

# Newsletter

March - April 2023



WSU EXTENSION  
**Garfield County**



Check out the upcoming events at the Garfield County Fairgrounds, Farming Days & Spring Jackpot.

## Welcome to the WSU Garfield County Extension Newsletter!

This is an electronic newsletter highlighting events and topics of interest to residents of Garfield County and the surrounding area. This newsletter can also be viewed on our website: <https://extension.wsu.edu/Garfield/>

Do you have an event or subject you would like added to our newsletter or website? Would you like to be removed from our Extension Newsletter email list?

Contact the Extension Office

**Phone: 509-843-3701**

**Email: [mbartlow@co.garfield.wa.us](mailto:mbartlow@co.garfield.wa.us)**

### Contact Us:

**Office Location:** 757 Main St.  
Pomeroy, WA 99347

**Mailing:** PO Box 190,  
Pomeroy, WA 99347

**Hours:** Monday-Friday 8:30 –5:00  
(closed 12:00-1:00)

**Phone:** 509-843-3701  
**Fax:** 509-843-3341

**Mark Heitstuman, County Director**  
[heitstuman@wsu.edu](mailto:heitstuman@wsu.edu)

**Sheree Ledgerwood, 4-H Coordinator**  
[sheree.ledgerwood@wsu.edu](mailto:sheree.ledgerwood@wsu.edu)

**Monica Bartlow, Office Manager**  
[mbartlow@wsu.edu](mailto:mbartlow@wsu.edu)

**Website:** <https://extension.wsu.edu/garfield/>

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### **The Top 11 Reasons Vaccines Fail**

Ag Animal Health Spotlight Veterinary Medicine Extension

WSU Extension & WSU College of Veterinary Medicine Article, [Here](#).

Veterinarians and Ag Animal Extension educators receive numerous inquiries from livestock owners about what to vaccinate their cattle against. Although the diseases being vaccinated against are important, the biggest reasons for disease outbreaks often have little to do with the vaccine itself, but more to do with how that vaccine is handled and given, when it is given, and to whom. What you vaccinate for and when will depend on what the major problems are in your region and what your herd management plans are for calving, breeding, cattle processing and weaning. Your herd veterinarian can help you set up a schedule for giving the different kinds of vaccines for the different age groups, and help prevent you from spending money on vaccines you don't need.

Once you have the vaccines in hand and are ready to use them, what could possibly go wrong?

1. Vaccines are sensitive to heat and freezing and have special requirements for storage before using. Follow the label recommendations for refrigeration. Keep the vials of vaccine in a cooler until just before you use them.
2. A dirty vaccination syringe OR one that still has disinfectant in it can contaminate or inactivate your vaccine. Never use disinfectants. Instead, use very hot tap water to clean your syringe gun. Take the gun apart as you are cleaning it and allow the parts to air dry and then lubricate the plunger. Store clean syringes in plastic bags and mark them for the kind of use they get – vaccines, vitamins, antibiotics, etc.
3. Read the label for WHERE the vaccine is to be administered. Some vaccines are labeled to be given under the skin in the neck regions, but some need to be given in the muscle. Read the label to be sure. Also – make sure whoever is vaccinating gets it in the right spot – putting it in the hair doesn't mount much of an immune response.
4. Read the label to make sure you know what the proper dose of vaccine is supposed to be given to get the proper immunity.
5. Use all the vaccine up or discard if you are not going to use it all. If you leave a needle in the bottle, you can contaminate the vaccine. Once it has been mixed, it needs to be used up.
6. Many vaccines require a booster in 2 to 3 weeks in order to get the right level of immunity, particularly if it is the first time the calf or cow is vaccinated. Read the label to make sure when you need to booster.
7. Stressed calves do not react with a full immune response to the vaccine. In order for the calf to respond to vaccination, we must allow time to recover from the stress (like being trailered, weaning, etc). Plan to give the vaccine before or after a stressful event.
8. University of Arkansas researchers found that "More than 76% of the refrigerators tested were unacceptable for storing animal-health products." The recommended temperature for storing animal-health products requiring refrigeration is 35° F. to 45° F. Check your refrigerator to make sure it's at the right temperature.
9. The vaccine must be given before exposure to the virus challenge and with enough time to allow the immune response to develop to a protective level, usually about 10-14 days following vaccination. But, if you have cattle that have not yet been exposed and think you have time for them to develop an immune response, vaccinating may help, but don't be surprised if exposure had already happened and some get sick. The labels say that you need to vaccinate healthy animals.
10. Animals on diets low in energy and/or protein may not respond with a good immune response. Also, a number of trace nutrients and vitamin deficiencies (copper, selenium, zinc, and vitamin E) can cause the cattle's immune system to be unable to respond to vaccines properly.
11. Calves that received colostrum from the cow will have some antibodies in its system. These "maternal" antibodies gradually decline but when they are still in the calf, can interfere with the calf responding well to the vaccine. This interference disappears some time during the first four months of life and is the reason boosters are recommended if vaccinations are given to young calves.

Vaccines are an AID to your other good management practices, like preventing disease transmission through biosecurity and providing good nutrition. And remember -- If you are going to market these animals in the very near future, make sure you read the label for the withdrawal time for meat. Every vaccine has a period of withholding the animal from slaughter. In fact, make sure you read the label for every vaccine or product you use so that you get the most for your money spent.

## The 2023 first forecast of stripe rust for the eastern Pacific Northwest

By Dr. Xianming Chen  
January 18, 2023

Based on the weather conditions in November and December 2022, stripe rust in the 2023 wheat growing season is forecast to be in the lower range of moderate epidemic level (20-40% yield loss on susceptible varieties). Using forecast models based on the 2022 November and December weather data, yield loss of highly susceptible winter wheat varieties in the 2023 crop season is forecast to be in the range of 16 to 33% with an average of 21% using different models. This number is lower than the forecast (34%) made last January for the 2022 crop season due to the relatively cold weather of December 2022 compared to December 2021. Currently grown varieties are forecast to be 0 to 15% yield losses depending upon the level of resistance or susceptibility of individual varieties. Based on the forecast, fields grown with susceptible winter wheat varieties (stripe rust ratings 7 to 9) may need the early fungicide application at the time of herbicide application and varieties with ratings 0 to 6 may not need fungicide application. The early prediction made in January is often close to the real situation, but usually may not be as good as the prediction in March based on the entire winter weather. We will make another prediction in early March. However, stripe rust resistant or moderately resistant varieties (stripe rust ratings 1 to 4 in the Seed Buying Guide) should be planted for spring wheat crops.

**Stay up-to-date with the latest Stripe Rust conditions.**  
**Visit Dr. Xianming Chen's Stripe Rust Alert page at [striperust.wsu.edu/news](http://striperust.wsu.edu/news)**

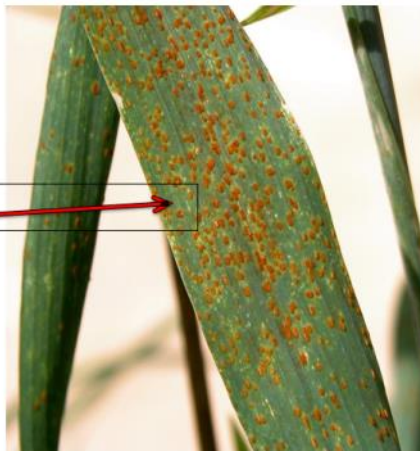
### Leaf Rust (Brown) Wheat Disease

#### Symptoms:

The first symptom of the disease is the appearance of minute, round, orange sori, irregularly distributed on the leaves, rarely on the leaf sheath and stem. The sori turn brown with maturity. **BROWN RUST OF WHEAT**



First appearance of the disease



## State Conservationist announces additional funding for programs through IRA

By Adrian Melendez NRCS-WA  
Public Affairs

SPOKANE VALLEY, Wash. - Roylene Comes At Night, NRCS-WA State Conservationist, held an all employee's meeting Feb. 16, via MS teams, to announce additional funding to Washington conservation programs through the historic Inflation Reduction Act (IRA), which was signed into law by President Joe Biden Aug. 16, 2022.

A new application window will open Friday, Feb. 24 for producers to apply for Inflation Reduction Act (IRA) assistance through the Natural Resources Conservation Service's (NRCS) Environmental Quality Incentives Program (IRA-EQIP) and Conservation Stewardship Program (IRA-CSP). All eligible applications received by March 31 will be ranked and considered for FY23 funding.

The FY23 IRA funding for NRCS-Washington includes an additional \$2.2 million for IRA-EQIP and an additional \$5.4 million for IRA-CSP. Funding for future years is set to dramatically increase, because the total IRA funding for conservation nationwide includes an additional \$8.45 billion for EQIP, \$4.95 billion for the Regional Conservation Partnership Program (RCPP), \$3.25 billion for CSP, and \$1.4 billion for the Agricultural Conservation Easement Program (ACEP). The increased funding levels begin this fiscal year and rapidly build over four years.

During the meeting Roylene also answered questions from employees about IRA funding, resource concerns for the new funding and how the funding is going to assist landowners and producers in the state.

To learn more about IRA in Washington and find additional IRA information [here](#).





## INFORMATION FROM WSU GARFIELD COUNTY MASTER GARDENER BARB DEHERRERA

### Gardening During a Drought

When I decided on a topic for this quarter's newsletter, I did not anticipate the difficulty I would have finding current data for our rural county. It would seem that Garfield County/99347 data is not readily available on the more common sources of weather apps. Weather Underground, National Weather Service, and usafacts.org are several of the sources I scoured for information. If they had collected the data, the monthly data had not yet been uploaded for 2022. On [WeatherLink](#) I did find information on the 2022 total rainfall, which was 7.09 inches. Our average rainfall is between 10 and 20 inches. So, yes, we are dry. I found a graph indicating that November and December of 2022 showed average to above average rainfall, while our summer was particularly lacking in moisture. I was looking for valid information, and the WeatherLink site information is downloaded by the Pomeroy Conservation District from their Geiger Hill weather station. Thanks to Lance Fredrick and Bree Kimble for their help!

Here are some tips from the [South Dakota State University Extension](#) site for gardening during drought conditions:

**Water plants deeply.** On average, plants prefer one to one-and-a-half inches of moisture per week. In a drought, this may be hard to come by. To prepare your plants, watering deeply once a week is a better practice than watering more often with less amounts of water. Deep watering establishes a stronger and deeper root system, which will help sustain plants during hot, dry times. Watering deeply keeps more moisture in the soil. This means there is less evaporation.

**Stop fertilizing!** Fertilizer promotes fast growth. Fast growth means there is a need for more water. The plants will grow just fine, but at a slower rate. In addition, fertilizer salts can build up in the soil. Since there is less moisture to assist in the uptake of fertilizer or help it leech out in the soil, the buildup of salt can tend to burn the plants roots.

**Be vigilant at weeding.** Weeding will provide more of an impact during dry conditions. Weeds compete for valuable resources, like sunlight, nutrients, and water. By keeping weeds under control, you are providing a better environment for the plants. Less competition will help the plants have less stress, so they can grow better.

**Water with a soaker hose or set up a drip system.** These two delivery systems will provide water directly to the soil and the plant root system. They greatly reduce water runoff and evaporation. An added benefit is that it also keeps the foliage dry, which in turn helps to prevent fungal diseases.

**Mulching is necessary.** Applying two to three inches of mulch to your garden and flowerbeds will shield the ground from direct sun. This keeps the soil cooler, keeps moisture in the ground longer and keeps weeds at a minimum.

**Dead head flowering plants early.** Do not allow spent blooms to form into seeds. Plants going to seed expend large amounts of energy and water, which is best used to sustain a healthier plant.

**Reduce or stop applying herbicide.** First, applying herbicide when it is too hot turns the liquid to gas and can cause drift. Second, weeds do not take up the herbicide as well during dry conditions. Lastly, during dry spells, some weeds can become tolerant to herbicides.

**Avoid using pesticides.** Most pesticides are applied directly to the leaves of plants. Because of the hot, dry conditions brought on by a drought, the chemicals can damage the leaves and harm the plants.

Your WSU Garfield County Master Gardeners.



### MORE FRIEND THAN FOE

Washington Grain Commission February 15, 2023  
<https://wagrains.org/articles/more-friend-than-foe/>

Refined grains may not be as bad for you as you thought. Consumption of refined grains, widely viewed as contributing to chronic disease, is not associated with risk of cardiovascular disease (CVD), stroke or heart failure, according to a study published Sept. 19.

*Food Business News* and *Milling and Baking News* both recently reported on the study published in the journal *Trends in Cardiovascular Medicine* from Dr. Glenn Gaesser, Ph.D. and professor in the College of Health Solutions at the University of Arizona. Gaesser conducted meta-analyses of 17 relevant cohort studies that examined refined grains as a distinct consumption category. The results represent data from over 1.2 million participants in 21 countries across eight geographical regions, including the U.S., Japan, China, Finland and Sweden.

Although refined grains are included as a component of the Western dietary pattern, the results of the meta-analyses suggest that refined grains do not contribute to the higher CVD risk associated with this unhealthy dietary pattern. According to the study, this information should be considered in formulation of future dietary recommendations.

“Consistency was evident in that none of the meta-analyses showed a significant association between refined grain intake and risk of CVD, stroke or heart failure,” Gaesser wrote in his study discussion.

Gaesser’s findings are at odds with the 2015 and 2020 Dietary Guidelines Advisory Committees, which were based on dietary pattern research identifying patterns characterized by higher consumption of fruits, vegetables, whole grains, low-fat or non-fat dairy products, seafood, legumes and

nuts, compared to Western dietary patterns characterized by higher intakes of red and processed meat, sugar-sweetened foods and beverages, French fries, high-fat dairy products, and refined grains.

Current U.S. dietary guidelines recommend that at least a half of grain consumption be from whole grains. Despite the well-documented health benefits of whole grain consumption, less than 7% of the U.S. population consumes the recommended minimum three servings per day of whole grains, and more than 70% of Americans consume less than one serving per day of whole grains.

In contrast, refined grain consumption in the U.S. is approximately five times greater than whole grains, accounting for approximately 80% of total grain intake.

“Although a Western dietary pattern, which includes refined grains, has been reported to be associated with increased risk of CVD, this association is likely attributable to components of the Western dietary pattern other than refined grains,” Gaesser wrote.

Refined grains can include both staple grain foods (e.g., bread, cereal, pasta, white rice)

and indulgent grain foods (e.g., flour-based desserts such as cakes, cookies, doughnuts, muffins and pastries).

Because white rice is a major refined grain consumed worldwide, a part of Gaesser’s meta-analysis also looked the association between white rice intake and CVD. Of the seven cohorts his meta-analysis assessed, he found no significant risk of CVD associated with white rice intake.

The study was supported in part by a grant from the Grain Foods Foundation. Gaesser is a scientific advisory board member of the Grain Foods Foundation and the Wheat Foods Council. The Washington Grain Commission is a member of the Wheat Foods Council.



## *Garfield County Upcoming Events*

### **Garfield County Noxious Weed Board Meeting**

**March 9th at 1:30 PM**

In the Commissioner's room in the Garfield County Court House.

Agenda items:

Weed board Cost Share Program for 2023

Election of Officers

For More Info Call

Jim McKeirnan: 509-843-1913



### **Spring Farming Days**

**April 1 & 2 Pomeroy, WA, 9:00-4:00 daily**

**NO admittance fees, Activities for the whole family**

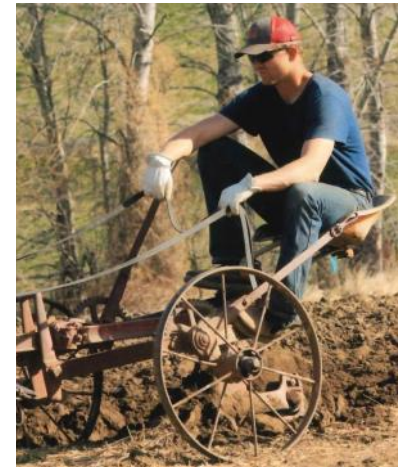
Featuring horse and mule farming operations, from plowing through seeding and more. There are new ag museum exhibits, antique tractors, engines, tools and equipment on display. Bring your old/antique agricultural items to sell and you can buy others. All proceeds go to EWAM

On site camping available--call 509-843-3701 for reservations

Lunch available for purchase both days.

Jay Franks: 509-566-7027, [pvpercherons@msn.com](mailto:pvpercherons@msn.com)

David Ruark: 509-843-3506, [dandnruark@gmail.com](mailto:dandnruark@gmail.com)



### **Garfield County Spring Preview Jackpot**

**April 8 Pomeroy, WA**

**Showing Fees \$20.00 Per Entry**

**Entries Due April 1st**

**Late Fee \$5.00 per Entry**

Please join us for the 9th Annual Jackpot at the Garfield County Fairgrounds, 99 Fairground Rd, Pomeroy, WA 99347. This has been a very successful event for Garfield County the last few years. It gives showmen of all ages a chance to improve their skills and gives exhibitors an edge up on the competition going to the Junior Livestock Show of Spokane. Besides earning great experience, cash and awards will also be given to top exhibitors. This opportunity is open to steer and hog showmen.

**To get entry forms or sponsor the Spring Jackpot you can go to Garfield County Spring Preview Jackpot Participates page on Facebook or email Becky Tetrick.**

For more Info contact:

Sherry Ledgerwood: 509-288-9867, [t.sledgerwood@gmail.com](mailto:t.sledgerwood@gmail.com)

Becky Tetrick: 208-791-1649, [tetrickcb@hotmail.com](mailto:tetrickcb@hotmail.com),







June 20-23, 2023 • Washington State University

High-school aged teens (*those who have completed 8th grade and up*) are encouraged to come to the Pullman Campus of Washington State University in June of 2023 for the Washington State 4-H Teen Conference. This will be the first event of its type in several years and we are very excited to offer these opportunities to our WA teens. Some highlights include: touring the beautiful Pullman campus of WSU, staying in college dormitories, eating at WSU's dining center, attending workshops and tours to highlight career pathways and opportunities. We will include workshops to help youth begin preparing for college applications, scholarship applications, choosing a college major, and choosing a career pathway. We will also have opportunities for leadership development, service projects, team-building activities, and FUN!

**Registration Link:** *Coming in April*

**Questions can be directed to:** Kelly Anne Stewart, Teen Conference Coordinator: [kelly.a.stewart@wsu.edu](mailto:kelly.a.stewart@wsu.edu)



By Isabella Field

On January 25th, our Pomeroy FFA Ag Issues team traveled to Oakesdale for our district's competition. We placed 2nd out of four teams. This was our team's first time presenting and we were able to take a lot away from what the judges said. We are currently revising our presentation for State, May 11th-13th. Our topic is Renewable Energy. Our presentation covers the pros and cons of the push for renewable energy.

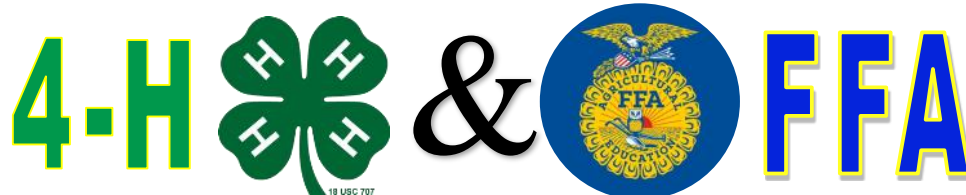
On the pro side, we discuss the use of inexhaustible resources, the low pollution, and the job and economic benefits. On the con side, we cover the unpredictability of weather, the materials used to build and create windmills and solar panels are rare, and renewable energy isn't viable without government subsidies. We are learning a lot with this topic and it is an amazing learning experience. All of us are looking forward to State!

By Kyle Kimble

An FFA Alumni Committee interviewed 14 students for the Washington Leadership Conference yesterday, selecting 7 of them to attend the conference this summer. Winners were: Stacia Bowen, Kyzer Herres, Peyton Cannon, Hanna Bagby, Caroline McKeirnan, Levi Henderson, & Merrit Scoggin. They will go to Washington, D.C. this summer for leadership training and touring of the nation's capital. Additionally, we took 30 students to Asotin February 15th for a Parliamentary Procedure workshop and demonstration.



**Ag. Issues Team:** Boone Schmidt, Jett Slusser, Isabella Field, Hanna Bagby, Natalia Larios, Atalya Mitchell, & Stacia Bown



## 2023 Cougar Invitational Youth Meat Judging Contest Update

Paul Kuber

The 2023 Cougar Invitational Youth Meat Judging Contest is coming up soon! Contest information pages and the registration link are now available!

Ensminger Pavilion, 455 Lincoln Dr., Pullman, WA  
WSU Meat Laboratory, 2155 Wilson Rd., Pullman, WA

Registration Deadline: March 10th  
Clinic For Coaches and Students: March 17th  
Cougar Invitational Judging Contest & Awards: March 18th



Register at this link:

<https://www.judgingcard.com/Registration/Info.aspx?ID=16212>

The Cougar Invitational Tentative Schedule, Contest Rules, Registration Information and other contest details (Scoring, What to Bring, Awards, and Contact Information can be found by clicking [HERE](#).

## YOUTH LIVESTOCK FIELD DAYS

Washington State University Extension and University of Idaho Extension are pleased to present Youth Sheep and Goat Field Day on **March 11, 2023**, at Asotin County Fairgrounds and Beef Field Day, **March 25, 2023**, at University of Idaho Livestock Pavilion. Topics for the field days include: mandatory paperwork, quality assurance, meat science, health care, feeding and nutrition, selection of the project animal and fitting and showing.

**Registration for both events is now open! Registration cost is \$10 per persons and is due March 3, and March 17, respectively. The registration fee includes lunch and handout materials. To register, click on the links below. For more information, see the brochures linked below.**

[Sheep and Meat Goat Field Day Brochure](#)

[Sheep and Meat Goat Field Day Registration](#)

[Beef Field Day Brochure](#)

[Beef Field Day Registration](#)







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PO Box 190  
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### **Did You Know WSU is working on treating Diabetes?**

Bears' Ability To Regulate Insulin Narrowed Down to Eight Proteins

By Sara Zaske, WSU News & Media Relations

For full article visit the September 21, 2022 [WSU Insider](#)

Washington State University researchers find the potential genetic keys to the bears' insulin control, an advance that could ultimately lead to a treatment for human diabetes.

Every year, bears gain an enormous amount of weight, then barely move for months, behavior that would spell diabetes in humans, but not for bears whose bodies can turn insulin resistance on and off almost like a switch. In the hunt for the bears' secret, scientists at WSU observed thousands of changes in gene expression during hibernation, but now a research team has narrowed that down to eight proteins. Joanna Kelley, a WSU evolutionary geneticist, said, "All of these eight proteins have human homologues. They're not unique to bears. The same genes are in humans, so that means maybe there's a direct opportunity for translation."

The research team analyzed changes in bear cell cultures that were exposed to blood serum drawn from grizzly bears housed at the WSU Bear Center. Both the cells and the blood serum were taken from the bears during active and hibernating seasons as well as from an interrupted hibernation period when researchers fed the bears honey-water. "By feeding the bears just for two weeks during hibernation, it allowed us to control for other things like day length and temperature as well as food availability," Kelley said. Kelley and her colleagues then used the samples from that study period to do their genetic analysis. When the researchers put the serum from the disrupted hibernation onto a cell culture taken from regularly hibernating bears, they found that those cells started to exhibit changes in gene activity similar to that of active season cells.

Next, the team plans to investigate how those proteins specifically work to reverse insulin resistance, research which could ultimately lead to the development of ways to prevent or treat human diabetes.



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