

FALL 2017

Dallas Grower at Forefront of Oregon Olive Growth

By Mitch Lies

Cultivating Editor

In the not too distant future, don't be surprised to see extra virgin olive oil from Oregon on a grocer's shelf near you. And when that happens, think Polk County.

Ever since Bogdan Caceu ventured into olive production on a hillside just south of Dallas, the county has taken a leadership role in the emergence of the Oregon industry.

Caceu, a longtime business consultant and neophyte olive farmer, has been immersed in all aspects of the Oregon olive oil industry since planting his first trees in 2011. Today Caceu, you might say, is the face of the Oregon olive oil industry: He serves as executive director of Olive Growers of Oregon and hosts tastings at multiple events over the course of a year.

His aim is to bring Oregon olive oil to, if not the forefront, at least the periphery of Oregon consumer consciousness by bringing the product to mainstream grocer outlets, online outlets such as Amazon or Walmart's Jet.com., and getting it featured in more restaurants. With high-quality olive oils from Europe and California dominating the major grocers' shelves, however, Caceu recognizes the difficulty of the task ahead. But, for Caceu, overcoming difficulties is nothing new.

Caceu, (pronounced "catchew"), ventured into olive oil production after deciding he wanted to pursue a nature-re-



Bogdan Caceu, in his olive orchard just south of Dallas, serves as executive director of Olive Growers of Oregon, hosts tastings and is involved in a research project through Oregon State University.

lated project. "I didn't have any concrete ideas about what that project would be," he said, "but about a year into it, I began focusing more clearly on the idea of an orchard.

"I thought, I'll just plant the orchard and then go back once a year and watch the trees grow and 20 years later, I'll be marveling at how beautiful it is," he said. "Of course, it doesn't work that way."

Obstacles emerged early on, even before Caceu found a suitable site. "I wanted, if possible, to find some Jory or Willakenzie or some other hillside soil that might be conducive to a vineyard or an orchard. So that narrowed down my choices," he said. "I was also hoping to get a south-facing hillside at a certain elevation, which further narrowed the scope of my search.

"Eventually, after a year of searching, a year in which I spent probably an hour a day each day looking, it led me to only two properties," he said.

Caceu made offers on each site, one in Marion County and one in Polk County; the one in Polk was accepted. "In retrospect, I am very glad that this one went through," he said.

The next obstacle involved clearing hillside that was inundated with invasive species. "It was an impenetrable jungle of 10-foot tall scotch broom and Himalayan blackberries," Caceu said.

With the help of the Polk Soil and Water Conservation District, which helped secure a grant from the Oregon Watershed Enhancement Board, Caceu was able to clear the property and prepare it for planting. "The Polk SWCD and the Polk office of the USDA's Natural Resources Conservation Service have been extremely helpful throughout this process," Caceu said.

NONPROFIT US POSTAGE PAID

DALLAS, OR 97338

PERMIT #003

Next, Caceu tapped an Oregon Water Resources Department feasibility grant to find methods to store water efficiently and at the lowest cost. That study led to the construction of a highly efficient water storage system, which was cost-shared by the USDA Natural Resources Conservation Service, and to a solarpowered pumping station for two low-yielding wells, which was cost-shared by USDA Rural Development.

This past year, Caceu started working with Oregon State University Extension Service on an olive cultivar selection research project to find olive cultivars more adaptable to Oregon than the warmer-climate varieties the industry currently grows.

"We are looking at cold hardiness and other factors to try and determine varieties conducive to Oregon's climate and soils," Caceu said. "And we are looking at propagation, because we would like to develop the capacity to grow our own trees. Today, we are bringing them all in from California, and with plant diseases becoming a problem there, we are concerned about introducing those up here.

"We believe we will be better off developing a robust propagation program in Oregon, and who better to do that than OSU," he said.

See DALLAS GROWER page 4

Who We Are **OSU Extension Polk County**

The Polk County Office of the Oregon State University Extension Service provides research-based educational information and programs in Agriculture, Forestry, 4-H/Youth and Family and Community Development for the citizens of Polk County.

OSU Extension's mission is to convey research-based knowledge in a way that is useful for people to improve their lives, their homes, and their communities.

Office Location & Hours

289 E Ellendale, Suite 301 Dallas OR 97338 · 503-623-8395 extension.oregonstate.edu/polk Mon-Fri 8am-12pm, 1pm-5pm

Faculty & Staff Contact

4 U.Veuth Development
4-H Youth Development
— Susan Busler 971-612-0028
4-H Youth Development
— Judi Peters
Family & Community Health
— Vacant
Livestock & Forage
— Gene Pirelli503-931-5163
Community Horticulture
— Neil Bell971-612-0026
Master Gardeners
Dairy — Jenifer Cruickshank971-600-1222
Field Crops — Nicole Anderson 503-434-8912
Small Farms
— Javier Fernandez-Salvador503-373-3766
Forestry & Natural Resources
— Brad Withrow-Robinson541-766-3554
SNAP-Ed — Christopher Scadden971-612-0030
Well Water Program
— Chrissy Lucas
Office Manager & County Leader
- Alisha Atha
Front Office & 4-H Support
— Carla Cudmore
Front Office
& Master Gardener Support
— Pam Scharf
Regional Administrator
— Vacant

Oregon State University Extension Service prohibits discrimination in all its programs, services, activities, and materials on the basis of race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, familial/parental status, income derived from a public assistance program, political beliefs, genetic information, veteran's status, reprisal or retaliation for prior civil rights activity. (Not all prohibited bases apply to all programs.)

Who We Are **Polk Soil & Water Conservation District**

Nearly 3,000 Soil and Water Conservation Districts (SWCD) across the United States are helping local people conserve land, water, forest, wildlife, and related natural resources. SWCDs are charged with directing programs to protect local renewable natural resources. Polk SWCD was formed in April 1966, and promotes erosion control, reduction of invasive species, improvements to farms and forests, control of animal waste, as well as improving wildlife habitat and water quality/quantity issues in Polk County. The Polk SWCD is administered by 7 locally elected volunteer directors representing 5 zones and 2 at-large positions within the county. The Polk SWCD is a source of information and education on natural resources.

Office Location & Hours

580 Main Street, Suite A Dallas OR 97338 503-623-9680 www.polkswcd.com Mon-Fri 8am-4:30pm

Staff Contact Information 503-623-9680 www.polkswcd.com

Karin Stutzman — District Manager manager@polkswcd.com......Ext. 110 Marc Bell - Resource Conservationist marc.bell@polkswcd.com.....Ext. 103 Lucas Hunt - Stewardship Forester lucas.hunt@polkswcd.comExt. 104 Farm Specialist - Resource Conservationist rc1@polkswcd.comExt. 101 **Tom Wilson** - Office Administrator

clerk@polkswcd.com.....Ext. 108

Polk SWCD is an equal opportunity provider and employer and prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orien-tation, or marital or family status. Persons with disabilities who require alternative means for communication of program information should contact the district office at 503-623-9680

Calendar of Events

Polk SWCD and **OSU Extension Polk County**

September

ALL MONTH — Polk SWCD Native Bulb Sale ONLINE ONLY at www.polkswcd.com

19 — Fall Pasture Grazing and Nutrient Management Workshop. Register at Yamhillswcd.org

21 — **Small Farm School** A full day event with hands-on and classroom workshops for commercial beginning farmers and small acreage rural landowners. Register online at smallfarms.oregonstate.edu/ small-farm-school

October

9 — Polk SWCD Office Closed for **Columbus Dav 11** — Polk SWCD Board Meeting: Polk SWCD Meeting Room - 7pm **16-20** — Native Bulb Sale Pick up at Polk SWCD Office

November

3-4 — Holiday Fair – Polk County Fairgrounds 8 — Polk SWCD Board Meeting -6pm **23** — Polk SWCD and OSU Extension Offices Closed for Thanksgiving Day **24** — OSU Extension Office **Closed for Holiday**

December

ALL MONTH — Polk SWCD Native Plant Sale ONLINE ONLY at www.polkswcd.com **13** — Polk SWCD Open House at Polk SWCD Office - Time TBD 13 — Polk SWCD Board Meeting - 6pm 25 — Polk SWCD and OSU Exten-

sion Offices Closed for Holiday

Printed by Eagle Web Press. Interested in advertising? Contact Heidi Leppin at the Polk County Itemizer-Observer, 503-623-2373 ext. 115, hleppin@polkio.com







RICKREALL	HARRISBURG	HILLSBORO	WOODBURN	MADRAS
9055 Rickreall Rd.	230 Sonmerville Ave.	185 W Main Extension	2929 N Pacific Hwy	36 NW A SL
Rickreall, OR. 97371	Harrisburg, OR. 97446	Hillsboro, OR. 97123	Woodburn, OR. 97071	Madras, OR. 97741
(503) 623-2363	(541) 995-2262	(503) 648-4178	(503) 981-0151	(541) 475-2253



Mitch Lies Cultivating Editor

Cultivating Productive Farm & Forest Businesses

Olives: Oregon's Next Big Crop?

By Mitch Lies Cultivating Editor

For several years, Bogdan Caceu, executive director of Olive Growers of Oregon, had wanted to cooperate on a research project with Oregon State University to

analyze the cold hardiness of different olive cultivars and develop proper propagation techniques.

Concurrently, this past year, OSU Polk and Marion County Small Farms Extension Professor Javier Fernandez-Salvador was looking for a new crop to research.

When the two met at a Polk Soil and Water Conservation District "Going Organic Agriculture Workshop" last year, it set in motion OSU's first research into olive production.

The three-part project includes an evaluation of up to 100 olive cultivars for cold-hardiness, an evaluation of optimum propagation methods and a transplanting study to determine the optimum development stage to move an olive cultivar from a pot to the orchard.

Fernandez-Salvador said the need for the project became apparent while preparing for a workshop he and Caceu were conducting at the OSU Small Farms Conference in February.

"We realized at that workshop that there hasn't been any research on olive production at this latitude," Fernandez-Salvador said. "We are farther north than any traditional olive-production region in the world.

"So we realized that before we can start to recommend anything, we need to do the research."

As part of the project, Fernandez-Salvador will be coordinating a cultivar-collection trip to Europe to help identify prime cultivars for evaluation, in part utilizing historical data on cultivar resistance to cold temperatures to narrow his search. Fernandez-Salvador also plans to analyze the cold-

hardiness of popular cultivars from areas such as California to see how they perform in Western Oregon.

To date, the project is still in its planning stages, with funding the main sticking point. But Fernandez-Salvador is confident the project will generate funds through federal and state agency grants and foundations.

"We hope that in the future, once this project is going, we can increase interest to support it, and possibly even create an olive commission to help fund future research projects," he said.

Ultimately, Fernandez-Salvador believes olives represent a high-value alternative crop for Oregon growers.

"Once we discover the right practices and cultivars for our conditions, I can foresee a time when Oregon has a specialized industry that produces a very high-quality product," he said.

"I see this industry as parallel to the wine industry 40 years ago," he said. "When the first wine grape growers came here, everybody said: 'It's not possible. You won't be able to produce wine here.' Now we have recognized grape-growing regions, cultivars that are extremely successful and vineyards that have won multiple prizes for the quality of their wine.

"They were trailblazers in the beginning, facing skepticism and lack of support," Fernandez-Salvador said. "Now, Oregon State University has its own Wine Research Institute and more than 10 professors and other faculty working on viticulture and enology.

"With olives, we are expecting to go a long way by finding the right cultivars and production practices for our region to help develop an industry capable of producing a high-quality, value-added product," he said.

"Even now, with the state's small production, our oils are very well received," he said.

Dallas Grower - Continued from page 1

In the project, Caceu and OSU Extension personnel are looking for varieties with high-sensory qualities, good tonnage yields and good oil yields that perform well in Western Oregon. "They might be from Albania, from Lebanon, from somewhere in Italy, from France or Portugal or Morocco," Caceu said.

Even with positive results, it is doubtful the state's growers will be able to compete with California growers in terms of production costs, in part because Oregon growers probably will never be able to match California's yields.

"In this cooler climate, most likely we will not exceed 3 tons per acre," Caceu said. "In California, some get up to 12 tons per acre."

But, Caceu said, the locavore, or buy-local movement, could provide Oregon growers an avenue for in-state sales. Already, he said, Oregon olive oil can be found in specialty and high-end grocers, such as LifeSource Natural Foods in Salem and Whole Foods and New Seasons markets in Portland. Also, he said, because Oregon olive growers handpick their crop, the industry can attain a quality unmatched by larger producers.

"We have an advantage in being small, by being able to handpick and process the olives in a timely fashion," Caceu said. "And you can sense that quality, and people do when I do tastings."

Currently, Oregon is home to only about 50 acres of olive groves, or orchards, but that could quintuple in the near future, given that a grower in the Roseburg area is considering planting 200 acres to olive trees. The biggest current grower, Red Ridge

Farms in Dayton, has about 17 acres in olive trees. Red Ridge also does nearly all of the processing for the state's growers and for some growers in Northern California, who truck olives to Oregon for processing.

Caceu has 1,200 olive trees planted on 5.75 acres of the 10 acres he owns just outside the Dallas city limits, including a batch of 6-year-old trees that he will harvest for the second time this fall. In another four or five years, those trees will be nearing their peak production, putting Caceu nearer his goal of attaining a return on investment for this now nearly 10-year old project.

Asked to reflect back on his experience, Caceu said: "It has been a very different experience from what I envisioned when I started in on this. It has taken a lot more work, a lot more learning and, by now, thousands of hours. It has included a number of changes of direction, where I backtracked and revised strategies. It has included a lot more challenges than I suspected it would. You know, nature has a way of throwing things at you: the grass grows a lot faster than you had planned and the weather determines when you do things, at times, more so than your schedule.

"It has been a lot more effort, a lot more learning," he said, "but you learn. Did I know how to design, install and run an efficient drip irrigation system on 10 acres when I started? No. Do I know now? Yes. Am I happy about that? Very much so."

Currently, Oregon-grown olive oil can be found at LifeSource Natural Foods in Salem and Whole Foods and New Seasons markets in Portland, among other specialty and high-end grocers.



Mitch Lies Cultivating Editor

Cultivating Productive Farm & Forest Businesses

In wine grapes, it's a balancing act

Oregon's 2017 wine-grape harvest will soon be underway, bringing to fruition a full year of cultivating a crop that annually brings international renown to Oregon winemakers and grape growers. Little known to most, however, behind the scenes, research is being done that is crucial to this success.

The Oregon Wine Research Institute, a joint project of Oregon State University and the Oregon wine industry, today is helping grape growers and winemakers in their pursuit of that perfect glass of wine.

OSU viticulturist Patty Skinkis's work into vineyard floor and yield management, for example, is providing growers insight into how to achieve what is known as vine balance – the happy equilibrium between a vine's fruit yield and canopy size that produces quality fruit and healthy vines.

Over the course of a nine-year study, Skinkis, a member of the OWRI and a specialist with OSU's Horticulture Department and Extensive Service, established a study to manage vine growth under different management techniques, including growing grass in the



PHOTO BY: Lynn Ketchum

partment and Extensive Service, established a study to manage vine growth under different management tech-

alleys between rows to provide competition and tilling the soil to remove competition. Since the start of the project, funded in part by the Oregon Wine Board and the Northwest Center for Small Fruits Research, Skinkis has monitored soil moisture, water stress in the plants and vine growth. She determined that using a grass cover in the alleys slowed the vines' growth without creating water stress, while maintaining acceptable yields. Her lab found that grapes from vines grown with grass competition had smaller canopies that allowed more sunlight infiltration that likely led to the observed higher color in wines and, perhaps, better flavors.



had the larger impact," Skinkis said.

To determine optimum thinning strategies that produce the best fruit while sustaining vine balance, Skinkis now is comparing different crop thinning levels at more than 10 Willamette Valley Pinot noir vineyards in a separate 10-year study.

The first five years of data show that thinning has less effect than anticipated by the industry. There often was no difference in fruit-ripeness measures at harvest (sugars, acids, color and other indicators) between fruit from nonthinned vines and those from vines that had been thinned 40 percent or more. The vineyard site, not yield target, was the determining factor for fruit ripeness and overall wine quality.

OWRI researcher Elizabeth Tomasino conducted sensory trials of wine made from both of Skinkis' studies. Results of sensory evaluation of wines from more than 10 wineries in the crop-load study's first-year harvest show that neither winemakers nor consumers expressed a preference for wines made from grapes from lower-yielding vines. Wines from the first three vintages (2012-2014) were evaluated by winemaker panels, and the results show that vine yield does not relate to the "quality" ranking of the wines. While wine from future vintages of the study will be analyzed, Skinkis said this finding suggests that fruit from low-yielding vines doesn't necessarily make the best wine.

Crop thinning did not affect vine vigor (as measured by dormant-season pruning weights) or canopy leaf area over the past five years of the trial, Skinkis said. And, as she found before, across all sites, the vine vigor, not the yield, likely accounted for site differences in fruit quality.

"Fruit thinning is important for yield management," she said, "but it isn't the main reason vines produce high-quality fruit."

(This story was adapted by Cultivating Editor Mitch Lies from a report in the Oregon Wine Research Institute 2016 Stakeholder Report.)

With the vine size altered between different vineyard floor practices, Skinkis, in Phase 2 of the study, investigated how thinning of Pinot noir clusters affects the quality of the fruit. Oregon Pinot noir growers typically thin their grapes during mid-season, when berries pause in growth, aiming for a yield of 2 to 21/2 tons per acre. Many growers believe that smaller yields produce more consistent quality fruit. But thinning is expensive because of the manual labor required. Skinkis addressed whether thinning really makes a difference in quality through various studies throughout Oregon. She thinned vines down to one cluster per shoot - a conventional strategy that reduces yield by about 40 percent - and left others unthinned.

Not surprisingly, the thinned vines yielded less fruit than those left unthinned. After the fruit was evaluated for various components, its overall quality proved to be influenced more by the vineyard floor management practice, however, than by thinning of fruit to achieve lower yields.

"So vine vigor, as affected by vineyard floor management, not crop thinning,



U.S. Dairy Sustainability Award Winner: Rickreall Dairy

Polk County is home to Rickreall Dairy, one of only three farms in the country to win an award for Outstanding Dairy Farm Sustainability from the Innovation Center for U.S. Dairy in 2017. Louie Kazemier, with family members and a crew of longterm employees, operates the 3,500-head dairy just outside Rickreall. Kazemier, who has managed Rickreall Dairy since 1991, summed up his commitment to sustainability as a constant effort "to do the right thing."

OSU Extension Dairy Management

In the area of energy efficiency, Kazemier worked with Energy Trust of Oregon and the U.S. Department of Agriculture to upgrade his barn lighting and parlor laundry systems, steps that have reduced energy use by hundreds of thousands of kilowatts per year.

Kazemier's nutrient management plan involves applying only the amount of nutrients plants take up, so nutrients don't exit the soil profile into waterways. He monitors water quality in a nearby creek with quarterly testing and annually tests the soils on the farm's cropland. Additionally, Kazemier provides neighboring farmer Scott Zeigler excess manure nutrients from Rickreall



PHOTO BY: Jenifer Cruickshank Louie Kazemier receiving the Sustainability Award in Chicago, with projected photo of Louie and Lori Kazemier, Sylvia and Gus Wybenga.

Dairy in exchange for feed, an arrangement that has proved beneficial to both parties.

Kazemier's father-in-law, Gus Wybenga, a third-generation dairy farmer who expanded Rickreall Dairy when he purchased it in 1990, redesigned it with water conservation in mind. Kazemier has refined the systems to capture and re-use water, including building a new pond that stores rainwater and ensuring that tap

water is recycled at least three times before being used for irrigation. Kazemier also works with a local food processor to take their liquid waste, an arrangement that re-uses water for crops that would otherwise go into the sewer system.

Regarding the cows, Kazemier works closely with a nutritionist, a veterinarian, and a herd manager to track herd health. Computer software is used to track daily milk production and maintain health records. Rickreall Dairy uses composted manure solids for bedding in the stalls, a practice that provides the cows a comfortable and hygienic resting surface and is an economical, sustainable re-use of cattle waste.

Rickreall Dairy meets most of its feed needs through doublecropping ryegrass silage and corn silage on the dairy's 1,100 acres of cropland. The silage is supplemented with high-quality alfalfa hay, along with two byproducts from a local biofuel production plant, plus mineral supplements, beet pulp, cottonseed, hominy and corn grain, plus the feed they get from Zeigler Farms.

The dairy operation also fos-

ters education and engagement in the community-from children and their parents to thought leaders. Rickreall Dairy hosts a formal farm tour program for local schoolchildren in spring and fall, welcoming about 2,000 visitors to the farm annually. Given the farm's close proximity to Salem, some of those visitors include elected officials who gain insight into contemporary dairy issues.

"We are ultra-sensitive to the public," Kazemier said. "We only irrigate certain fields, certain times of the day, because of wind direction and concerns with odor. And we have an open-door policy, where anybody who wants to see the dairy can come in." Kazemier also started a camp for families with special needs children and travels to Uganda on humanitarian aid missions to share his farming expertise and build infrastructure.

For the past six years, the Innovation Center for U.S. Dairy has recognized dairy farms, businesses, and partnerships whose practices improve the well-being of people, animals, and the planet. Rickreall Dairy was selected for the award for innovative partnerships with neighboring businesses, energy and water conservation, employee retention, good animal care, and contributions to local and global communities.

"Rickreall Dairy has built a reputation as a good neighbor while caring for their land, their cows, and their employees. Their story is an inspiration to others, and we are thrilled to recognize them with a U.S. Dairy Sustainability Award," said Chad Frahm, senior vice president, Innovation Center for U.S. Dairy.

The extensive application supporting Rickreall Dairy for the Sustainability Award was assembled by the Oregon Dairy and Nutrition Council, joined by a committee composed of fellow dairy producers and representatives from Oregon State University Extension Service, Darigold (the farmer-owned cooperative to which Rickreall Dairy belongs), Oregon Dairy Farmers Association, Oregon Department of Agriculture, and Oregon Agriculture in the Classroom Foundation.

Jenifer Cruickshank

Jenifer joined Oregon State University as our new Extension Dairy Management faculty member serving the Willamette Valley. Her primary focus is on dairy management practices, particularly in genetics, reproduction, herd health, animal welfare, and regulatory compliance. Jenifer has a PhD in Dairy Science from the University of Wisconsin-Madison, where she investigated the genetics of twinning and



of productive herd life in dairy cattle. Prior to life in Wisconsin, Jenifer earned an MS in Animal Science and a BS in Genetics from the University of California, Davis. Most recently, she has been on the biology faculty of a regional state university in New York. Despite education and work elsewhere, Jenifer is a native of Oregon, where she grew up on a dairy and field crops farm. To her new post, she brings extensive teaching experience and a strong desire to engage with dairy producers in improving their operations.



PHOTO BY: Jenifer Cruickshank Louie Kazemier with some of the 1,700 milking cows at Rickreall Dairy.

your health matters.

Salem Health West Valley offers programs and services to meet your family's health needs, close to home.

Hospital

525 SE Washington St., Dallas 503-623-8301

- Anticoagulation
- Cardiopulmonary
- Emergency
- Imaging
- · Infusion and wound care
- Laboratory
- Ophthalmology
- Orthopedics
- Rehabilitation
- Surgery



Medical Clinics

Dallas

Family medicine 555 SE Washington St. 503-623-7301

John Hadley, DO Megan Brassine, FNP

Specialty Clinic

591 SE Clay St. 503-831-0784

- General surgery
- Gynecology
- Podiatry
- Urology

Monmouth

Family medicine 512 Main St., Suite 300 503-838-1182

Charles Essex, MD

Megan Brassine, FNP

- Laboratory
- Rehabilitation

Independence

Central Health and Wellness Center 1601 Monmouth St., Suite 100 503-838-0045

Donna Millan, FNP

- · Family medicine
- Immunizations
- · Routine laboratory tests
- · Sports physicals
- · Treatment of illness and injury
- Well-child checks

salemhealth.org/westvalley





Forest Management Tools: Automated Cut-To-Length Harvesting

The scent of fresh cut fir wafts through a timber stand outside Alsea, brightening the crisp forest air. A road winds through a 28 year-old Douglas-fir stand owned by Starker Forests. The terrain slopes away from the road at about 75 percent before rolling in to a bench some six or seven hundred feet downhill. Logs lay decked along the road, bright blue and red stripes of paint indicating timber is being harvested here. As gravel crunches underfoot, diesel engines can be heard working bevond the edge of the road. Strapped to a tree, a cable leads across the road before diving downslope. An access trail that appears more like a jogging path than a forestry skid trail follows the cable off road. Around it the understory is intact; the forest floor is dotted by ferns and cascara. Branches lay scattered along the trail, while here and there small stacks of saw logs sit.

Lucas Hunt

Stewardship Forester

Polk SWCD

200 feet down the hill, an articulated black and yellow machine picks its way down slope on four sets of wheels. As it rolls forward, a winch at the rear of the machine slowly spools out the cable that remains secured to the tree by the road. The front and rear wheel sets are both shod in tracks and are suspended separately, allowing the machine to ride over branches and debris while maintaining traction on the steep slope. An operator sits over the rear segment in a glass cab which provides a clear view of the forest around and canopy above him. From the front segment, a boom rises and swings an arm out toward a 10-inch diameter fir with a forked top.

At the end of the boom an automated head the size of a large wheelbarrow dangles near the tree bole, looking for all the world like an elephant sniffing for a peanut. Four bars spring out and clasp the head to the tree trunk. The head slides up then down a few times, measuring taper and diameter. A hydraulic saw flies to life, slicing quickly through the tree before returning to a sheath at the base of the automated head. As the tree falls across the slope, the operator deftly slides the cutting head along the trunk to guide it safely to the ground. Even though the crown of the tree lashes its way to Earth, no other trees are damaged in the process.

As the 40-foot tree slides through the head, a computer in the cab measures the length and taper, while the grasping bars simultaneously remove limbs from the stem. The tree spools back through the head and the saw sings to life again, quickly bucking saw logs at optimal lengths determined by a sort list in the computer. In less than 2 minutes, the tree sits in a neat pile of logs, ready for pick up by another machine. This harvester is known as The Bear, and is manufactured in Finland by Ponsse. Ponsse has been leading the industry in cut-to-length logging since the early 1990s. Their equipment has proven to be a perfect tool for the young stand thinning that Starker Forests employs across all of their tree farms.

Miller Timber Services out of Philomath, Oregon, has been operating Ponsse machines for commercial thinning for about 20 years. The synchronized winch mentioned above is a recent development by Ponsse that allows their machines to safely work on slopes up to 80 percent. It is designed as a traction aide, assisting the machine to stay in better contact with the slope. Normal operational limits for these type machines are up to 65 percent slope. Working closely with Ponsse and Starker, Miller has built a fleet of cut-tolength machines which allows them to provide unique thinning services to timber owners throughout the Pacific Northwest.

Young stand-thinning is not just for timber companies and large acreages. Managing the density of a forest stand throughout its lifespan is vital to tree form, growth, and also understory development. Small landowners often value their forest for the understory species that are present, both

for wildlife and aesthetic purposes. In order to get the understory to grow and survive, you must thin out the over-story, otherwise the tree canopy will block out all sunlight as it matures. When done properly, this also helps to improve the remaining stand of fir. Thinning should start with removing trees with defect and disease such as broken and forked tops, ice damage, and residual trunk scarring. The remaining stand should be dominant trees, and crowns should be touching other crowns on at least 2 sides. If you thin too



PHOTO BY:Lucas Hunt Close up of Ponsse forwarder wheels and tracks. Notice low ground impact and healthy, diverse understory.

heavily, you will lose trees to wind throw.

If your forest is approaching 20 years of age with around 400 trees per acre, definitely consider automated cut-to-length harvesting as an option for reducing impact to the environment while removing merchantable forest products. If you are interested in opportunities to see this kind of equipment in operation and learn more, please sign up for the Woodland Compass electronic newsletter, located at http://extension.oregonstate.edu/benton/forestry/ compass.



Catherine Underwood-Bush

Licensed Real Estate Broker In the State of Oregon



"Smart, savvy, dedicated"



This is Strongsville

STRENGTH BUILT INTO EVERY DETAIL

XT2 GX54

Tackles the toughest terrain and most challenging conditions that require more power with a 26 hp" Kohler® V-twin engine.

- · High-output battery
- · Keyless engine start
- · Fabricated deck
- · Heavy-duty front wheel bearings
- · Multi-Trac tire tread
- · Front bumper and armrests

STARTING AT: \$3,29999



performance

STARTING AT:

\$1,699**





XT1 LT46 XT2 LX42 EFI Sets new standards in comfort and versatility with responsive handling and advanced cutting Cadet EEL

Featuring powerful Cub Cadetcertified engines, including the option of the fuel-saving Cub

XT3 GSX Offers heavy-duty construction and ultra-tough components to haul big loads and power hardworking attachments.



FOR FULL PRODUCT SPECS CubCadet VISIT CUBCADET.COM

STARTING AT

\$1,99999

YOUR INDEPENDENT CUB CADET DEALER-EXPERT SERVICE. LOCALLY OWNED. The advice, service, selection and support you need to find the right fit for you.



Cultivating Natural Resource Conservation

Soil Health, Productivity, and Water Quality: A Winning Combination

Our day-to-day interactions with our natural resources shape the landscape and, in turn, our opportunities to utilize those resources longterm. The relationship between soil health, farm productivity, and water quality is a clear example of this as the protection and enhancement of soil health benefits water quality, and the productivity of farming and ranching operations. Healthy soils are easier for plant roots to grow in, less likely to erode away, and provide a steady supply of nutrients and water to crops and pastures.

Polk SWCD

Ag Water Quality

What makes a soil healthy?

Soil health starts with the structure. Good soil structure is indicated by wellformed aggregates and a high density of pores. Formation of aggregates and pores is driven by soil texture, and a combination of physical, chemical and biological processes. A major player in these aggregate-forming processes is organic matter. Organic matter makes up a small percentage of a soil's mass, but is considered to be the most important component for soil health and is a significant contributor toward plant productivity. Organic matter is the source of carbon, energy, and nutrients, and increases the soil's ability to store water. The ease with which a soil is worked is also strongly linked to organic matter. Finally, healthy soil is full of life. The greatest concentration of living organisms on earth can be found not in the ocean or the jungle, but in healthy soil. This life includes a variety of micro organisms that contribute to nutrient cycling and healthy root growth.

What can you do to improve your soil's

Taxi Service is here for you! 97

Car Trouble? Need a Ride?

health?

reduce



taking root. There are a variety of cover crops available, and your ability to terminate the cover crop in time to plant your cash crop is an important consideration. When choosing a cover crop, utilize the Pacific Northwest Cover Crop Selection Tool, available online, and technical assistance from the Soil and Water Conservation District, OSU Extension, and the Natural Resource Conservation Service.

Minimize disturbance: reduce tilling, prudently apply pesticides and fertilizers, allow pastures to rest, and plant buffers. Tilling destroys soil structure and organic

nated. Consider alternative tillage management practices, such as no-till, strip-till, and ridge-till. Excessive or inappropriate use of pesticides and fertilizers can disrupt natural processes in soils, and even negatively impact crop production. When utilizing pesticides and fertilizers, consider integrated pest management and soil fertility tests before applying. Overgrazed soils

matter, but does

not need to be

completely elimi-

and pastures grazed when wet are prone to compaction, which can make it difficult for grass roots to grow. Rotate livestock through multiple paddocks, and rest pastures when the soil is wet. Buffers provide a refuge for soil organisms and other beneficial organisms, stop wind and water erosion from reaching your fields, and can help prevent spread of weeds. Buffers include grassed waterways, hedgerows, contour strips, and riparian plantings.

Preserve the rhizosphere: cover crops, strip cropping, and perennial cash crops help maintain a robust soil community. Living plants continually replace dying root tissue and produce sugary mucilage for new root growth. This supplies a food source for soil microbes, which in turn increase the supply of nutrients and water to the plant. This interaction results in the rhizosphere, an area of dense microbial activity around living plant roots. If this connection is disrupted for prolonged periods of time, rhizosphere formation must be restarted each time a crop is planted.

Beyond the edge of your field...

Healthy soils generate benefits that go beyond the production value of your farm. Healthy soils have higher infiltration rates and store more water, reducing flooding, decreasing streambank erosion, and minimizing pollution in streams. As water takes more time to move through the soil, it can help recharge aquifers for wells. Cleaner streams improve conditions for drinking, swimming, and fishing. So if you're looking for a way to push your farm to the next level, reach out to your Soil and Water Conservation District for assistance in utilizing conservation practices for soil health, productivity, and water quality!

Fall Pasture Grazing and Nutrient Management Field Workshop

Speaker: Gene Perelli (OSU Extension & SWCD staff)

Topics: Fall grazing, winter resting period, amendments, soil & manure testing, and farm tour of best management practices

When: September 19, 2017, 9:30 - 12:00

Where: Whispering Hills Farm Meet at 9:30 at Old German Baptist Brethren Church, 13100 Beck Rd, Dallas, OR 97338. We will carpool to Whispering Hills at 9:45 because there is not adequate parking at the farm.

Cost: \$10 per person.

Please register online at Yamhillswcd.org or call 503-472-6403 to register



Susan Busler **OSU** Extension 4-H Youth Development

Cultivating Healthy Youth & Families

Happy New Year! — The 4-H New Year that is

The new 4-H year begins October 1 and will run through September 30th. In September, state fair winning exhibits are returning to the county, and 4-H members are working on their 4-H records for special awards.

October 1st begins the new year for firsttime and returning 4-H members. All 4-Hers can choose from over 40 projects including Animal Science, Natural Resources, Engineering, Horticulture, Expressive Arts and Home Economics project areas.

4-H is open to all school-age youth K-12. Cloverbuds include grades K-3 youth and explore a wide variety of project areas of interest. Once members reach 9 years old by September 1st, they can enroll in the programs.

School-aged youth can get involved in a variety of ways; including year-round project clubs, school-based and after-school programs, and

short-term projects. In Polk County we have nearly 40 project clubs to choose from including: Shooting Sports, a variety of animals, and multiproject community clubs. Middle and High

school age youth are encouraged to become involved in the county based Ambassador Program. They develop their leadership skills and par-

community service activities.

Ambassadors are involved as residential and day camp counselors, short-term project instructors, and assist in carrying out county activities. Ambassadors may participate in State and Regional activities such as Summer Conference, Citizenship in Action, and WORLD regional leadership retreat.

We welcome adult volunteers at any time throughout the year. We are always in need of volunteer club leaders.



PHOTO BY: Judi Peters

ticipate in a variety of 4-H Horticulture judging at Polk County Fair.

4-H member with her market sheep.

PHOTO BY: Marci Bacho

To become a volunteer in 4-H, you need to complete an application, background and reference checks, as well as online and face-to-face training and orientation. If you don't have time to be a year-round project club leader but have skills you'd like to share with youth consider volunteering for our STEP (short-term educational programs). These programs are focused on specific program interest area that can be offered for a single event or multi-week class.

To learn more about all these activities, please contact the Oregon State University Extension Office at (503) 623-8395, visit our website extension.oregonstate.edu/polk/4h or county Facebook page www.facebook.com/PolkCountyOregon4H/.

Food Preservation Resources

Food Preservation Hotline The 2017 Food Preservation Hotline will be open through October 13, 2017, to answer all of your food safety and preservation questions. The statewide hotline operates Monday through Friday from 9 a.m. to 4 p.m. It is staffed by trained Master Food Preserver volunteers. July 10 - October 13 Toll free 1-800-354-7319

On the Web Complete food preservation instructions can be found at this link http://extension.oregonstate.edu/fch/food-preservation.

NEW – Free Canning Timer and Checklist App This app provides abbreviated checklists and a timer to guide users in canning vegetables, fruits, meats and fish. Intended for people with previous canning experience, the app provides reminders of essential steps in the canning process. Download the free Canning Timer and Checklist at https://catalog.extension.oregonstate.edu/pnw689.

Pressure Canner Gauge Testing OSU Extension Polk County will test your pressure canner dial gauge for free. Simply bring in your lid - no need to remove the gauge - and a staff member will check the gauge for pressure accuracy. Office hours are 8 a.m. - 12 p.m. and 1 p.m. – 5 p.m. Monday – Friday.



Chrissy Lucas OSU Extension Groundwater Education

Cultivating Sustainable Communities

Free Nitrate Screenings offered



PHOTO BY: wikimedia

The OSU Extension Service is offering free well water nitrate screenings for well owners.

A portion of the Southern Willamette Valley has been designated as a Groundwater Management Area by the Department of Environmental Quality due to elevated nitrate levels in well water. All wells should be screened for nitrate every 1 to 3 years. Nitrate can cause health issues at high levels, but are also an indicator if other contaminants could be making their way into your drinking water. While it is especially important for households with pregnant women or newborns to test

for nitrate because of a rare type of at 1320 Capitol Street NE, Salem, OR in blue-baby syndrome, all homes with private wells should be aware of their nitrate level.

For a free nitrate screening, bring $\frac{1}{2}$ cup of untreated well water in a clean. water-tight container to your closest OSU County Extension Service offices. Choose a container that you are comfortable not getting back and clearly mark your contact information on it.

Offices are open Monday through Friday, 8 a.m. to 5 p.m.

• Polk County Extension is located at 289 E Ellendale Ave, Suite 301, Dallas, OR.

Marion County Extension is located

the Oregon Farm Bureau Building.

 Benton County Extension is located at 4077 SW Research Way, Corvallis, OR 97333 in the Sunset Building

• Linn County Extension is located at 33630 McFarland Rd, Tangent, OR 97389

Please be aware the samples will be collected, analyzed, and results returned via mail, email, or phone call.

For additional information on well water and septic systems, free Rural Living Basics classes, and other nitrate screening events, visit the OSU Extension Service website at this address http://wellwater.oregonstate.edu or for more information call 541-766-3556.

Managing Your Septic System

A properly maintained septic system is no threat to the groundwater that supplies your well.

However, if your septic system is failing, wastewater can carry contaminates such as nitrate, harmful bacteria, and viruses into ground water and, potentially, the well.

Your septic system, just like your drinking water well system, needs a regularly scheduled maintenance program. Create a septic maintenance log and keep it with your well maintenance log. It is recommended to have your septic system inspected and pumped by a professional on a regular basis depending on the size of the tank and household demand.

Demand is based upon the number of people in your household, the amount of wastewater generated (based on the number of people in the



household and the amount of water used), the volume of solids in the wastewater (e.g., using a garbage disposal will increase the amount of solids), and septic tank size. The use of water conservation devices can also limit the amount of wastewater and prolong the life of your septic system.

Make sure that everyone in the household is careful about what they flush down your sinks or toilets. Never dispose of items that can clog the system or chemicals that could contaminate ground and surface water. This includes grease, fat, oil, gauze bandages, feminine hygiene products, disposable diapers, paper towels, kitty litter, cigarette butts, coffee grounds, dental floss, hair, paint, pesticides, varnish, thinners, waste oil, and photographic solutions.

Also take care of your septic system's drainfield. The following strategies will help to protect the field and prolong its functional life:

· Do not drive over the drainfield with cars, trucks or heavy equipment. • Do not plant trees or shrubbery in the drainfield area. The roots can get into the lines and plug them.

Do not cover the drainfield with hard surfaces, such as concrete or asphalt. Grass is the best cover because it will help prevent erosion and help remove excess water.

· Divert surface runoff water from roofs, patios, driveways and other areas away from the drainfield.

Tank Size (gallons)		Household Size (Number of People)								
	1	2	3	4	5	6	7	8	9	10
500	5.8	2.6	1.5	1.0	0.7	0.4	0.3	0.2	0.1	
750	9.1	4.2	2.6	1.8	1.3	1.0	0.7	0.6	0.4	0.3
1,000	12.4	5.9	3.7	2.6	2.0	1.5	1.2	1.0	0.8	0.7
1,250		7.5	4.8	3.4	2.6	2.0	1.7	1.4	1.2	1.0
1,500		9.1	5.9	4.2	3.3	2.6	2.1	1.8	1.5	1.3
1,750			6.9	5.0	3.9	3.1	2.6	2.2	1.9	1.6
2,000			8.0	5.9	4.5	3.7	3.1	2.6	2.2	2.0
2,250				6.7	5.2	4.2	3.5	3.0	2.6	2.3
2,500					5.9	4.8	4.0	4.0	3.0	2.6

Note: More frequent pumping needed if a garbage disposal is used.



Empowering People... One Home at a Time!

I don't trust my dreams to just anyone, and I don't expect you to either. That's why I would like an opportunity to demonstrate my knowledge and ability, as well as earn your friendship and trust. Showing that I value your dreams as much as you do.

It is currently a Seller's Market where there are more buyers than homes for sale. I would be happy to prepare a free **Comparative Market** Analysis so you know where you stand in today's market.



- Have you been considering selling your home?
- Have you tried in the past with no luck?

I am a full time local agent ready to help you with your real estate needs.



R

Committed, Energetic Service Sandra Paoli, Broker Licensed in the State of Oregon

Contact me directly at 503.580.0160 sandrapaoli@windermere.com





REAL ESTATE

Windermere/Western View Properties 503.838.1141 Office • 503.838.2334 Fax



Neil Bell OSU Extension Community Horticulture

Cultivating Sustainable Communities

Vegetable gardens are not just for summer

Although the classic vegetable garden includes warm-weather crops like tomatoes and peppers, when the weather cools in early fall, there are many vegetable crops that you can continue to grow and harvest from your garden throughout the fall and winter, courtesy of the (usually) mild winters in the Willamette Valley. Even if you don't have a garden plot, many of these work well in containers. You can plant these vegetables in mid- to late summer after you harvest spring crops and as space is available. To be successful, you need to plan ahead, choose crops and cultivars wisely, and give proper care to your plants.

Fall gardening is possible in most parts of the Pacific Northwest. Late plantings of warmseason crops such as corn and beans can be harvested until the first killing frost. Cool-season crops, such as kale, turnips, mustard, broccoli, and cabbage, withstand frost and grow well during cool fall days. In fact, some of the best vegetables are produced during the warm days and cool nights of fall. These environmental conditions add sugar to sweet corn and crispness to carrots. Parsnips, kale, collards, Brussels sprouts, and Jerusalem artichokes are examples of crops that are improved by a touch of frost.

With a little protection, coolweather crops can be harvested throughout the winter. In addition, some fall-planted crops (for example, certain varieties of broccoli, carrots, and onions) will grow slowly through the winter and be ready to harvest early in the spring. Choose varieties that are suited to fall and winter harvest. Some varieties are designated specifically for fall planting, while others perform well only in the spring. Coolweather crops such as cabbage, broccoli, kale, carrots, many

salad greens, Brussels sprouts, leeks, beets, turnips, scallions, parsley, cilantro, and spinach can withstand some frost. Some of these crops are quite hardy and will survive temperatures well below freezing

The first key to a successful fall or winter garden is location. Don't plant in a spot that is prone to early frost (for example, at the bottom of a hill) or exposed to the wind. Look for an area that gets as much sun as possible during the short days of autumn and winter, such as a south-facing slope. For crops that will be in the garden during the rainy season, good drainage is essential. Raised beds are best. If your soil doesn't drain well, amend it with organic matter such as compost.

Vegetables that remain in the ground throughout the winter need some extra care. Remember to control snails and slugs in August and September, especially if you mulch your plants. Do not fertilize overwintered crops late in the fall. Too much nitrogen encourages a flush of new growth, which is susceptible to freezing. When thinning, leave extra space between plants that will stay in the garden over the winter. Closely spaced plants are more susceptible to rots and slug damage in cool, wet weather than are those with adequate air circulation.

Protection from incessant rain can extend the life of a winter garden dramatically. Heavy and prolonged rains can saturate the soil, encourage slugs, and create an ideal environment for leaf diseases. By covering your winter crops with a cloche, cold frame, row cover, Wall-o-water[™], plastic mulch, or other product, you can avoid many of these problems, improve quality and extend the growing season.



Osprey Farms Chard.

PHOTO BY: Neil Bell

Oregon State University Master Gardener Program

is an Oregon State University (OSU) Extension Service program that educates Oregonians about the art and science of growing and caring for plants. This program also facilitates the training of a highly educated corp of volunteers. These volunteers extend sustainable gardening information to their communities through education and outreach programs.

Master Gardeners are trained volunteers, educated through OSU Extension Service to offer the local community Reliable, Relevant and Reachable gardening information and education opportunities.

- **Reliable:** our gardening advice and education is science-based.
- **Relevant**: customized information for your gardening situation.

• **Reachable:** Call us on the phone, email us a question, or visit with us at markets or gardens in your community.

What We Do and Where We Work: In 30 counties across Oregon, Master Gardener volunteers answer gardening questions at OSU Extension offices, at community farmers markets, and Master Gardener

events. Volunteers create and manage demonstration gardens, school gardens and community gardens. They host garden tours, workshops and classes in their communities.

Your Polk County Master Gardeners are available Tuesdays & Thursdays from 9am – 12pm to answer your gardening questions at the OSU Extension Polk County Service. Call 971-612-0031 or stop by the office at 289 E Ellendale, Suite 301 in Dallas.





Marc Bell Polk SWCD Resource Conservationist

Cultivating Sustainable Communities

Native Pollinator Plants — not just for agriculture

The usefulness and benefits of pollinators in agriculture operations are not to be denied; especially as native bees become more important for cropped plants in light of Colony Collapse Disorder and known risks to honey bee health. However honey bees, native or otherwise, are not our only types of pollinators — many bird and bat species are prolific pollinators along with other insect species. These pollinators are faced with reductions in habitat loss and fragmentation across the world, and there is something you can do, while enhancing your property's aesthetic and ecological function.

When a landowner enhances habitat for pollinators, it can also improve the robustness of the local ecosystem, strengthening and adding complexity to native processes and add redundancies to ward off threats from invasive species, diseases and parasites. Augmenting the landscape with pollinator supporting plants can also provide food and cover for other wildlife species, stabilize soil, improve water quality, and provide connectivity – expanding native wildlife ability to range further afield and regrow population numbers lost in past decades.

Native plants are particularly good for home gardens and landscaping; they have adapted over thousands of years to the local weather patterns as well as the soil types, insects and animal species; they provide the best possible shelter and food sources for native wildlife, and are adjusted to surviving with very little maintenance if planted in appropriate locations. The cost of native plants may seem high at first glance, especially shopping around a nursery, but over time the cost of maintenance: weeding, moisture control, and nutrient



Enhance the natural ecosystem and beauty on your property.

PHOTOS BY: Wikicommons

supplements, will add to the non-native vegetation quickly.

Additionally to supportive native ecology through plantings, augment flowering forbs and woody species with a native bunch grass like Roemer's Fescue. Native grasses provide both practical and ecological benefits to plantings. The grasses take away opportunities for weeds to develop, as well as stabilize soils, provide overwintering habitat for beneficial insects, forage resources for butterfly larva and nests for ground nesting bee species.

There are many resources to point you towards the correct types of native forbs and woody brush plants, but a short list, which includes plants typically available to landowners to purchase at the Polk SWCD Native Plant sale in February, includes: Elderberry, Douglas Spiria, Pacific Willow and Pacific Dogwood, Evergreen Huckleberry, Indian Plum, Lupine, Mock Orange, Nine Bark, native rose varieties, Oceanspray, Oregon grape, Oregon Iris, Red currant, Serviceberry, Snowberry, and Thimbleberry. Other species of grasses besides Reomer's Fescue can include Tall oat grass and Blue wild rye, these perennial grasses survive the winter, continuing their life cycle year over year, making them hardier than annual species once established.

If you have additional questions or are considering native plantings on your property, contact the SWCD today to speak with a planner who can help provide additional information and expertize.



