

New Herbicide Resistance Resources

Adapted from Drew Lyon, WSU Small Grains Extension and Research, Weed Science, "Weeders of the West" blog

WSU recently added several new resources on the [WSU Wheat and Small Grains website](#) about the ever-evolving topic of herbicide resistance.

1. A [WSU Wheat Beat Podcast](#) episode, "[Crossing the Boundaries of Herbicide Resistance](#)" with Drs. Ian Burke and Nick Bergmann, highlights the role of social science in tackling the problem of herbicide resistance. In their conversation with Drew Lyon, they share how social scientists can facilitate more meaningful discussion between growers, scientists, and government agencies to identify possible solutions for managing herbicide resistance.
2. Ian Burke and Drew Lyon are members of the [GROW \(Getting Rid of Weeds\) network](#), a network of weed scientists from across the U.S. focused on herbicide resistance management. GROW just published a new page about the [Basics of Herbicide Resistance](#). The page covers how herbicide resistance develops, how to identify



Russian Thistle. Credit UC Extension

herbicide resistance, and what future threats might be evolving, such as metabolic resistance. The information on this page provides a strong foundation for understanding herbicide resistance. They welcome your thoughts on the page, including what additional information you would like to see on the topic.

3. Italian ryegrass is the poster child for herbicide resistance in the inland

PNW. If Italian ryegrass plagues your farming operation, or you just want to learn more about this particularly adaptable weed, download a free copy of [PNW778, Italian Ryegrass Management in Inland Pacific Northwest Dryland Cropping Systems](#) for your library.

The problems created by herbicide resistance will likely get worse as we rely more on a fewer number of still effective herbicides to manage troublesome weeds. To stay up-to-date on the latest resources, visit [Herbicide Resistance Resources](#) regularly, and please let them know what additional information you are looking for.



WSU EXTENSION
Walla Walla County

Coming up...

July

8-10, *Beef 101: Beginning Rancher Development.*

Provides beginning ranchers with useful knowledge and resources to increase success in their operation. Animal health, handling and evaluation, natural resource and financial management, beef slaughter and fabrication. Moscow, ID.

Questions:

pbass@uidaho.edu

uidaho.edu/cals/beef/extension/beef101

10, Offal Composting

Workshop. Learn how to use composting as a waste management strategy for meat processors & producers. Moses Lake, WA.

Questions:

Rachel.wieme@wsu.edu

509-524-2685

[forms.office.com/r/](https://forms.office.com/r/ppmUtEhEwe)

[ppmUtEhEwe](https://forms.office.com/r/ppmUtEhEwe)

Find the original article with links to resources here:

smallgrains.wsu.edu/weeders-of-the-west/2024/05/30/new-herbicide-resistance-resources



Have an Emergency Plan for Your Livestock

Adapted from the American Red Cross

For large animals and livestock, make sure your plan includes a map of your farm indicating buildings and structures, access routes, blocked passages and barriers, locations of livestock and shelters, locations of hazardous substances (such as pesticides, fuel, etc.), and electrical shut-off locations.

Review your emergency plan with your employees and make sure they are aware of where all supplies and animals are always located. Always have identifying information for your animals or livestock and that animals have identification on them.

Keep a stockpile of supplies on hand such as:

- Sandbags and plastic sheeting
- Wire and ropes to secure objects
- Lumber and plywood to protect windows
- Extra food and water for livestock
- Extra fuel for tractors and vehicles
- Hand tools
- Fire extinguishers
- A gas-powered generator

Here are more steps you should take:

- If possible, plan to evacuate with your animals. Plan out routes and find vehicles and trailers to transport your animals and livestock.
- Don't forget to ensure that your destination has food, water, handling equipment and veterinary care.
- Make sure to build a go-kit for your farm much as you would for your home. Include veterinarian information, insurance agent information and documentation of coverage, other important documentation, food, water, medication.
- If you must shelter your animals in place, you may want to remove them from pastures and shelter them in a barn or other large structure if possible, providing them with feed and water. Make sure the shelter is free of neighboring debris, trees which can uproot easily, overhead powerlines, etc.
- It may be best to let your livestock remain in pastures, as confinement in a shelter can take away the abilities of animals to protect themselves.

Sign up to receive emergency alerts

<https://mil.wa.gov/alerts>

Keep up to date on air quality and fire locations

<https://wasmoke.blogspot.com/>

Check out WSU Extension Wildfire Preparedness resources

<https://wildfires.wsu.edu/wildfire-preparedness/>

Livestock Emergency Preparedness Kit

Adapted from WSU Skagit County Extension

Prepare an emergency kit for the barn and a smaller kit for the stock trailer. The following things should be part of it:

Emergency supply of feed, roughage, grain supplements, medications for at least 5-7 days, (two weeks is best).

Containers of food and water

Check with your veterinarian about the following things:

- Dietary Charts for emergency feed and water for livestock.
- What medications/prescriptions should be ordered and ready for two weeks or more
- Any other supplies that may be needed.

Supplies for livestock and companion animals

- Control/restraint devices (leashes, halters, rope, cages/carriers, etc.)
- Blanket, leg wraps, shampoo, and brushes (to remove toxic substances).
- Animal first aid book/supplies.

- Portable radio, flashlight, extra batteries.
- Hammer, wire cutters, pliers, sharp knife.
- Tarps, shovel.
- Gloves, bandana, face mask.
- Records, records, records.....especially medical records. Current vaccinations, medications and dosages, special feeding instructions. Insurance information if any.
- Phone numbers, especially the family/farm veterinarian and the alternate vet, farrier, animal control, WSU Cooperative Extension, friends, and other family members.
- Additional items as you think of them.
- Consider leaving a signed and notarized medical release form with your family veterinarian.

Note: this is a suggested guideline—please add to it as you need for your own animals

Learn more:

[Ready.gov](https://www.ready.gov/)

[Prep4agthreats.org](https://www.prep4agthreats.org/)



The 4-1-1 on Fertilizer for the Home Garden

Adapted from OSU Extension, "A guide to understanding fertilizers"

Plant nutrients are chemical elements or compounds that are essential to plant growth. The ones we can control are in the products that we buy, mix or make. These are referred to as major (macro), minor and micro nutrients, and are represented by their elemental symbols.

- The major nutrients in fertilizers are nitrogen (N), phosphorus (P) and potassium (K).
- The minor nutrients are calcium (Ca), magnesium (Mg) and sulfur (SO).
- The micro nutrients are: boron, copper, iron, manganese, zinc, chlorine and cobalt in tiny amounts.

Fertilizers come in many different forms, from naturally occurring in the soil, to commercial or "organic" products, liquid and dry, and in many different formulations. It also can include some forms of compost. Each "store-bought" container tells you what the ingredients are but you need to know what each one does to make an informed decision about what plants need.

- **Nitrogen (N):** This element promotes rapid green, leafy growth. Too much can cause a plant to grow too fast or not produce the part of the plant that you are growing it for. For example: too much on a tomato may cause the plant to grow lots of green leaves and few flowers, delay fruit set and attract insects such as aphids. The same is true of flowering and ornamental plants.

- **Phosphorous (P):** It stimulates early root growth and hastens blooming. Too much may be lost in the soil and wash into water ways.
- **Potassium (K):** Increases resistance to drought and disease, and quality of seeds.
- **Calcium (Ca):** Improves root formation and vigor, and helps regulate the uptake of other nutrients. A deficiency combined with insufficient water will result in blossom end rot of tomatoes.
- **Magnesium (Mg):** Aids in chlorophyll formation and phosphorus metabolism. Regulates the uptake of other nutrients.
- **Sulfur (So):** Imparts dark green color, stimulates seed production and formation of amino acids and vitamins.

Micronutrients: These are all necessary in tiny amounts, they work with the other nutrients to provide a balanced diet to all plants.

The numbers on fertilizer products represent the percentage, by weight, of N,P, and K. For example, a 5lb bag of 10-5-5 fertilizer contains .5lbs N, .25lbs P, and .25lbs K.

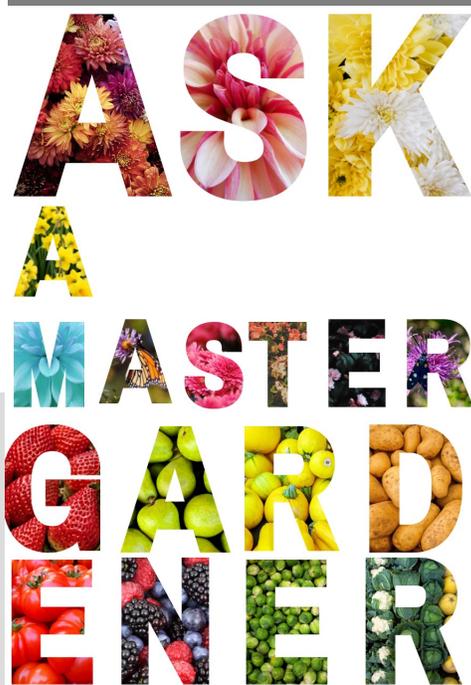
IMPORTANT: follow the directions on the label. Over-fertilization can make plants weaker and more prone to disease and pests.

Have a Home Garden Question? Ask a WSU Extension Master Gardener!

Master Gardeners hold plant clinics at the Extension Office on Tuesdays and Thursdays from 9-11 and 2-4 throughout the growing season. Bring in your problem plants, insects, lawn, or weeds, and the Master Gardeners will help you diagnose the problem and recommend possible solutions.

You can also visit with a Master Gardener every Saturday at the Walla Walla Downtown Farmers Market from 9-1, and at the Extension Fair Booth during the Walla Walla County Fair and Frontier Days.

Can't make it to us? Visit the WSU Walla Walla County Extension website at extension.wsu.edu/wallawalla/gardening, fill out one of our Virtual Plant Clinic Forms, and a Master Gardener will respond.



Learn more:

Fertilizing vegetables:

extension.umd.edu/resource/fertilizing-vegetables

Garden Fertilizer Basics:

extension.umd.edu/resource/garden-fertilizer-basics

Ready to test your soil? Call or email the WSU Walla Walla County Extension Office for a list of local testing labs.



Walla Walla Fair and Frontier Days Important Dates

Adapted from Walla Walla Fair and Frontier Days

August 5: Last day to submit entry forms to the exhibitor's office. Entry forms are online. Paper forms are available at WSU Extension and the Fair Exhibitors office.

August 19: 4-H modeling clinic, 4-H food & clothing judging.

August 22: Still Life Exhibit Entry Day. Includes home brewed beer and homemade wine, open class knitting, crocheting, needlecraft, handcrafts, food preservation, clothing, photography, fine arts, educational exhibits, FFA exhibits (except FFA floriculture).

August 24: Public Fashion Revue.

August 27: Entry day for Floriculture, Rock Painting, & Creature Feature

August 28: First day of fair!

September 1: Youth Market Sale.

September 2: Exhibits released.

The Walla Walla Fair and Frontier Days Exhibitors Handbook is online. To find details about fair entries, visit the Walla Walla County Fairgrounds website:

wallawallafairgrounds.com/p/fair/exhibitors/2024-exhibitor-handbook

New Pesticide Regulations– Bulletins Live! Two

Adapted from WSDA Pesticide Stewardship Program

The Environmental Protection Agency (EPA) is making changes to the rules farmers and pesticide applicators must follow. Many of these changes will include conservation practices to lower the chance that pesticides will enter the environment through drift or runoff.

What will change on pesticide labels?

Some pesticide labels will have more requirements to follow. They will still have requirements about application rates, number of applications, and weather, but they may also have requirements about tillage, cover crops, filter strips, buffers, or other practices.



What are Bulletins?

Bulletins serve as a notification of geographically specific areas that require pesticide use limitations for the protection of threatened or endangered species and their designated critical habitat. Pesticide Use Limitation Area (PULA) may limit the application area,

timing, or type of pesticide that can be used. Bulletins serve as an extension of the pesticide label therefore must be obtained before pesticide application.

What is Bulletins Live! Two?

Where there are requirements for specific geographic regions or habitats, the EPA is going to share that information on a website called Bulletins Live! Two. They will create Endangered Species Protection Bulletins to list the different requirements in or near endangered species habitat.

How do I know if I need to get an Endangered Species Protection Bulletin?

- If the Directions for Use section of the label includes Endangered Species Advisory or Protection Requirements, you must obtain a bulletin before applying the pesticide.
- Bulletins are an extension of the label.
- Bulletins are enforceable.

How do I find and use Bulletins Live! Two?

Download Endangered Species Protection Bulletins online at: <https://www.epa.gov/endangeredspecies/bulletins-live-two-viewbulletins>

Call: 1-844-447-3813

Email: ESPP@epa.gov

Pesticide Usage Survey in Canola for 2023

The Natural Resources and Agricultural Sciences unit of the WSDA is seeking information on pesticide usage for winter and spring canola. The point of collecting the usage information is to better inform the EPA when they are making regulations about pesticide usage, otherwise, they have to make the maximum assumptions that may lead to stricter regulations. The usage information from the survey would be compiled to create an anonymous average use profile. If you have grown canola in the past, please take a moment and answer the questions in the survey <https://arcg.is/r88CC0>.



Resilient Food System Infrastructure Grant Deadline July 15

Washington State Department of Agriculture (WSDA) has received funding from the U.S. Department of Agriculture (USDA), Agricultural Marketing Service (AMS) to support the one-time-only Resilient Food Systems Infrastructure Program (RFSI).

The purpose of this program is to build resilience across Washington state’s middle-of-the-food-supply-chain – aggregation, processing, manufacturing, storing, transporting, wholesaling, and distribution – for locally and regionally produced foods including specialty crops, dairy, grains for human consumption, aquaculture, and other food products, excluding meat and poultry. This program intends to offer more and better market opportunities to small and mid-sized agricultural producers. Grants will go towards Washington food and farm businesses and other eligible Washington entities.

RFSI program objectives:

Infrastructure Development: Enhance the

physical and organizational structures necessary for the production, processing, distribution, storage, and sale of food within Washington state.

Capacity Building: Support entities in increasing their ability to withstand disruptions to the food supply chain and adapt to future challenges.

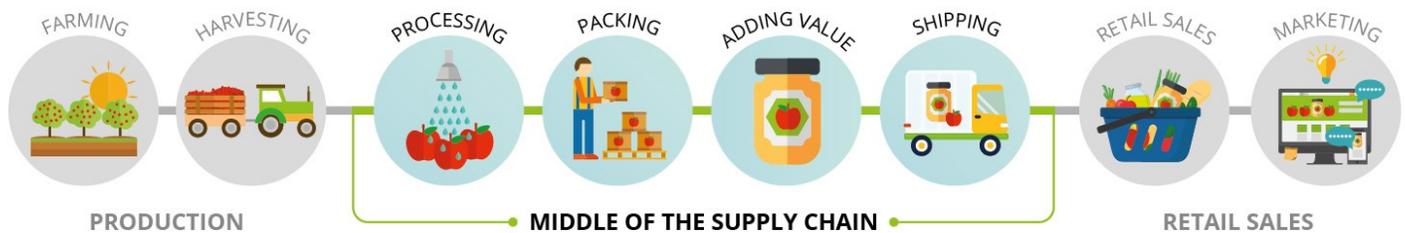
Innovation and Expansion: Encourage innovative approaches to local and regional food system development and expand access to markets for small and mid-sized producers.

Sustainability and Environmental Impact: Promote practices that contribute to the sustainability of the food system and minimize negative environmental impacts.

Equity and Inclusion: Ensure equitable access to program benefits, with a focus on supporting underserved communities and populations.

Links

For more information or to apply for the RFSI Grant:
bit.ly/RFSIgrant



PNW Cover Crops and Pacific Northwest Decision Aid System is online

Adapted from Carol McFarland, PNW Farmers Network

Are you interested in continuing the conversation around soil health in an online forum? Are you interested in cover crops? Maybe you want to try them but you have a question about seeding a multi-species mix... Maybe you’ve tried cover crops and want to share some of your experience here in the iPNW, because it is different than cover cropping many other places? Consider joining the PNW Cover Crops project!

Visit the website: pnwcovercrops.org and take a look at the information that is being provided there so far, including a description of the new WSARE project on cover cropping for the PNW. If you register, you will be able to see more information, such as discussion threads on aspects of cover cropping. The goal of the project is to provide a forum for producers and others to discuss issues related to cover cropping in our region. To join click on the “Register” button on the top toolbar, then follow instructions. That includes a keyword field where you can enter [PaNDAS2023](#).



August 4-10 is National Farmers Market Week

Adapted from USDA

Access to fresh, locally grown foods may be one of the best reasons to support your local farmers market, but there are many more. Farmers markets have fruits and vegetables at the peak of the growing season. This means produce is at its freshest and tastes the best. The food is typically grown near where you live, not thousands of miles away or in another country. Shopping at farmers markets also supports your local farmers and keeps the money you spend on food closer to your neighborhood.

Try something new with some of your farmers market favorites with these recipes from Utah State Extension

Thank you to the
Walla Walla County



Cattlemen's
Association
for sponsoring this
newsletter!

RECIPE CARD

#002 RECIPE CARD

20 min

10 min

4

PREP TIME

COOK TIME

SERVES



DIFFICULTY

RECIPE Spinach Parmesan Zucchini Noodles

DIRECTIONS

To cut zucchini, use a vegetable peeler to peel long strips. Set aside.
Melt butter in large skillet over medium-high heat. Add garlic, cook for 1-2 minutes.
Add zucchini noodles and spinach. Gently toss and cook until spinach leaves are wilted, about 2-3 minutes. Stir in Parmesan cheese and toss until zucchini noodles are coated. Season with salt and black pepper, to taste.
**Note: don't overcook the zucchini noodles and spinach or they will get soggy.*

INGREDIENTS

- 3 medium zucchini
- 2 Tbs butter
- 2 cloves garlic, minced
- 1/4 c freshly grated parmesan cheese
- salt and pepper to taste
-
-
-

POSTMASTER send address changes to:
WSU EXTENSION
328 WEST POPLAR
WALLA WALLA, WA 99362
509-524-2685
Amy.rosenberg@wsu.edu

WSU EXTENSION NEWSLETTER
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RECIPE CARD

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PREP TIME

COOK TIME

SERVES



DIFFICULTY

RECIPE Watermelon and Mint Salad

DIRECTIONS

In a large bowl, toss the watermelon with the lime juice and cayenne. Fold in the mint leaves, season with salt and serve.

INGREDIENTS

- 8 c seedless Watermelon Chunks (1-inch cubes)
- 1/4 c fresh lime juice
- Pinch cayenne pepper
- 1/2 c mint leaves, torn
- Salt as desired



WSU EXTENSION
Walla Walla County

Celebrating 100 Years of Extending Knowledge and Changing Lives.

Debbie M. Williams

Debbie M. Williams
County Extension Director

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