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The trade development specialists



Whether it's selling Klamath potatoes in Vietnam or promoting Oregon Christmas trees to Southern California, ODA marketing activities aim to bring together buyer and seller.

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The Market Access and Certification Program Area assists Oregon's agricultural producers, processors, and fishers in their efforts to successfully sell and ship products to local, national, and international markets. The marketing portion of the program area works to promote and create demand for Oregon agricultural products. The program reaches rural and urban areas alike to create jobs and sustainable opportunities for the state's multi-billion dollar agricultural sector.

That's the official description of one of the Oregon Department of Agriculture's major program areas — the one that addresses a key tenet of the agency's mission statement of providing market development for Oregon agricultural products. Behind all the words are examples of people, companies, and sectors of the industry that have been greatly helped by the efforts of ODA's trade development specialists — a small team of workers who ultimately work to bring together buyer and seller.

"Getting agricultural products to market — whether it is local, domestic, or international — is complex," says ODA Director Katy Coba. "Moving food and plant

material to market has its own unique challenges that are quite different from marketing a pair of shoes or a computer chip. There is a whole range of expertise that needs to be packaged up in order to be successful. We understand the many parts that go into marketing and what it takes to get a product to its destination."

ODA's efforts have long relied on specialized market expertise, from international to local and domestic. Throw in specific programs including farm to school, specialty crop block grant, and commodity commission oversight, and ODA has successfully provided a suite of services that catered to the needs of the industry. Responding to changing dynamics, these distinct program efforts are melding. ODA marketing staff members are becoming not only a jack-of-all-trades, but masters as well. They are the trade development specialists.

The tools of the trade

"We think of ourselves as problem solvers and our approach now is more streamlined," says Lindsay Eng, director of ODA's Market Access and Certification programs.

In the past, ODA has helped provide direct buyer-seller connections for Oregon farmers, ranchers, fishers, packers, and processors interested in the export market, relying on long standing relationships, outreach and education to new buyers, trade missions (inbound and outbound), technical marketing activities and

The AGRICULTURE

QUARTERLY

Director's column

Welcome to the family! Those were my first words addressing an auditorium filled with growers and others interested in cannabis production at a conference in Salem last fall sponsored by the Oregon Farm Bureau. My greeting was meant to signal the perspective of the Oregon Department of Agriculture — that we view cannabis just as we do any other agricultural crop produced in the state. We are excited for the opportunity to support growers and processors who are interested in producing cannabis products.

Being a new industry sector, we want to make sure that cannabis growers who have not yet interacted with ODA understand what we do, how we do it, and the regulations they need to comply with — again, just like any other agricultural crop. We are here to educate producers and processors and support them in any way that we can.

To be sure, there are unique challenges with cannabis. The federal government still does not classify marijuana and hemp as legal crops. As a result, some of ODA's marketing programs that receive federal dollars

will not be able to assist the cannabis industry the way they assist other agricultural products. That being said, we believe there are support services we can provide to cannabis producers that target the in-state market.

ODA provides certification services for agriculture based on what the industry needs and wants. For cannabis, it's as simple as having a group of growers sit down with us and figure out what they are looking for. We can help develop the standards they need, but the process is really driven by the growers. Once those standards are set, ODA will audit and certify to make sure growers who want to be certified are meeting those standards.

The key message to growers is, if you have an idea and you think ODA can help, we want to hear about it and figure out how we can work with you.

Existing ODA programs most likely to interface with cannabis growers and processors include pesticides, weights and measures, and food safety. We are already working in those three areas.

ODA has created a list of pesticide products to help guide growers and pesticide applicators use products with labels that do not legally prohibit use on cannabis. They need to consult the guide list, follow the product label, and use that product according to its directions. All other products used may be considered illegal and, if laboratory testing found the presence of these pesticide residues, it could be considered a violation of the Oregon

Pesticide Law.

For the most part, growers and processors are going to be using a weighing or measuring device, and that scale needs to be licensed and inspected by ODA. Our Food Safety Program will be dealing with edibles. If there is a food processing component to someone's business, we need to license and inspect. We are available to help answer questions, but ultimately, processors need to be in compliance with the state's food safety laws.

We've had some experience with cannabis already — in the form of industrial hemp. We are very fortunate that hemp growers came together and worked with Representative Carl Wilson on much needed legislation recently approved in the 2016 session. From ODA's perspective, we are very happy. It provides clarification and simplification regarding the regulations surrounding industrial hemp. Some of the restrictions that were in place were difficult for growers to comply with and for us to regulate, such as field size. Those are gone. Bottom line, ODA is focused on making sure that if someone is growing hemp, that it truly is hemp and below 0.3 percent THC. That's much better for everyone. It's easier for growers to understand and comply, and it's much easier for us to get those growers in compliance and be on the same page.

Finally, ODA has a dedicated person to help with cannabis. That is somewhat unique to the cannabis industry. We don't have a blueberry specialist on staff or a



wheat specialist. But because it is a new sector with unique qualities that we don't have with other parts of agriculture, we thought it was important to have a point person that deals with all the issues. Sunny Jones is available as a resource to the industry, but she is also a very important link between our agency and Oregon Liquor Control Commission and the Oregon Health Authority. There is a lot of interaction between the three agencies and we are trying to be as seamless and consistent as we possibly can. We encourage growers and processors with questions to reach out to Sunny at: sjones@oda.state.or.us or (503) 986-4565.

Agriculture in our state continues to evolve. The legalization and emergence of cannabis is just the latest in new crops and products all under the umbrella of Oregon ag. •

Board of Ag profile: Doug Kraemer reflects



March's meeting of the Board of Agriculture was the last for member Doug Kraemer, capping one of the longest tenures in board history. Kraemer, a berry farmer from St. Paul, joined the board in 2006 representing the State Soil and Water Conservation Commission (the SWCC Chair is an automatic board member). In 2012, no longer chair of the SWCC, he applied for a vacant position on the Board of Agriculture and was selected by the Governor to serve a four-year term as an appointed member. Now that the term has expired, Kraemer reflects on a decade's worth of service and experience in an interview with the Agriculture Quarterly:

How has the board evolved over your tenure?

"When I joined, there was kind of a lull in issues until ODA's Ag Water Quality Program [strategic] planning exploded and dominated much of the board discussion and activities. Shortly thereafter, the issue of canola [whether it should be allowed to grow in the Willamette Valley] came at us and, at the time, was the most divisive issue that the board had ever grappled with. Subsequently, the "GMO, organic, cross-pollination, co-existence" issue has divided Oregon agriculture which, from my perspective, has been very sad. Representing no more than 1.5 percent of the population, agricultural producers need to stick together and resolve differences among ourselves and not ask others that don't understand our issues and lifestyles to settle them for us. The short answer to the question is, when I came on this board the issues came from outside the industry and presently they are coming from within."

What do you see as the main challenges facing the board in the future?

"We need to convince all sectors of agriculture that they are being represented fairly by the Board of Ag members. As a board member, we are there to try to fairly represent all of agriculture, not just the sector or sectors that we make our living

from. The board meetings are set up to educate board members on other areas of our industry that some of us may not be familiar with and to ask questions, so that when issues come before us we have some knowledge of the issues and the people involved. We need to regulate ourselves in a way that those outside agriculture believe we are doing a good job. I am hoping that our co-existence issues can be solved in a similar fashion."

How would you describe and assess your fellow board members over the years?

"I have been impressed and have learned from them all. The strength of the board is that we come from different parts of agriculture and can describe to our peers the challenges that we face. I also have appreciated the public members that have taken the time to attend, as they bring a perspective that those of us in the industry don't see. Every one of them has brought something unique that the board has used to solve the issues presented to us."

What advice do you give to your replacement?

"Take things slow and don't set unrealistic expectations. Patience and persistence is certainly something that is needed as a board member. It's not what the board members do as individuals, but what they accomplish as a group."

What and where was your favorite board meeting and why?

"There have been so many great meetings we have had around Oregon, I can't choose just one. In Klamath Falls, we learned so much about the water issues and how they complicate a farming operation. In Medford, we learned about conflicts between ag, urban, and others. In Baker City, we learned how ranchers were changing their practices to keep cattle out of the streams and rebuild riparian vegetation. In Ontario, we learned how the changing of irrigation practices had many positive benefits and some unintended consequences. Our meetings in Salem gave us the opportunity to meet legislators, other state government officials and commissions to describe our issues, which is terribly important to our industry. As a cohesive board, we are much more effective at this than any of us could be by ourselves."

Anything else you want to add?

"It has been a privilege that I never expected to have and could not have enjoyed more. Last of all, I want to express my gratitude to Director Katy Coba, Deputy Director Lisa Hanson, Assistant Director Lauren Henderson and all ODA employees for the job they do to represent those of us out on the farms and ranches when we can't be there in Salem." •

Trade development: Continued from page 1

targeted trade shows in key markets. That kind of help is still available, but those who use ODA's services have changing needs.

"Our companies are more vertically integrated now; we don't have a lot of them anymore that just do export, they want to expand their domestic presence as well," says Eng. "We work with a lot of small, family businesses, both on the processing and the production side. Some still only sell locally or domestically, but as they take that next step, we can help them expand the reach of their product overseas, if that's what they need."

The trade mission always seems to be the more familiar tool available, and it is still an option that often leads to success. In fact, there has been resurgence in trade show participation.

"Trade missions are necessary for the continued success of Oregon agriculture in the international marketplace," says Bob Levy, a diversified row crop farmer in Umatilla County and former Board of Agriculture member who has participated in trade missions to Europe and Asia. "ODA has been able to deliver success because of the knowledge and relationships the staff has with overseas customers."

Specifically, several commodity commissions have valued ODA's strong relationships in key markets.

"ODA has proven to have a strong relationship with international partners," says Bill Brewer, administrator of the Oregon Potato Commission. "We have participated with ODA on several international trade missions over the years as well as reverse trade missions that bring buyers to Oregon. ODA staff have been very helpful with arranging meetings and site visits and have always been extremely knowledgeable about the specific market being discussed."



ODA international trade manager Theresa Yoshioka (left) at the U.S. Highbush Blueberry Council booth during FOODEX in Tokyo.

The trade development specialists will continue having expertise in specific markets, but will couple that with expertise in an ag product or sector that is most in demand for that market. For example, Oregon sells a lot of nursery products to Japan. The person focused on the nursery sector will also be an expert in the Japanese market.

ODA is taking advantage of efficiencies. The Natural Products West Show in Anaheim is a large, annual domestic trade show that attracts several Oregon companies who wish to display natural, healthy food products. Over the past few

years, the Western United States Trade Association (WUSATA) — a key partner of ODA — has arranged to bring international buyers to Anaheim. ODA's trade development specialists are there to make sure Oregon companies get to meet with foreign buyers as well as domestic ones.

ODA is putting more emphasis on providing domestic and local marketing assistance. From conducting small business market development workshops for new entrepreneurs to showcasing local Oregon products at promotional events, the ODA team is capitalizing on the consumer's desire to purchase and enjoy locally grown products.

Internal ODA programs play a huge role. The Farm to School Program is business development at its core, helping to provide local growers and processors an opportunity to sell food products to schools and other institutions. The Specialty Crop Block Grant Program has been a valuable tool for giving local and small producers the ability to

create marketing projects as well as promoting Oregon-grown Christmas trees to the domestic market. ODA ultimately directs federal dollars to worthy projects that help specialty crop growers market their products.

"I can't say enough about the good things these projects are doing for the innovative and professional people who work on these proposals and see them to fruition," says Will Wise of the Oregon Beef Council, who serves on the Specialty Crop

Block Grant Advisory Committee. "Another positive is the Farm to School Program that ODA helps oversee. I was asked by ODA to volunteer on an Oregon Department of Education committee that created rules applying to funds the legislature appropriated for Farm to School programs. We got agriculture working with educators and that was a cool thing to see happen. The result includes grants to get kids on farms and farmers and ranchers in classrooms, as well as school district buying more Oregon agricultural products for school lunch programs."

Collaboration is as important as ever. ODA's trade development efforts are an important link in a chain of assistance for Oregon agriculture. For export, ODA works closely with USDA and its programs. State partners include Business Oregon, the Port of Portland, the Governor's Regional Solutions

Teams, and Oregon State University. Co-located with OSU at the Food Innovation Center (FIC) in Portland, ODA's trade development specialists often work collaboratively to help those entrepreneurs who aren't yet big enough to help themselves.

"Our partnership with OSU at the FIC is experiencing a resurgence," says ODA's Eng. "The past two years, OSU has focused its mission on helping new and small food entrepreneurs. OSU can start with the incubator piece, helping the company get started. We can help as the company grows and develops production capability by connecting them to buyers. It's a great handoff from OSU to ODA."



OSU chef Jason Ball (left) and ODA trade manager Erick Garman see what's cookin' at the Food Innovation Center, where small, local entrepreneurs often get their start.

Increasingly, ODA partners with neighboring states to promote regional products. The combined clout of two or three states can often assure a strong and steady supply to the buyer, which is especially important for international markets. The most recent effort involves forage products produced in Oregon, Washington, and Idaho. Asia and the Middle East are key markets for those products.

In the past, ODA technical program staff were less connected to the marketing folks. The relationship has evolved into mutual reliance. Successfully selling products in the marketplace — especially overseas — requires the work of inspection and certification. In turn, that often relies on laboratory testing of samples. It's all part of a brave new world in which the buyer must be assured high quality products that are free of pests, diseases, or anything else unwanted.

Success stories

Maintaining existing markets and establishing new ones is a long-term commitment that requires a similar commitment in having people to make it happen. If ODA did not have the staff expertise, Oregon agriculture could miss the opportunities. The challenge for the agency is determining what is the right role for state government with regards to trade development and marketing. How much should be done by ODA? How much by the federal government? By the private sector? These are questions ODA continually asks the agriculture industry. The answers, often in the form of testimonials, support ODA's efforts.

From Sherrye Wyatt, executive director of the Northwest Cider Association, which represents an emerging industry that has exploded on the local scene and is ready to test the waters of the export market:

It would have taken craft cider producers years to gain the level of exposure and respect that ODA has done through its credible network and experienced staff in a mere matter of months. There is a growing interest in Oregon products in Japan, which historically has been a complex market to maneuver alone. The pioneering work of ODA will result in sales of cider in Japan. This translates into more jobs in rural communities throughout the state and has a lasting impact on an emerging industry. This would not have happened so quickly for Oregon craft cider producers without the help of ODA.

From Jeff Malensky of Oregon Berry Packing, Inc. in Hillsboro:

ODA was very important in working with Oregon blueberry growers and packers in being able to open up the fresh blueberry market in South Korea. ODA is beneficial in expanding our markets and has been an asset in establishing connections as well as in working on the details for shipping to these markets. As an industry we need more assets like ODA.

From Shelly Boshart Davis of Boshart Trucking and BOSSCO Trading of Tangent:

For the maintenance of current markets, the role of ODA is important and ongoing. For introduction to new markets, the opportunity for Oregon shippers to be successful relies heavily on ODA's assistance. This past year has reaped negative consequences on multiple fronts for Oregon's agricultural exporters — this includes the strength of the US dollar, increased federal and state regulations, and the 2015 west coast port slowdown. All of these issues have given us a less of a competitive advantage when competing in the global market. ODA's marketing program gives Oregon's exporters a greater chance at success.

From Don Herb, president of OreGro Seeds of Albany:

ODA's efforts to keep Oregon as a high quality, efficient, provider of products is outstanding. Being able to transport products to export and domestic markets on a competitive, safe, basis is challenging. We see the support for more efficient and reliable transportation as one of the important roles for ODA. Great leadership within the department will help resolve logistics issues and allow Oregon to continue providing agricultural products to markets that have become very competitive.

The message received by ODA and confirmed each time the Oregon Legislature supports the agency's budget is clear: the Oregon Department of Agriculture has an important role to play in facilitating agricultural development, trade, and promotion. It isn't likely that ODA will be changing its mission statement anytime soon. •

Miss Oregon visits Japan



For the first time in history, Miss Oregon headed overseas as part of her official duties. The reason? To promote a wide variety of the state's food and agricultural products. The destination was Japan, Oregon agriculture's top export customer.

For more than a week, the reigning Miss Oregon, Ali Wallace of Portland, kept extremely busy attending events and putting in a good word for colossal onions, chocolates, and high-end beverage products among other Oregon offerings that made a splash in Japan. Her appearance enhanced the state's image in Japan and hopefully will lead to more sales of Oregon food products.

"It was a thrill to be immersed in a culture I had not experienced," says Wallace. "As someone who grew up and stayed in Oregon for most of my life, it was a great experience for me to get out there and see the world. Japan is such an incredible place."

First stop for Miss Oregon was Osaka, area population 19 million, where she joined an event called the Portland Fair taking place at the Hanshin Department Store. Like many other upscale Asian department stores, Hanshin sells

high-end food items. The two-week promotion of Portland included food and beverage products from the City of Roses such as artisan chocolate, craft beer, and cider. Miss Oregon spoke about Oregon, offering specifics about Portland and its food scene.

Before she was Miss Oregon, Wallace was Miss Portland.

"It was a huge hit," says Wallace. "I heard they had four times the number of people at the department store than they normally do just because of the Portland Fair. Every single booth had a huge line and a huge crowd. They were running out of things because people were going nuts over our products."

The whirlwind tour moved from Osaka to Tokyo — the site of the United Tastes of America Asian Chef Challenge, a competition sponsored by the US Embassy in Japan. Teams of Japanese chefs made use of a limited number of American ingredients to put into their recipes as they prepared dishes that aspired to win top prize. Oregon was invited to provide one of those ingredients, and the Oregon Department of Agriculture helped select the super colossal onion from Eastern Oregon and Idaho.

"The chef competition was mostly about gaining media attention for US ingredients," says ODA International Trade Manager Theresa Yoshioka, who traveled alongside Miss Oregon



Miss Oregon presents an official invitation for the winners of a Japanese chef challenge to attend Feast Portland in the fall.

throughout the trade mission. "In Japan, they create healthy and exquisitely presented foods, but we have wonderful, high quality ingredients coming from Oregon and other parts of the US. This event built awareness among Japanese food writers. Having a celebrity from Oregon show up helped capture the attention."

Miss Oregon not only promoted Oregon's super colossal onion — which, by definition, needs to be at least 4.25 inches in diameter — she served the winning two-chef team an invitation to come to Oregon as international culinary ambassadors later this year during Feast Portland, a major food and drink festival that attracts national and international attention.

"The goal was to build awareness in the Japanese food service industry," says Yoshioka. "I'm hoping that restaurants will look for this onion and that chefs will be inspired to make very creative dishes that highlight its unique trait."

Before heading back home, Miss Oregon participated in a major retail food and beverage show, the Supermarket Trade Show, also taking place in Tokyo. With a number of booths featuring Oregon products and companies, Miss Oregon made the rounds promoting and speaking about the products. In particular, Kombucha Wonder Drink of Portland co-sponsored Miss Oregon's travels to Japan and had a booth set up to feature its array of unique fermented teas. Miss Oregon promoted Oregon craft ciders — a product new to Japan and an emerging sector of Oregon's food scene — at the retail food and beverage show.



At a Tokyo supermarket trade show, Miss Oregon stopped by the booth of a distributor who carries exclusively Oregon craft cider and beer.

"Oregon is an amazing region for new and innovative food products," says Yoshioka. "Japan is a market that appreciates new food trends and follows those trends, especially if they include healthy, quality products. That's a nice fit for what we produce in Oregon."

Despite the long history of trade with Japan, Oregon is not resting on its laurels. In presenting Miss Oregon overseas, the Japanese were given the chance to see a celebrity face of a state that is extremely motivated to strengthen export activities.

"For the first time that a sitting Miss Oregon has traveled abroad, it's very fitting that she visited our number one agricultural trade partner," says Yoshioka.

While the jam-packed itinerary was a lot of work and not so much play, Miss Oregon was grateful for the opportunity to learn more about Oregon food and agriculture as well as a chance to promote it.

"The crown definitely does help catch people's attention," says Wallace. "If I went to Japan just as Ali, people might ask who is this girl? But when they saw Miss Oregon, it gave me a little bit more credibility."

For Ali Wallace, the trip to Japan was more than a sightseeing tour. It was work. But she embraced the opportunity to see a new country and a new culture that appreciates great food.

"It was fun to represent Oregon." •

CSI meets CAFO: DNA fingerprinting of water pollution

By Andy Zimmerman

DNA has been used to exonerate or help convict suspects of crimes. What if a DNA-based system could be put in place to identify fecal contaminant sources of water pollution?

It's a case of whodunit, and a study is underway along the Kilchis, Tillamook, and Trask rivers on Oregon's north coast to find out.

Ten sites along each of the three rivers were sampled twice per month for a year in an attempt to figure out the sources of fecal bacteria. Is it from dairy cows? Or chickens? Or wildlife? Or humans? Or all of the above?

"It's going to give us more information to look at about how the watershed behaves when you get these runoff events and where's the likely source of the bacteria," says Wym Matthews, Oregon Department of Agriculture's (ODA) Confined Animal Feeding Operation

(CAFO) program manager.

Fecal source identification methods can't identify the specific warm-blooded animal or exact individual human involved, but it can point to the guilty party in general.

It also helps with the process of elimination. For example, if a detected fecal bacteria violation is associated with chickens, and there are dairy cow farms upstream, it eliminates those farms as the suspected bacteria source.

"Right now, violations are based on if (bacteria) exceeds a certain number, it's a violation," Matthews says. "But there's always contention from the permitted facilities about 'Well, you can't tell if that bacteria



Are these cows responsible for any elevated fecal coliform levels that might be found in the Tillamook River? Fecal source identification might identify wildlife or another source.

that put me over the standard was from me or not. I think it will be valid for both the permittees — it will help them understand how the system works — as well as us."

"And if we say 'Yeah, you violated the standard but there was no regulated animal signatures,' then we would report it as a violation but we wouldn't penalize a permittee."

Dr. Orin Shanks, a research

geneticist with the U.S. Environmental Protection Agency (EPA), is spearheading the project. He also took part in the initial three-year study on the same rivers that was completed in 2006. EPA Region 10, EPA Office of Research and Development, as well as the Oregon Department of Environmental Quality (DEQ) and ODA are involved in the project.

"On the local level, we're trying to solve problems," Shanks says. "On the national level, we're trying to do a large-scale study that could be used as an example for other places in the country that are facing similar issues."

Every two weeks for a year, water samples were taken and divided from 30 sites along the Kilchis, Tillamook, and Trask rivers. A portion of each sample went to the Oregon DEQ lab for microbiology testing. Another portion also went to Dr. Jay Reichman at the Office of Research and Development EPA

ODA Pesticides Program enhanced by new resources

The Oregon Department of Agriculture's Pesticides Program finds itself in a much stronger position to address issues and concerns from the public while working proactively with pesticide applicators to prevent problems in the first place. The newly enhanced program comes courtesy of the 2015 state legislature and includes four new pesticide investigators, an additional case reviewer, a newly created citizens advocate position, and a hotline that operates 24 hours a day, 7 days a week.



Newly funded positions will help ODA conduct pesticide investigations and perform compliance assistance.

"In recent years, there has been greater awareness of pesticide use practices in Oregon," says Dale Mitchell, manager of ODA's Pesticides Program. "The new resources for our program are a sign from the legislature and the citizens of Oregon that pesticide use activities and the compliance of regulations is a very important focus."

One of the more hotly debated issues of last year's legislative session was aerial application of pesticides. As a result of extensive legislative discussion to address laws pertaining

to aerial application, ODA ended up with additional resources in its Pesticides Program, all paid for by fee increases on pesticide product registration. HB 3549 addressed a number of pesticide-related issues. In addition to the newly budgeted ODA positions, the bill established new licensing requirements for aerial pesticide applicators and the establishment of the 24-hour telephone hotline to handle pesticide complaints and concerns.

The four new pesticide investigators join the nine that have been working tirelessly to respond to an increasing workload the past several years. As a result, ODA will now be able to increase its routine monitoring of pesticide applicators as well as handling complaints.

"This will provide for a quicker response to complaints and inquiries, and greater opportunities to educate and ensure that pesticide applicators are in compliance with the law," says Mitchell.

The term used within the program is "compliance assistance." Mitchell sees it as a way to keep problems from happening.

"We want the staff to be out there on the ground interacting with the industry as pesticide applications are occurring. In that mode, we are able to actually prevent violations, through compliance assistance, instead of simply responding to a complaint after the fact. We hope these additional resources, while working with applicators in a more proactive and real time situation, will be more beneficial from a prevention standpoint."

The extra investigators will reduce the heavy workload that had fallen on the shoulders of the existing team. That should lead to a more

timely pesticide investigation and a resolution of the matter that is as expedient as possible.

The new citizens advocate position has been filled with the hiring of Christina Higby. Her primary job will be a point of contact for people who feel they've been impacted by pesticide application activities. Technically, the position is part of the Pesticide Analytical and Response Center (PARC) — a multi-agency group which coordinates investigations to collect and analyze information about reported pesticide incidents. The agencies, which include ODA, the Oregon Health Authority, and six other members, conduct most of the investigations and take any necessary enforcement action.

The creation of the position is a response to concerns that citizens and other interested parties don't always have a good way to access information about an investigation resulting from a complaint. The citizens advocate can provide that two-way communication.

"Our investigations can take months to complete," says Mitchell. "The citizens advocate will be a liaison for the public to understand the investigative process, for checking in periodically for status updates, and to make sure that information is flowing back to individuals or concerned communities regarding pesticide issues. The advocate will also proactively provide outreach and education to certain groups of citizens concerned about pesticides. It is important for Oregonians to know, even before an incident takes place, how the state responds to pesticide use complaints and concerns, what resources are available to them, and how the process works."

Quite often, complaints or concerns about pesticide applications have been reported after hours or on weekends. Oregonians involved in pesticide incidents impacting people, animals, or the environment can now report those incidents to a telephone hotline 7 days a week, 24 hours a day. Persons in Oregon calling 2-1-1 are immediately offered a menu of choices, which includes options



for reporting pesticide incidents or asking for pesticide information. At that point, they are connected to a person. Callers asking for information are referred to appropriate agencies and organizations. Callers involved in pesticide incidents will be asked to provide basic information. Within one hour of completion of the call, all information recorded by 2-1-1 will be forwarded to PARC for further referral and response within one business day.

"The new hotline helps ensure the public's concerns are addressed in a timely manner," says Mitchell.

Last year's legislation also directs ODA to establish a new license category for aerial pesticide applicators, which includes the creation of a new examination, specific to those applicators, that is designed to ensure awareness of safe and proper application practices.

"The new exam goes into effect January 2017," says Mitchell. "We are currently working on that exam and the study materials that go along with it. We are also working with the applicator industry to provide outreach and education so licensees are aware of the new requirements."

ODA's Mitchell is pleased that the Oregon Legislature recognized an area of need for the agency.

"With these increased resources, I am confident that we will be able to address the public's concerns and enhance the regulatory oversight of pesticide use in Oregon." •

CSI meets CAFO: Continued from page 4

facility in Corvallis, where he filtered the samples to preserve them for molecular testing. Those filters were then shipped to an EPA laboratory in Cincinnati for testing.

More than 100 fecal samples also were collected from the area and sent to EPA to create a DNA reference



Tillamook River.

collection. The fecal samples allow EPA researchers to confirm that each molecular method is specific for a particular pollution source using reference materials collected in the same area where water quality testing is performed.

The project advances the work completed a decade ago. The 2006 study could confirm the presence or absence of pollution from humans or ruminants, but advances in molecular technologies can offer more information.

"The key differences are that we have quantitative

methods now, for one. The second thing is we have methods that can discriminate between cattle or other ruminants that are contributing. In other words, we hope to tell the difference between wildlife and agricultural practices," Shanks says.

"Another important advancement will be the use of methods that can detect birds; they were an unknown in 2006. They might have been contributing to the fecal problem. Now we have some technologies that may provide us with additional information about potential bird impacts."

Another piece of the project focuses on the ability to transfer these fecal source identification technologies to other places across the country.

"These molecular methods are new, and a lot of people are not familiar with how they work. Many local laboratories do not have the necessary training, so it's

very important that the EPA Office of Research and Development can successfully transfer these technologies to laboratories all over the country," Shanks says. "We are in the process of doing that with the Region 10 EPA laboratory."

The Agricultural Water Quality and CAFO programs at ODA could use the technology, Matthews says.

The study is expected to be completed by the summer of 2017. The results could validate the best management practices of agricultural users and, if necessary, lead local agencies to rethink those practices.

"It's one more piece of the puzzle that helps tell the story. And it's a piece of data they can actually use to manage," Matthews says. "When you start knowing how the system behaves, it's going to be something they can plug into their management style and work that through." •

Oregon rolls the dice on exotic species

Playing the craps table in Las Vegas or buying a lottery ticket for a chance at more than \$1 billion doesn't seem as risky as gambling that scores of new, exotic insects, slugs, and other terrestrial invertebrates discovered in Oregon the past nine years are harmless.

"It's a crap shoot and we are gambling every year," says Jim LaBonte, an entomologist with the Oregon Department of Agriculture. "The vast majority of species we have found are believed to be relatively harmless. In some cases, a few species have actually proved to be beneficial. But a certain percentage are seriously bad and can do damage. It comes out to be one out of every seven. Every year that we roll the dice, there is a strong likelihood we will come up with a significant or major pest."

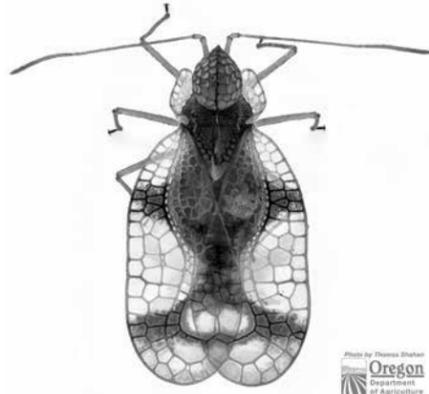
LaBonte has been tracking all known new exotic species of terrestrial invertebrates detected and established in Oregon since 2007. There have been 88 of them, some new to North America. Out of roughly 25,000 insects, mites, slugs, and other related spineless species currently in the state, he estimates that about 1,000 are exotic. The number may also just be a tip of the iceberg.

"There has been a huge influx of species and limited resources to detect and deal with them," says LaBonte. "This is a vast tsunami that is probably only going to get bigger."

Exotic species are not necessarily invasive species. Exotics originated somewhere other than Oregon. Invasives cause damage of varying degrees. Of the 88 exotic species that have made Oregon their home the past eight years, 13 are known invasive species.

LaBonte has two good examples of bad actors.

"The spotted wing drosophila has had a huge impact on Oregon's fruit industry and another recent newcomer — the azalea lace bug — is causing a lot of damage to azaleas and rhododendrons."



Azalea lace bug.

Even though ODA has a contingent of experienced experts who can identify these species when they are discovered, it isn't easy to keep tabs on so many invertebrates. Some sneak in undetected. For many species, there are no traps or lures. Sometimes the only way to find them is to literally turn over a rock. That's why several of the exotics may be legacy species that have been present in Oregon for decades or longer with nobody recognizing them until the past few years.

Spread over the nine years, the average number of new species established in Oregon comes out to nearly 10 per year. Last year was a banner year, in a negative way, as 20 new exotic terrestrial invertebrate species were found in the state for the first time. The 20 new species are nearly twice as many as the previous two years combined. The reason for the increase is a combination of factors, not the least of which is that ODA is out there looking for insect pests in general. Surveys for specific, known pests included traps that were able to capture some previously undetected species.

The list of known major pests included in the detections since 2007 contain some names well-known to agricultural industries and

others — barred fruit-tree tortrix, cabbage whitefly, ash whitefly, rose stem girdler, hemp russet mite, and garden slug. Some were found because of ODA's survey work, others were samples submitted to the agency's Insect Pest Prevention and Management Program experts.

Where do the new exotic species come from? The answer may be surprising. Despite Oregon's strong trade ties with Asia, nearly half of the 88 species detected since 2007 originated in Europe. Asia is responsible for 19 percent, another 19 percent came from other regions of the United States — dispelling the notion that exotic or invasive species all come from other countries.

The onslaught of new species may seem overwhelming. But for the "glass half full" crowd, at least it's not as bad as it could be.

"We aren't like California or Florida, both of whom have huge ports that can bring a major influx of exotic species through global trade," says LaBonte. "On the other hand, Oregon is a popular place for people to move to and they sometimes unknowingly bring in some species. Gypsy moth and Japanese beetle are exotic pests established in other parts of the US that have been brought to Oregon by people who've moved here."

LaBonte has a few targeted messages for Oregonians who would rather be part of the solution instead of the problem.

"When you travel abroad or purchase items from other countries, be cautious. It's easy to unwittingly bring in infested material. Suitcases are one of the primary modes of introduction to Oregon as many of these species are excellent hitchhikers. Also, be aware of damage in your vicinity. If you see something suspicious like trees dying that you wouldn't expect or insects that seem unfamiliar, contact ODA."

LaBonte will present the latest information on Oregon's exotic terrestrial invertebrates at an international conference of entomologists meeting in Orlando,



Jim Hoffman checks an invasive species trap.

Florida, later this year, hoping others recognize that Oregon is actively looking for new species, especially those that can cause harm. Interest in the topic at the conference is a reminder that every state and country has similar issues with exotic species crossing borders on a regular basis.

"The conference will hopefully give us an opportunity to collaborate and get better ideas on what to look out for, how to look for it, and what to do about some of these species that are Oregon-bound," says LaBonte.

Surveillance will always be the first line of defense and ODA remains active in survey work. In 2015, more than 140 species were targeted, but LaBonte says that was a drop in the bucket as there are thousands of species out there that could cause problems. Nonetheless, LaBonte and his cohorts will not wave the white flag.

"We have detected species early on in the past, before they became permanently established, and we've been able to eradicate them. Just because the issue is daunting doesn't mean you shouldn't tackle it."

The challenges are significant, but when there are successes in keeping invasive species at bay, the effort is worthwhile. •

Top awards handed out to ODA twosome



State Veterinarian Dr. Brad LeaMaster (left), and ODA Land Use and Water Planning Coordinator Jim Johnson each picked up coveted awards in recent months.



Two of the Oregon Department of Agriculture's key staff members have been honored by industry with well deserved awards.

State Veterinarian Dr. Brad LeaMaster was presented the President's Award by the Oregon Veterinary Medical Association for making an exceptional contribution to the OVMA.

In remarks during the awards ceremony, OVMA President Dr. Charles Meyer said: "The State Veterinarian's Office monitors infectious animal diseases in Oregon and maintains disease control plans throughout the state, and Brad has performed above and beyond the call of duty. In all his activities, Brad has put the safety and health of Oregon Agriculture and animal disease prevention at the forefront.

Brad has practiced the 'One Health' concept long before the term was coined."

Meanwhile, Jim Johnson, ODA's Land Use and Water Planning Coordinator, was honored with the Oregon Farm Bureau's Top Hand Award given to individuals who have devoted an exemplary amount of time and energy toward furthering the goals of the Farm Bureau.

"The Top Hand Award goes to Jim Johnson, someone who has been at Farm Bureau's side on important issues in 2015 and in many other legislative sessions over the years," said OFB President Barry Bushue. "Jim is one of few people who can quote Oregon statute like some can quote Bible verses. If you need data or citations or other information about farmland, he either knows it off the top of his head, or he can find it for you."

LeaMaster and Johnson are longtime ODA employees. •

Eric Coombs: A career in biological control of weeds

The Oregon Department of Agriculture's Noxious Weed Control Program is well received and one of the agency's feel-good stories. After 29 years of being part of what he calls ODA's "white hat" program, biological control entomologist Eric Coombs is set to retire this summer. His work has covered four decades and has contributed greatly to Oregon's standing as a world leader in biological control of invasive noxious weeds. ODA has released more species of biocontrol agents — good bugs to fight bad weeds — than any other state program and the number exceeds that of most countries.



Eric Coombs is retiring from ODA's "white hat" program.

It's a proud legacy to leave behind.

"I was blessed to be able to get paid for what I did for free as a child, go around and catch and release bugs," says Coombs, who has made more than 200 presentations around the state, country, and the world regarding biological control of noxious weeds.

A 2014 study shows that 25 of Oregon's most significant invasive noxious weeds cause an estimated annual loss of about \$83.5 million to the state's economy, a figure that would likely reach more than \$1 billion without current control efforts by state, county, and federal weed programs. When a noxious weed is in abundance and Oregonians have to learn to live with it, ODA considers biocontrol whenever possible.

Battling invasive weeds with tiny insects has pretty much been Eric Coombs' professional life since 1987.

"Once a noxious weed becomes so widespread and abundant that other methods of control are either

too costly or prohibitive, the program turns to biological control," says Coombs. "For every dollar spent in our biocontrol program, the public gets back about \$15 in benefits due to the impact of reuniting a noxious weed with its natural enemies."

Biocontrol agents, once they are strategically released into targeted, weed-infested areas, are allowed to grow in population to the point where the good bugs are in surplus. They are then harvested and deployed to other locations to battle the target weed. The process can take from three to five years. To date, ODA has used 77 biocontrol agents against 31 weed species — about one out of every three has proven successful. Positive results include the battle against tansy ragwort in the 1980s and the more recent success stories involving purple loosestrife and diffuse knapweed.

When a young Eric Coombs came to ODA in the late '80s, ODA's Weed Control Program had already created a name for itself following great success dealing with tansy ragwort, the poster child for successful biological control.

"It was an awesome opportunity to take a well-grounded program and build it up even more," says Coombs. "The experiences have led me all over the world to look at biocontrol projects in other

countries and present papers on what we are doing in Oregon."

Presenting around the state, the country, and the world, Coombs has helped publish landmark papers in biological control discussing ecology and economics. His list of accomplishments fills the page — author of 49 peer reviewed scientific papers, editor of numerous books, including the first weed biocontrol book covering the US. He helped develop ODA's weed rating and classification system, biocontrol database, and has assembled one of the most complete photo databases in the country of weed biocontrol agents and host weeds. Coombs established new techniques for collection, sorting, and releasing biocontrol agents. And, of course, he has overseen the introduction of 45 new weed control agents.

"Our program is highly rated worldwide," says Coombs. "It's not just because of me or even the program itself. It's the nature of Oregon and its different regions,

climates, and topography. It's a perfect storm of areas affected by invasive species which gives us a good palette to work on."

Don't get him wrong, Coombs would just as soon eradicate invasive weeds from the Oregon landscape. But he's realistic about what can be wiped clean and what we all need to live with.

"With biocontrol, rarely is there eradication. But if we can get the number of weeds out there below an economic or ecological threshold, then the systems can function and the insects we deploy can keep those weeds in check. The big question is can we keep new noxious weeds out of Oregon?"

Coombs is most proud of a handful of successful projects. Most notably, the work done on purple loosestrife using the leaf-eating beetle *Gallerucella*. A majority of the Baskett Slough National Wildlife Refuge west of Salem has been reclaimed from the noxious weed thanks to the beetle's effectiveness. Diffuse knapweed and Dalmatian toadflax have also been severely impacted — a good thing — by the release of biocontrol agents.



Coombs checks the noxious weed purple loosestrife hoping to find damage caused by a seed weevil.

"When I first came here, we were working primarily on what I call the cowboy weeds — those that affect livestock and, with the exception of tansy ragwort in Western Oregon, were located east of the Cascades," says Coombs. "But now, some of these weeds have started up in urban areas. We are now dealing with plants in natural areas where hikers and birders frequent. People who are

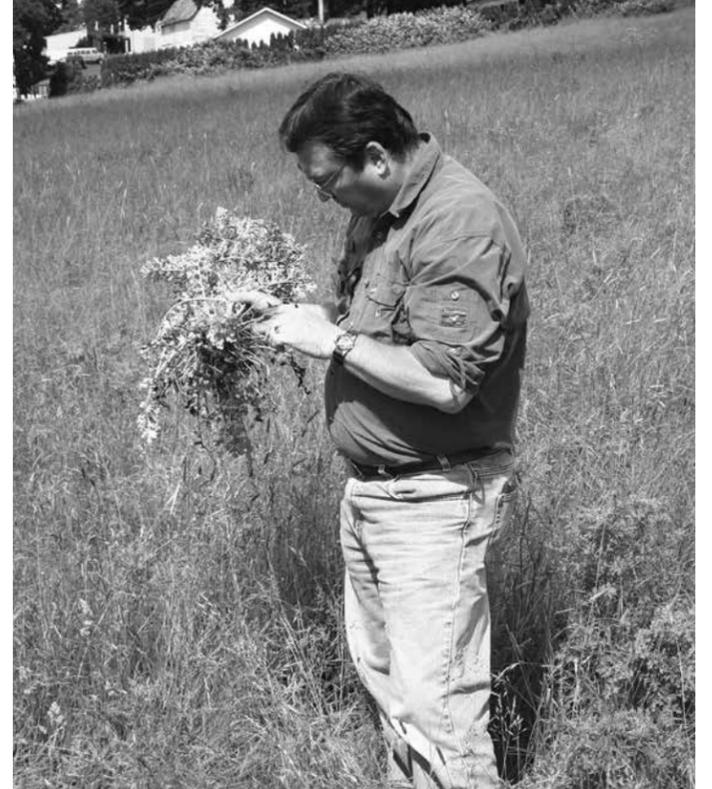
recreating and enjoying nature want something done about weeds. Since people have become more aware of biocontrol, they generally support our program."

Coombs admits the introduction of noxious weeds to Oregon can seem overwhelming. But he has taken great pride in the accomplishments of biological control.

"What's cool is that there are very few places I can go to in Oregon where I don't see evidence of my work and the work of everyone associated with the program. If you can find a target weed somewhere in the state, there's a very good chance you find biocontrol agents that weren't here when I first arrived. That's something that will outlive me

and will be a force to reckon with for noxious weeds long after I've moved on. It's a pretty amazing legacy to leave over that big of a landscape."

Retiring to the farm he inherited in Northern Utah, Coombs looks forward to getting back to his roots — hopefully not to the roots of an invasive noxious weed. When he looks back at his ODA career, he can truly say it has been satisfying for him and meaningful to Oregon. •



Coombs looks for signs that a flea beetle is working on tansy ragwort, the poster child for biocontrol of noxious weeds.

ODA's suite of social media



NEWS BLOG

ODANEWS.WPENGINE.COM

A regularly updated blog with stories and news releases.



WHY SHOULD YOU VISIT?

- You want to read recent ODA news releases like shellfish closures & food recalls.
- You want to see stories on specific ag-related topics and ODA programs.
- You want to stay up-to-date on what's happening with ODA.



FACEBOOK

FACEBOOK.COM/ORAGRICULTURE

Social sharing site that allows users to connect with family and friends. There are 1+ billion users worldwide.

WHY SHOULD YOU VISIT?

- You want to see interesting ag-related links, photos, history, events, and fun facts.
- You don't have to login to Facebook to view the ODA page. But, users can like our page to see our posts in their feed, share posts, leave comments, and interact with us.



TWITTER

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Micro blogging social site that enables users to send and read short 140-character messages called "tweets".

WHY SHOULD YOU VISIT?

- You want just the facts—short, sweet, and timely—on ODA and other ag-related news.
- You like #hashtags...or want to know why you should like them.



YOUTUBE

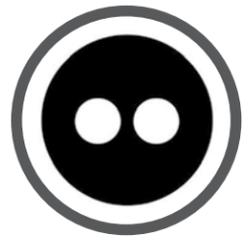
YOUTUBE.COM/USER/ORGOVODA

Video sharing site that allows users to discover, watch, and share originally-created videos.



WHY SHOULD YOU VISIT?

- You want to watch recent Celebrate Oregon Agriculture videos on farmers, fishers, and ranchers including recipe and activity demos shown on AM Northwest.
- You're interested in other videos about Oregon agriculture and ODA.



FLICKR

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Photo management site that allows people to store and share photos and videos with friends and family, or the world.

WHY SHOULD YOU VISIT?

- You like photos (who doesn't?) and you want to see things like pics of farmland, close-ups of insects and spiders, snapshots from trade missions, and examples of noxious weeds.
- You need photos for a project or presentation (you can use them for non-commercial purposes with credit).



Announcements

Watch your mail for a green postcard regarding ODA license renewals.

You can renew online at: mylicense.oda.state.or.us



CAFO Advisory Committee meeting

Date April 14, 2016, 1:30 pm–3:30 pm
 Location Oregon Department of Agriculture, conference room D
 635 Capitol St NE, Salem, OR 97301
 Contact Wym Matthews, 503-986-4792
 Website oregon.gov/ODA/programs/NaturalResources/Pages/CAFO.aspx

PARC Board meeting

Dates May 18, 2016, 9:00 am–12:00 pm
 Location Oregon Department of Agriculture, basement hearings room
 635 Capitol St NE, Salem, OR 97301
 Contact Theodore Bunch Jr., 503-986-6470 or toll-free 844-688-7272
 Website oregon.gov/ODA/programs/Pesticides/Pages/PARC.aspx

Soil and Water Conservation Commission meeting

Dates May 23, 2016, 1:00–4:00 pm
 May 24, 2016, 8:30 am–12:30 pm
 Location Oregon Association of Nurseries
 29751 SW Town Center Loop West, Wilsonville, OR
 Contact Manette Simpson, 503-986-4715
 Website oregon.gov/ODA/programs/NaturalResources/SWCD/Pages/SWCC.aspx

Oregon State Board of Agriculture

Date June 7–9, 2016
 Location John Day, OR
 Contact Kathryn Walker, 503-986-4558
 Website oregon.gov/ODA/AboutUs/Pages/BoardAgriculture.aspx

State Board of Agriculture

- Barbara Boyer
- Pete Brentano, vice chair
- Stephanie Hallock
- Tracey Liskey
- Sharon Livingston
- Laura Masterson, chair
- Marty Myers
- Tyson Raymond
- Dan Arp (ex-officio)
 Dean of Agriculture
 Oregon State University
- Katy Coba (ex-officio)
 Director
 Oregon Department of Agriculture

Board members may be contacted through the Oregon Department of Agriculture Director's Office.

Find Board of Ag info online

www.oregon.gov/ODA/AboutUs/Pages/BoardAgriculture.aspx

Check out all the ODA public meetings online

www.oregon.gov/ODA/AboutUs/Pages/Calendar.aspx

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