



Coos and Curry Woods News

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Hello!

I'd like to use this space to introduce myself. I am the new Forestry Agent for Coos and Curry Counties, replacing Ralph Duddles who retired in 2002. While there hasn't been a forestry agent in the area since Ralph's retirement, John Martz and Eva Bailey both served well as forestry instructors, teaching classes and answering questions from the public. With my more permanent appointment, I hope to build strong relationships with landowners and create a program that builds upon the solid body of forestry knowledge already present in the area.

Before I discuss how I intend to help area forest owners, let me talk a little bit about my background. I was born and raised in Bridge and graduated from Myrtle Point High School in 2001. I received both my Bachelor's and Master's degrees in forestry from OSU and have spent a fair amount of time working in the woods. While I've gotten a lot out of my education and work experience, I expect to learn a lot more as I get deeper into my new job.

I hope to begin teaching and facilitating workshops and field tours in the near future on topics including

inheritance tax issues, writing a management plan, reforestation, and many others. In the meantime, I'm trying to get out and meet as many landowners and natural resource professionals as possible. So, by all means, feel free to call or stop by the office to chat about forestry or just introduce yourself. My contact information is listed above.

If you would rather not receive this newsletter or would rather receive it via email, please call Shirley at 572-5263 x 292 and she will take you off the mailing list. On the other hand, if you or someone you know would like to be added to the list simply call Shirley or myself.

I look forward to working with all of you to help you achieve your forestry goals, whatever they may be. Don't hesitate to call with forestry questions or to suggest a possible workshop topic.

Thanks!

In This Issue

Inside are some items I felt were newsworthy or might be of interest to you all. I touch briefly on the topic of the log market and describe why it might not be all bad news. Max Bennett, Extension Forester for Jackson and Josephine counties, contributed an excellent article discussing the nuts and bolts of sell-

ing carbon credits from your growing forest. I describe the current state of the art in root rot resistant Port-Orford-cedar (white cedar) and list some literature available here at the office on topics ranging from taxes to lumber identification. I hope you find something useful or interesting inside.

Log Prices

Below are recent and past domestic prices for delivered logs in Coos/Curry Counties. All values are averages of quotes from sawmills and are reported in \$/MBF (thousand board feet). Keep in mind that each mill will have a different price and different grading practices. These values, however, are good measures of general price trends. Last year's values are not adjusted for inflation. Prices are reported by Oregon Department of Forestry and can be found online at:

http://egov.oregon.gov/ODF/STATE_FORESTS/TIMBER_SALES/logpage.shtml

Species	Grade	2008 Oct-Dec.	2008 Jul-Sept.	2007 Oct.-Dec.	2007 Jul-Sept.
Douglas-fir	2S	420	520	535	555
	3S	350	475	485	515
Hemlock/ white fir	2S	330	420	425	420
	3S	320	395	415	385
Redcedar	2S/3S	860	955	1000	1000
Red alder	CR	645	620	665	645

All values reported are in \$/MBF (thousand board feet)

2S = No. 2 Sawmill (Logs suitable for the manufacture of Construction & Better lumber grades - 65%)

3S = No. 3 Sawmill (Logs suitable for the manufacture of Standard & Better lumber grades- 33%)

CR = Camp Run (Log production from the forest of the species or group of species being logged, that are better than Cull grade)

Tree School Umpqua

Douglas County Extension Foresters Steve Bowers and Raini Rippey will be offering their rendition of the very popular Tree School on March 26th. This is an all-day event with 26 courses and demonstrations covering all aspects of forestry. See the website below or contact Raini Rippey at the Douglas County Extension office: 541-672-4461. Preregistration is required by March 13th and there is a \$40 fee which includes lunch and educational materials.

<http://extension.oregonstate.edu/douglas/treeschool>

Silver Lining to Low Log Prices

The recent downturn in the economy has had huge implication for the price of timber and logs. Timber owners large and small are holding off on cutting, hoping for better prices in the near future. For some small landowners, however, now might be the perfect time to get some work done in the woods.

While saw log prices are currently very low, chip prices are on the way up, due in part to reduced output from mills. This increase in chip prices could make it cheaper (or more profitable) to convert stands of small, low-value hemlock, white fir, and hardwoods to more valuable species such as Douglas-fir.

(Continued on page 6)

Forests and Carbon Storage: A New Opportunity for Landowners

Max Bennett, OSU Extension Service, Jackson, Josephine Counties

According to many scientists, the buildup of carbon dioxide (CO₂) in the atmosphere from burning of fossil fuels, deforestation, and other factors is causing global temperatures to increase. Some of this buildup could be offset by increasing the amount of carbon stored in forests. This idea is the basis for the development of new markets for forestry carbon “offsets”, which could provide revenues to forest landowners. What is a carbon “offset?” We’ll answer that question shortly. But first, let’s take a look at how forests gain and lose carbon, and how forest carbon storage can be increased.

Forests absorb carbon dioxide during the process of photosynthesis and store carbon in the form of wood. The forest carbon “pool” consists not only of trees and other live vegetation but also snags, logs, litter, and carbon in soil organic matter. In some temperate forests, half or more of the carbon is found in these non-living



Carbon is stored in living vegetation, in woody debris and in the soil itself

sources.

Forests gain carbon as trees grow. They lose carbon in three main ways: through plant respiration, through decomposition of organic matter, and through combustion (fire). The balance of carbon uptake through tree growth and loss through these other factors determines the size of the carbon pool.

In general, forests accumulate carbon slowly as they grow, and lose carbon rapidly when they are harvested or burn in a wildfire. The *rate* of carbon storage is highest in young forests, since they are fast growing. The total *amount* of carbon storage is greatest in older forests, since they have the largest total amount of biomass.

How much carbon do trees store? A rule of thumb is that the carbon content of vegetation is about 50% of its dry weight. Each ton of carbon represents 3.67 tons of potential CO₂ emissions.

What happens to carbon storage when a forest is thinned or harvested? If slash and other non-merchantable material is piled and burned or broadcast burned, CO₂ is released. If the slash is left to decay, CO₂ is released more gradually. However, if the slash (“biomass”) is removed from the site and used to generate power that substitutes for fossil fuels, it is regarded as “carbon neutral” – that is, there is no net increase in atmospheric CO₂. The amount and timing of CO₂ released also depends on the fate of the logs removed from the site. If the logs are converted to long-lived products such as lumber, carbon storage is long term, but if they are converted to toilet paper, carbon release occurs more rapidly. If sawmill residues such as sawdust are burned and used to generate power (co-generation) that substitutes for fossil fuels, they are also carbon neutral. Obviously, tracking carbon flows can become very complicated, very quickly.

How can the amount of carbon stored in forests be increased?

- Reduce deforestation. Keep forest lands in forest use. Globally, deforestation is a major contributor to CO₂ emissions. It’s estimated that about ¼ of all human-related CO₂ emissions since 1850 have resulted from permanent clearing of forests for farms, residential developments, and other uses.
- Reduce uncharacteristically severe wildfires. For example, the 2003 B&B Complex fire near Sisters emitted six times as much CO₂ into the atmosphere as all other sources in Oregon that year, combined!
- Plant trees in areas currently not occupied by forest. This includes abandoned pastures, brushfields, and other areas that are capable of supporting forests but do not currently have forest cover. This is one of the main ways that global forest carbon storage is being increased.

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- Use wood products instead of concrete and steel, which require large amounts of fossil fuel-derived energy to manufacture. Also, use energy from wood in lieu of energy generated from fossil fuels.
- Defer harvesting, allowing trees to grow larger. This is often conceived of in terms of rotation length, the time from planting to harvest. For example, all other things equal, a forest that is grown for 80 years and then harvested will produce more biomass, and store more carbon, than a forest that is grown for two 40-year rotations.

Back to the question of “carbon offsets.” The basic concept of a forestry carbon offset is that an entity which emits CO₂ pays a landowner to plant and grow trees to store carbon that compensates for, or offsets, some or all of the entity’s CO₂ emission. In Oregon, an example of this is the Oregon Department of Forestry’s Forest Resource Trust (FRT) program, which provides financial assistance to landowners to establish forests on lands capable of supporting a forest where none currently exists. The FRT program is funded by the Klamath Co-Generation Project, a public-private partnership producing steam and electricity from natural gas. The Project’s financial contribution to the FRT is intended to offset greenhouse gas emissions from the co-generation plant.

To date, regional carbon offset programs include the FRT, the Climate Trust, based in Portland, Oregon, and the California Climate Action Registry, all of which are based on voluntary participation. The Chicago Climate Change (CCX) is the only current U.S. market where carbon credits are actively traded. Purchasers of the credits include entities who wish to offset their carbon emissions. CCX currently accepts two main types of forestry projects: 1) project involving afforestation, i.e., planting trees on non-forested land with a 15-year no cut guarantee, and 2) 15-year contracts to grow trees on land certified by the American Tree Farm program. Some landowners, primarily in the southern U.S., have recently begun to participate in the CCX through inter-



Planting trees on abandoned pastureland and other non-forest sites is one way to store additional carbon.

mediaries, known as “aggregators.” With current annual returns of \$5-\$10 per acre for forestry-related projects, the CCX is no gold mine, but future increases in the price of CO₂ credits could substantially increase returns. This would be likely to happen if, for example, Congress legislated a cap and trade system that regulated carbon emissions. In Europe, where such a system is in place, carbon credits have traded for up to \$40 per ton, versus \$1.70 - \$7.40/ton on the CCX.

Forestry carbon offset programs are less well developed in Oregon, but things are changing. For example, the Oregon Small Woodlands Association has recently launched the Woodlands Carbon Company, with support from the American

Forest Foundation. You’ll be hearing more about the Carbon Company in the coming months. While carbon offsets represent a potential income opportunity for forest landowners, the devil is in the details. Among the many challenges in developing carbon markets are: the concept of “additionality;” making accurate measurements of carbon storage; participation costs for individual landowners; and issues surrounding carbon storage in fire-prone forests.

- **Additionality.** Under current U.S. practice, carbon offsets are only considered when forestry activities go beyond “business as usual” or provide carbon storage that otherwise would not have occurred. For example, reforestation after timber harvest is required by law in Oregon, so it is not considered to pro-

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vide additional carbon storage. On the other hand, planting trees in brushfields or old pastures is an example of an activity that would meet the additionality test since it is voluntary. The question then becomes, what is “business as usual?” Some argue that landowners face pressures to sell their land for development, so simply maintaining forest cover provides additional carbon storage compared to the business as usual scenario.



Slash left to decay or that is piled and burned releases carbon dioxide back into the atmosphere. However, if it is turned into chips and burned to generate electricity, substituting for coal or natural gas, it is considered “carbon neutral”– little or no additional carbon has been released.

- Measuring carbon storage. If carbon offsets are to become tradable commodities, it will be essential to accurately measure the amount of carbon stored in a given forest over time. That’s theoretically possible, but difficult in practice. Consider a typical southern Oregon mixed species forest, with patches of varying species composition and density. Carbon storage would be different in each patch, and would have to be accounted for separately to have an accurate picture for the entire ownership. Also, carbon is stored not only in live trees, which are relatively easy to measure, but also understory vegetation, snags, downed logs, forest litter, and soil, which are much more difficult to measure.
- Participation costs. Additionality, carbon storage measurements, and other aspects of carbon accounting make the process of participating in carbon offset markets pretty daunting for the average forestland owner. Outside expertise will be needed in most cases, and that will cost. With fairly minimal returns at present, will the expense be justified? Most owners will probably participate in carbon markets not as individuals but through organizations that aggregate multiple owners, reducing expenses for the individual owner.
- Storage of carbon in fire-prone forests. Carbon storage is maximized when tree growth and density are maximized, but in fire-prone forests this conflicts directly with efforts to reduce stand densities to reduce fire risk and improve forest health. Thinning reduces carbon storage compared to not thinning, but it also reduces the risk of a stand-consuming wildfire that would release large quantities of CO₂ into the atmosphere. This tradeoff is not adequately accounted for under current carbon accounting standards.

One thing seems clear: to participate in carbon markets it will be helpful and perhaps essential for owners to be able to demonstrate a commitment to long term forest management. This could be through a certification program such as the American Tree Farm System’s, or even a conservation easement, as is currently required under California’s Climate Action Registry forestry protocols.

This article has briefly touched on several aspects of carbon storage and markets issues. There’s lots of information out there for those who are interested in learning more. A couple of the most helpful websites:

-Carbon Trading: A Primer for Forest Landowners. <http://www.carbon.sref.info/>

-Oregon Department of Forestry: Forests & Global Climate Change

http://www.oregon.gov/ODF/PRIVATE_FORESTS/carbon.shtml

Resistant Port-Orford-cedar

Not too long ago Port-Orford-cedar (white cedar) was an important commercial timber species in the Southern Oregon coast, with high quality logs selling on the export market for more than \$5,000/MBF in today's dollars. The commercial importance of this species has decreased recently due, in part, to the effects of the introduced fungus *Phytophthora lateralis*. This root rot is capable of killing young and old Port-Orford-cedars and in heavily infected areas this tree has been essentially eliminated from the forest. The only treatment available for these stands has been to cut out all the cedars and plant with another species of tree. However, recent developments in tree improvement may allow forest managers to reestablish Port-Orford-cedar on these infected sites.



Oregon State University and U.S. Forest Service researchers have been working on developing root rot resistant Port-Orford-cedars since 1997. They have collected seed from wild cedar trees that have survived despite growing in heavily infected areas. The seedlings grown from these parents were tested for resistance with only the most resistant moving on in the program. Subsequent selection processes have yielded trees that are more resistant (but not immune) to the effects of *Phytophthora lateralis*. According to researchers, improved seedlings experience around 50% mortality when directly exposed to the pathogen while wild, woods-run seedlings experience 90% mortality. While 50% mortality seems high, it's important to remember that not all planted seedlings will be exposed to the fungus so planting success may be much higher in practice. Some area nurseries are growing resistant Port-Orford-cedar seedlings and resistant seed is available to small landowners from the Oregon Department of Forestry seed bank. Landowners interested in planting Port-Orford-cedar on their property can contact their Extension Forester to learn about availability.

Extra Seedlings Available from Coos County Forestry

It's time to get trees in the ground and Coos County Forestry has a limited supply of surplus seedlings available for public purchase. Listed below are the species and quantities available:

Western Hemlock (plugs)	9000
Port-Orford-cedar	500
Western redcedar	1000
Douglas-fir	2000
Sitka Spruce	2000

The price for all seedlings is \$299/thousand. People interested in purchasing seedlings can contact the county directly at 396-3121 ext. 349 or their Extension Forester. The county wants to make only bulk sales of 500 or more but people interested in fewer seedlings should contact their Extension Forester to see about combining orders with others.

Silver Lining to Low Log Prices (cont. from page 2)

Higher chip prices also make thinning young stands more viable so now might be the time to thin out an overly dense stand whose trees are not yet large enough to be sold as saw logs.

In addition to higher chip prices, lower logging costs may also make thinnings and stand conversion more attractive. Decreased log prices, along with the winter wet season, spell out a decrease in the amount of work for loggers. Rather than shutting down completely, many operators look for less lucrative jobs to keep crews working. This means you might be able to have thinnings and stand conversion jobs done cheaper than normal while helping to keep local loggers working. Operators might also be willing to take on other work such as road building and land clearing (weather permitting) at lower rates than usual.

If you have been planning on improving your forest land by converting low-value stands or thinning overly dense areas, check with your local forestry consultant or favorite logger to see if now might be a good time to get the work done.

Interesting Forestry Publications

The following publications and many more are available at your local Extension office and can be found online at:

<http://extension.oregonstate.edu/catalog/>

- EC 1377 **Marketing Alder and Other Hardwoods**
- EC 1649-E **Diseases and Insect Pests of Pacific Madrone**
- EC 1109 **Soil Compaction on Woodland Properties**
- EC 1498 **Successful Reforestation: An Overview**
- EC 1133 **Mapping and Managing Poorly Stocked Douglas-fir Stands**
- EC 1151 **Taxes and Assessment on Oregon Forestland and Timber**
- EC 1526 **Federal Income Taxation for Woodland Owners: An Overview**
- EM 8688 **Identifying Common Northwest Wood Species: A Woodworker's Guide**
- EM 8612-E **Air- and Shed-Drying Lumber**



Forestry Short Course Series

The Basic Forestry Short Course Series is designed to give forest landowners an introduction to the science and management of forests. Beginning forest managers as well as folks who have been in the woods a long time will get something out of these workshops. Also, members of the public interested in the political ramifications of forest policy decisions at the local, state, and federal level will find that this course will allow them to make better informed decisions. Classes will begin in late Spring or early Summer and will be held once every two weeks in both Gold Beach and Myrtle Point. Final dates and times will be determined soon based on public demand. Individuals may attend single classes but are encouraged to take the entire series as they provide an integrated learning experience. There will be a modest fee to cover the cost of learning materials. Below is a list of the classes that will be offered:

- **Management Planning and Sources of Assistance**
- **Tree Biology and Silviculture**
- **Roads, Logging and Marketing**
- **Watersheds, Fish, and Wildlife**
- **Forest Pests and Disease**
- **Reforestation**
- **Mapping and Measurements**

Dates and times will be finalized soon based on public demand so call in with your preference!



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March 26th in Roseburg
 Details on Page 2

Inside This Issue:

- **New Forestry Agent**
- **Log Prices**
- **Taking Advantage of the Economic Downturn**
- **Root Rot Resistant Cedar**
- **Surplus Seedling Availability**
- **Carbon Credits**
- **Upcoming Courses**