

Newsletter

January-February 2024



WSU EXTENSION
Garfield County

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?

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Winterizing Your Animals

December 15, 2023

<https://vetextension.wsu.edu/2023/12/15/winterizing-your-animals/>

*By Dr. Ben Smith WA Assistant State Veterinarian
Washington State Department of Agriculture*

The cold weather has already started, but we still have a few months left to go before spring warms things up. Making sure your animals are winterized properly takes a little thought and preparation. The most important thing to remember is to provide a clean and fluid water source. If possible, water heaters will increase intake and decrease the incidence of colic. Animals can't get enough fluid from eating snow, so don't rely on this. Salt is another important source of minerals that is often overlooked. The loose form is better for getting correct mineral intake than blocks. The animal often cannot lick a block enough to really get proper levels of minerals in a deficient area.

Grass tetany, or low magnesium, is common in cows during spring calving and is linked to the level of mineral intake during the winter. Without appropriate supplementation an affected cow may require emergency measures to survive. Low magnesium in the blood of an animal can be caused by low magnesium levels in feed and/or reduced magnesium absorption.

Contributing causes of grass tetany include:

- magnesium levels are lower in cool season grasses and cereals than in legumes or weeds
- levels are low in grasses grown on leached acid sandy soils
- levels are low when potash and nitrogen fertilizers are used and growth is vigorous
- high moisture content in grass causing rapid gut transit and low uptake
- reduced absorption of magnesium resulting from high rumen potassium and nitrogen and low rumen sodium
- low energy intake, fasting or sudden changes in feed
- bad weather, especially winter storms
- stress such as transport or yarding
- low roughage intake (young grasses have low roughage and often poor palatability)
- low intake of phosphorus and salt



Making sure animals are up to date with all the vaccinations and deworming recommended for your local area is also a good idea. Cold snaps followed by warming trends can stress the animals and make it easier for pneumonia to set in. You don't want to be feeding a large infestation of parasites either, so consider performing fecal egg counts to determine whether appropriate treatment is required.

Blanketing animals is not really necessary unless they are old and having difficulty keeping on weight. As long as there is a windbreak, most large animals can stand very cold temperatures. Adequate protein and energy intake will provide the animals with thermoregulatory capability in most cases, provided they were in good shape coming into the winter. It is very difficult to get thin animals to gain weight in the wintertime without lots of extra nutritional help.

Even at this stage of the winter, you might consider analyzing your hay for protein, vitamin/mineral, and energy content. Just because it is green and looks nice, doesn't mean it is any good. Sampling some bales and sending it to the lab is easy and not that expensive. Be sure to get a representative sample because the nutrient levels will vary within a field. The results from this analysis will give you a good idea of what supplementation, if any, is needed.

Performing a few of these common-sense maintenance activities will bring your animals through the winter in good shape. My grandpa always said you can't starve a living out of a cow, and that's a very true statement!

SPICING UP SPRING WHEAT

October 25, 2023

<https://wagrain.org/articles/spicing-up-spring-wheat/>

Production technology, grain markets, consumer preferences, growing conditions, pests, diseases, weeds, and economic realities continue to evolve. As the “staff of life,” wheat production with improved varieties must do the same. Some changes are gradual, with time to adapt that is more in line with the time it takes to develop, produce, and commercially release a wheat variety. Some issues are sudden and disrupt production or profitability in more short-term ways. A primary goal of the Washington State University (WSU) spring wheat breeding program is to look ahead to minimize the lows and take advantage of the highs.

For spring wheat in the Pacific Northwest (PNW), there are five primary concerns actively being confronted to prepare for the future:

- Pest and pathogen change — rust and Hessian fly resistance.
- Soil degradation — aluminum tolerance.
- Climate variability — heat and drought tolerance.
- Weed control and integrated weed management systems — herbicide resistance, competitive early vigor, alternate maturity.
- Grain quality and nutrition — milling and baking quality, stable falling numbers, specialty end-use performance, nutrient content.

New tools and technologies are essential to make progress in each of these areas while continuing to make genetic gains for general productivity.

We are in a strong position to confront our primary pest and disease concerns due to the comprehensive team of WSU, U.S. Department of Agriculture’s (USDA) Agricultural Research Service, and University of Idaho (UofI) scientists on the front line of wheat crop protection. Our world-class wheat rust research scientists keep tabs on stripe and stem rust pathogen races, epidemiology, resistance genetics, and chemical



control methods. This combination of information is used by people like me in wheat breeding to release varieties with proven resistance genetics.

Our partnership with UofI scientists on Hessian fly resistance provides similar information and has recently resulted in our ability to track resistance in varieties and breeding materials like never before. We have identified the genes that protect our varieties, developed tools to track resistance, and incorporated new resistance genes in elite breeding germplasm in a systematic way. The first Hessian fly-resistant spring club wheat, Roger, will be commercially available in 2024.

Soil degradation with lowering pH across the PNW has many impacts on wheat production, with tolerance to aluminum toxicity being a primary focus for wheat variety selection. The Emtman family has provided land near Rockford, Wash., for over a decade now that allows us to screen all advanced breeding lines for aluminum toxicity tolerance under the most challenging conditions. Dr. Kurt Schroeder at the UofI has another high-quality screening site near Moscow, Idaho, that allows us to screen varieties and advanced materials. Knowledge on aluminum tolerance has changed from unknown to must-know over the past 10 years, and significant production increases have followed.

Seasonal climate variation has been striking the past several crop seasons. The uncontrollable timing and/or extent of soil temperature at planting, heat, drought, or in-season precipitation is a huge challenge for choosing optimal production practices and selecting varieties. We have several federally funded grants from the USDA-National Institute of Food and Agriculture and the Foundation for Food and Agricultural Research aimed at measuring and

better identifying traits and germplasm with resilience to these climate extremes. A combination of genetic data, drone data, and various trait data are being assembled to better identify and predict breeding materials with early vigor, stability, and higher performance under uncertain conditions.

Herbicide-resistant weeds, rotation restrictions, and the timing of weed development in relation to spring wheat crop development are also major, long-term concerns. Spring wheat varieties with herbicide tolerance traits are needed for rotation and rescue situations, and we have now released three Clearfield+ spring wheat varieties, Butch CL+ soft white, Net CL+ hard red, and Hedge CL+ club, that improve productivity and production options in rotation with Clearfield winter wheat. CoAXium hard red and soft white spring wheat variety development is well underway with elite materials entering state-wide evaluation in 2024.

Variable early vigor, canopy closure, and maturity are also available with some of our newest varieties being among the earliest maturing varieties in the market while maintaining top-end yield and other agronomic performance. Planting at least two, well-adapted varieties with different growth and maturity characteristics is my preference given seasonal uncertainty.

Wheat contributes about 20% of the calories and protein humans consume globally. This presents a challenge in maintaining nutrition where hunger, malnutrition, and obesity are all at work. We are working to simultaneously make wheat more productive (calories and protein) while increasing nutrient density and develop some wheat varieties with modified starch properties to address human health concerns through multiple, extramurally funded projects. Excellent overall end-use quality is our continued goal, and all WSU spring wheat varieties that we have released in the past decade have Most Desirable quality rankings. The cookies, crackers, pastries, bread, pizza, bagels, tortillas, noodles, pasta, and other products made from our hard red, soft white, club, and hard white spring wheat varieties hopefully provide a little spice in life.

Climate Change

Someone asked me if I thought the weather patterns have changed since I was a child growing up in Garfield County (since I am now 70ish, I have a few years to look back on.) It took me little time to respond—YES! We used to enjoy sledding, we shoveled snow-a lot, we had snow days, I don't recall ever having thunder and lightening storms in the winter months, and August was the hottest month, not June, July, **and** August. According to an article in the Seattle Times, reporter Conrad Swanson, states "In the coming years, polar ice caps will melt, sea levels will rise, weather disasters like wildfires and floods will become more common and more intense....These changes won't happen overnight....You might not notice them every day, every month, or even every year. But they are happening."

The World Bank has examined the scientific evidence and made this statement:

While much progress has been made on the science and the types of policies needed to support a transition to low carbon, climate resilient development, a challenge facing many countries is engaging citizens who may not understand climate change, and garnering the support of those who are concerned that they will be unfairly impacted by climate policies. It is critical that people are brought along in the choices to be made – this requires transparency, access to information and citizen engagement on climate risk and green growth in order to create coalitions of support or public demand to reduce climate impacts and to overcome behavioral and political barriers to decarbonization, as well as to generate new ideas for and ownership of solutions.

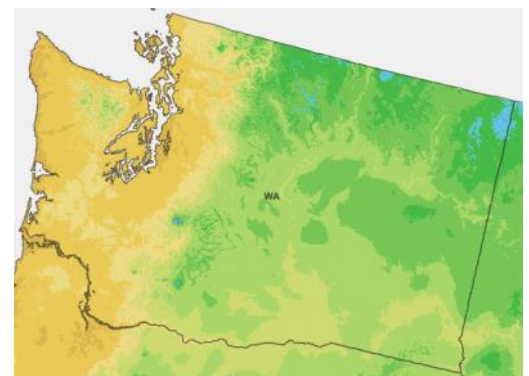
The USDA recently updated the Hardiness Zone Map to keep pace with climate change and to help us gardeners adapt if necessary. I was in zone 6b, but now in 7a. What does this mean? I may try to grow plants that I may not have tried before. And my rosemary plant may start thriving with slightly warmer winter temperatures if I can keep it moist through those hot days. The scientific studies show that winter temperatures, as well as nighttime temperatures are showing the most changes. Those warmer winter temperatures do not give us a good winter kill of harmful insects, including the annoying mosquitoes and ticks.

The University of Maryland Extension office recently released an article talking about Climate Resilient Gardening. Their ideas include:

- Decreasing greenhouse gas emissions by limiting gas powered equipment.
- Planting trees and landscape to conserve energy
- Plant more native plants, remove invasive ones.
- Protect and improve soils.
- Manage stormwater and runoff.
- Reduce food waste, grow your own food as able.

This is a wonderful article and well worth the read!

Temp (F)	Zone	Temp (C)
-60 to -55	1a	-51.1 to -48.3
-55 to -50	1b	-48.3 to -45.6
-50 to -45	2a	-45.6 to -42.8
-45 to -40	2b	-42.8 to -40
-40 to -35	3a	-40 to -37.2
-35 to -30	3b	-37.2 to -34.4
-30 to -25	4a	-34.4 to -31.7
-25 to -20	4b	-31.7 to -28.9
-20 to -15	5a	-28.9 to -26.1
-15 to -10	5b	-26.1 to -23.3
-10 to -5	6a	-23.3 to -20.6
-5 to 0	6b	-20.6 to -17.8
0 to 5	7a	-17.8 to -15
5 to 10	7b	-15 to -12.2
10 to 15	8a	-12.2 to -9.4
15 to 20	8b	-9.4 to -6.7
20 to 25	9a	-6.7 to -3.9
25 to 30	9b	-3.9 to -1.1
30 to 35	10a	-1.1 to 1.7
35 to 40	10b	1.7 to 4.4
40 to 45	11a	4.4 to 7.2
45 to 50	11b	7.2 to 10
50 to 55	12a	10 to 12.8
55 to 60	12b	12.8 to 15.6
60 to 65	13a	15.6 to 18.3
65 to 70	13b	18.3 to 21.1



Become a Master Gardener

Asotin, Garfield, Walla Walla, Whitman, and Nez Perce Counties



IDAHO
master
GARDENER
A UNIVERSITY OF IDAHO
EXTENSION PROGRAM

2024 Master Gardener Training Class January 9 – April 2, 2024

Class Schedule: Tuesdays, 1:00 to 4:30 pm. January 9—April 2, 2024.

****The Jan 9 class is an informational meeting for those interested in becoming a Master Gardener. Bring your questions!**

Location: Asotin County Fire Station. 2377 Appleside Blvd in the Clarkston Heights.

Cost: \$140 for the in-person classes.

Each student that is considering becoming a WSU or UI Master Gardener must also enroll in the WSU on-line course. Please note: the registration fee for the online training is \$75 and is non-refundable.

Information and registration materials available at:

<https://extension.wsu.edu/asotin/gardening/horticulture-classes-and-workshops/>

For questions, contact Janice at the Asotin County Extension Office

243-2009 or janice.reed@wsu.edu

**2024 Columbia County Noxious Weed Board
Annual Growers Meeting
January 19, 2024**

**9:00 am to noon and 1:00 pm-3:00 pm
Columbia County Fairgrounds Pavilion
102 Fairgrounds Lane, Dayton, WA**

9:00-9:10 am	Introductions, Weed Board Update <i>(Doughnuts Provided by McGregor Co.)</i>
9:10-10:00 am	Safe Site Selection for Cover-crops: Avoiding Residual Issues in Wheat Rotations <i>Doug Finkelburg, U of I, Area Extension Educator-Dryland Cropping Systems, Certified Crop Advisor</i>
10:00-10:10 am	Break
10:10-11:00 am	Integrated Weed Control in Cereal Grain Systems <i>Aaron Esser, WSU, Regional Extension Agronomist</i>
11:00-11:10 am	Break
11:10-12:00 pm	WSDA Updates and EPA Bulletins Live 2 Implementation and Requirements <i>Grant Smith, WSDA Pesticide Investigator</i>
12:00-1:00 pm	Lunch Provided
1:00-2:00 pm	Major Soilborne Pathogens Infecting Peas, Chickpea, and Lentils. Chemical, Biological, and Genetic Resources Being Used to Manage These Pathogens. <i>Lyndon Porter, WSU, Research Plant Pathologist</i>
2:00-2:10 pm	Break
2:10-3:00 pm	Use of Drones in Pesticide Applications <i>Kurt Beckley, Altitude Agri-Services, LLC</i>

There is no cost to attend! Pre-registration is not required

Door Prizes Provided by CHS Primeland and Wilbur-Ellis

5 Pesticide Recertification Credits Approved through WSDA

Health and Wealth Tips for a New Year

January 2011

Barbara O'Neill, Ph.D., CFP®

Extension Specialist in Financial Resource Management

Rutgers Cooperative Extension

<https://njaes.rutgers.edu/sshw/message/message.php?p=Finance&m=173>



HAPPY NEW YEAR



Most New Year's Resolutions involve health and money. Lose 20 pounds, for example, or save \$50 a week. Most people think of health and wealth as "separate" goals but, in fact, both aspects of life are closely related. Want to be healthy and wealthy? Consider these 12 steps:

Build "Health Capital"- Health is a financial asset, just like stocks and bonds. It decreases the odds of costly medical bills today and/or later in life. Eat nutritious meals, get enough sleep, exercise regularly, and manage stress. Without good health, you can't earn an income and build wealth. One study found that older workers with chronic health problems accumulated less than half the wealth of healthier peers.

Don't Burn Your Money- Quit smoking or don't start. An average pack of cigarettes costs \$6. Multiply \$6 by 365 days and you could save \$2,190 a year, plus interest (not to mention all the positive health effects!). Invest \$2,190 in a mutual fund averaging 7% and you'll have \$138,515 in 25 years.

Junk the "Junk Food"- Just cut it out: soda, fast food, fatty pastries, chips...you know the drill. Not only will you lose weight (trimming 100 calories a day = 10 pounds of annual weight loss), but you'll pocket the savings. Save \$7 a day on "empty calorie" foods and drinks and you'll have over \$2,500 in a year.

Half-Size Food Portions- Instead of eating 4 cookies a day, eat two. Bring half a meal home from restaurants and eat less at home. Getting two meals from one can save hundreds of dollars (and thousands of calories) annually. For example, saving \$3 a day by "doubling up" results in savings of over \$1,000 a year.

Get With a Program- Enroll in a workplace wellness program with financial incentives, if available. Studies have found that people who are paid to lose weight or quit smoking are often more successful behavior changers than those who are not. In addition, you'll receive cash, gift cards, or other rewards and/or reduce health insurance premiums.

Restrict Yourself- People are more successful savers when they "pay themselves first" and automatically deposit money from their paycheck into a savings account. Examples of health "restrictions" are portion-controlled frozen foods and asking for sauces and salad dressings "on the side."

Stay Fit to Work- Maintaining good health increases the odds of being productive and working as long as you want to instead of retiring because you have to (e.g., disability). This can translate into thousands of dollars at retirement. One study compared retiring at age 60 due to poor health with working (and saving) until 65. The difference: \$14,300 in annual income from increased savings and delayed cash withdrawals.

Sweat the Small Stuff- "Little" things matter! Healthy habits that save big bucks over time include washing your hands frequently (especially before handling food) to avoid the expense of flu and cold treatments and flossing your teeth to help prevent periodontal disease.

Do Something Every Day- Improve your health and finances with small daily activities that produce results over time. Review the Small Steps to Health and Wealth™ Challenge Web site for specific ideas (e.g., exercise 30 minutes and track expenses). Ramp up already positive behaviors such as walking more steps each day and increasing the percentage of your pay in 401(k) plan savings.

Make Prevention a Priority- This includes annual physicals, screening exams (e.g., mammograms), immunizations, and regular dental check ups, all of which can help avoid high-cost medical expenses later. To save money, take advantage of free or low-cost worksite or public health services (e.g., flu shots and health fairs).

Don't Sacrifice Health for Wealth- The greatest wealth is health. Don't pursue financial success at the expense of your health. A lifestyle of eating "on the run," inadequate sleep, inactivity, and 60+ hour work weeks has a way of catching up with people. You'll likely pay the price in medical bills and/or lost productivity. Make the time for healthy meals, sleep, relaxation, and exercise.

Think Positively- Studies have shown that the personality trait of optimism is positively associated with health and wealth. When people expect good things to happen, they work toward their goals by taking action. Examples include exercising regularly and saving money. What we think about, we often bring about and positive thoughts can lead to positive results.



FFA

The supporters of Pomeroy FFA gathered New Years Eve for the annual dinner and auction put on by the Pomeroy FFA Alumni. The tri-tip dinner was delicious, the auction was lively and bidders were generous. A good time was had by all.



Above (left to Right): Josephine Watson & Aisling Davis

To the Right (Left to Right) : Stacia Bowen, Hannah Bagby, & Isabella Field

Bottom: (Left to Right) : Keely Maves, Kendall Dixon, Shannon Blickenstaff, & Laura Dixon





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Did You Know How Butch Came to be WSU's Mascot?

Paraphrased from *MyNorthwest*, Oct 18, 2019, All Over The Map: WSU mascots Squirt, Toodles, and Butch the Cougar.
For full article: <https://mynorthwest.com/1559063/all-over-the-map-wsu-cougar-origin/>

In the early years mascots were not popular, so because WSU was established as Washington State Agricultural College in 1890, sportswriters would refer to them as the "Farmers" or "Aggies." At this time, rather than a mascot, the team had the players and coaches pets as good luck charms that would travel with them to games. One of the more popular ones was a terrier named Squirt.

In 1905, while playing in Oregon, "Squirt" got stolen. While looking for Squirt on the OSU campus the team found Toodles, a small black bear, which they dressed up in a crimson jacket for the game that day. Squirt was returned the State College of Washington (Since the name was changed to this in 1905 and wouldn't be changed to Washington State University until 1959) but the team took Toodles back on the train with them to Pullman. For 3 years he stayed on campus as another unofficial mascot.

By 1919, it was becoming common for teams to have an official mascot, so Pullman was in the process of picking one when one was basically picked for them. On October 25, 1919 the team played the California Golden Bears and were expected to lose big but they didn't. One sportswriter referred to the victory as a "cougar mauling the Golden Bears," and that was when the State College of Washington Cougars were born. At the next game on November 1, 1919 (against U of I) the team wielded a banner that said "Cougars" and two little stuffed cougars on wheeled carts served as their first official mascots.

In 1927, the first of many live cougars were given to Pullman by Washington's Governor, Roland Hartley. It was discussed to name the cougar Roland as a thank you to the Governor. As a public official the Governor declined the honor and suggested they name the cougar after someone closer to the team. The cub was then named after their current QB, Herbert "Butch" Meeker, who was nicknamed Butch from working in his dad's butcher shop prior to being QB. Meeker played pro football after he graduated.

In 1978 when the final live Butch passed away, the Rally Squad made the first Butch costume from their own money. The original Butch costume did not include other clothing but in today's costume Butch sports the same uniforms as the teams, as well as many other outfits.



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Helping You Put Knowledge To Work