veteran or Vietnam-era veteran status. Oregon State University Extension Service is an Equal Opportunity Employer. OSU Extension programs will provide reasonable accommodations to persons with physical or mental disabilities. Our location is accessible to persons with disabilities. If you need particular accommodations, please call our Extension Office at (541) 776-7371 at least 7 days prior to the event.
LIABILITY & LEGAL ISSUES for Small Woodland Owners
Thursday, Sept. 17, 2009 7 PM FREE
OSU Extension, 569 Hanley Rd, Central Point
Speaker: Erik Glatte, Kellington, Krack, Richmond, Blackhurse and Glatte, LLP
This is a unique opportunity to learn from a practicing attorney about legal and liability issues of concern to small woodland owners. Specific topics covered will include timber trespass, trespass in general, road agreements and easements, property line disputes, liability issues, contracts, and more. Bring your questions. Note: Land uses issues (M49, etc.) are a topic by themselves and will not be covered.
Sponsored by the Jackson /Josephine Small Woodlands Association and the OSU Extension Service.
RSVP to OSU Extension: 776-7371

PEST SCENE INVESTIGATOR WORKSHOP
Friday, Sept. 25, 2009 9 AM to 4 PM $20 Limited to 25 people.
Speakers: Dave Shaw, Forest Health Specialist, and Paul Oester, Forestry Agent, NE Oregon
This is an outstanding opportunity to learn more about common forest insects and disease problems of southern Oregon. We’ll make a transect from the valley floor near Grants Pass to the summit of the Siskiyou and back down again, via Williams. Along the way we’ll see individual trees and stands affected by various bark beetles, wood borers, root diseases, rusts, dwarf and true mistletoes and other pathogens. At each site we’ll talk about identification and management options. This session will be held entirely in the field. Bring lunch, water and wear appropriate outdoor clothing.
See additional information and registration form on page 5

RESTORING STREAMSIDE VEGETATION: What to Plant, How to Do It Right, and How to Grow Your Own Seedlings
Thursday, Oct. 8, 2009 7 PM FREE
Josephine County office building, Cave Junction, OR
Speakers: Mike Mitchell, Cave Junction, and Tal Blankenship, Glendale
Over the years, Illinois Valley landowners have planted thousands of trees to provide shade and habitat alongside the area’s streams. Some plantings have had mixed success, with trees dying as a result of drought, too much heat, inadequate care, or placement of the wrong tree in the wrong place. Forest landowner and Master Woodland Manager Mike Mitchell has planted thousands of trees and assisted hundreds of owners in the Illinois Valley with streamside plantings. He’ll share practical tips and techniques for successfully planting and establishing streamside trees and shrubs for the long term.
In the second part of this two-part program, former nursery manager and Master Woodland Manager Tal Blankenship will share his secrets for growing your own tree and shrub seedlings, from seed you collect yourself. Tal will walk you through the steps of seedling propagation, from cone collection, to processing cones and seeds, to sowing and planting. He’ll cover protocols for propagating common conifer species as well as hardwood and native shrub species. Tal is always an entertaining speaker, so this is guaranteed to be fun as well as informative! Sponsored by the OSU Extension Service. Register: Josephine County Extension: 476-6613; 215 Ringuette St., Grants Pass, OR

RIPARIAN TOUR
Saturday, Oct. 10, 2009 9 AM - NOON
Josephine County office building, Cave Junction
This session will be held entirely in the field. Bring water and be prepared for inclement weather.

LEARNING FROM THE PAST: Historic Vegetation of Southwest Oregon
Thursday, October 15, 2009 7 PM FREE
OSU Extension, 569 Hanley Rd, Central Point
Speaker: Gene Hickman, Rangeland Ecology Consultant, Bend, OR
The nature of SW Oregon landscapes at the time of European settlement is of interest to many natural resource managers and natural history
enthusiasts, but has, until recently, been poorly documented. Over the past several years, ecologist and rangeland specialist, Gene Hickman, has transcribed 1850s - 1860s General Land Office township survey notes and constructed maps of “presettlement” vegetation in the central Rogue Valley surrounding Medford, Grants Pass and the Applegate valley. His findings are supplemented with some historic landscape photography, anecdotes from early explorers/settlers, and many years of personally sampling and mapping vegetation across this region. Together, they provided a better picture of SW Oregon’s vegetative composition in the early settlement period. Come hear about the GLO study and its contribution as baseline data to the management of present day vegetation.

Gene Hickman is a rangeland ecology consultant based in Bend. He spent 30 years working in the Medford area mapping soils and vegetation for the Soil Conservation Service, now known as the Natural Resources Conservation Service (NRCS). When it comes to the relationships between local soils, landscapes, and vegetation, both past and present, Gene is THE expert!

**HISTORIC VEGETATION FIELD TOUR: Soils, Landscapes and Vegetation, Past and Present**

**Saturday, October 17, 2009  8:50 AM  FREE**

Meet at OSU Extension Parking Lot at 8:50 AM 569 Hanley Rd, Central Point, OR

**Gene Hickman, Rangeland Ecology Consultant, Dave Maurer, Soil Scientist, BLM.**

The soils underneath us are the foundation of the vegetation that surrounds us. This tour will provide a unique opportunity to look closely at local soil formations and landforms, and how they relate to vegetation, both past and present. Why do some areas have oak trees, while others are clothed in dense conifer forest? In what soil types does ponderosa pine thrive? Why are some soils types especially erosive or sensitive to compaction? Which soils are the most productive, and why? We’ll answer these and other questions as we make a transect from the valley bottom to the hills above Medford.

Dress for the weather. Bring hat, water, sunscreen and suitable footwear. Short walks on uneven ground. Plan to carpool to field sites.

**PRIORITIES FOR SMALL DIAMETER UTILIZATION IN SOUTHERN OREGON: Moving to the Landscape-Scale**

**Thursday, November 19, 2009  7 PM  FREE**

OSU Extension, 569 Hanley Rd, Central Point

**Speakers: George McKinley, Southern Oregon Small Diameter Collaborative, Ed Reilly, BLM and Marty Main, Small Woodland Services, Inc.**

The Southern Oregon Small Diameter Collaborative is a diverse group of stakeholders who share a long term goal to remove small diameter trees from uncharacteristically dense Rogue Basin forests in order to improve forest health, reduce fire hazard, and stimulate the local economy. The Collaborative is currently completing a landscape assessment of Bureau of Land Management and Forest Service forests in order to provide the agencies with a recommended set of prioritized treatment areas that meet the integrated ecological, economic, and social criteria of the Collaborative. The intent of the assessment is to help the agencies “scale up” to landscape-level treatments that enjoy broad stakeholder support.

At the core of the presentation will be a series of very interesting maps. These will provide not only a general introduction to the region’s communities and forests, but will also show stands and acres most at risk from fire, insects and other forest health stressors. The assessment will provide an up-to-date estimate of the volume of material which could be removed from at-risk stands if treated in a manner that both reduces the risk of catastrophic fire and improves forest health. An economic feasibility portion of the assessment shows which areas make the most sense to treat from an economic, or cost, perspective. The presenters welcome the opportunity to share findings, as well as gain insights and feedback from Small Woodlands members.

**George McKinley** is a forest landowner, long time advocate of small diameter utilization, and coordinator of the Small Diameter Collaborative. **Ed Reilly** is forest landowner whose day job is with the Medford BLM. Ed is spearheading the small diameter landscape assessment. **Marty Main** is a forest landowner and consultant who is working with Ed to produce the assessment.

RSVP to OSU Extension: 776-7471
This is an outstanding opportunity to learn more about common forest insects and disease problems of southern Oregon. We’ll make a transect from the valley floor near Grants Pass to the summit of the Siskiyou and back down again, via Williams. Along the way we’ll see individual trees and stands affected by various bark beetles, wood borers, root diseases, rusts, dwarf and true mistletoes, and other pathogens. At each site we’ll talk about identification and management options.

This session will be held entirely in the field. Bring your own lunch and water and be prepared for inclement weather. We’ll carpool to the field sites. This is an informal tour to help improve your diagnosis skills and discuss management treatments with other woodland owners and professional pest management specialists. Dave Shaw, OSU Extension Forest Health Specialist, Paul Oester, Extension Forester, NE Oregon, and Max Bennett, Extension Forester, Jackson/Josephine County, will be your guides.

Each participant will receive two outstanding, full color field reference guides: Field Guide to the Common Diseases and Insects Pests of Oregon and Washington Conifers, by Ellen Goheen and Elizabeth Wilhite (325 pages, published by the USDA Forest Service), and Managing Insects and Diseases of Oregon Conifers, a new 104-page OSU Extension publication by Dave Shaw, Paul Oester and Greg Filip.

The cost of the workshop is $20. ($10 for Master Woodland Managers).

**PEST SCENE INVESTIGATOR WORKSHOP**

**PEST SCENE INVESTIGATOR WORKSHOP REGISTRATION FORM**

**Name____________________ Message phone ______________**

**Address____________________ City ______________________**

**Zip _________ State ____ Email __________________________**

☐ I have a 4-wheel drive or other high clearance vehicle that I am willing to drive that holds at least three other passengers

☐ I am a Master Woodland Manager

**REGISTRATION DEADLINE: Monday, September 21, 2009**

Please make $20 checks payable to “OSU Extension Service” and mail to:

PSI training, c/o Max Bennett, OSU Extension, 215 Ringuette, Grants Pass, OR 97526
CONSERVATION STEWARDSHIP PROGRAM

-From an NRCS press release

NRCS began continuous sign-up for the new Conservation Stewardship Program on August 10. To be considered for Fiscal Year 2009 funding, applications must be received by September 30, 2009. Applications received after the cutoff will be considered for funding in FY 2010.

The goal of the Stewardship Program is to help farmers, ranchers and non-industrial private forest owners across Oregon maintain existing conservation on their operations while adopting additional activities. The Conservation Stewardship Program encourages land stewards to improve their conservation performance by installing and adopting additional activities, and improving, maintaining, and managing existing activities on agricultural land and non-industrial private forest land. The program is available nationwide on a continuous application basis.

Through the Conservation Stewardship Program, NRCS will provide financial and technical assistance to eligible producers to conserve and enhance soil, water, air, and related natural resources on their land. Eligible lands include cropland, grassland, prairie land, improved pastureland, rangeland, non-industrial private forest lands, agricultural land under the jurisdiction of an Indian tribe, and other private agricultural land (including cropped woodland, marshes, and agricultural land used for the production of livestock) on which resource concerns related to agricultural production could be addressed. Participation in the program is voluntary.

Non-industrial private forest land under consideration for participation in the Conservation Stewardship Program must meet four criteria:

1) The forest or woodland is "green certified" by one of the following certification programs: American Tree Farm System, Green Tag, Smart Wood, Forest Stewardship Council, or Sustainable Forestry Initiative.

2) One or more improvements have been made to the forest/woodland in the past 10 years according to a written forest management or stewardship plan that was prepared with assistance from a certified/licensed natural resource professional. Examples of improvements may include prescribe thinning, tree planting, establishing a firebreak, etc.

3) There is no apparent erosion on harvested or burned areas, roads, skid trails and landings.

4) Native trees are appropriately stocked on the property (except temporarily for areas being reforested) and wildfire risk (in wildfire-prone areas) is minimized by strategically placed narrow firebreaks and wider fuel breaks (which may include roads, streams, riparian areas, and other areas managed to slow fire spread).

For more information about the program, see: http://www.or.nrcs.usda.gov/programs/csp/csp_data/2009/Oregon_Conservation_Stewardship_Program_Fact_Sheet.pdf

The local NRCS office can be reached at 776-4267.

WOODLANDS CARBON COMPANY LAUNCHES

The Oregon Small Woodlands Association recently formed the Woodland Carbon Company (WCC), a C corporation which “aggregates and trades sequestered carbon credits from certified family woodland owners in the western United States. The aim is to create yearly revenue for family woodland owners from carbon markets.” WCC is currently recruiting eligible forests to pool into an offset project. For a detailed summary of Woodlands Carbon’s program for forest landowners, including eligibility requirements and answers to frequently asked questions, see http://www.woodlandscarbon.com/

Look for more information about emerging carbon market opportunities in the next newsletter, due out in late fall.
One emerging technology for biomass utilization is called “fast pyrolysis.” This is a thermal process that rapidly heats woody biomass to a carefully controlled temperature (500 degrees C), and then quickly cools the volatile products to yield bio-oil (~60%), bio-char (~20%) and syngas (~20%). The syngas either is recycled into the combustion chamber to keep the process going or it can be collected.

Bio-oil is a dark brown, odiferous, combustible liquid that can be stored and transported. Bio-oil can be burned in boilers to generate heat and/or electricity. It can be upgraded to make transportation fuel, although this is not currently economical. Chemicals can also be extracted from it.

Bio-char is like charcoal and can be used as a soil amendment to improve soil nutrient and water retention capacity. It is also decay resistant and serves as a long-term carbon storage site. Much of the interest in fast pyrolysis is due to the production of bio-char which is believed can cause amended soils to behave like the legendary “terra preta do Indio” soils of the Amazon. These soils were anthropogenically enriched in carbon and are among the most fertile and productive soils in South America. Currently, bio-char is used in the nursery and horticultural trades. There’s also thought of using it to increase productivity in forest soils, especially those that are low in organic matter.

One advantage of fast pyrolysis is its mobility. For example, mobile fast pyrolysis units capable of processing 50 dry tons of biomass per day could be moved to the woods on tractor-trailer rigs. Smaller units could even be hauled by pickup trucks. The ability to process the woody material in the field could significantly reduce transportation costs compared to conventional biomass harvesting, where a bulky, low value product such as wood chips has to be transported a long distance to the processing facility.

Recently, I attended a fast pyrolysis demonstration along with 80 other landowners, foresters, and agency folks at the Jo Gro facility in Merlin. Unfortunately, it was a “dry” demonstration as the unit wasn’t working that day. My initial impression was that it a promising technology, but there are plenty of hurdles to overcome before it becomes commercially viable. Right now, it’s at the research and demonstration stage. There are a few field trials are in progress around the Pacific Northwest that are looking at both technical issues and economic feasibility. Stayed tuned – you’ll likely be hearing a lot more about this and other wood-to-energy technologies in the next few years.

Here’s a link to the Associated Press story about the tour, Wood to oil process could make forest thinning pay:

New OSU Extension Forestry and Natural Resources Publications

The first two publications can be downloaded for free. Click on the links.

**EC 1628-E, Comparing Firewood and Wood Pellets to Other Energy Sources** (online only)
Author: Jim Reeb
New June 2009, 6 pages, no charge
http://extension.oregonstate.edu/catalog/pdf/ec/ec1628-e.pdf

**EC 1124. Safe and Effective Use of Chain Saws for Woodland Owners.**
Authors: Steve Bowers & Rainy Rippy
Revised June 2009 17 pages, $2.50
http://extension.oregonstate.edu/catalog/pdf/ec/ec1124.pdf

**EM 8980, Managing Insects and Diseases of Oregon Conifers**
Authors: David Shaw, Paul Oester, Greg Filip
New June 2009, 104 pages, $15.00

An excellent resource!

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**Webinars**

Here’s yet another way to get timely forestry information: the “webinar”. A webinar is basically a class or seminar presented over the internet. Several Extension-affiliated websites back east sponsor webinar portals. The Southern Region Extension Forestry program has one at: http://www.forestrywebinars.net. On this site, you can participate for free in webinars as they are offered in real time, or view past programs that have been archived. Recent topics have included:

- Carbon Trading 101
- Timber Tax Update
- Enhancing Biological Diversity on Forest Lands
- Biomass Removal Case Studies
- Intergenerational Transfers and Long Range Planning

Some of the topics are more regional in focus, but many like the above are of general interest. It’s pretty easy to log on to the webinar but you may have to download some free software first. In real time, you can watch the webinar presentation on your computer screen and send in questions to the presenter. In the archived versions you’re just able to view the presentation. Often there will be handouts that you can download. I seldom have time to participate but the couple webinars I’ve viewed have been interesting and well-presented. It’s a good way to get out of the local box and check out what issues folks are talking about nationally.

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**Jackson/Josephine Small Woodlands Association Board:**

Bill Potterf, President .......... (476-0868) Victoria Morgan .......... .... (582-2334)
Vickie Belknap, VP .................(830-4064) Mike Meredith ................. .... (531-7052)
Max Bennett, Secretary ..........(776-7371) Howard Wagner ................. (471-2724)
Art McKee, Treasurer .......... ....(560-3512)
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SW OREGON WOODLAND NEWS
OSU Extension Service
Jackson/Josephine Small Woodland Association
NEWSLETTER, Fall 2009