OSU Extension – Forestry & Natural Resources – Douglas & Lane Counties

CANOPY VIEW NEWS

Fall 2020, ISSUE #9

A Message From Your Extension Foresters

Oh boy, it has been hot these last few weeks. We are in fire season full swing, be sure to keep an eye on your local fire district's danger ratings before starting any forest activity. Precaution levels have been climbing, so be sure you know the property cut off times to avoid accidently starting a fire. To learn more about ODF restrictions visit: oregon.gov/odf/fire/pages/restrictions.aspx, to read up on the Douglas Forest Protective Association visit: dfpa.net/.

We may be sweating the summer heat, but our Oaks don't mind it. Read up on taking care of your oaks on page 7. Thinking of beating the heat by adding a pond to your property, check out some things to think about before you dig on page 5. We've also got mapping resources for you on page 3.

Stay safe, stay well, and enjoy your forest!

Alicia & Lauren

Douglas & Lane County Extension Forestry agents

In this issue:

Oregon State University

Upcoming Events

Sept 10 **Coastal Woodland Management Webinar Series.** Learn the basics of taking care of your woodland from planting a new tree to taking care of a mature forest. Woodland owners, living-on-the-landers, and everyone else interested in learning more about basic forestry principles and practices are invited to attend this seven-course series that will cover tree identification wildlife in your woodlands, forest health, forest ecology, timber sale logistics, laws and regulations, defensible space for fire, and resources to help you get the work done. For more information or to join the interest list contact Norma.Kline@oregonstate.edu or Dan Stark at Dan.Stark@oregonstate.edu.

Sept 10 **TREE SCHOOL ONLINE EASTERN OREGON SERIES**. Tree School Online will be offering a webinar a week on Thursdays at 6:00 PM through December 3rd. To see the line up and to register visit. https://knowyourforest.org/TreeSchoolOnline

Sept. 11 **LAND STEWARDS ONLINE**. Are you an owner of a woodland, small farm, or other rural land? This course is well-suited for busy adults who enjoy online learning and want to figure out what their land needs. Included are three live virtual classes with resource experts and nine self-paced, online lessons. Topics include wildfire risk reduction, forest management, encouraging and controlling wildlife, stream/riparian ecology, pasture management, healthy s oils, water systems, rural economics and stewardship planning. Participants will come away with a management plan for their land. For more information visit https://extension.oregonstate.edu/land-steward/land-steward-training-online. **Registration**: HERE. **Cost**: **$150** (special discount price: **$90 through Aug. 31**). **Brochure:** HERE

Sept 15 **TREE SCHOOL OREGON ONLINE.** Classes will start up again and run every other Tuesday. To see classes as they become available visit. https://knowyourforest.org/TreeSchoolOnline

Sep. 19 **TREE FARMER OF THE YEAR TOUR**. Hosted by the Douglas County Small Woodlands Association. Coffee and donuts at 8am, tour runs from 9am – 12pm, and free lunch from 12pm – 1pm. Join your fellow woodland owners for a tour of the 2020 Douglas County Tree Farmer of the Year! This is a great event to meet and mingle with other woodland owners and see different approaches to small woodland management. Tour and lunch are FREE, however RSVP is required. Call Tami Jo at (541) 459-1402.

Oct. 8 **TWILIGHT WALK IN THE WOODS**. Joint OSU Extension & Douglas Small Woodlands Association event. 5pm – 7:30pm. Roseburg. Spend an evening with other small woodland owners touring the small woodland of Phil and Laura Benedetti! Topics include forest management, challenges, and future goals. This is a great opportunity to meet other woodland owners and bring home new ideas on how to care for your small woodland property. Call the OSU Extension office to register – (541) 672-4461.

Virtual Tours - Coming soon

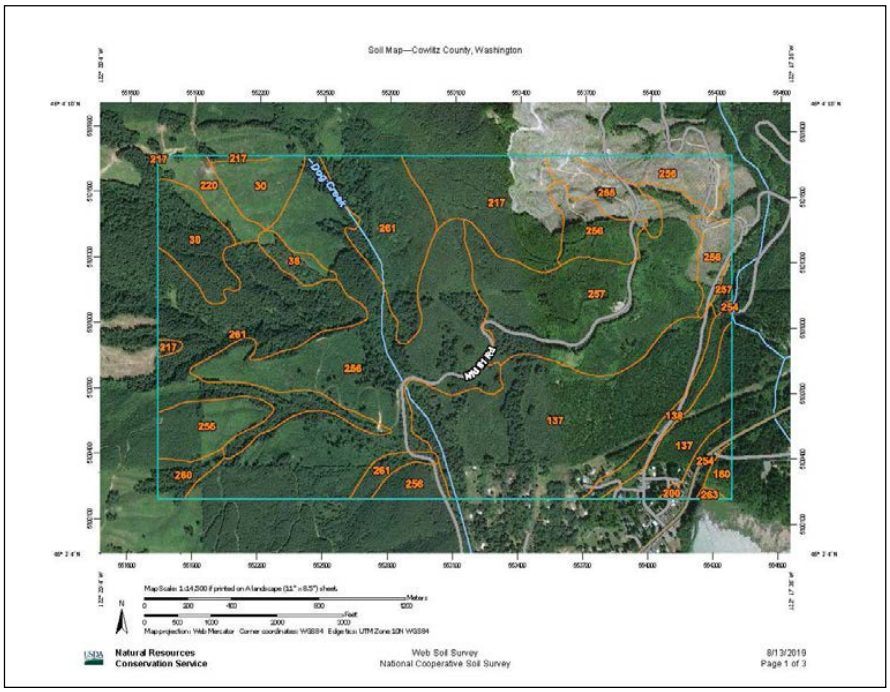
We have two virtual tours in the works for you, one on ponds and the other on thinning. We will record a walking tour with a landowner to talk about how they've accomplished this management strategy on their property. Then we will host a webinar where we watch the video and have an open Q&A forum for you to ask the landowner and extension agent questions on the topic.

We are excited to offer you this online option while in person events are still discouraged. If you have questions or would like to host a virtual tour let me know! Email Lauren.Grand@oregonstate.edu.

Bringing technology to the woods: digital mapping resources for forestland owners

The information presented in this article is an excerpt from the newly revised publication *Land Survey & Mapping: An Introduction for Woodland Owners* (PNW 581) (By Norma Kline & Alicia Christiansen, April 2020). Download & read it here: https://catalog.extension.oregonstate.edu/pnw581

As a forestland owner, you likely have dabbled with using digital mapping technology to help manage your property. You may have downloaded county tax lot maps, used Google Earth to look at an aerial photo of your forest, or explored Web Soil Survey to understand the soils on your property. Advances in digital mapping technology have increased the types of available map data and the way users interact with maps. Read on to learn more about useful digital mapping resources for forestland owners.



Map of soil types with aerial imagery in the background produced from the NRCS Web Soil Survey website.

WHY USE DIGITAL MAPS?

Digital maps have a tremendous range in capabilities including:

- Static maps you can view, print or download.
- Searchable maps with data.
- Map interfaces with digital drawing or measuring tools.

Web-based resources offer free, easy access to high-quality aerial photographs and geographic data. The functions and capabilities of digital maps vary by site. Some sites have tools for mapping and simple geographic measurements and analyses. Other sites are repositories or libraries for digital maps and data. It is a good practice to take a look at the source of the data, the date it was created and the general accuracy or precision of the data.

COMMONLY USED DIGITAL MAPS AND WEBSITES

Digital map resources include aerial imagery, tax lots, roads, boundaries of counties and government land ownerships, topographic maps, LiDAR, soils and vegetation cover. Historical maps are a great resource to find old place names, locations of homesteads and other historical features. In addition to USGS map sources, scanned historical maps are often available in university digital archives.

Google Earth

Google Earth is a web-based geographic browser that accesses satellite and aerial imagery to produce a 3D interactive globe. It is available for free for both basic and advanced versions. Google Earth allows the user to search for specific addresses or coordinates and see points of interest from various angles. The program has many functions that allow the user to learn about specific places of interest. These "layers" can include photo and video, allowing the user to interact with various recorded locations.

Web Soil Survey

The online Web Soil Survey, produced by the National Cooperative Soil Survey and operated by the USDA Natural Resources Conservation Service, allows you to view soil data and associated information. Soil surveys provide users with

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information on soil type, properties, qualities and limitations for use. Users can use downloaded soil reports as references for land management activities.

County tax lots

County tax lot maps are useful for mapping, property analysis and planning purposes. Some counties have map viewer applications for viewing tax lot information, plats and additional county planning data. Investigate your county tax assessor site to see what digital map resources your county provides. For specific information regarding individual tax lots, contact your county assessor.

Digital libraries and data sets

Digital libraries and data sets are compilations of digital map data for a specific region or theme. These sites often provide a variety of additional features, including map viewer applications that allow you to take simple measurements and view multiple layers and linked resource data. Examples include Oregon Explorer, Atlas of the Pacific Northwest, Inside Idaho, Washington Geospatial Open Data, USGS National Map Viewer, USGS TopoView and CalTopo. The National Geographic Trail Maps website has downloadable USGS 7.5-minute topo maps that can be printed out to scale on four letter-size (8.5-by-11-inch) sheets of paper. The CalTopo website allows you to select mapping layers and download the file as a georeferenced PDF that can then be uploaded to mapping apps for use offline in the field.

Ecotrust Forest Planner

Ecotrust Forest Planner is a web-based tool used for forest management and scenario planning for landowners in Oregon and Washington. This tool provides a variety of resource layers and tools to help landowners explore forest management alternatives.

Geographic Information System

A Geographic Information System links information collected about the earth's features and resources to a digital base map. Information on each type of resource is stored as a mapping layer, like layers of acetate laid over one another. Resource layers commonly include the Public Land Survey System, topography, transportation, water, vegetation, geology and land ownership. Digital aerial photographs are also commonly used in a GIS. The layering of different features allows for complex analyses and modeling as well as detailed, efficient mapmaking.

GIS is generally used by owners of large properties, but some small woodland owners find it useful. However, commercially available programs with a licensing fee might be out of reach for small woodland owners. You might consider a variety of free applications now available.

Apps

Several apps are available for users to download onto mobile devices, such as smartphones and tablets. A user will interact with these apps to accomplish a task in the field, such as mapping a property boundary, inventorying a stand of trees, inputting data, referencing data or georeferencing photos. Not all apps are free. Prices vary, so be sure to read the fine print regarding subscription services or any extra costs for downloading maps or data.

All smartphones and tablets have a basic map app preloaded onto the device. Most of these basic map apps, such as Google Maps, perform basic functions such as navigation and saving points of interest. For a more detailed map experience, an app such as Avenza Maps can be downloaded. This app allows the user to download maps for offline use (no cell service required), use the device's built-in GPS to track your location on any map, plot locations and photos, measure distance and area, and more.

To perform a forest inventory, an app such as Plot Hound can be useful. This app allows the user to download cruises and plots to their device, navigate to each plot with their phone's built-in GPS and compass, and enter data collected in the field.

For soils information, an app such as SoilWeb can be a great tool. This app is based on the USDA's National Cooperative Soil Survey and provides GPS-based soil information for your current location. This app can be used in the field where cell coverage is available to better understand the soil types and how to optimally use the soil.

Eight things to consider when building a pond on your woodland property.

The information in this article is excerpted from the publication *Woodland Ponds: A Field Guide* by Steve Bowers. https://catalog.extension.oregonstate.edu/em9104

Article prepared by Lauren Grand, OSU Forestry and Natural Resources Extension, Lane County

Few amenities better enhance the value of a woodland property than a pond. When built correctly, ponds can provide water for livestock and wildlife, fishing, boating, swimming, fire protection, aesthetics, and higher land value. Before digging, identify what value you hope to derive from the pond and incorporate those features into a carefully planned project. Pre-project planning will reduce long-term maintenance and repairs, and lead to a better final result.

This pond uses the natural contours of the surrounding land to make it even more aesthetically pleasing. Photo Credit: Greg Fox

Permits. Many woodland activities, including building and maintaining a pond, require a Notification of Operations with the Oregon Department of Forestry. Additionally, new or modified ponds that will impact existing wetlands, waterways, or fish passage require additional levels of restrictions, regulations, and permits. Contact your local watermaster to help you determine if your property will have any impact on fish passage or sensitive ecological areas. With very few exceptions, a permit from the Oregon Water Resources Department (OWRD) to use or store water in a reservoir will also be required. For information on waterway or wetland activities that often require additional professional assistance and permits, consult the Oregon Watershed Enhancement Board (OWEB) publication, *A Guide to Oregon Permits Issued by State & Federal Agencies—with a focus on permits for Watershed Restoration Activities*.

What type of pond will you build? ***An excavated pond*** is dug into ground that is reasonably flat. This type of pond is best suited to locations where the demand for water is small. Because excavated ponds can be built to expose a minimum water surface area in proportion to their volume, they are advantageous where evaporation losses are high and the water source is primarily runoff during the wet season. The simple design, compactness, low risk of damage from flood flow, and low maintenance requirements make them popular in many areas of the state.

An embankment pond is a pool of water that collects behind a dam. The surrounding areas may have slight to steep slopes. Embankment ponds are more complex than excavated ponds, and may require an engineer to design. It's important to make sure water does not back onto an adjacent owner's property or into an area of specific concern, and that there are no homes, buildings, or roads that would be affected by a dam failure.

In a ***combination pond***, excavated material is used to build the dam, saving time and money. An engineer may need to design the project and oversee construction. Attention needs to be given to excavating the upland area where the water will be stored to avoid excessive erosion, pond sedimentation, and damage to the natural surroundings. Owners will want to minimize dam height and thus avoid additional engineering and permitting costs.

Location. It pays to carefully examine a site before deciding whether a pond there is practical or economically viable. Upland sites are often superior because the groundwater table generally follows the land's contours and may be fairly close to the surface at higher elevations. Low areas may be muck-filled and more difficult to excavate, and in some instances may require additional permits. Marshes, lowland woodlands, brushy wetlands, bogs, and other wetland areas provide important wildlife habitat, and converting them to ponds may not be the optimal use, or even allowed.

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Building a pond (Continued from page 5)

Scout pond locations during the dry months, look for small areas that indicate the presence of a high water table such as vegetation that grows on wet sites. Note that favorable wet sites may have unstable soils, however, especially on steeper slopes. Look for trees bending themselves to an upright position (sweep). This is a sign of soil movement, which is not desirable around a pond.

To get the most pond for the money, locate it where the largest storage area can be obtained with the least amount of excavation, which is the most expensive aspect of the project. A favorable location might be a narrow section of a valley or swale, where less material is needed to construct the dam. The slope of the ground uphill from the dam should allow water to flood the area.

Avoid areas near a dwelling, feedlot, corral, drain field, or any location that may generate contaminated runoff that could reach the pond. You should also avoid locations where failure of the dam could injure people or livestock, or damage buildings, roads, or ecologically sensitive areas.

Water Source. The water source for your pond can be the natural water table, seeps or springs, surface runoff, or a combination of any of these. Note that Pumping water to supplement a pond can be expensive and affect the flow of any adjacent wells.

Soils. To fully assess the soil type, landowners can excavate a small area prior to beginning a full-scale operation. Three or four diggings per acre are adequate to assess the soil profile over the site, although more may be required if there are substantial variations in soil conditions. Suitability of the pond location depends on the ability of the soils and shallow bedrock near the bottom of the pond to hold water. The bottom should contain a layer that is impervious and thick enough to prevent excessive seepage. Clay and silty clays are excellent soil types for this purpose, while coarse-textured soils, such as sand, gravel, or sand-and-gravel mixes, are highly permeable and often unsuitable. Permeable soil types may be acceptable if they have a spring or seep.

Shape. Ponds can take on any geometric shape including rectangle, circle, or ellipse. However, you can create a natural shape by fitting the contours of the natural landscape. Locate the pond to retain existing trees and shrubs along or near the shoreline. Vegetation adds aesthetic value by casting reflections on the water, providing shade in the summer, and blending the man-made structure into the natural landscape. Rectangular shapes are often the easiest and cheapest to build, but a pond with rounded corners, indefinite shapes, and even islands, has more eye appeal and increased wildlife habitat.

Identify major viewpoints from which the pond will be seen. Locate the pond to ensure that the major sight line crosses the longest portion of the pond. Shift the location of the dam to keep the dam, pipe inlet, or spillway out out of view and make the pond surface the center of attention.

Size. People typically correlate size with surface water area, not water capacity. But a pond that is the size of a football field and a foot deep holds the same amount of water as a pond that is a quarter the size of a football field but 10 feet deep. Having a larger surface area but a shallow depth is not a good idea for woodland landowners who want to use the water for swimming or fishing, but it might work if you want to have a giant mud puddle or you're interested in raising frogs!

To ensure a permanent water supply, a pond must be deep enough to meet its intended use and allow for seepage and evaporation. If warm-water fish production is the major objective of a pond, the pond needs to be at least 10 to 12 feet deep. If creating native wildlife habitat is the goal, a pond needs to be 4 to 6 feet deep. If multiple objectives are sought, deeper water levels take precedence. The depth of a pond varies between winter and summer, but a deep pond with a smaller surface area will lose less water to seepage and evaporation than a shallow pond with a larger surface area.

Maintenance. After the pond is completed, woodland owners should plan and budget for periodic mowing, waterline debris removal, restocking fish, vegetation control, repairing docks, and maintaining the access road. Regularly check for signs of leaks or seepage. Do not expect pond levels to remain constant; evaporation happens, even with substantial water flow from seeps and springs.

Taking care of your oaks

By Chris Rusch –Master Gardener, OSU Extension, Douglas County

Credit: OSU Extension.

Homeowners living in the city or in rural residential areas often have large Oregon white oak trees as part of their landscape. Oregon white oak has a stately silhouette all year long. It is one of the best-looking oaks in the winter due to the light gray, platy bark and open crown. The trunk is straight with main branches well-attached to the tree, making this a long-lived, durable tree for large, wide-open landscapes.

The few large, open-grown, heavy-limbed white oaks that remain in our developments are remnants from Oregon white oak savannas and woodlands. These habitats are an important piece of the ecological fabric of our area. Owners of land with oak habitat possess the opportunity to conserve this dwindling habitat for their own satisfaction and enjoyment, and as a legacy for future generations.

Oregon white oak is a long-lived, slow-growing tree, reaching 60 to 80 feet in height with a spread of 50 to 90 feet in its native bottomland soil. Old specimens can be massive, growing to several hundred years old. Since trunks can be 6 feet in diameter, it is important to leave plenty of room for this tree in the landscape.

The root zone can extend laterally, even farther beyond the drip line, by as much as twice the radius of the tree crown. Homeowners should be mindful that most of an Oregon white oak consists of a root system and is relatively shallow, making it vulnerable to ground disturbing activities.

In fact, the tree in your yard may have already suffered root damage during construction of your house. The roots of oak extend out from the trunk as much as four times the reach of the branches. Oak roots are susceptible to damage by heavy machinery, compaction of the soil and suffocation if extra dirt is spread across the yard to even out the landscape. In addition, many roots can be cut off when developers are installing underground utility lines.

Soil Excavation: Digging building foundations or underground utility lines near trees can sever roots, which reduces the tree's capacity to uptake water and nutrients. Root injuries are also common infection sites for tree diseases and insect pests.

Soil Compaction: The microscopic spaces between soil particles are crucial to gas exchange that occurs between the tree and the underground environment. Heavy equipment moving near the trees can compress the soil, decreasing its permeability and inhibiting gas exchange.

Paving: Nonporous surfaces, such as concrete and asphalt, can prevent rainwater from infiltrating down to the root zone, effectively creating a permanent drought on the site. Use porous materials, such as bark, gravel or

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Taking care of your oaks (Continued from page 7)

jointed paving stones, if a driveway or sidewalk is unavoidable over the root zone. Oregon white oak trees contain straight trunks and well-attached branches, making them durable and ideal for large, wide-open landscapes.

Irrigation: Moderate irrigation is beneficial to newly planted seedlings. However established, oaks are adapted to summer drought and do not require watering. In fact, irrigation may lead to root rot or cause flowering late in the summer, thereby reducing acorn production. Homeowners should avoid watering lawns underneath oaks to maintain tree health. Instead, they should consider landscaping near oaks with Pacific Northwest native grasses, perennial herbs and shrubs. Native woodland or prairie plants can be used to create a natural landscape, and many species do not need summer irrigation once established.

Fire Hazard Reduction: Every year, wildfires destroy homes, cause millions of dollars of property loss and put firefighters at risk across the region. Most of the damage is preventable if landowners take care to reduce the fire hazard on their property. While no tree is fireproof, Oregon white oaks have characteristics that make them safer in the wildland/urban interface. For example, the wood and leaves of white oaks contain much less flammable resin than Douglas fir or other conifers. Therefore, standing oaks and litter underneath the trees are less prone to carry fire. Conifers grown in open settings retain their lower branches, creating "ladder fuel" up the tree.

In contrast, the branch structure of oaks tends to minimize the chance that a fire will be carried up into the crown. Oregon white oaks are well adapted to survive most ground fires. Few landscapes are more inviting than rolling grasslands graced with large-spreading oaks. The park-like beauty of an oak savanna attracts picnickers as well as developers who may hope that the old trees will lend a touch of grace to their designs. There are many remnant Oregon white oaks in our residential communities throughout Oregon.

There are a number of good reasons for private landowners to actively manage the remaining Oregon white oaks located in their yards and woodlots. Majestic old oaks can add much to the value of your home and the pleasure of your yard. It is well worth understanding how to keep them healthy. The benefits are many including: increasing backyard shade, improving wildlife viewing opportunities, enhancing landscape aesthetics, improving defensibility of the home and property against wildfire and increasing the real estate value. Less than 1 percent of oak-dominated habitats are protected in parks or reserves. Private landowners hold the key to maintaining this important natural legacy.

Meet Your Trees!

In this new section, we will feature a native Oregon tree! Have a favorite to request? Let us know!

Sugar pine (*Pinus lambertiana*)

CHARACTER: The tallest of all pines, this conifer can reach up to 200 feet in height and 7 feet in diameter. John Muir called it "the priests of pine." This species is susceptible to white pine blister rust, but resistant seedlings have been developed.

IDENTIFICATION: Look for the big, long cones, which average over 1 foot long and dangle from the tips of the upper pine limbs. Needles are short, 2"-4" long, and grown in clusters of 5.

DISTRIBUTION: Found in southern Oregon on mid-elevation, well-drained, sunny sites. Sugar pine never grows in pure stands.

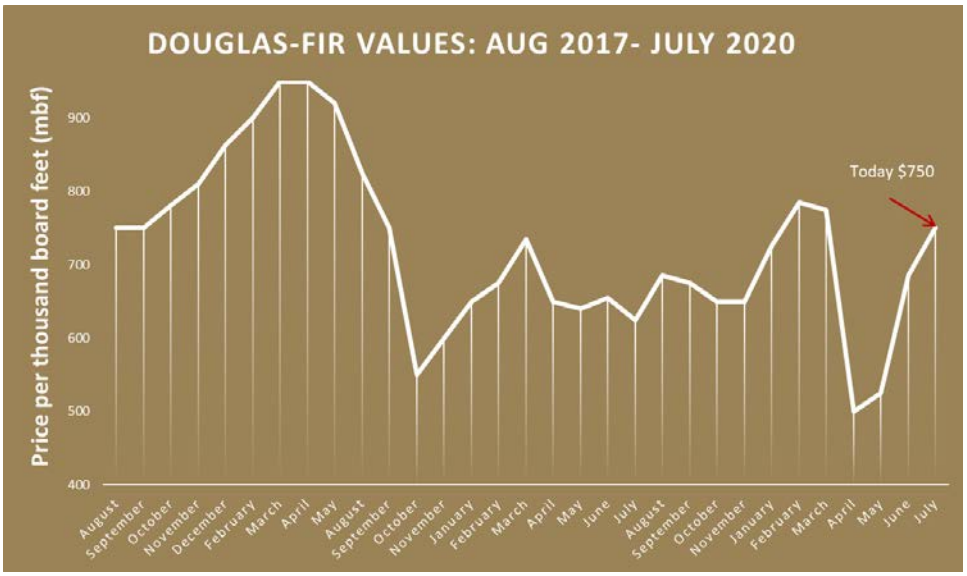
USES: Sugar pine wood exhibits exceptional wood properties and is a commercial species. Although early growth rates are slower than other conifer species, the growth rate remains steady as the tree ages. The name "sugar pine" comes from the sugary tasting globules of resin (sap) that drip from wounds to the trunk or branches. Northwest Native Americans were fond of this resin, but they were careful not to eat too much of it because of its laxative effect.

Credit: flickr, *USDA Forest Service, Region 6, Dorena Genetic Research Center*

Credit: flickr, *Laura Camp*

Catch a logger if you can: Log and non-timber forest product prices and trends

Lauren Grand, OSU Forestry and Natural Resources Extension Agent, Lane County



We are officially out of the COVID slump. Usually prices are at their peak in April and then drop into July, but things are topsy-turvy again this year. Summer usually offers a plentiful log supply keeping prices the lowest during the year. With many of the mills slowing or even shutting down in the spring they just can get enough cutting done to meet the current demand and prices are up as a result.

Douglas-fir prices are currently sitting in the $750/mbf, $100/mbf higher than historically average prices for the summer. I've even heard some whispers of prices in the $800/mbf range. Roseburg's prices are looking about $50/mbf lower. Rumors are a buzz that prices are likely to stay strong in anticipation of meeting the lumber demands and potential fire season shutdowns if the weather doesn't break soon.

Usually I don't have much good to say about chips, and this quarter is no different. Chips are over abundant right now and no one is really actively buying them. Prices are sitting in the $20/ton range, not good enough to even pay the truck to haul them out on. Poles on the other hand are still strong and slightly up from last quarter. Short poles are looking at $875 and the 60-100 footers are around $1050.

The Hem-fir sorts (spruce, hemlock, grand and white fir) are almost $100 higher than what we reported in February. The long logs are up to $550 per thousand. Roseburg's prices are ranging from $450 - $600.

Pine prices in the southwest are holding steady around $400/mbf. Eugene's pine market is down for the count at the moment and currently there are no local buyers. We'll let you know if that changes in the future. If you are selling pine, consider your trucking distance. At these prices, if you have to move it too far, you may be losing money instead of making it.

Typically, trends in the Alder market follow Douglas-fir, but more recently have been slowing and flattening out. Unfortunately, production in many mills has slowed down bringing prices down with it. Currently, alder prices are in the $450/MBF range.

Redcedar prices are on the rise from last quarter and are in high demand fetching $1000/mbf, $200/mbf more than our last report. Incense-cedar on the other hand is slightly down. If you are in the Eugene area you are looking at $550/mbf and $600/mbf in Douglas County area. Port-Orford-cedar prices are holding steady in the $475 range.

All I can think about right now is how hot it is, but if you are in the non-timber forest products game it is time to start thinking about Christmas Greenery and getting your contracts set. Cones are particularly in favor at the moment being purchased at $0.08/cone. Buyers are looking for decorative white pine cones. Decorative means solid and open. If you aren't sure you have the right stuff, bring in a sample to make sure you are on the right track. Oregon grape and cascara season has closed, but usnea lichen is still an interest. Usnea prices have slightly increased to $5.75/lb clean and dry.

Hopefully you listened to my suggestion last quarter to dust off your management plan and start getting your ducks in a row, in preparation for more certain times. Well, we are in more certain times and loggers are going to get scooped up fast. If it makes sense for your management objectives to cut this is a good time, but act fast we never know how long our bubble will last. Good luck and always remember to get your purchase order before you cut!

Canopy View News

A Forestry & Natural Resources Newsletter for Woodland Enthusiasts of Douglas & Lane Counties

Fall 2020 – Issue #9

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