Upper Willamette Soil and Water Conservation District

VOLUME 1, ISSUE 1 WINTER 2018

FUTURE BOARD MEETINGS

- Feb 13th
- March 13th
- April 10th

Meetings are held in the USDA conference room at 3 pm and are open to the public.

UWSWCD BOARD:

Gary Jensen

Ralph Perkins

Todd Anderson

Al Hrynyshyn

Don Mogstad

Tim Hovet

UWSWCD STAFF:

Dave Downing - District Manager

Lily Leitermann - Watershed Tech

Clarissa Berndt - Admin Assistant

INSIDE THIS ISSUE:

Andhi Reyna named Cooperator of the Year

Congratulations to Andhi Reyna, who has been selected as the 2017 Cooperator of the Year for the Upper Willamette SWCD.

Andhi has been farming and educating in the Willamette Valley for 20 years and is the President of the Oregon Biodynamic Group.

Branch Road Farm, located in Cottage Grove, OR, is a 73 acre diversified, organic and biodynamic farm and forest land, growing annual and perennial crops for their CSA (Community Supported Agriculture), markets, kids culinary programs and farm events. They also raise sheep, goats and chickens for meat, dairy, pasture improvement and fertility. As of December 2017, their land is now in a Conservation Easement.

Branch Road Farm also has a non-profit farm education center which hosts field trips, Kids Farm to Table Cooking Classes , Summer Camps, and coming this year, Farm Pizza Nights. Their mission is to contribute to the revitalization of our communities and our farm and forest lands through food, farming, education and the arts.

Join us on Tuesday, February 13, 2018 (see page 3) as we celebrate her achievements and thank her for her efforts in conserving our natural resources!

Photos courtesy of Andhi Reyna

Office Changes at the UWSWCD!

Lynn Gilliland, UWSWCD

Jean Larkin, FSA & Tom Burnham, NRCS

Clarissa Berndt, UWSWCD

The last few months have seen many changes here at the USDA Service Center. With three retirements, our office has certainly changed! We especially want to thank Tom and Jean for their tireless efforts the past few decades—we will miss you!

- Tom Burnham, District Conservationist for the NRCS, retired in January, after 41 years with the agency.
- Jean Larkin, County Director for the FSA, retired in December, after 39 years with the agency.
- Lynn Gilliland, Administrative Assistant for the UWSWCD, retired in November, after 2 years with the District.
- Clarissa Berndt began working for the district in November, taking over as Administrative Assistant.

SAVE THE DATE!

63RD ANNUAL MEETING

UPPER WILLAMETTE SWCD

February 13, 2018 | 1 - 3 PM
Lane Electric Coop Conference Room

Attracting Native Pollinators:

How YOU Can Help Bring Back the Bees!

Mace Vaughan, Xerces Society

"Mace will help you better understand the world of pollinators and give you new eyes with which to see the life in your backyard."

Join us as we partner with the Willamette Valley Clean Water Alliance to welcome Mace Vaughan from the Xerces Society!

In his talk, Mace will provide an engaging summary of the challenges facing pollinators across Oregon and the U.S. and how conservation districts, homeowners, farmers and others can take action on their land to make a meaningful impact. With beautiful photos, stories from the field, and tales of the overlooked lives of native bees, Mace will help you better understand the world of pollinators and hopefully give you new eyes with which to see the life in your backyard, farm, or natural area.

Mace Vaughan serves as the **Xerces Society's Pollinator Conservation Program Co-Director** and a **Joint Pollinator Conservation Specialist** to the USDA's Natural Resources Conservation Service's (NRCS) West National Technology Support Center in Portland, Oregon. Mace has led Xerces' Pollinator Conservation Program since 2003 and acted as Joint Pollinator Conservation Specialist to the NRCS since 2008. In his tenure at the Xerces Society, the pollinator program has grown from a small pilot project on California farms to a $2,000,000 a year program implementing pollinator conservation projects across the US. Collaborating to lead a team of 20 pollinator conservation specialists and several consultants across the U.S., he now manages the largest pollinator conservation team in the country.

His work with other staff at the Xerces Society and the USDA NRCS has led to the implementation of hundreds of thousands of acres of pollinator habitat on farms throughout the U.S. Through education and outreach events he has directly reached thousands of agency staff, farmers, land managers, and homeowners. He also has expertise in working to reduce the impact of pesticides on pollinators and was invited to serve on the steering committee for an international meeting of regulators, scientists, and industry to develop improved risk assessment strategies to better protect pollinators.

Mace has written numerous articles on the conservation of bees, butterflies, aquatic invertebrates, and insects, and is co-author of the publications *Attracting Native Pollinators: Protecting North America's Bees and Butterflies*, *Farming with Native Beneficial Insects*, and the *Pollinator Conservation Handbook*. He is the lead author of *Farming for Bees: Guidelines for Providing Native Bee Habitat on Farms*. He was a lecturer on honey bee biology and beekeeping at Cornell University, from which he holds Masters Degrees in Entomology and Teaching. Mace has conducted research into the behavior and community ecology of insects, and has worked as an insect wrangler and bee expert for PBS Nature.

Admission is free and light refreshments will be provided. Come early as space is limited!

February 2018

- February Pruning Classes, OSU Extension (extension.oregonstate.edu/lane/gardens)
- Feb 6 - Pollinator Event (https://www.uwswcd.org/classes-workshops)
- Feb 8 - Beginning Farmer Needs Assessment Focus Group - South Willamette (For more info, email katy@roguefarmcorps.org)
- Feb 10 - Master Food Preserver Class, OSU Extension (http://bit.ly/MFP-WinterClasses)
- Feb 13 - UWSWCD Annual Meeting, Lane Elec Coop, 1 pm
- Feb 13 - Board of Director Meeting, USDA Service Center, 3 pm - 5 pm
- Feb 19 - Office closed in honor of Presidents Day
- Feb 19—Forest Service fee-free day: Enjoy the parks!

March 2018

- March 3 - Master Food Preserver Class, OSU Extension (http://bit.ly/MFP-WinterClasses)
- March 8 - Free Gardening Lectures, Willamalane Adult Activity Center, OSU Ext.
- March 11 - Naturescaping Workshop, 11 am - 2 pm, EWEB & UWSWCD
- March 13 - Board of Director Meeting, USDA Service Center, 3 pm - 5 pm
- March 17 - Planting for Pollinators, Shonnards Nursery in Corvallis, 11 am

April 2018

- April 10 - Board of Director Meeting, USDA Service Center, 3 pm - 5 pm

FEBRUARY 2018

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

MARCH 2018

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

The Other Bees

Imported from Europe hundreds of years ago, the honey bee is not the only purveyor of pollen.

"Oregon biologists, conservationists, and growers are increasingly concerned about the overall decline of pollinators."

It's a warm August day, and I am traveling with OSU entomologist Sujaya Rao on country roads west of Salem, through a hilly mosaic of Christmas tree farms, vineyards, and hayfields. We pull over at a field carpeted with purple blooms of red clover.

The air vibrates. Circling over the field are hundreds of fat, fuzzy bumble bees. Looking like Goodyear blimps of the insect world, the large native bees fly from flower to flower. The pollen sacs on their hind legs grow heavier by the minute. It takes some work to spot the smaller honey bees in the crowd, despite the fact that there are several tiers of rented honey bee hive boxes stacked in the field.

"With all those commercial honey bee hives sitting out there, don't you think you'd see more honey bees out here?" asks Rao. "We are learning that it is not necessarily true."

This red clover field is planted for its seed. Oregon is the world's largest producer of red clover seed and a major producer of several other clover varieties that are planted around the globe as animal forage and soil-enriching cover crops. Western Oregon's climate is perfect for producing premium clover seed, which can be grown with minimal irrigation and then dried in the field.

Good pollination is key to excellent clover seed production. Both domestic honey bees and native bumble bees gather pollen out of the dense heads of clover flowers, each flower head made up of as many as 200 tiny tubular blossoms. Each tubular blossom, when pollinated, produces one red clover seed. The more blossoms visited, the more seed set. Rao and William Stephen, a bee expert and OSU professor emeritus of entomology, have a grant from the grower-funded Oregon Clover Commission to investigate the relative roles that honey bees and native bees play in pollinating clover seed crops. They want to know what kind of flowers each kind of bee visits and how far each will travel to get pollen and nectar.

Honey bees are the workhorses of most agricultural pollination. Docile enough to be handled, European honey bees were domesticated thousands of years ago and later brought to the New World. Extremely sensitive to their environment, honey bee populations have declined significantly over the past few decades. Like modern livestock, most honey bees are consigned to living in crowded quarters where, without careful management, they are prone to diseases and parasites that knock them back periodically.

The latest honey bee crisis, known as "colony collapse disorder," has been front-page news during the past year. In some regions of the country, but not Oregon, many of the honey bees and their wild colonies have disappeared. Though no single cause has been pinpointed, a recent study in *Science* has identified a possible factor, a virus. Honey bee populations in the Pacific Northwest are not seriously affected by the disorder at this time, according to Michael Burgett, an OSU professor emeritus of entomology. But Oregon biologists, conservationists, and growers are increasingly concerned about the overall decline of pollinators, and they are looking at native pollinators as a kind of ecological insurance policy for pollination of crops and native plants.

"A lot of attention has been spent on honey bee pollination," says Rao, who is an associate professor in OSU's Department of Crop and Soil Science. "But we don't really know how much pollen is transferred by other types of pollinating insects such as bumble bees and leaf cutting bees." Native pollinators fly under most people's radar. But bumble bees, carpenter bees, and sweat bees are among the 4,000 kinds of bees native to North America. A study published in the April 2006 issue of the journal *Bioscience* reported that native insects pollinate $3 billion per year in crops in the United States.

This hover fly joins bumblebees, moths, hummingbirds, and other native pollinators to provide an essential service for life on earth.

Sometimes called the "forgotten pollinators," native bees have life cycles quite different from domesticated honey bees, explained Stephen. Native bees do not live together in huge colonies as honey bees do. They don't have to make vast quantities of honey, because they live for only one season. They live alone or in small groups in holes or natural cavities. Honey bees are long-lived generalists, able to pollinate many kinds of plants; native bees are often specialized and focus on a few kinds of plants during their short lifetimes.

Rao walks out into the red clover field and deftly traps individual bees for examination, each in its own tiny bottle. Their hind legs are laden with oblong pollen sacs, some dusty yellow or saffron orange; others are shiny and brown and look like earwax.

Each kind of flower has pollen of a slightly different color," explains Rao. "I record the time and place I collect each bee, then later, under a microscope, I determine what kinds of pollen each kind of bee collects at particular times of day. That way, we can see if the honey bees are truly loyal to the crop they were 'hired' to pollinate."

Driving over a ridge, we visit another field. This one is covered in white and purple heads of arrowleaf clover, another commercial seed crop. We pull up to a glass jar topped with a blue plastic-finned lid hanging from a pole. The jar is full of bees. "Just look at all these native bees," Rao exclaims. "I just put this out this morning. There must be more than 100 in here. This blue color is irresistible to them."

The jar is warm and vibrating in my hand; I see no honey bees inside. But like a fatal attraction, bumble bees, sweat bees, and orchard bees flock to Rao's blue traps, allowing her to see which species are there at any given time through the bloom season. This affinity for a single hue prompted Rao and Stephen to see whether the color blue can be used to attract additional native pollinators to a flowering field.

A long clothesline festooned with blue plastic flags hangs along the edge of another of the clover seed fields. Rao paces slowly away from the line, with pen and paper in hand. For two minutes, she tallies every bee she sees—both honey bees and bumble bees—at different distances from the blue line.

At another stop, we visit a series of room-size mesh-covered cages along the edge of a blooming red clover field. In each cage, Rao and Stephen have put only one kind of bee—honey bees or bumble bees or smaller, shiny leaf cutting bees. "Control" cages have no bees in them at all. When the bloom is finished, they will measure the seed yield in each cage and compare the productivity of each pollinating species.

Other people are paying increased attention to native pollinators as well. "We are concerned that overreliance on honey bees as crop pollinators is putting all of our eggs in one basket," said Joe Williams from U.S. Department of Agriculture's Natural Resources Conservation Service in Corvallis. Williams and the nonprofit Xerces Society are trying to determine which plants are most attractive to native pollinators through the seasons, so they can recommend plants for growers to sow near their fields. They are encouraging landowners to plant native flowering plants near crop fields to provide a place for native bees to nest and give growers a back-up for pollination.

What's good for native bees is good for commercial beekeepers and their honey bees, said Corvallis beekeeper and OSU-trained ecologist Karen Finley. "Any time a grower is attentive to native pollinators, honey bees will benefit as well," said Finley. Honey bees use native plants and wild habitat too, especially after crops have finished blooming. And native bees add to the insurance that both crops and wild plants will be pollinated and set fruit.

— Carol Savonen, OSU Extension (Photos: Lynn Ketchum)

"Plant native flowering plants near crop fields to provide a place for native bees to nest and give growers a back-up for pollination."

Upper Willamette Soil and Water Conservation District

780 Bailey Hill Road, Suite 5
Eugene, OR 97402
Phone: 541-650-3057
E-mail: office@uwswcd.org
www.uwswcd.org

Office Hours:
Monday - Friday
8:30 am - 4:30 pm

NONPROFIT ORG
US POSTAGE
PAID
PERMIT #
EUGENE, OR

Get Your Soil Tested Today!

It's that time of year again when we are looking forward to planning and planting our spring gardens! Healthy plants and produce are a result of healthy soil.

The best way to know what nutrients are needed for your soil is with a soil test. The soil test kits purchased at a garden store usually do not yield accurate results for a variety of reasons. The best way to determine soil health is to get a laboratory soil test! The Upper Willamette SWCD makes this simple for you! Just bring in a 2 cup sample of your soil, and we will take care of the rest! With the test results, you will also receive a written analysis and interpretation of the test results with the crop specific recommended amendment amounts needed to ensure that your soil is as productive as possible.

Soil testing is very popular amongst small hobby gardeners as well as larger farms. Whether you are aiming for a nice lawn, a more vibrant flower gardens, better quality garden produce, or a higher yield in crops, we can help! Complete diagnostic testing on your soil sample is $65. Results are received in approximately 10 business days of shipping (we ship every Friday).

Soil sample with resulting analysis report

Reports on nutrients include:

- Organic matter
- Potassium
- Calcium
- Hydrogen
- Base Saturation
- Magnesium
- Sodium
- Phosphorus
- Magnesium
- pH
- Salts

Testing is available for Pesticide and Chemical (contamination) residue. Call our office for more information and to get started today!