



Oregon Small Farm News

Oregon State University Small Farms Program

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Cover Photo:

Swiss Chard from Gathering Together Farm.
Photo by Garry Stephenson

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Small Farms, Local Food, and Wildfires: What Do You Need to Know?

By: Teagan Moran, Oregon State University Small Farms Program

As the wildfires continue to spread across the West, we recognize that access to credible and timely information is essential. Our communities are now facing multiple crises at once. The nature of agricultural work makes it difficult for farms to stop working unless evacuation is required. During the fires themselves and post-fire during the recovery period farmworkers are exposed to smoke, ash, and chemical residue. Stress is high as farms may lose crops, their homes, and farm infrastructure that threatens the viability of their farm in the future. Faculty in the OSU Center for Small Farms and Community Food systems are working with community partners to provide current information that is relevant for small farms and local food systems. We will continue to update or add to these resources as they evolve. If you have resources or updates you would like to see listed here, please email Teagan Moran: Teagan.moran@oregonsate.edu

How do I stay up to date on the location and status of wildfires?

You can view the Wildfires Dashboard: [Interactive map of fires, hotspots, & current conditions](#)

Additionally, the State of Oregon put together a resource list which includes Fires & Hotspots Map, Air Quality Index info, experts to follow, and more: <https://wildfire.oregon.gov>

To sign up for alerts in your area see: [Affected counties' news outlets and alert programs](#)

What about air quality?

The multiple wildfires have raised valid concerns about the potential impact of smoke on workers. Oregon OSHA put together [this webpage](#) with tips, information, links, and contacts on a variety of topics related to wildfires.

If you are continuing to work or have employees working, please remember to wear a mask, specifically an N-95 mask or P100 mask for protection against air pollution. Farms should provide adequate protection for all workers, such as limiting the time spent working outside and providing adequate respiratory protective equipment.

While you or your farm may not be in immediate danger from ongoing fires, you and your animals may be enduring hazardous air quality. You can keep up with the latest information on air quality from the [Oregon DEQ's OregonAIR app](#), and learn more about health and air quality from the [Oregon Health Authority](#). Please see livestock resources under question: What do I need to know about wildfires and livestock safety? for specifics related to livestock.

- [Wildfire Smoke Exposure - Employer Checklist](#)
- [Statement from Oregon OSHA and OHA on N95, KN95, and P100 masks](#)
- [What to do in Smoky, Hazy Air](#)
- [Wildfire Smoke & Health FAQs](#)
- [What to Know About Wildfire Smoke and COVID-19](#)
- [Posters to print for employee training on wildfire smoke risks](#)

What resources are available for evacuation?

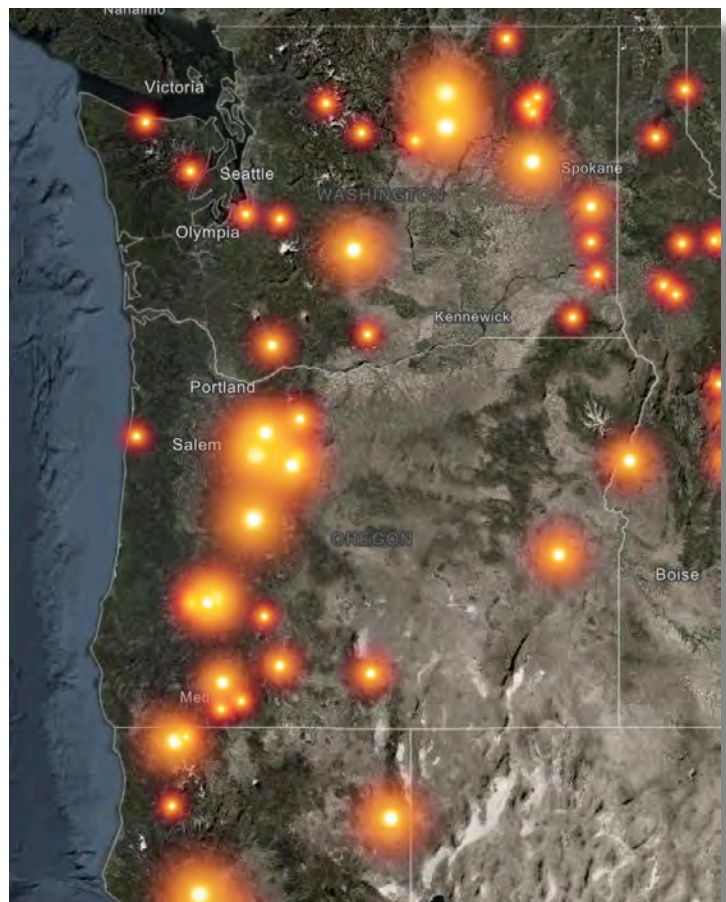
To be prepared, individuals should have a 'go-pack' bag packed in case you need to evacuate at a moment's notice. It should include:

- Important Documents
- Medicines
- Water and Snacks
- Flashlight
- Supplies for kids and pets
- Pillows and blankets
- See a full list: <http://ready.gov/kit>

Link below for a full evacuation checklist from the Forest Service USDA: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5305121.pdf

If farms are continuing operation they should have a Emergency Plan for Farmworkers - OSHA recommends the following for Emergency Preparedness for Farmworkers: <https://www.osha.gov/Publications/OSHA3870.pdf>

For staying up to date on evacuation alerts see: [Affected counties' news outlets and alert programs](#)



A demonstration of fire locations in September 2020.
Provided by Garry Stephenson

If you must travel, keep aware of [road closures from the Oregon Department of Transportation](#).

For immediate livestock and transportation needs follow your County's evacuation information. In addition there are these grassroots efforts:

- Facebook group that is coordinating livestock transportation and sheltering statewide. <https://www.facebook.com/groups/305154019952747/>
- Facebook group called Cowgirl 911 that's offering help transporting animals and finding temporary homes: <https://www.facebook.com/groups/oregoncowboy911>

The Red Cross has a [website](#) where evacuees can let friends and family know they are safe. That saves authorities from checking houses where nobody is home.

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A New, BIPOC-led Farmers Market Takes Root in Portland: The Come Thru market is also an incubator for farmers and artisans who are just getting started

By: Julia Silverman, photos by Brian Breneman

This article was first published in Portland Monthly, July 17, 2020, and republished here with their permission. Link to the original article:

<https://www.pdxmonthly.com/eat-and-drink/2020/07/a-new-bipoc-led-farmers-market-takes-root-in-portland?day=17@month=7@year>

For updated info on Come Thru's schedule and vendors, visit them on Facebook: <https://www.facebook.com/comethrupdx/>. The next market is Monday, November 9, 11am-3pm.

Fifteen minutes before the first day of the Come Thru farmers market, a new, every-other-Monday market aimed at showcasing BIPOC farmers, organizer Allinee "Shiny" Flanary was trying not to panic.

There was already a line around the block at the Redd, an event space and community kitchen in SE Portland. Eager volunteers had been on hand since early that morning to help set up. All good signs, except that the only one of the expected 10 farms to arrive set up their booth was the Raceme Farm Collective, to which Flanary herself belongs. (The collective includes three independent Black and Brown-run farms that share



infrastructure, marketing and planning duties; at her Scrapberry Farms she grows herbs to make salves and tonics.)

"People thought this market would be the tiny community project that doesn't have a lot of foot traffic," Flanary says. "What actually happened was for three straight hours, we had a line around the entire block."

But within an hour, four more farmers had shown up and set up, and the market was fully underway.

Three times each, those first vendors ran out of food, Flanary recalls, and three times each they replenished, sending runners to their plots to harvest more produce. Each time during that first market, she says, everyone at the market and in line—only 25 people are allowed in at a time to encourage social distancing—gave them a round of applause. A DJ arrived to play some music, and dancing broke out among those waiting in line. By the end of the four-hour market, the volunteers Flanary had stationed at the entryway had counted over 1,100 people coming through.



“We had the most Black folks at a farmers market that you have ever had at Portland,” Flanary says. “We wanted a BIPOC-led and centered market that also centered BIPOC consumers to expose folks to new kinds of food.”

And that’s what she’s building in the Come Thru’s second incarnation. The first was in 2019 at the Oregon Food Bank, which is off Columbia Boulevard in a stretch of NE Portland without any appreciable foot traffic and limited public transit. It was a noble experiment, Flanary says, but at the end of the season, it felt like a one-off.

Then, amidst the Black Lives Matter protests that have gripped Portland and other cities nationwide for the better, Flanary, who describes herself as a “a Black, queer, anti-racist dirty femme” as well as an “an alchemist, cottage witch, farmer, medicine maker, and decolonizer,” got a call from the Black Food Sovereignty Coalition, a nonprofit that was formed to support Black-led farming and food justice in the Portland area. (She knew them in part from her participation in the Pathways to Farming project—a three-year incubator program supported by local Black-owned farm Mudbone Grown in conjunction with the Oregon Food Bank.) There was grant money available to revive the Come Thru, a stipend for her to act as market manager, and a space available at the Redd—the only catch was that it had to be up and running in just two weeks to make the most of the summer growing season.

Flanary swung into action, aware that she was challenging the city’s dominant notion of what a farmers market could be: a space for affluent white consumers who’ve been trained to expect the market to be as wide-ranging as the local grocery store.



The Come Thru is different, she says. It’s an incubator for new farmers who are still figuring out how much to charge per beet, the vagaries of market insurance and government regulation, and a place where vendors will also sell medicine, herbs, prepared foods, and handmade crafts—“like a cigar

box guitar, which is, you know, really lovely, but not an eggplant,” Flanary says.

Right now, the Come Thru is scheduled to go through September, with a possible extension into November if organizers can work out a deal with the Redd to move operations inside—so long as market metrics support that, which depends on keeping up the foot traffic this summer. Word about the success of the first market day spread fast, and now Flanary has 20 vendors signed up, including tribal fishermen, holistic skin care and wellness vendors and two Creole-inflected prepared food stalls.

It’s all a delicate balance. To make the market a lasting financial success, Flanary says, she needs white Portland to turn up—and yet, the market vendors want flexibility for initiatives like setting aside produce for BIPOC families in need.

“We need white Portlanders to do the work with their dollars,” she says. “I do want to say that to people. Please come out. Please join in this marketplace with us, but also learn to move in spaces that don’t center you.”

Organic Medicinal Herb Demonstration Project Commences

Fresh market and processed vegetable organic producers in the Western US are facing steep challenges to maintaining profitable production. Labor costs, increased food safety measures, and low prices from import competition are cutting farm profits. At the same time, the demand for domestically produced, high quality medicinal herbs is growing. A newly funded project through USDA's Organic Research and Extension Initiative will help identify both new crops for PNW farms and barriers to adoption to inform future research for these high value Asian herb crops that have potential to serve as a profitable crop rotation option.

The project goal is to provide a roadmap of industry research needs as identified by industry experts. A planning conference is scheduled for early March in order to convene growers, herbalists, herb processors, and market buyers to participate in developing industry research priorities. The conference will foster growth of a PNW industry stakeholder group, identify promising crops for production, as well as any obstacles to their widespread adoption.

The project team includes OSU researchers Kristie Buckland, Vegetable and Specialty Seed Crop Specialist, Nick Andrews, Organic Vegetable Extension and Alex Stone, Vegetable Specialist, as well as industry experts Ben Marx, Oregon College of Oriental Medicine, and Peg Schafer, Chinese Medicinal Herb Farm. We are encouraging farms or herb specialists to join our listserve (<https://lists.oregonstate.edu/mailman/listinfo/pnwherbs>) and check out our website (www.PNWherbs.org) for details on the project and upcoming conference.




Online Courses offered by the OSU Small Farms Program

Available anytime online and self-paced. Register at: <https://workspace.oregonstate.edu/catalog-page#all-courses>



**GROWING FARMS ONLINE:
SUCCESSFUL WHOLE FARM
MANAGEMENT**

FREE
Whole Farm Management
Book Included with
Registration



On Demand. Access Anytime

3-6 hours per online module

Online

To Growing Farms: Successful Whole Farm Management

<https://workspace.oregonstate.edu/course/growing-farms-online-successful-whole-farm-management?hsLang=en>



FREE

**GROWING FARMS:
INTRODUCTION TO PASTURE
AND GRAZING MANAGEMENT**

On Demand. Access Anytime.

Online

Free

To Pasture Management:

<https://workspace.oregonstate.edu/course/pasture-and-grazing-management?hsLang=en>



**GROWING FARMS SHORT
COURSE: ECOLOGICAL
STRATEGIES FOR MANAGING
INSECTS ON A FARM**

\$25

On Demand. Access Anytime.

2-4 hours

Online

To Ecological Strategies

<https://workspace.oregonstate.edu/course/growing-farms-short-course-ecological-strategies-for-managing-insects-on-a-farm?hsLang=en>

2020-21 Variety Showcase + Winter Vegetable Sagra

By: Lane Selman and Heidi Noordijk, Oregon State University, Small Farms Program. Photos by Shawn Linehan

Mark your calendars! The 2020-21 Variety Showcase + Winter Vegetable Sagra will take the form of joint virtual programming from December 2020 - March 2021, featuring TED-style talks, interactive Q&A sessions, cooking demos, and virtual field tours. This event is free and open to the public - worldwide!

Sagra program content will focus on eight winter vegetables: Celeriac, Radicchio, Brussels Sprouts, Cabbage, Cauliflower, Collards, Winter Squash, Garlic and Purple Sprouting Broccoli. Presentations will explore plant histories, origins and domestication; medicinal, nutritional and culinary elements of species; farm visits; cooking demonstrations; art and folklore.

Variety Showcase will be a week of virtual video presentations and Q&A sessions with plant breeders and seedkeepers, featuring seed projects focused on selecting and breeding for organic systems and culinary quality.

Outreach and promotional materials will be shared with farmers, market managers, and other direct-market outlets to spread the word to eaters and promote local sources for winter vegetables. This programming is supported by funds from the Oregon Department of Agriculture Specialty Crop Block Grant Program.

What is a sagra? In Italy, there are proud and festive celebrations of local food or drink, traditions, and community. A sagra may focus on a locally-grown ingredient or a particular dish. It is a place where you will eat well and also learn. There are 20,000 to 30,000 sagre in Italy every year, celebrating truffles, cheese, wine, chestnuts, and more.

As a part of the "Eat Winter Vegetables" project, the annual Winter Vegetable Sagra is a celebration to learn about and become enamored with winter

squash, celeriac, garlic, cabbage, cauliflower, radicchio, collards and Brussels sprouts. Attendees learn about locally-grown foods and where to buy them, and how to store, prepare and cook them.

Sagra impact:

In 2019, the Winter Vegetable Sagra occurred in partnership with the Friends of Family Farmers annual Fill Your Pantry sale. The 2019 Winter Vegetable Sagra attracted over 1,000 attendees and 31 farmer vendors collectively sold more than \$87,000 in locally grown/produced foods! This is about \$25,000 more than the highest previous year and included more than \$1300 in SNAP dollars.

2020-21 Variety Showcase + Winter Vegetable Sagra

Draft Schedule:

December 1st - 4th: GARLIC

December 7th - 11th: RADICCHIO

December 14th - 17th: COLLARDS

January 11th - 15th: BRASSICAS

January 25th - 29th: WINTER SQUASH

February TBD: INDIGENOUS FOODS

February TBD: VARIETY SHOWCASE

INTERACTIVE SESSIONS

March 3rd - 6th: PURPLE SPROUTING
BROCCOLI

March 15th - 18th: CAULIFLOWER +
CABBAGE

Register for FREE [here](#).

Visit the project website: eatwintervegetables.com for updates on the virtual programming.



gained at the previous Variety Showcase in their businesses.

What is the Variety Showcase? This is typically an in-person interactive mixer designed to build community among plant breeders, seed growers, farmers, chefs, produce distributors, retailers, food lovers, journalists, artists, food processors, brewers, nutritionists, bakers, restaurant owners and more. Attendees have the unique experience to see and taste new and in-development vegetable, fruit and grain cultivars; engage in conversation; share opinions; and take part in breaking down the walls between eaters and breeders. The Variety Showcase is a great opportunity for plant breeders, seed growers and/or agricultural researchers to show their work, collect opinions and use input to guide trajectories in their work. It is essentially a selection event, in itself.

Variety Showcase survey results and impact:

In February 2020, the Variety Showcase included:

- 700 attendees
- 40 showcase tables featuring breeding work
- 2 special exhibits
- 128 participating breeders, researchers & chefs

144 surveys were completed by attendees. Results showed:

80% of people attended the event for the first time
Of returning attendees, 90% used information

MOTIVATION

When asked why they attend:

- 24% Networking
- 41% Education
- 29% Find new varieties to grow/buy
- 6% Provide breeders with input
- Other responses included good food, fun and exploration.

CONNECTION

85% met someone who plays a role in the food system they did not know before.

OUTREACH

96% plan to share new knowledge with others.
Responders estimated they would share knowledge with over 2,075 in person
and over 258,000 through social media.

IMPACT

81% responded that new knowledge/experience gained would impact their work.
When asked in what ways it would impact their work:
34% expanded networks
25% buying practices
41% informed decision-making
Other responses included new collaborations and partnerships. ∞

Tsuneo Kanzawa: The Man Who Saved the Grape Industry of Japan

By: Dr. Toshihiko Nishio

Translated and edited by: Shinji Kawai and Abigail Huster, Department of Horticulture, Oregon State University

Improvements in agricultural technology and breeding helped struggling Japanese farming communities in the early 20th century. Since the 1990s, Dr. Toshihiko Nishio, a Japanese rice farming system researcher, published over 150 stories about these innovations. By showing how these discoveries derived from careful observation, patience, and in some cases, serendipity, we hope that farmers will realize how ordinary people can contribute to the advancement of their local agricultural communities and beyond.

As Bad as a Cholera Outbreak

An 1885 bulletin by the Japanese Ministry of Agriculture stated:

“Grape phylloxera has been found in the Mita Breeding Field in Tokyo and will soon spread nationwide. In the past, affected plants were found in southern France on grapes imported from the United States. That infestation spread rapidly to Italy and other neighboring countries. The calamity caused by this disease is like a cholera outbreak”.

This bulletin, with its strong language comparing the pest to a deadly and highly contagious human disease, called for rigorous eradication of the pest. As phylloxera is a highly destructive pest of grape vines, its first detection in Japan was cause for the highest alert.

Phylloxera (*Dakulosphaira vitifoliae*) is a tiny pest less than one millimeter in size ($< \sim 1/16$ ”). They infest the roots of grape vines, sucking nutrients from small perforations they make in the roots, and eventually killing the plant. Although they have sexual stage to their life cycle, they also have the ability to reproduce asexually by parthenogenesis.



Tsuneo Kanzawa in his lab. From the Yamanashi Norin High School 100th Anniversary Book (2014).

Phylloxera was originally a localized pest on the wild grapes native to the eastern Rocky Mountains in the U.S. However, phylloxera traveled with those American grape vines in the mid-19th century to France, and then rapidly spread throughout Europe. In France 100 million hectares of grape fields were infested in 20 years, which devastated the world's largest wine industry. To call the arrival of phylloxera a calamity “like a cholera outbreak” reflects the level of fear this pest inspired in the agricultural community.

In 1885, the year this bulletin was written, Japan had just founded the Ministry of Agriculture and Commerce. They were promoting grape farming in hopes of attaining the dream of modernization. Although phylloxera actually arrived in Japan three years earlier, they clearly saw that this pest put their dreams in jeopardy.



Right: Phylloxera damages in 100 yrs of Yamanashi Pref. Ag. Expt Researches. Yamanashi Pref. Ag Expt. Stn. (2000).

Left: Phylloxera leaf galls and root cysts.
Illustration by Eiko Goto.



After sounding the alarm, strict control measures were enforced. Infested plants were confiscated and burned as they were found, but the damage was slowly spreading. Surveys revealed that by 1924 phylloxera had been found in 39 prefectures and over 300,000 plants had been burned. The phylloxera epidemic was a devastating blow to the emerging Japanese grape industry. After only 16 years, the national wine grape project was scrapped, mainly due to the phylloxera outbreak.

The area most affected was the Yamanashi Prefecture, which had been aiming to become the grape capital of Japan. Phylloxera leaf galls were found on “Delaware” grapes in the district by Mosaku Nakazawa and Kanzawa in 1910. Kanzawa had been a technician at the local agricultural experiment station for three years at that point. After their unfortunate discovery, further examination showed that the infestation had already spread to 44 hectares of vines. The Yamanashi Prefecture immediately implemented the designated crop protection measures.

A glimmer of hope came in 1914, when seven phylloxera resistant rootstocks were imported to Japan and distributed to the major grape producing areas. A few years later, the Yamanashi Prefecture was

chosen as the site of intensive grape crop production research. Kanzawa was appointed as the special technician to oversee the project. He was 29 years old and while he had graduated from an agricultural high school, he did not have any college education. To be chosen for this position he must have shown promise as an agricultural researcher, and indeed, he excelled for the remainder of his career.

Learning About Phylloxera

When Kanzawa began his research on phylloxera management, the insect’s life cycle was already known. Resistant rootstocks had been created in other countries by breeding in resistance from wild North American grape species. However, the climate and cultural practices in Japan were different from those of the Western world. Kanzawa’s task was to build on research from the U.S. and Europe to establish control methods against phylloxera effective in Japan, and also to select resistant rootstocks appropriate for the grape cultivars grown in his country.

The literature available to Kanzawa from overseas described four adult forms of phylloxera: the root form, the leaf form, the winged form, and the sexual form. However, not all of these were present in Japan. Kanzawa never observed males (hence none of the sexual type) and very rarely saw the leaf form. He observed more vines showing signs of chronic symptoms than acute infection and death. The infected vines would gradually lose vigor, resulting in a yield reduction over time. High temperatures and humidity would increase damage, while low temperatures and rainfall slowed the symptoms. He also noted differences among microclimates, soil types, and cultivars.

Genetic Resistance

Around the world, the best strategy emerging to fight phylloxera was the use of genetically resistant rootstocks. Kanzawa set out to evaluate 37 rootstocks imported from the U.S., identify the best adapted one to Japanese growing systems, and distribute them nationwide. After compatibility and productivity tests, he selected five rootstocks for each of the three main Japanese grape cultivars: 'Concord', 'Kofu', and 'Delaware'. He also led a farmer-participatory project to develop grafting techniques for these new rootstock-scion combinations as well as top grafting to revive the affected plants.

Farmers were slow to adopt his new phylloxera management options, but by 1925 enough resistant vines had been planted that infections started to diminish. Finally, in 1939 the project was determined to have accomplished its goals and the research farm was closed. The final report said that 117,358 phylloxera resistant seedlings and scions had been distributed to places as far away as Korea.

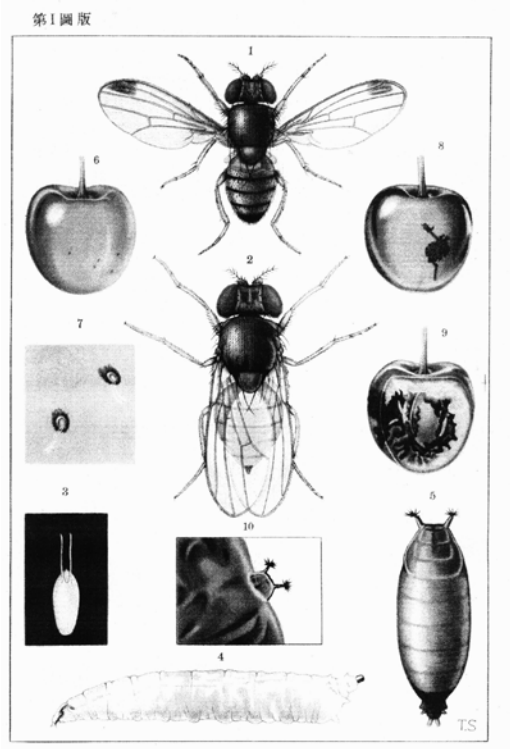


Plate 1 in *Studies on Drosophila suzukii* by Kanzawa, Yamanashi Pref. Ag. Expt. Stn. Annual Report (1939).

Phylloxera damage in Japan continued until the 1940s, as growers resisted re-planting their existing mature vineyards with susceptible vines until their field was affected. Currently the pest is not an issue in Japan. However, there are concerns about a recurrence because some farmers are opting out of using grafted vines with resistant rootstocks as the ravages of the pest fade into history.

Studies on Other Pests

Kanzawa is not only remembered for his phylloxera research. He also discovered (and given his name to) a new species of spider mite, *Tetranychus kanzawai*. He discovered these red mites in a

mulberry orchard in 1926. They have turned out to be an important pest of grapes, mulberries, tea, spinach, watermelon, and strawberries. In recent years they are becoming increasingly problematic in greenhouse operations.

Another area of Kanzawa's work that is drawing attention in recent years is his studies on *Drosophila suzukii* (SWD). He found cherries infested with larvae in 1916 and identified the new species after raising them in the lab. He conducted detailed observations and reported that this pest could have up to fifteen generations in a season, and could also infest other soft fruit crops such as strawberries, persimmons and many other berries and fruits. He recommended a molasses and wine solution for effective trapping. The SWD is native to East Asia. It was found in Hawaii in the 1980s and then spread to the US mainland in 2008 and Europe shortly thereafter, inflicting huge damage to the cherry, blueberry, grape, and other similar industries. As the Western world scrambled to react, Kanzawa's studies from the 1930s provided guidance, 80 years after their publication.

Kanzawa's third triumph was the identification of the citrus flat mite, *Brevipalpus lewisi*. He found this pest in a vineyard in 1927. Local farmers called plants with damage from this pest "stained vines," as black necrotic tissue would develop at the base of new shoots. Kanzawa showed that this mite was the causal organism of the mysterious symptom. He also found that lime sulfur is effective to control the pest.

A Dedicated Researcher

In 1942 Kanzawa retired as the head of the pest and disease department of Yamanashi Prefecture Agricultural Experiment Station after serving for 36 years. This was in the middle of WWII. He briefly worked for a food supply monitory body, but missed the research work and returned to Yamanashi Agricultural Experiment Station in 1946 being contracted for the pest monitoring project for four years, then continued to work as a pest and disease specialist.

His expertise as a pest and disease specialist shone through in a severe rice crop failure caused by the cold summer of 1953. Rice blast (*Magnaporthe oryzae*) spread through the Yamanashi Prefecture like wildfire. All pesticides were out of stock. Kanzawa was on the front lines of this disaster, even teaching farmers to use wood ash and formaldehyde as a makeshift pesticide. After that experience he wrote an article about what he learned, which became his last publication. He passed away on June 2, 1954 after complications from an intestinal surgery he had earlier that year. He was 66 years old, a slim figure with grey hair, good natured and looked after his subordinates well. His Buddhist given name described him well: The Great Daily Agriculture Contributor. 🐝

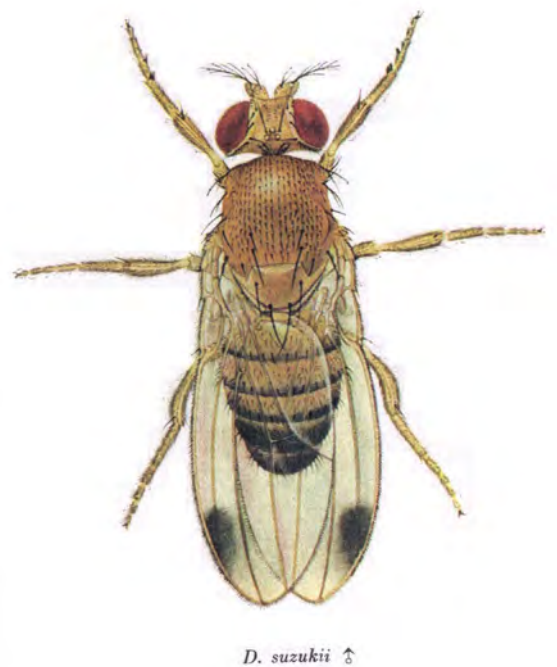
Resources:

Phylloxera

<https://en.wikipedia.org/wiki/Phylloxera>

Color plate of SWD in *Drosophila* species of Japan and adjacent localities.

By Kikkawa and Peng, Jap. Journal of Zoology, Vol. 7 (1938).





The Orchard Bee Association presents:

How to Use Orchard Mason Bees for Crop Pollination

A webinar for fruit and nut tree growers

When: Wednesday, October 28th, 9:00am to 12:00pm PST
Where: Online using Zoom Conference
What: A series of short talks from industry professionals on the basics of orchard bee management and their deployment for crop pollination. These talks are designed to help growers better understand how to incorporate mason bees into their pollination programs.
How: The cost to attend is only \$10. Visit our website to register: www.orchardbee.org/upcoming-events-1










Oregon Farmers Market Go Online!

By: Melissa Matthewson, Barking Moon Farm & Maud Powell, Oregon State University Small Farms Program

This summer, thirty farmers markets in Oregon launched online ordering systems in response to the COVID-19 pandemic. The Oregon Farmers Markets Association (OFMA), in partnership with the Oregon Department of Agriculture (ODA) and the Oregon Coast Visitors Association (OCVA), launched the new statewide project this spring, aimed at helping Oregon's farmers markets establish online ordering systems. Since farmers markets are ideal venues for purchasing local food but some customers did not feel comfortable attending in person, many markets added online pre-order systems for their shoppers. This made it possible for all consumers to keep supporting local businesses and preserving the farmers market industry.

"We felt that an online platform was critical to maintain our farmers markets as a safe venue for all Oregonians to access locally produced foods," says ODA Director Alexis Taylor. "The move online was already a growing consumer trend and provides an opportunity to support local farmers and make shopping accessible amidst new constraints from the pandemic."

In 2019 alone, farmers markets in Oregon hosted an impressive \$63 million in sales, supporting 6,700 vendors at 127 locations. COVID-19 hit Oregon just as markets were gearing up for the season. This brought significant challenges for markets in serving both their communities and vendors. Farmers markets were looking at a drastic reduction in shoppers and sales, likely hurting vendor businesses and jeopardizing the markets' long-term viability. In response, many farmers markets rapidly shifted their operations to make shopping safer by spacing out vendor booths, enforcing social distancing, and in many cases, by including online shopping options for customers. These changes give local food lovers a chance to buy from area farmers through a lower-contact method.

"OFMA is proud of Oregon's innovative farmers markets," said Kelly Crane, Executive Director of the Oregon Farmers Markets Association. "Throughout this challenging time, our markets have done their

best to keep feeding their communities while also supporting vendor businesses *and* providing a safe shopping experience. Online ordering is just one more way they're doing that."

Thirty farmers markets are currently operating online ordering systems. Most markets are either using the app "WhatsGood" or Local Food Marketplace. Shopping for local products online is not unlike other online shopping experiences: local food shoppers choose vendor products, check-out with a shopping cart, pay online, and pick-up at the market's designated time each week. There are also drive-through options at some markets where customers can have purchases delivered to a pick-up point.

Emily Vollmer of the Manzanita Farmers Market said of her market's online pre-order system: "Online ordering is the only way the Manzanita Farmers Market is currently allowed to operate in our town, which means our choice was to either provide online ordering or close for the season. We chose the former because we recognize how important our farmers market is to our local farm businesses, and how much our customers benefit from and appreciate being able to purchase such fresh and healthy food, and in such a safe and careful manner."

Online ordering systems are an excellent option for vulnerable or at-risk populations. For example, the Florence Farmers Market, which serves a community with many retirees, is operating a drive-through only market for customers. To ensure broad access to local foods, SNAP customers can continue to use their benefits at select online markets and will receive a dollar for dollar match of up to \$10 weekly through the Double Up Food Bucks program to spend on fresh fruits and vegetables.

"Our support of OFMA's online marketplace efforts not only invests in food security and community resilience for Oregonians, it also turns visitors into life-long customers of Oregon Coast products," says Marcus Hinz, Executive Director of the Oregon Coast Visitors Association.

Oregon farmers markets have shown an amazing resiliency and creativity in changing conditions due to COVID-19. While farmers markets are essential businesses and many have remained open in their physical locations, markets have taken their markets online through pre-order systems. This creates an expansion of the marketplace to vulnerable shoppers who would like to shop local, but from their homes. Through dedicated funding from the ODA Specialty Crop Block Program and the Oregon Coastal Visitors Association, OFMA has been able to provide on-

going technical assistance to all markets in the state, ensuring the continued viability of hundreds of small businesses.

To find a farmers market that is available online, you can visit OFMA's directory page: <https://www.oregonfarmersmarkets.org/online-farmers-markets>

The mission of the [Oregon Farmers Markets Association](#) (OFMA) is to support local agriculture and healthy communities by strengthening and promoting Oregon's farmers markets.



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Heirloom Collard Project: 250 growers trial 18 heirloom collard varieties across the country

By: **Norah Hummel, Seed Savers Exchange**

A national effort is under way to celebrate the beloved but often underappreciated collard. The multi-phase Heirloom Collard Project aims to build a coalition of seed stewards, gardeners, farmers, chefs, and seed companies to preserve heirloom collard varieties and their culinary heritage. Organizing partners include Seed Savers Exchange, Southern Exposure Seed Exchange, The Utopian Seed Project, Working Food, SeedLinked, and the Culinary Breeding Network.

The Heirloom Collard Project was launched in 2016 by Seed Savers Exchange and Ira Wallace — worker/owner of Southern Exposure Seed Exchange and longtime collard steward. Both intrigued by the collard varieties mentioned in the book Collards: A Southern Tradition from Seed to Table, authors Edward Davis and John Morgan, the team requested over 60 collard accessions from the USDA with unique heirloom stories. The initial intent of the project was to make these heirloom

collard varieties available to a wider audience by regenerating them at Seed Savers Exchange and with Southern Exposure partners. Since then the project has broadened to encompass five target areas: variety preservation, historical documentation, education and engagement, seed-catalog promotion, and cultural-foodway preservation.

“Collards were grown in my grandmother’s garden like green beans were in the gardens of many other people — they were just a given,” says Wallace. “When I get excited about gardening, a lot of times it is because it reminds me of my grandmother’s garden of collards.”

This movement has inspired seed keepers, growers, historians, and chefs to encourage preservation of these rare family heirlooms, and Seed Savers Exchange and Southern Exposure Seed Exchange, have worked together over the past few years to regenerate several varieties. But there are many more



Fulton Strand, Ole Timey Blue, and Green Glaze (left to right) are three of 20 varieties included in the 2020 Collard Variety Trial. Photos from OSU North Willamette Research and Extension Center in Aurora, OR.

varieties to be grown and stories to be shared.

Phase One: 2020 Collard Variety Trial

The Collard Variety Trial is the first phase of the larger Heirloom Collard Project. Using the innovative online platform [SeedLinked](#), which connects breeders and farmers to trial vegetable varieties, the Collard Variety Trial has linked 250 farmers and gardeners across the country to trial 18 heirloom collards from Seed Savers Exchange's vast collection. (The collection was established by donations to Seed Savers Exchange and acquisitions from USDA that were previously collected from seed stewards across the Southeast and written about in *Collards*.)

By gathering information from a wide diversity of growers across the country, the project aims to document how varieties perform across hardiness zones, cultivate a community of collard growers and eaters, and celebrate the unique heirloom stories of the varieties.

How does the trial work? Each participant was assigned and shipped three varieties to grow and will collect data on traits like germination, yield, and flavor. At the end of the growing season, SeedLinked will synthesize and share the data. The Collard Variety Trial also includes eight screening sites that will grow all 20 varieties (18 heirloom varieties and two varieties common in the seed trade for baseline comparison):

Shantae Johnson, Mudbone Grown Farm, Corbett, Oregon
Heidi Noordijk, Oregon State University, Aurora, Oregon



Melony Edwards, Willowood Farm, Coupeville, Washington
Micaela Colley, Organic Seed Alliance, Chimacum, Washington
Melissa DeSa, University of Florida, Gainesville, Florida
Chris Smith, Utopian Seed Project, Leicester, North Carolina
Rejoice Blackwood, Southern Exposure Seed Exchange, Louisa, Virginia
Jon Jackson, Comfort Farms, Milledgeville, Georgia

Throughout the growing season, the project will share videos, stories, articles on all things collards, from the soil to the table on Instagram, Facebook, and on the Heirloom Collard Project blog.

What's next

In collaboration with Oregon State University and the Culinary Breeding Network, the Heirloom Collard Project team is planning Collards Week from December 14th-17th 2020 part of the Eat Winter Vegetables Project. This collard celebration will feature pre-recorded presentations, farm tours, and cooking demos, as well as a live eat-in. Future project efforts will focus on establishing a network of seed stewards to regenerate endangered heirloom varieties from the Seed Savers Exchange collection and share them with their communities.

For more information on the Heirloom Collard Project visit the Heirloom Collard Project website: <https://heirloomcollards.org/the-collards/>.

WSARE Grant Will Help Producers Fine Tune Season Extension Use

By: Nicole Sanchez, Oregon State University Small Farms Program

A multi-year grant awarded by Western SARE will help producers in Klamath Falls fine tune their Season Extension use, and provide a means for them to network with cohorts of producers in Bend, OR and Modoc County, CA. In Klamath Falls, a generation of newer produce growers seek to meet increasing demand using SE. While the growers possess a general understanding of SE and its functions, lack of growing experience in the harsh and unique climate and lack of actionable, region specific best practices make SE production “trial and error”.

Numerous local food development projects are in progress in the Klamath community, including grant funded Farm to School projects, development of a food hub (KFOM), local food policy councils and collaborative teams under the umbrella of the Blue Zones Project, and South Central Oregon Economic Development District (SCOEDD). Food access and food hub feasibility studies have been done within the community in the last two years. SCOEDD was

just awarded a grant to help local producers develop effective branding.

Our project builds on SE research in similar climates, focusing on collection of environmental data to inform producer decision making re planting dates, choice of SE treatment, predicting maturity, and increasing yield. Participating growers see increased efficiency in their use of SE as key to meeting developing demand in our community. Through coordinated tracking of key temperature and weather points, collaborating on three key crops, networking with growers in similar environments, and visiting their operations, we will enable these producers to better meet the demand we are simultaneously building. PI Nicole Sanchez has assembled a large team of producers and stakeholders across three counties, including Clare Sullivan and Lauren Gwin from OSU’s Small Farms Team. 🌱

Photo by Lynn Ketchum



ODA Awards \$250K in Farm to School Equipment & Infrastructure Grants

The Oregon Department of Agriculture (ODA) is proud to announce the selection of six awardees for the Farm to School Equipment and Infrastructure Grant Program. The goal of this competitive program is to help Oregon farmers, ranchers, seafood harvesters, and food processors get more of their local products into more of Oregon's participating National School Lunch Programs (NSLP), Child and Adult Care Food Programs (CACFP), and approved Summer Food Service Programs (SFSP).

"We received a total of 36 applications requesting more than \$2 million from all over the state," said ODA, Director, Alexis Taylor. "Proposals included a variety of products, everything from tamales to fresh fruits and leafy greens. The awardees who were selected represent diverse nutritious products from across the state which our school children are sure to enjoy."

The \$250,000 in grants was made possible by the Oregon Legislature. Chair of the Oregon House Agriculture and Land Use, Representative Brian Clem introduced and championed House Bill (HB) 2579 in 2019, which expanded the Farm to School Grant Program to include assistance with equipment and infrastructure. This would include business improvements such as: a new well to irrigate crops and extend the growing season; a commercial mixer to scale up production; or cold storage to improve the quality and freshness of storage crops.

HB 2579 originally included \$500,000 in grant funds, but due to the state's economic downturn the grant program was reduced. Representative Clem worked with ODA, the Joint Committee on Ways and Means, and legislative leadership to retain \$250,000 for Farm to School equipment and infrastructure grants.

For more information about the ODA Farm to School Program please contact Amy Gilroy, at agilroy@oda.state.or.us 503-709-5360.

2020 Farm to School Equipment and Infrastructure Grant awardees:

Aichele Farms, Stanfield, Oregon

School Expansion Project = \$61,156

With the help of this grant, Aichele Farms will be able to make necessary upgrades to their cold storage facilities to extend the shelf life of fresh strawberries. The farm intends to sell to Morrow and Umatilla School Districts and increase the volume and frequency of sales to school lunch and summer meal programs in school districts west of the Cascades.

Ella Belle Farms, Talent, Oregon

FSMA Food Safety Compliant Well and Water Treatment System = \$19,393

Ella Bella Farm intends to sell tomatoes, potatoes, peppers, melons, corn, and squash to the Ashland School District and intends to sell to Central Point School District and other Southern Oregon school districts managed by Sodexo Food Service Management Company. This grant will help Ella Bella install a new well, pump house, and irrigation system necessary to obtain the food safety certification required by the school lunch programs.

Mama Tee Farm, Willamina, Oregon

Season Extension Tunnels for Farm-to-School Vegetable Production = \$14,436

Mama Tee Farm is a small and beginning, woman-owned diversified farm located in Willamina. Mama Tee's will use this grant to install caterpillar tunnels to extend their growing season and provide fruits and vegetables for the Willamina School District.

Mudbone Grown LLC, Corbett, Oregon

Feed'em Freedom to Farm = \$68,386

Mudbone Grown LLC is a small and beginning, woman, BIPOC, and veteran-owned diversified vegetable farm located in Corbett. With season extension infrastructure, Mudbone Grown will be able to expand the diversity of the products they produce, including the use of aquaponics to scale leafy green

and vegetable production. Mudbone Grown intends to provide fresh and minimally processed produce to Donald E. Long Juvenile Detention Hall as part of their National School Lunch Program and KairosPDX, a Charter School in the Portland Public School System.


Out on a Limb Farm, Parkdale, Oregon

Cody Orchards Farm Restoration Project = \$18,608

Out on a Limb Farm is a small and beginning family orchard located in Parkdale. Out on a Limb Farm intends to sell cherries, pears, and peaches to the Hood River County School District and other area districts. The producer will install cold storage infrastructure to improve the quality and freshness of crops.

Tortilleria y Tienda De Leon, Gresham, Oregon

Oregon Tamales for Oregon School Meals = \$68,021

Tortilleria y Tienda De Leon is a family-owned business in Gresham. De Leon sells wholesale products such as burritos, salsas, deli sauces, and entrees to local retail stores. The company also has two years of experience selling whole grain tamales to more than 10 school districts in the state. De Leon will purchase an electric tamale mixer to keep up with increased demand for tamales in Oregon schools participating in the National School Meal Program. 

Naked Barley Project Awarded a \$2 Million Dollar Grant

A national effort led by plant breeders Pat Hayes and Brigid Meints of Oregon State University has been re-funded after a successful first iteration of a project focused on one of the world's oldest and most versatile grains: barley.

“Developing Multi-use Naked Barley for Organic Farming Systems II” aka The Naked Barley Project was awarded a \$2 million grant for an additional three years from the U.S. Department of Agriculture (USDA). The USDA National Institute of Food and Agriculture Organic Agriculture Research and Extension Initiative grant has six objectives:

- 1) provide organic growers, processors, and consumers with a new crop, food, and raw material alternative that will be economically rewarding and sustainable;
- 2) identify and release high-yielding, high-quality, flavorful and nutritious multi-use naked barley varieties for organic systems;
- 3) characterize traits that were previously identified as being especially critical for organic production on a large, genetically diverse panel of naked barley germplasm;
- 4) create a modified nested association mapping (NAM) population to breed for traits important for organic production and regionally relevant to the different areas represented in this project and to maximize the efficiency of selection;
- 5) observe, analyze, and report the results of natural selection and artificial selection on an organically grown naked barley composite population - a vehicle for engaging K-12 students and home gardeners in organic grains and foods;
- 6) educate the public on the uses and production value of naked barley.

Project collaborators include from breeders, farmers, millers, maltsters, bakers, distillers, chefs and other end-users in Oregon, California, Wisconsin, Minnesota, and New York.

Excitement for barley is evident from OSU breeder and project leader Pat Hayes' proclamation, “It is time for barley to go naked, after nearly 10,000 years of hiding the grain under an adhering hull.”

For more information and to learn about outreach events visit <https://barleyworld.org/> and <https://eorganic.info/Barley> and follow @barleyworld, @multibarley and @culinarybreedingnetwork on Instagram.

Continued from page 3

What do I need to know about wildfires and livestock safety?

- Wildfires, Smoke and Livestock: <http://cecentralsierra.ucanr.edu/files/220420.pdf>
- Caring for Livestock Before Disaster <https://extension.colostate.edu/docs/pubs/livestk/01814.pdf>
- Caring for Livestock During Disaster <https://extension.colostate.edu/docs/pubs/livestk/01815.pdf>
- Caring for Livestock After Disaster <https://extension.colostate.edu/docs/pubs/livestk/01816.pdf>
- Oregon State University Carlson College of Veterinary Medicine is providing veterinary care to animals affected by the Oregon wildfires. Find resources, tips, assistance, and ways to help. <https://vetmed.oregonstate.edu/wildfire-response>
- Wildfire Preparedness for Horse Owners <https://extension.colostate.edu/docs/pubs/livestk/01817.pdf>
- Assessing and Caring for Cattle after Wildfires from Texas A&M <http://veterinaryextension.colostate.edu/menu1/disaster/assessing-and-caring-for-cattle-after-wildfires.pdf>
- Pets and Wildfire Smoke: https://www3.epa.gov/airnow/smoke_fires/protect-your-pets-from-wildfire-smoke.pdf
- Disaster Preparedness for Farm Animals <https://www.humanesociety.org/resources/disaster-preparedness-farm-animals>
- ODA launched a website to help reunite owners with their animals displaced by wildfires. <https://oda.direct/AnimalTrack>

What do I need to know about food safety and wildfires?

- Understanding Risk: A community guide for assessing the potential health impacts of locally-grown produce exposed to urban

wildfire smoke (10-minute read) - <https://ucanr.edu/sites/SCFRC/files/294307.pdf>

- Food Safety and Wildfires: Summary and list of additional resources <https://agsci.oregonstate.edu/wrcefs/article/food-safety-and-wildfires?fbclid=IwAR3gmA53PALUHL0aECbB8teFIKzxB07Y8MQPqZ9nO-CKXdb5qlikHy2Arqg>
- Best Practices for Produce Safety After a Fire (5-minute read) - <https://ucanr.edu/sites/SoCo/files/315093.pdf>
- Webinar: Post-Fire Food Safety (roughly 1 hour long) - <https://drive.google.com/file/d/1pKJaeSH09fNYWZPqFEyJxL0bsIJL-vl8/view?ts=5dc35045>
- USDA Food Safety Information: Fires and Food Safety (3-minute read) - https://www.fsis.usda.gov/wps/wcm/connect/f4c7bfd6-4824-401b-9632-bc4df18b47a0/Fires_and_Food_Safety.pdf?MOD=AJPERES
- Food Safety and Fires: <http://ucanr.edu/foodsafety-fires>
- Food Safety and Urban Wildfires <http://ucanr.edu/foodsafetyandfires>

What about farmer's markets?

For employers trying to make a determination about attending a market, please see OSHA's [webpage](#) regarding occupational safety and wildfire smoke.

Some farmers markets are being canceled due to poor air quality or proximity to fire threat. Farmers markets who are open may have fewer vendors as farms are impacted directly by the fires. Farms may have limited selection as they prioritize worker safety and minimize harvest.

As markets will vary depending on location, you can follow your local market on social media or email them directly. You can stay up to date on all of Oregon's farmers market happenings by [signing up](#) for the Oregon Farmers Market Association's newsletter and email list.

What funding is available for farms impacted by the fires?

We will continue to update this page as funding opportunities develop (State, Federal, and Local)

- There is a gofundme campaign started for 'Small Farms Affected by Oregon Wildfires'. We will post updates here when they are ready to allocate funds and have criteria for application ready. In the meantime the campaign can be viewed here: <https://charity.gofundme.com/o/en/campaign/small-farms-affected-by-oregon-wildfires>
- Casa of Oregon <https://casaoforegon.org/get-involved/>
- Unete Immigrant Fire Relief Fund <http://uneteoregon.org/>
- Rouge Valley Recovers <https://roguevalley.org>
- Benton County Recovers <https://bentoncountywildfireresponse.recovers.org>
- Albany Recovers <https://albany.recovers.org/>
- Oregon survivors affected by wildfires can now apply for federal disaster assistance. Please read more from [FEMA Federal Emergency Management Agency](#)

How can I help others who have been impacted?

- You can contact your local [county Extension office](#) or County's Emergency Response team to confirm the most up to date donation and volunteer options and needs. Oregon Emergency Management link: <https://www.oregon.gov/OEM/Pages/default.aspx>
- If you have land available for farmers and ranchers who have been evacuated you can let your local Small Farms Extension contact know (so that we can announce on our farmer listservs), or if you have experience with livestock you can connect with Facebook pages like [Cowboy 911](#), [Cowgirl 911](#), [Linn County Livestock](#) and [Holiday Farm \(McKenzie\) Fire Animal Rescue \(Lane Co\)](#) that are coordinating animal evacuation and assistance.
- A fundraising campaign has been started for

small and micro-scale farmers, especially those who have not qualified for federal CARES act funding: <https://charity.gofundme.com/o/en/campaign/small-farms-affected-by-oregon-wildfires>

Organizations collecting funds for immigrants and farm workers:

- CASA for Oregon. <https://casaoforegon.org/get-involved/>
- Unete Immigrant Fire Relief Fund <http://uneteoregon.org/>

What about ash, post fire cleanup, and land management?

Protecting Yourself from Ash https://www3.epa.gov/airnow/smoke_fires/protect-yourself-from-ash-factsheet.pdf

It is important to continue to wear N95 rated masks even after the smoke lifts and air quality index improves. Working outside and cleanup work can expose you to ash and other products of the fire that may irritate your eyes, nose, or skin and cause coughing and other health effects. Ash inhaled deeply into lungs may cause asthma attacks and make it difficult to breathe. Ash is made up of larger and tiny particles (dust, dirt, and soot). Ash deposited on surfaces both indoors and outdoors can be inhaled if it becomes airborne. Ash from burned structures is generally more hazardous than forest ash, we have both in this region.

If possible, reduce outdoor physical activity during work. If you need to work outdoors, wear a mask that filters at least 95% of airborne particles (N95/KN95 masks). Cloth masks will not offer adequate protection.

A tight fit is important for protection from smoke and particulates. Facial hair can interfere with effectiveness. Even after the smoke lifts protection is required as ash and particulates will remain. Look for masks that are certified by NIOSH to filter out at least 95% of airborne particles.


- Land Management After a Wildfire <https://extension.okstate.edu/fact-sheets/management-after-wildfire.html>

- Wildfire Ash Clean up <http://lrapa.org/324/Ash-Cleanup>
- Recovering from Fire: Livestock, Agriculture and Natural Resources https://ucanr.edu/sites/postfire/Livestock_Agriculture_and_Natural_Resources_Guide_to_Fire/
- Recovering from Wildfire: A Guide for Landowners (California focused with applicable information to Oregon) <https://ucanr.edu/sites/postfire/files/247835.pdf>
- Protecting your soils after a fire—Seeding for erosion control. Oregon Department of Agriculture has some important information on how proper seeding and mulching can help protect your soil following a fire. Avoid soil runoff into rivers and streams. <https://www.oregon.gov/.../NaturalReso.../ErosionControl.pdf>

Resources en Español:

- Recursos de Incendios Forestales, Lista de Verificación para Empleadores y Recursos de Capacitación: <https://aghealth.ucdavis.edu/es/wildfires>
- HOJA INFORMATIVA Hay mucho humo en el aire: ¿Sabe qué hacer? <https://sharedsystems.dhsoha.state.or.us/DHSForms/Served//ls8622.pdf>
- Preguntas frecuentes sobre el humo de incendios forestales y la salud pública <https://sharedsystems.dhsoha.state.or.us/DHSForms/Served//ls8626.pdf>
- Oregon Información sobre humo <http://oregonsmoke.blogspot.com>

General Fire Resources:

- OSU Extension's Fire Resource Page: <https://extension.oregonstate.edu/forests/fire>
- Red Cross Wildfire Safety: <https://www.redcross.org/get-help/how-to-prepare-for-emergencies/types-of-emergencies/wildfire.html>
- Oregon Department of Agriculture's Wildfire Resource Page <https://oregon.gov/.../agric.../Pages/WildfireResources.aspx> 

New Small Farms Faculty Coming to Wasco County

We are excited to announce that Andrea Stith will be joining our OSU Extension team in Wasco County



as a Community Horticulture Outreach Program Coordinator.

Prior to joining us Andrea served as a Master Gardener Coordinator with University of Kentucky Extension for 5 years. Andrea has a Bachelor of Science in Agriculture from Western Kentucky University with a concentration in horticulture and a minor in studio art, and a Master of Science from Murray State University in Agriculture Education. Andrea loves flower and vegetable gardening and is excited to learn from everyone at Oregon State University.

We look forward to seeing how Andrea's applies her diverse skillset to meeting the educational needs of home horticulturists and small acreage landowners in Wasco County.

Andrea will be arriving sometime in October, so please make sure to reach out and help her feel welcome!