A Fresh Approach
OREGON FARMERS CONNECT CONSUMERS TO HEALTHY FOODS
Oregon’s hazelnut families have been building an industry for over 100 years known world-wide for quality. It continues to be an honor to serve the farm families who make our industry great.

George Packing Company
“Nation’s Largest Hazelnut Processor”
PO Box 778
Newberg, OR 97032
(503) 537-9606
www.georgepack.com
Nutritious Potatoes from Healthy Oregon Soil

One medium-size potato has just 110 calories and is absolutely fat free, sodium free and cholesterol free. Potatoes provide your body potassium, vitamin C, fiber, vitamin B6 and iron. One 5.3 ounce potato provides 18 percent of the daily recommended value of potassium.

What does potassium do for your body?

- Manages your blood pressure and keeps your heart functioning properly
- Releases energy from protein, fat and carbohydrates during the metabolic process
- Promotes efficient cognitive functioning by helping to deliver oxygen to the brain
- Helps the muscles contract
- Maintains the electrolyte balance in your body’s cells
- Enhances the growth and health of your cells
A source of pride.

There are 230 dairy farm families in Oregon, and they all share the same goals ... to keep their herds healthy, to be good to the land, and to ensure that every load of milk that leaves their farm is filled with the highest quality milk they can produce.

And though Oregon isn’t the biggest dairy state, it is a source of pride for producing world-renowned cheeses, nationally recognized dairy herds, and award-winning quality in its dairy processing plants.

See more about Oregon dairy at www.dairyfarmersor.com
Cheers to Science
OSU teaches the science, business and technology behind good drinks

10 DIVERSE PATHS SAME DESTINATION
Oregon farms are large and small, old and new

13 GROWING THE NEXT GENERATION
Several organizations offer mentors for young and beginning farmers

14 A FRESH APPROACH
Oregon farmers markets connect consumers with healthy foods

18 GROWING METHODS
Local farmers proudly practice sustainability

21 CENTER OPENS EYES TO AGRICULTURE
SAGE interpretive center showcases advancements in crop production

22 OREGON OUTINGS
Fun for everyone at local farms

26 THINK OUTSIDE THE FARM
Frozen and freeze-dried foods provide nutritional value year round

29 HAZELNUTS, FROM ORCHARD TO TABLE
Learn how Oregon’s No. 1 nut is grown, harvested and sold

30 WHAT’S COOKING
Culinary tourism takes off thanks to innovative chefs and diverse agricultural offerings

34 OREGON OVERSEAS
The state’s seafood, pears and animal feed are shipped around the globe

42 SEED NEEDS
Oregon supplies vegetable seeds to the world

44 HOME TURF
Oregon produces most of the world’s supply of cool-season grass seed

On the Cover
Lena Heckman enjoys sweet berries at the OHSU Farmers Market in Portland. Photo by Michael D. Tedesco
PORT OF PORTLAND: At the confluence of West and East

An endless stream of Oregon agricultural products flows through the Port of Portland to China, Japan and beyond. Shipments of blueberries, cherries, wheat, fish and much more. It all moves cost-effectively over the railways, flyways and waterways that converge at the Port of Portland. With air cargo service, four marine terminals and efficient rail and barge systems, the Port keeps Oregon at the center of global markets. www.portofportland.com

PORT OF PORTLAND
Possibility. In every direction.
Welcome to Growing Oregon

Everybody likes a good story. When it comes to Oregon agriculture, there are plenty of good stories to choose from. We’ve captured a few of them in this second edition of Growing Oregon, a magazine dedicated to the bounty produced by our farmers, ranchers and fishers. In the pages that follow, we hope you will learn and appreciate what grows in Oregon, how it is grown and how you might become a part of this great historical foundation of our state.

Today, more than ever before, it’s easy to connect with Oregon agriculture and identify with the many exciting developments taking place. In a state as agriculturally diverse as ours, the bond between our producers, processors, products and consumers is strong. That bond extends beyond Oregon’s borders as consumers throughout the U.S. and the world share in the enjoyment of our wonderful food and agricultural products.

All this is made possible because of people. I’m so incredibly proud of the men and women of Oregon agriculture. They take advantage of new opportunities to improve their operations. They look for connections with urban Oregonians. They explore alternatives and new markets in the local, domestic and international marketplace. They are a proud people who just happen to grow great food and fiber.

Much of the breadth and scope of Oregon agriculture is on display in this edition of Growing Oregon. It would take volumes of publications to capture all the great stories connected to one of the state’s leading industries. But I’m happy to start right here.

Thank you for your interest and support of Oregon agriculture!

Sincerely,

Katy Coba
Director
Oregon Department of Agriculture
AGRICULTURAL ARRAY

Oregon’s distinct regions contribute to variety in farm products

Oregon’s vast agricultural diversity is no secret. With more than 35,000 farms covering a whopping 16.3 million acres, the state produces more than 220 commodities. A big part of Oregon’s agricultural success is the unique attributes of its different growing regions:

COASTAL OREGON
Oregon’s deliciously famous seafood, including salmon, albacore tuna, Dungeness crab, pink shrimp, oysters and more, comes from the coastal region. Flavorful and award-winning cheeses are also produced here.

WILLAMETTE VALLEY
This region is one of the most agriculturally diverse in Oregon – and the world. Willamette Valley farmers produce more than 170 different commodities ranging from grain, grass seed, nursery products and Christmas trees to fresh produce, hazelnuts, cattle, and sheep.

MID-COLUMBIA
This small region, located in the northern valleys of Mount Hood reaching to the Columbia River, is known for high-quality tree fruits, such as sweet cherries, pears and apples.

CENTRAL OREGON
Central Oregon is home to a number of specialty seed crops, garlic, hay, beef cattle, mint and vegetables.

COLUMBIA PLATEAU
Located in northern Oregon, the plateau is the state’s main wheat-producing area. You’ll also find an abundance of potatoes, onions, vegetables grown for processing, watermelon and alfalfa, thanks to the irrigation along the Columbia River.

SOUTHERN OREGON
This diverse region is home to some of the state’s sheep and cattle, plus high-quality tree fruits and pears. You’ll also find grapes, alfalfa and plenty of potatoes.

SOUTHEAST OREGON
The largest agricultural region in Oregon in terms of acreage, livestock dominates the area, with cattle grazing on thousands of acres of rangeland. The area also produces onions, potatoes, sugar beets, mint and alfalfa.

– Rachel Bertone

PHOTO CREDITS: OREGON HAZELNUT MARKETING BOARD | OREGON CHERRY Growers | PHB BUREAU/NORTHEAST OREGON.org | HOULARIPHOTOCLUB.COM | CRAGS: JESSI BRENNER | BEETROOT: VINAYAK | JOHN KOSPERNIK | HAY: ELISA OCHIARONI
GOOD FOOD for all.™

Bob Moore, founder of Bob’s Red Mill, visiting Williams Hudson Bay Farm in Milton-Freewater, Oregon.

Shop 400+ products at bobsredmill.com
A look at Oregon’s top agricultural commodities based on production value

1 / CATTLE AND CALVES
Oregon’s farms and ranches were home to 100,000 head of cattle and calves in 2014. This important livestock commodity had a production value of $922 million that year.

2 / GREENHOUSE & NURSERY
Ranking No. 1 in the nation for potted florist azaleas, greenhouse and nursery products are a major source of revenue for Oregon, with a $830 million value for production in 2014.

3 / HAY
This commodity had a $703 million production value in 2014. The 350,000 acres of hay harvested by Oregon farmers yielded 1.54 million tons.

4 / MILK & DAIRY PRODUCTS
The state’s 125,000 dairy cows produced 2.55 billion pounds of milk in 2014. Milk had a production value of $657 million in 2014.

5 / GRASS SEED
The nation’s leading producer of orchardgrass seed, fescue seed and ryegrass seed, Oregon’s grass seed industry ensures that the world is a little greener. In 2014, the state’s grass seed production had a value of $449 million.

6 / WHEAT
Oregon farmers produced 44.44 million bushels of wheat on 818,000 harvested acres in 2014. This staple grain crop had a production value of $302 million each year.

7 / POTATOES
Potatoes had a hearty production value of $165 million in 2014. Farmers harvested 38,900 acres of potatoes to be sold in grocery stores and fresh markets or to be processed into chips and other ready-to-eat products.

8 / HAZELNUTS
Producers yielded a total of 36,000 tons of hazelnuts in 2014 to be sold whole, chopped or used as ingredients in high-value processed products. This crop had a healthy $130 million value of production.

9 / Pears
One of the state’s most prized fruit crops, pears had a $127 million production value in 2014. Oregon’s orchards bore 215,000 tons of pears that same year.

10 / WINE GRAPES
Yet another lucrative fruit crop for Oregon, grapes had a production value of $118 million in 2014. Producers harvested 58,000 tons of grapes.

CATTLE INDUSTRY GROWTH

- 2006: $489.998M
- 2008: $426.794M
- 2010: $493.885M
- 2012: $635.869M
- 2014: $922.031M

OREGON RANKS NO. 1 IN THE NATION FOR PRODUCTION OF
blackberries, boysenberries, black raspberries, Christmas trees, grass seed, hazelnuts, potted florist azaleas and storage onions.

OREGON RANKS NO. 2 IN THE NATION FOR
hops, peppermint and sweet cherries.
DIVERSE PATHS
SAME DESTINATION
Oregon farms are large and small, old and new

At age 80, Eastern Oregon farmer Don Lieuallen isn’t driving the combine anymore. But he shows up every day to his family’s 2,400-acre century farm to balance the books, check crop management schedules and, as he says, “feed the cats and the cattle.”

Three hundred miles away in Western Oregon, 20-somethings Jeremy and Ashli Mueller also spend almost every day on their farm. Unlike Lieuallen, however, the Muellers aren’t managing vast acreage; they’re making a living on just 1.5 acres.

The contrast between the Muellers and Lieuallen provides a glimpse into the wide diversity of farms in Oregon.

“Oregon farms are as diverse as the crops produced in Oregon and the different environments available to grow agricultural products,” says Ray Jaindl, director of the Natural Resources Program Area for the Oregon Department of Agriculture. “From small acreage to large, opportunities exist for farmers to pursue their dreams and produce crops for a variety of markets.”

Diversified farmer Eric Lieuallen, second from left, walks through a pea field with his son, Riley, and daughters, Melanie and Josie, at D&R&R Lieuallen Farm in Adams.
According to department records, the state sprouts new farms annually, but it is also home to more than 1,150 century farms and more than 25 farms that have been in operation for over 150 years.

On his Umatilla County farm, Lieuallen helps his sons, Tom and Eric, manage more than 1,000 acres of winter wheat, 200-plus acres of green peas for processing and over 350 acres of pasture.

Meanwhile, in Pleasant Hill, the Muellers grow 52 crops in an area a little larger than a football field.

Despite the differences in their farms, the motivation behind the career choices of Lieuallen and the Muellers are similar. In both cases, their love of farming beckons them each morning.

“I’ve always enjoyed what I am doing,” Lieuallen says. “I’ve enjoyed being able to get up every morning and know that I have things to do. And I’ve enjoyed being able to see what I accomplish each day. You either plowed the field or you didn’t. You either fixed the fence well enough to keep the cow out of the garden or you didn’t.”

“Being able to work with plants, being outside, there is something so productive about it that I really appreciate,” says Ashli Mueller, 26.

“I really love just going out and cultivating,” says Jeremy Mueller, 29. “And I like working with chefs and people at natural food stores that order from us. We have some really cool CSA (Community Supported Agriculture) members that have been with us through the ups and downs and getting this farm going.”

Lieuallen, who has a bachelor’s degree in business administration and economics from Whitman College in Walla Walla, Wash., says at one point, he thought about becoming a lawyer. But his roots drew him back to the family farm in 1958, and he’s been there ever since.

Preserving the family farm for future generations is one of Lieuallen’s primary motivations these days.

“My grandparents and parents went through some real sacrifices,” Lieuallen says. “It was difficult for them to keep the farm during the Great Depression. So you think a long time before you want to sell it and walk away from it. In fact, that is something that I would never do.”

Conversely, the Muellers, now in their third year of leasing Excelsior Farms, aren’t looking that far into the future. Asked whether he will still be farming in 20 years, Jeremy hesitates. “Twenty years is a long time to project out,” he says. “Maybe we’ll still be here, if we can play it smart enough.”

– Mitch Lies

From top: The Lieuallen family poses in front of the original cabin on their Adams farm; Don Lieuallen drives a tractor his family purchased in 1951; Jeremy and Ashli Mueller run a small 1.5-acre farm in Western Oregon.
Families own the majority of the nation’s farms, and when it’s time to pass on that legacy, a farmer usually looks to his children. When a young entrepreneur who doesn’t come from a family farm is interested in a career in agriculture, there’s a challenge in even knowing where to start.

“Most folks that come to our program have little to no experience farming, and they’re inspired to learn,” says Stu O’Neill, executive director of Rogue Farm Corps.

The organization was started by a group of first-generation organic farmers who wanted to help those with no previous background enter the field. Students come from all over the country, and many are from urban and suburban areas.

“Without a generational transfer of knowledge, it’s hard to start out as a farmer,” O’Neill says.

The educational internship program at Rogue Farm Corps, called FarmsNext, allows new farmers of all kinds to act as interns on organic farms in Oregon.

“The interns work side-by-side with real farmers,” O’Neill says. “We don’t sugarcoat anything, because real-world experience is crucial. It’s understanding whether or not they can make it as a farmer.”

Garry Stephenson, director at Oregon State University’s Small Farm Center, agrees, adding that many beginning farmers, whether organic or conventional, need training in how to farm and run a farm business.

The Small Farms Program offers courses on farm management and growing crops. “Our goal is to balance the art and science of farming with farm business management,” Stephenson says.

Both men emphasize that beginning farmers are extremely passionate people who see farming as a way to make a difference.

“I equate it to young people having a desire to get back to something that’s real and authentic,” O’Neill says. “They want to change the world with their hands and bodies.” — Rachel Bertone
Oregon farmers markets connect consumers with healthy foods

Farmers markets play a critical role in connecting farmers to consumers in Oregon. At one end of that connection, family farms find a place to share what they grow. At the other end, consumers have access to fresh, locally grown food.

SUPPORTING FAMILY FARMERS

The Lane County Farmers Market in Eugene can trace its roots back to the city’s first Producers Market in 1915. Hosting more than 85 vendors, it operates year round and rotates between three different venues across the city.

Lane County’s summer Saturday market features fresh, leafy greens, locally raised meats and cheeses, as well as colorful rows of berries grown exclusively in Oregon. In the fall, market offerings shift to autumn produce, pumpkins, squash, apples and fresh cider.

PUTTING THE “HEALTH” IN HEALTH CARE

More than 160 farmers markets across the state help raise the visibility of Oregon agriculture while providing access to local, fresh, healthy foods. That’s certainly the mission of Oregon Health & Science University (OHSU) Farmers Market in Portland, which will celebrate 10 years in 2016.

“Our goal is to connect health care with healthy food for all who visit, work and live in the OHSU community,” says Eecole Copen, manager of the market on OSHU’s Marquam Hill campus. “It’s really helpful to have healthy food at your fingertips, and it’s a way for people, particularly in the health care profession, to walk their talk as far as getting fresh produce and healthy foods into their diet. It’s very convenient to buy your groceries while you’re at work, and it’s a way to support the local economy and feel...
FIVE TIPS FOR NAVIGATING A FARMERS MARKET LIKE A PRO

1. Start online — Find the market’s location, hours of operation and parking information in advance to ensure a productive experience.

2. Take a lap — Walk through the entire market before making a purchase. This will allow you to locate the stands with the produce you’re looking for across multiple price points.

3. Don’t forget the bags — Bring bags, a basket or reusable totes. Some vendors will bag items for you, but having them on hand will prove helpful.

4. Strike up a conversation — Talk to vendors, they are often the growers, and can tell you more information about the product you are looking to purchase.

5. Ask for more — If there is something you really like, try to buy in bulk. If you can’t get enough of something, ask the vendor if there is a discount for buying them by the box.

BARTLETT PEAR QUESADILLAS

The sweet fall fruit mixed with hazelnuts and spicy pepper jack cheese brings new life to quesadillas.

Yield: 8 appetizer servings | Prep Time: 5 minutes

Cook Time: 5 minutes | Total Time: 10 minutes | Difficulty Rating: Easy

Nutritional Highlights: Per serving (2 wedges): 127 calories; 5.4g protein; 12g carbohydrates; 7g fat; 225mg sodium

Ingredients:
• 4 (8-inch) flour tortillas
• ½ cup each pepper jack cheese, shredded, and blue cheese, crumbled
• 3 tablespoons fresh basil leaves, chiffonade
• 2 tablespoons onion, chopped
• 2 tablespoons hazelnuts, chopped
• 1 yellow Bartlett pear, cored and very thinly sliced
• 2 teaspoons olive oil

Instructions:
1. On half of each tortilla, sprinkle ¼ of the cheeses, basil, onion and hazelnuts; top with pear slices.
2. Fold in half and brush both sides with olive oil.
3. Heat in nonstick skillet 2 to 3 minutes on each side or until cheese melts and tortilla browns. Cut each quesadilla into four pieces.

Tip: Store firm, unripe pears in a brown paper bag at room temperature to help them ripen faster.

Recipe Created By: Pear Bureau Northwest
“It’s building relationships with farmers, vendors and business owners, and then creating a loyal customer following and having people feel like they can trust where their food is coming from.”

EECOLE COPEN
Manager of the farmers market on OHSU’s Marquam Hill campus
With Oregon’s environmentally friendly reputation, it’s not surprising that the state’s farmers are among the nation’s leading practitioners of sustainability. In many cases, sustainability is a central part of Oregon farms’ management plans.

**THREEMILE CANYON FARMS**

That’s definitely the case at Threemile Canyon Farms in Boardman. “My attitude is whatever you create, you utilize to its fullest extent,” says Marty Myers, general manager of the farm.

Threemile, which milks nearly four times more cows than any other Oregon dairy, uses manure from its cows in methane digesters to generate about a third of its power needs. The byproduct left after the manure runs through the digesters is used as a fertilizer to provide nutrients for the farm’s potatoes and organic vegetables, as well as the alfalfa and corn it grows to feed the cows.

The farm also uses potato skins left over after processing as feed for its cows. Wheat is grown as a cover crop, and everything but the kernel is used as cow feed.

The dairy cows are well cared for as the farm employs a stringent animal welfare program that involves third-party audits every three months. “They have full rein,” Myers says of the auditors. “They aren’t escorted by management. They just show up and go and score the health and body conditions of the animals and the processes we have established.”

The farm also prides itself on good employee relations.
“I’ve got 300 families that are very dependent on what we do here,” Myers says. “They are well paid, make a good living, have health benefits and are obviously in a sustainable business.”

The farm also contributes to the local community by donating meat to Farmers Ending Hunger, a nonprofit organization that supplies food to the Oregon Food Bank, and to Blanchet House, a social services organization.

STAHLBUSH ISLAND FARMS

About 250 miles west of Boardman in Corvallis, Bill and Karla Chambers of Stahlbush Island Farms embrace a similar commitment to the economic and environmental nuances of sustainability.

“Bill and I are both economists,” says Karla Chambers, “and in our minds, good environmental stewardship is also the best economic model. The last thing you would want to do is let any inputs get away from you, or to not fully utilize your waste.”

Stahlbush, which grows and processes fruits and vegetables, invested in a biogas plant in 2009 – the first of its kind in North America – and now generates the power needed to operate its processing plant.

The biogas system makes Stahlbush a carbon negative operation, removing more carbon dioxide from the atmosphere than Stahlbush is responsible for creating. That system and its overall approach to food production earned Stahlbush a prestigious national award, Food Engineering’s 2012 Sustainable Plant of the Year.

WOODBURN NURSERY

Just up the road from Stahlbush, Woodburn Nursery and Azaleas has embraced sustainability by recycling irrigation water and fertilizer.

Owner Tom Fessler says it wasn’t so much a desire to be sustainable as a desire to expand that originally drove the farm to embrace water and fertilizer reuse.

“We would not have been able to expand had we not started recycling water,” Fessler says.

Today, the farm in Woodburn recaptures and reuses about 75 percent of its irrigation water, Fessler says, as well as much of the nutrient value in fertilizer applications.

“It was out of necessity that we started recycling water,” Fessler says, “but it does make you feel good to know that you are utilizing the resource to the best of your ability.”

– Mitch Lies
FINANCING THE FARM
AgAmerica’s innovative approach to land lending is helping the next generation of American farms grow.
At AgAmerica Lending, they understand that land loans are not one size fits all. “We know that farmers are progressive people who are always innovating,” says Brian Philpot, owner and managing partner at AgAmerica. “We feel like we must innovate along with them to satisfy their needs and remain relevant.”

Philpot and his business partner both came from agricultural families, and founded AgAmerica after years as land investors, realizing that there was a need for a flexible land lender that could tailor their offerings. Since the company’s beginnings in 2009, they have expanded their products to allow the farmer or rancher to identify their needs first, and then create a customized loan package for them. Many AgAmerica employees come from agricultural backgrounds, so they can uniquely relate to clients and have a firm knowledge of what they require to be successful.

“We pride ourselves on service, and our long history of understanding what owning land means,” Philpot says.

AgAmerica gives farmers the option of longer term loans, some up to 25 years, without having to go through the traditional hassle of renewing annually. They offer a 10-year line of credit; again, much longer than what traditional banks offer. AgAmerica also takes a deliberate team approach.

“We want our loan officers and underwriters to act as a team, dealing with the client together,” says Philpot. “It helps us process loans quicker and smarter.” Farmers can choose from different types of land loans, including agricultural farm and ranch loans, rural land and home loans, and raw development land loans, as well as loans tailored to specific commodities, such as melons and cattle.

“A lot of farmers have loans with multiple banks,” Philpot says. “We’re able to help them consolidate and save money.”

One such success story is a citrus grower who wanted to expand his operation and consolidate debts. AgAmerica designed a package that saved him $57,000 in payments annually.

Discover more about AgAmerica’s products, mission and success stories at agamerica.com.
AgAmerica employees know firsthand how important loans can be in helping farmers grow their business, because they, too, are involved in agriculture.

Take Craig Seals, correspondent leader, who comes from a long line of farmers. His family raised hogs and cattle, which his father cured himself, grew tobacco, apples, various fruits and vegetables, and made molasses from their farm’s own sugar cane.

Colin Clyne, AgAmerica fund manager, taps into his experiences working and traveling with Florida Commissioner of Agriculture Adam Putnam. “It was a really great two years – I got to see a lot of the state and farmland,” Clyne says.

Rob Harper, managing partner, is the co-owner of Little Gator Creek Cattle Company. His ranch includes a variety of cattle species, and he’s recently donated close to 70 Zebu cows for the Florida Public schools’ agriculture programs.

Brian Philpot, managing partner, owns 1,000 acres of timberland in Florida with Bryce Philpot, senior vice president of underwriting.

Brian’s family timber business inspired his career choice. “I logged a lot of miles riding in the back of my dad’s truck looking at timber tracts, and fell in love with it. I realized it was something I wanted to invest in,” Philpot says.
THIS LAND IS YOUR PROMISE AND YOUR LEGACY

Forget annual paperwork renewals, prepayment penalties and mandatory pay-down periods. Instead, we’ll help you plan for the future with 25-year term loans plus an industry-unique 10-year line of credit. Keep your promise to the next generation.

MAKE THE FIRST CALL
855.817.1237
AGAMERICA.COM/SUCCESS-STORIES
In 2000, after planning for an expanded Tillamook County Creamery Association at the Port of Morrow, Port Director Gary Neal asked where they were going to locate the visitor center.

“I was interested in that tourist attraction component like they have in Tillamook,” Neal says. In addition to Tillamook’s cheese production, Neal saw an opportunity for the port to open its own agricultural tourist center.

“It’s important for people to understand that there are a lot of technological advancements in agriculture in our region,” Neal says. “We think we are probably one of the most sophisticated regions in the world when it comes to agriculture and food processing.”

Neal convinced the port’s directors to move forward. The Sustainable Agriculture and Energy Center (or SAGE Center) began providing visitors with a glimpse into the region’s crop production in 2013.

Among exhibits in the center’s main hall, a simulated hot-air balloon ride takes visitors on a virtual tour over the area’s farmland and a modern farming exhibit showcases current technology.

Conveniently located along Interstate 84 in Boardman, the center in Eastern Oregon has attracted roughly 40,000 visitors in its first two years, including thousands of schoolchildren.

“Educational tours are a huge part of what we do,” says Kalie Davis, SAGE Center manager. “We try to educate kids about where their food comes from.”

Word-of-mouth seems to be one of the center’s best means of advertisement.

“Everybody that comes through is pleasantly surprised and tells their friends and family about the SAGE Center,” Davis says. — Mitch Lies
Oregon Outings
Fun for everyone at local farms
Opportunities abound for everyone to experience agriculture in Oregon, ranging from wineries and breweries to farmers markets and farm tours, U-pick locations, pumpkin patches and farm-to-fork gatherings.

“Oregon has always been one of the most progressive states, and I think that’s a big reason we’re seeing enormous growth in agritourism,” says Geoff Horning, executive director of the Agri-Business Council of Oregon. “It started with an explosion of farmers markets popping up in communities throughout Oregon, and the next natural step is to visit the farm. It’s a very soulful experience being on the farm, and Oregonians from the city are craving a return to the basic roots.”

TOUR THE LOOP

One of the most popular agritourism sites in Oregon, the Hood River County Fruit Loop is located just an hour from Portland. With amazing views of Mt. Hood, the 35-mile drive takes visitors on a tour of the region’s orchards, forests and farmlands, where they can stop at sites including wineries, lavender fields, chestnut and alpaca farms, and U-pick sites. Oregon’s delicious, fresh produce is featured at the farms and markets, including cherries, pears, peaches and apples. The self-guided tour is dotted with other fun attractions, as well as great places to eat and stay. For
more information on the Fruit Loop, visit hoodriverfruitloop.com.

**E.Z. LEARNING**

At E.Z. Orchards Farm Market in Salem, hungry visitors can sample fresh summer produce, get a taste of local cuisine at a farm-to-fork dinner or indulge in a seasonal shortcake treat, topped with sweet berries or peaches.

John Zielinski, one of the fourth-generation owners of the farm, says agritourism venues like the market encourage interaction between farmers and their urban neighbors, helping people better understand where their food comes from.

“It’s also a good business opportunity, allowing farmers to diversify,” he says.

The family-owned farm hosts educational tours and throws an annual HarvestFest in October.

“It’s really important to educate students, and I think it’s our responsibility to close the urban-rural divide,” Zielinski says. “We have approximately 7,000 students visit every fall.”

**FROM TOURS TO TREES**

Families can kick off the holiday season at one of many U-cut farms including Parson Landing Christmas Tree Farm in Oregon City with a crackling fire, festive Christmas music and complimentary hot cocoa before trekking into the fields to select and cut the perfect Christmas tree.

“Agritourism is a wonderful opportunity for people to understand and appreciate the farms that are a source of their agricultural products,” says owner Jaimee Parson.

Founded in 2009, the Christmas tree farm focuses on its U-cut business, allowing customers to choose and cut their own trees. “Our goal is to provide a memorable and fun experience to all of our customers, and become a part of their yearly tradition,” Parson says. “We love interacting with everyone that comes to our farm to appreciate the beauty of the land and get down and dirty cutting their own tree.”

Visitors also enjoy Parson’s majestic tree of light. The farm strings more than 20,000 twinkling lights on a 150-year-old oak tree, illuminating the night.

These farms are just the beginning of Oregon’s diverse and fun educational agritourism scene, offering lessons in farm life and unique insights into the agriculture industry.

– Rachel Bertone

For links to more Oregon agritourism farms and other destinations, visit OR-agriculture.com.

---

Left: E.Z. Orchards and Parson Landing Christmas Tree Farm both invite visitors to their farms.
THINK OUTSIDE THE FARM

Frozen and freeze-dried foods provide nutritional value year round
From snacks to full meals, Oregon supplies thousands of Americans with their favorite fare. The state is a leader in the food processing industry, with several of its companies producing frozen and freeze-dried foods enjoyed across the United States.

**FROZEN FOODS**

Oregon companies, such as Albany’s National Frozen Foods Corp., offer frozen food options to consumers. After harvesting, the vegetables are quick-frozen within hours, locking in freshness and nutrition. Thanks to this process, consumers can enjoy the fresh flavors and health benefits of vegetables any time of the year.

Oregon is also home to Willamette Valley Pie Co., located just outside of Salem. In addition to frozen pies and cobblers, the company offers more than 15 types of packaged fruit that is prepared through the Individually Quick Frozen (IQF) process. During IQF, each piece of fruit is frozen without touching any other pieces, eliminating possible clumping that might damage the fruit. The result is frozen fruit that is ripe, sweet, and full of flavor and nutrients.

Willamette Valley Pie Co. products are available on their website, [www.wvpie.com](http://www.wvpie.com), and at markets throughout the state.


**FREEZE-DRIED FOODS**

Oregon Freeze Dry Foods, the world’s largest diversified freeze dryer, has more than 32,000 square feet devoted to food processing at its Albany campus. According to Jim Merryman, OFD Foods president and chief operating officer, food is dehydrated during the freeze-drying process, but all nutrients remain in the food and it retains its original color, size and shape.

“You put a grape in, you get a grape back out,” Merryman says. “It’s just missing all the water, so everywhere there was a water molecule, there’s now a hole.”

Primarily serving the general public and the U.S. military, OFD Foods freeze dries more than 450 different products, including fruits, vegetables, beef, poultry and seafood. Because the water is removed from each item before packaging, no preservatives or additional ingredients are necessary.

“By removing the water, you concentrate the flavor because it isn’t being diluted,” Merryman says.

To ensure food stays fresh for as long as possible, OFD Foods packages food in cans and pouches, which Merryman says are the best options that current technology offers.

“If you can keep moisture and oxygen away from the food once it is freeze-dried, it has an indefinite shelf life – it won’t change,” Merryman says.

“Freeze-dried foods are convenient,” says Brian Campbell, director of food safety and policy for the Northwest Food Processors Association. “They have good shelf stability and maintain their nutritional integrity.”

Through the freeze-drying process, hikers, campers and other consumers can enjoy nature’s bounty, no matter the season.

– Jessica Walker Boehm

---

**FOOD PROCESSING IS THE THIRD-LARGEST MANUFACTURING SECTOR EMPLOYER IN OREGON, THE NORTHWEST AND THE U.S. AS A WHOLE.**

*Source: oregonbusinessplan.org*
Like many fruit orchards, hazelnut trees are planted in rows. It takes about five years after they are planted for hazelnut trees to bear nuts, but they can continue producing nuts for more than 50 years.

Hazelnuts pollinate in late winter then grow in the spring and summer. As they develop, the nuts go from green to — you guessed it — hazel in color by the time they mature.

After falling to the ground, nuts are harvested in late September and October. A machine called a harvester sweeps the hazelnuts into windrows and then vacuums them up.

From the orchard, hazelnuts are shipped in wooden tote bins to nut processing plants where they are cleaned, dried and sorted by size.

More than half of Oregon’s hazelnuts are sold in the shell. The remaining nuts are shelled and roasted, sliced, and ground to be used in anything from salads to chocolate. The versatile hazelnut can be found in candies, nut butters, baked goods, oils and flour.

Nothing goes to waste. Leftover shells make great mulch and are used in landscaping.

Staff Illustration by Kris Sexton // 29
Oregon’s abundant variety of foods create a feast of flavors for hungry tourists flocking to the state each year. Judiaann Woo, an Oregon native and director of global communications for the Oregon Tourism Commission, says she’s noticed an uptick in visitors looking to participate in culinary activities.

“We know that Oregon ranks high on people’s radar. Lots of great cities have restaurants and exciting food and drink scenes, but Oregon is still small enough that people can come and really engage with the people who are making the food and drink they’re sampling,” she says.

It’s that customer engagement that drives Adam and Jackie Sappington, owners of The Country Cat in Portland. “It seems like when we opened in 2007, farm-to-table was a big movement. But for us, it was a way of life,” Jackie Sappington says. “It wasn’t a marketing strategy. It was just that we know the bounty that Oregon has to offer, and for the people who come and eat here who aren’t from the area – our food

Higgins Restaurant in Portland focuses on fresh Oregon products including seafood and vegetables.
is their introduction to what Portland and Oregon are about.”

The husband-and-wife team recently opened a second Country Cat location in Portland International Airport, built around the same principle of incorporating local ingredients in the menu.

“When people get off the plane, they can go to Country Cat and know the servers are educated about where the food’s coming from and that they’re eating something different,” Sappington says. “When people sit and see this gorgeous asparagus or these amazing radishes ... they can taste the difference, and it’s like, ‘Wow, this is Oregon!’ ”

“Summertime wasn’t the most busy time back then, and tourists only accounted for about 10 percent of our business. It has completely flip-flopped since then,” Higgins says. “Now, starting around April when school starts to wind down, business picks up and tourism accounts for more than 40 percent of our business.”

Higgins believes another reason Oregon’s locavore scene has taken off is the availability of fresh meats and produce.

“I came to Portland in 1984 when there were fewer people set up to bring their product to market. There were only three farmers markets in Portland back then. Now, we have 30 plus markets in Portland,” he says.

“Oregon also has a maritime climate, which allows an extended growing season. Couple that with the fact that Portland had the urban growth boundary, which basically established accessible agriculture within a short drive of the city, making it easier for farmers to get their products to town.”

Higgins, who grew up in rural, upstate New York and worked on farms as a kid, says his devotion to agriculture runs deep.

“It’s in my blood, and it didn’t take long to realize that if you wanted the best possible product to cook with, you wanted to make sure it came from the closest possible source,” he says.
Higgins’ devotion to the state’s producers is shared by Jeff Harvey, president and CEO of the Burgerville restaurant chain. Harvey says Burgerville locally sources 72 percent of its menu, which includes its signature hamburgers, as well as chicken, turkey and fish sandwiches. The company is continually striving to build new relationships with farmers.

“When we started, the relationship with the local farmers is the only thing that saved our bacon. If we hadn’t had those relationships, it would have been very difficult to succeed as a business,” Harvey says. “To us, [sourcing locally] means jobs; it means economy; it means healthier food; it means lower emissions and a better environment.”

The state’s culinary heritage runs deep.

“Part of it is the geography,” says Woo of the Oregon Tourism Commission. “Another part is having this agricultural base; people want to support that.”

– Teree Caruthers

Learn more about culinary tourism at OR-agriculture.com.
One might say that Oregon seafood, pears and straw get around. From live crab in Hong Kong to pears in Saudi Arabia to straw and alfalfa in Korea, countries across the globe enjoy Oregon’s agricultural products.

The products have different selling points – some go into animal feed, others are for direct human consumption – but each product is highly desired because of its top quality and dependability.

**SEAFOOD GROWTH**

Much of Oregon seafood, for example, has a certificate of sustainability from the Marine Stewardship Council (MSC), which, according to Larz Malony of Pacific Seafood, runs fisheries through a rigorous audit before awarding the certification.

“MSC certification is a big deal,” Malony says. “Oregon has done the work to make these fisheries sustainable, more so than any other state in the United States.”

Oregon sells a wide variety of fish to international markets, including rock fish, black cod, cold water shrimp, king salmon, Pacific whiting, Oregon albacore tuna and Dungeness crab, Malony adds.

In Scandinavia and northern Europe, cooked and peeled cold-water shrimp from Oregon are very popular, he says. King salmon from Oregon dominates demand in certain areas of Asia, as does Oregon albacore tuna, black cod and cold-water pink shrimp. Pacific whiting from Oregon is also popular in Eastern Europe, Africa and the Middle East.

Live Dungeness crab, meanwhile, enjoys a huge and growing popularity in China and other Asian countries, according to Malony.

“We produce, off the coast of Oregon, a wide range of sustainable fish that consumers find attractive and allows for large-scale production. Our fisheries are well managed and here to stay,” he adds.
THE MARINE STEWARDSHIP COUNCIL FISHERIES STANDARD IS DESIGNED TO ASSESS IF A FISHERY IS WELL-MANAGED AND SUSTAINABLE.

“MSC certification is a big deal. Oregon has done the work to make these fisheries sustainable, more so than any other state in the United States.”

LARZ MALONY
International section manager for Pacific Seafood

THE UNITED STATES IS THE SECOND LARGEST PEAR-PRODUCING COUNTRY IN THE WORLD

Oregon and Washington comprise the largest pear-growing region – producing 85 percent of all fresh pears grown in the U.S.

Source: www.msc.org

THERE ARE THREE CORE PRINCIPLES THAT EVERY FISHERY MUST MEET:

Principal 1: Sustainable fish stocks. The fishing activity must be at a level which ensures it can continue indefinitely.

Principal 2: Minimizing environmental impact. Fishing operations must be managed to maintain the structure, productivity, function and diversity of the ecosystem.

Principal 3: Effective management. The fishery must comply with relevant laws and have a management system that is responsive to changing circumstances.

Straw exporters send about 1,300 containers a month from the Willamette Valley through the Port of Portland to South Korea.
SWEET PEAR-INGS

The same goes for Oregon-grown pears. The sweet and juicy state fruit gets shipped in large quantities to Mexico, the state’s No. 1 export market for pears, as well as to Canada, Colombia, China, Brazil and the United Arab Emirates.

Most Oregon pear production takes place in the Medford area of Southern Oregon and the Hood River Valley, which lies in the shadow of Mount Hood. D’Anjou and Bartlett pears, two varieties common in Hood River, thrive in the area’s volcanic soils.

“It is good for pears to have some cold during the winter dormant season,” says Kevin Moffitt, president of Pear Bureau Northwest, which represents Washington and Oregon growers. “It helps them blossom fully in the spring, creating abundant harvests in the summer.”

Immediately after harvest, pears are placed in cold storage at close to 0 degrees Fahrenheit. Some fruit goes into controlled atmosphere, a low-oxygen storage that slows pear respiration rates and allows them to stay fresh for six to eight months.

THE LAST STRAW

Oregon’s reputation for producing high-quality agricultural products doesn’t stop at food. Oregon’s straw and alfalfa producers also maintain an excellent international reputation for delivering high-quality product, says Steve Van Mouverik of Pacific Ag, an agricultural residue and forage harvesting business.

Much of the straw and alfalfa produced in Oregon ships to Japan or Korea as feed for dairy cows and beef cattle.

High-fiber Oregon straw is used to feed Wagyu beef in Japan. When consumers take a bite of $150-per-pound Kobe beef at a high-end Tokyo restaurant, chances are they are eating a part of something grown in Oregon.

Most of the straw produced in Oregon hails from the Willamette Valley as a byproduct of grass seed. A majority of the alfalfa, conversely, grows on the east side of the state.

“Alfalfa is nature’s best-balanced meal for a milk-producing animal,” Van Mouverik says. “It has a lot of protein, a lot of scratch factor for the rumen and it has a range of carbohydrates that are good for the animal, too.”

Whether the east or the west side of the state, whether animal feed or a food product, evidence shows that if it’s grown in Oregon, it can wind up being enjoyed by consumers nearly anywhere in the world.

“We produce far more pears and seafood than Oregonians can possibly eat,” says Theresa Yoshioka, trade manager with the Oregon Department of Agriculture. “We take pride in sharing our bounty with the regions of the world that can’t grow what we grow.”

– Mitch Lies

Wild and sustainable products worth sourcing …
With more than 220 breweries and 550 wineries, it’s no surprise that Oregon has a national and international reputation for growing some of the best hops and grapes in the industry. In addition to this achievement, Oregon State University leads the nation with its integrated food science curriculum, which includes the option to learn the science, business and technology behind fermentation.

“Our department is the second-oldest food science department in the United States. We are also one of two national programs in fermentation sciences,” says Dr. Robert McGorrin, head of the university’s Food Science and Technology Department since 2000. Launched in 1995, enrollment in the fermentation science program has expanded exponentially over the past 20 years. In 2015, about 65 percent of students majoring in food science pursue this option.

“The success of our program is due to the many different options to choose from, and that they all speak to the Pacific Northwest, in terms of the brewing culture and boutique wineries in Oregon,” McGorrin says.

Thanks to support from local businesses, OSU has produced 215 graduates in the fermentation science area since its inception.
“Our department is the second-oldest food science department in the United States. We are also one of two national programs in fermentation sciences.”

DR. ROBERT MCGORRIN
Department head, OSU Food Science and Technology

STUDYING THE SCIENCE

The science behind alcoholic beverages is extremely complex, considering the many different components involved in the process, from growing the hops or grapes to bottling. For example, variability in soil nutrition, plant health, weather and the fermentation process can impact flavor, providing lots of research opportunities for OSU students.

“That’s part of the training, to understand and help direct it, essentially making consistent qualities and flavors,” confirms McGorrin. “Our students get hands-on learning, a strong chemistry component and laboratory work.”

Using grapes from the university’s 14-acre Woodhall vineyard, as well as other varieties of Vinifera grapes obtained from local vineyards, students can work with different wine fermentation profiles. Similarly, several varieties of hops are obtained from OSU’s hop breeding program and local growers in the Willamette Valley. Cascade hops, widely used by craft breweries, was one of the varieties developed at the USDA hop breeding program at OSU, and as Oregon ranks second in U.S. hop production, students face no shortage of raw ingredients for their studies.

BREWING A BUSINESS

Several of OSU’s courses, such as Profiles in Winemaking, invite local winemakers to share their experiences in vineyard management, operations and industry challenges. On the winery side, guest lectures discuss sanitation among other key topics.

These added-value interactions, coupled with industry internships, were pivotal for Christina Hahn, a 2015 graduate in food science with a double option in food and fermentation science.

“I’ve had a variety of opportunities to apply theory to practice in OSU’s pilot brewhouse and through internships at Deschutes Brewing Co. and Boston Beer Co.,” says Hahn, who’s pursuing graduate school at OSU researching hops chemistry and beer flavor.
“I chose to attend OSU because I could get the hands-on experience and industry exposure that is critical to finding success in the brewing world.”

TEACHING TECHNOLOGY

Looking to the future, OSU is starting a new distilled spirits program and creating a center for sensory and consumer behavior research. Additionally, a new research brewery will allow professors to teach at the cutting edge of brewing science.

“Breweries today are becoming more technologically sophisticated, so we as a university have to change the ways that we teach our students,” says McGorrin, “including training new brewers to solve the industry’s technical problems.”

Students may start their own small businesses or join employers such as Constellation Wines or Miller-Coors. OSU’s fermentation sciences coursework provides not only the experience with leading technologies in the rapidly diversifying fermentation industries, but the problem-solving skills to make a difference in Oregon and beyond.  

— Keri Ann Beazell

Left: OSU researchers focus on grape fermentation science at the school’s Woodhall vineyard. Above: The Hop Breeding Program at OSU gives students the opportunity to learn more about hops chemistry and beer flavor.
When moms tell kids to eat their carrots, odds are they are instructing them to eat an Oregon product.

The state produces roughly 65 percent of the nation’s carrot seeds and 40 percent of the world’s supply, according to Mike Weber of Central Oregon Seeds in Madras.

Oregon also produces significant volumes of broccoli, cauliflower, Brussels sprouts, beets, spinach, squash and onion seeds. Combined with flower seeds, the industry generates roughly $32 million a year in sales, providing a significant boost to the state’s economy.

Oregon’s carrot seed production is concentrated in a 58,000-acre area of Jefferson County in Central Oregon. The area is also home to onion, parsley and some radish seed production, but carrots dominate its vegetable seed acreage.

“They keep increasing the acres because the American consumer is eating more carrots,” says Gary Harris, who grows carrot seeds near Madras for Central Oregon Seeds. The crop is difficult to grow, Harris says, requiring extensive ground preparation before planting in the fall, protecting the crop from freeze damage in the winter, and optimizing irrigation water in the spring and summer months in order to maximize yield.

But he says the payback is well worth it, bringing farmers in excess of $4,000 an acre some years. The paycheck is certainly worth it when the climate helps the farmers achieve success.

“The reason Jefferson County does a good job of raising carrot seed is a stock of good farmers and good companies that help grow and process the seed. It also has a 2,400 foot elevation, warm days, cool nights and honeybees,” Harris says. Mild temperatures in summer months help honeybees thrive and extend the life of pollen, giving bees plenty of time to move it between the hybrid carrot plants, Harris says.

Vegetable seed production also excels in Western Oregon, where farmers produce significant volumes
of cabbage, broccoli, cauliflower, turnips, parsley, mustard, radish, turnips and kale seeds.

Again, the crops require agreeable environmental conditions and extensive crop management expertise to meet the high-quality specs that seed buyers demand. Western Oregon farmers are up to the task.

“We have the best seed growers in the world,” says Gary Weaver of Weaver Seed in Scio. “These guys are professional seed growers, and they’re good.”

Weaver Seed produces vegetable seed for domestic and international markets, including a Japanese market that annually consumes 6 to 8 million pounds of sprouting radish, peas, cress, mustard, broccoli, red cabbage seed and others.

Gary’s son, Chadd Weaver, is general manager of Weaver Seed. He says the company’s ability to maintain strong market share in the highly demanding Japanese market started in the field.

“We have to be very hands-on in the field because the quality specs we have to meet are very high,” Chadd Weaver says.

Once harvested, the company uses state-of-the-art equipment to clean and separate seed by size, weight and even color.

A good percentage of the company’s domestic sales are to Midwest farmers, where radish and turnip seeds supply a burgeoning cover crop market, and in the South, where mustards, collard greens and kale seeds are used to contribute to Southern cuisine, possibly making it a little easier for moms to get kids to eat their vegetables.

“We have the best seed growers in the world.”

GARY WEAVER
President, Weaver Seed

– Mitch Lies
There’s a good chance the seed used to plant your lawn came from an Oregon grass seed field.

The Beaver State produces roughly 90 percent of cool-season grass seed in the U.S., says Roger Beyer, executive director of the Oregon Seed Council.

The seed is used on lawns, sports fields, golf courses, in pastures and along roadways. It has even made appearances at the Olympics, World Cup and Super Bowl.

The Willamette Valley’s mild winters are ideal for grass seed, enabling growers to plant in fall for summer yields. Minimal summer rainfall enables growers to dry seed in the field, reducing drying costs and improving germination rates. Drying occurs in a seven- to 10-day window between cutting and harvesting the crop.

“Depending on the species, grass seed can be difficult to produce,” says Denver Pugh, a fourth-generation seed grower from Shedd. Particularly when growing perennial crops, production demands are considerable. “You’re fighting weeds, diseases, slugs and insects,” Pugh says.

Once harvested, seeds are cleaned and bagged, then shipped to seed companies. It’s then packaged for retail. A blend of grasses is a combination of two or more cultivars of the same species, while a mix is a combination of two or more species of grasses.

Grower Orin Nusbaum says he didn’t think about where the seed he produced ended up. In 2009, however, Nusbaum began serving on the Oregon Ryegrass Growers Seed Commission and met livestock farmers who use Oregon annual ryegrass seed.

“Talking to those producers and having them tell you they couldn’t do what they do without your product, that is pretty rewarding,” Nusbaum says.

– Mitch Lies
Oregon Blueberries are delicious, healthy, simple and convenient. Adding a handful of blueberries to your day will energize and help achieve daily nutritional requirements. They are low in fat and full of nutrients like Vitamin C. Look for blueberries from Oregon now.

oregonblueberry.com

Growing knowledge for Oregon's future

Oregon State University’s College of Agricultural Sciences helps drive Oregon’s reputation as a leader in high quality food.

OSU students are crafting award-winning food products with state-of-the-science technologies. Look for student-made Beaver Classic Cheese in fine markets.

Changing the future. Right here. Right now.
ONE SOURCE MANY SOLUTIONS

For 90 years, we have been America’s premier supplier of fruits and vegetables, which have been grown by more than 200 farmer families in Oregon’s Willamette Valley. We are committed to sustainably producing innovative products of unsurpassed quality. Through this commitment, we have built our success, by ensuring our customers’ success.

Visit our website to see our extensive offerings @ www.norpac.com

NORPAC Foods, Inc.
3225 25th Street SE
Salem, Oregon 97302