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
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Washington State University helps people develop leadership skills and use research based knowledge to improve their economic status and quality of life. Extension programs and employment are available to all without discrimination. Evidence of noncompliance may be reported through your local Extension Office.
From 2001 to 2016, the U.S. lost or compromised 2,000 acres of farmland and ranchland every day. That adds up to 11 million acres of farmland that has been paved over, fragmented or developed, according to research by American Farmland Trust.

If that trend continues, and another 18.4 million acres is converted between 2016 and 2040 — an area nearly the size of South Carolina — of that total:

- 6.2 million acres will be converted to urban and highly developed land uses such as commercial buildings, industrial sites and moderate-to-high-density residential development.
- 12.2 million acres will be converted to low-density residential areas, which range from large-lot subdivisions to rural areas with a proliferation of scattered houses.

“Nearly half of the conversion will occur on the nation’s most productive, versatile and resilient farmland,” says John Piotti, president of American Farmland Trust.

In its latest report, “Farms Under Threat 2040,” American Farmland Trust says this trend could accelerate further, due to high housing prices in metro areas and new opportunities for remote work. If the pace increases, 24.4 million acres of farmland and ranchland could be converted by 2040. That’s almost 1 million acres of agricultural land every year.

Another factor contributing to the loss of farmland is estate settlements of farmland owners. Around 40% of the nation’s farmland is owned by people over 65, so up to 370 million acres of farmland could change hands in the next 20 years. That increases the possibility the land will be sold for development, according to the research.

To reverse this trend, American Farmland Trust says several economic and policy changes should happen, such as:

1. Embrace smart-growth principles to improve land-use planning.
2. Permanently protect agricultural land to secure a supply of land in perpetuity.
3. Advance smart solar to boost both renewable energy and farm viability.
4. Support farmland access to create opportunities for a new generation of farmers, particularly historically marginalized producers.

Read the full report: Farms Under Threat 2040: Choosing an Abundant Future
Gardening is Good for Your Spirits

Maybe you have read that gardening is good for your spirits. William Kent says, “Garden as though you will live forever.” And a miscellaneous quote is “To plant a garden is to believe in tomorrow.” Both thoughts point out how gardening helps one’s spirits.

Many physical, mental, and emotional benefits are associated with gardening. Physical, any gardener can attest to the benefits. It can be hard work, depending on how ambitious your project is. 30 to 60 minutes of gardening equal a moderate intensity work out. You can depart from the stresses of your day-to-day issues when focused on your garden. I once found my happy place in the middle of my raspberry patch early one morning. The peace and quiet was just what I needed at that time. Emotionally, you can talk to your plants, cry over your plants, yell at your plants, work yourself into exhaustion so you lose yourself in your plants. All are great for your body and spirits. Do not worry about what your garden looks like—claim it as being your happy place! Practical or perfect, it does not matter.

You do not have to garden to realize some of these benefits. Just interacting with green spaces, being outside, observing nature gives you some of the same benefits. Don’t have a garden outside? Bring it inside with house plants. Unable to have house plants? Get outside to a park or any outdoor space with grass, trees, and plants. Enjoy and observe all that is happening in your natural surroundings. By doing so, you engage all your senses. Listen to the sounds, the wind in the trees; closely see the plants and any insects they are supporting (John Muir once spent an entire afternoon watching a flower unfold); smell the earth, especially after a rain; feel the softness of a patch of grass or the roughness of a flower leaf; and, finally, the taste of anything edible within your reach.

Maybe you don’t quite believe any of the above? Ok, here is the science behind the fact that gardening is good for your spirits. Mycobacterium Vaccae is a bacterium that is being studied and has been found to offer similar effects on neurons that drugs like Prozac provide. The substance is found in soil and may stimulate serotonin production, which makes you relaxed and happier. Gardeners inhale the bacteria, have contact with it through their skin, and get it into their bloodstream when there is a cut or other pathway for infection. The natural effects of the soil bacteria antidepressant may be felt for up to 3 weeks.

So, get out there, garden and lift your spirits!
Your WSU Garfield County Master Gardeners.
Cooking outdoors was once only a summer activity shared with family and friends. Now more than half of Americans say they are cooking outdoors year round. So no matter the time of year, it’s important to follow food safety guidelines to prevent harmful bacteria from multiplying and causing foodborne illness. Use these simple guidelines for grilling food safely.

Shopping
When shopping, buy cold food like meat and poultry last, right before checkout. Separate raw meat and poultry from other food in your shopping cart. To guard against cross-contamination — this can happen when raw meat or poultry juices drip on other food — put packages of raw meat and poultry into plastic bags.

Plan to drive directly home from the grocery store. You may want to take a cooler with ice for perishables. Always refrigerate perishable food within 2 hours. Refrigerate within 1 hour when the temperature is above 90°F.

At home, place meat and poultry in the refrigerator immediately. Freeze poultry and ground meat that won’t be used in 1 or 2 days; freeze other meat within 4 to 5 days.

Keep meat and poultry refrigerated until ready to use. Only take out the meat and poultry that will immediately be placed on the grill.

Defrost Safely
Completely defrost meat and poultry before grilling so it cooks more evenly. Use the refrigerator for slow, safe thawing or thaw sealed packages in cold water. You can microwave defrost if the food will be placed immediately on the grill.

Marinating
Meat and poultry can be marinated for several hours or days to tenderize or add flavor. Always marinate food in the refrigerator, not on the counter at room temperature. If some of the marinade is to be used as a sauce on the cooked food, reserve a portion of the marinade before putting raw meat and poultry in it. However, if do want to use some of the marinade that was used with the raw meat or poultry be to a boil the marinade first to destroy any harmful bacteria.

Keep Everything Clean
Be sure there are plenty of clean utensils and platters. To prevent foodborne illness, don’t use the same platter and utensils for raw and cooked meat and poultry. Harmful bacteria present in raw meat and poultry and their juices can contaminate safely cooked food. This would include pastry brushes used to marinate while cooking, and tongs or forks used to place raw meat on the grill.

Cook Thoroughly
Cook food to a safe internal temperature to destroy harmful bacteria. Meat and poultry cooked on a grill often browns very fast on the outside. Use a food thermometer to be sure the food has reached a safe internal temperature. Whole poultry should reach 180°F; breasts, 170°F. Hamburgers made of ground beef should reach 160°F; ground poultry, 165°F. Beef, veal, and lamb steaks, roasts and chops can be cooked to 145°F. All cuts of pork should reach 160°F.

Precooking food partially in the microwave, oven, or stove is a good way of reducing grilling time. Just make sure that the food goes immediately on the preheated grill to complete cooking. NEVER partially grill meat or poultry and finish cooking later.
Serving the Food
When taking food off the grill, use a clean platter. Don’t put cooked food on the same platter that held raw meat or poultry. Any harmful bacteria present in the raw meat juices could contaminate safely cooked food.

If you need to keep it warm until more food is cooked, place the food in a warming oven or off to the side of the grill to keep warm. Once the food is set out on the table and ready to serve, never leave the food sit out more than 1 hour if over 90°F.

Refrigerate any leftovers promptly in shallow containers. Discard any food left out more than 2 hours (1 hour if temperatures are above 90°F).

Safe Smoking
Smoking is cooking food indirectly in the presence of a fire. It can be done in a covered grill if a pan of water is placed beneath the meat on the grill; and meats can be smoked in a “smoker,” which is an outdoor cooker especially designed for smoking foods. Smoking is done much more slowly than grilling, so less tender meats benefit from this method, and a natural smoke flavoring permeates the meat. The temperature in the smoker should be maintained at 250 to 300°F for safety.

Use a food thermometer to be sure the food has reached a safe internal temperature.

Pit Roasting
Pit roasting is cooking meat in a large, level hole dug in the earth. A hardwood fire is built in the pit, requiring wood equal to about 2 1/2 times the volume of the pit. The hardwood is allowed to burn until the wood reduces and the pit is half filled with burning coals. This can require 4 to 6 hours burning time.

Cooking may require 10 to 12 hours or more and is difficult to estimate. A meat thermometer must be used to determine the meat’s safety and doneness. There are many variables such as outdoor temperature, the size and thickness of the meat, and how fast the coals are cooking.

Does Grilling Pose a Cancer Risk?
Some studies suggest there may be a cancer risk related to eating food cooked by high-heat cooking techniques as grilling, frying, and broiling. Based on present research findings, eating moderate amounts of grilled meats like fish, meat, and poultry cooked — without charring — to a safe temperature does not pose a problem.

To prevent charring, remove visible fat that can cause a flare-up. Precook meat in the microwave immediately before placing it on the grill to release some of the juices that can drop on coals. Cook food in the center of the grill and move coals to the side to prevent fat and juices from dripping on them. Cut charred portions off the meat.

For more information or food safety questions contact the WSU Extension office at 360-397-6060.
Garfield County Fair & Rodeo

Garfield County Fair
September 16th–18th, 2022
99 Fairgrounds Rd,
Pomeroy, WA 99347

Garfield County Fair Rodeo

**SIGN-UP**
For all events
Tuesday, Sept. 6th
**6-9 p.m.**
(509)843-1723

*SNO LATE ENTRIES*
Is 4-H STEM-ming itself away from the farm? I don’t think so!
By Elizabeth Maslyn Published: June 20, 2022

4-H has always been an organization geared toward youth development and showing kids their impact on their community, country, and world. 4-H offers programs that teach kids how to work land and raise livestock, but also about cooking, food preservation, entrepreneurship, budgeting, science, technology, and engineering.

Maybe you know about how some 4-H clubs are using robots to learn about STEM, or perhaps you know about Mark Norregaard and Mac Dykeman from Canada who were recently recognized for STEM excellence in their 4-H projects, but do you know all the ways that 4-H is supporting and promoting STEM education?

STEM stands for science, technology, engineering and mathematics, and although the acronym makes it seem like STEM education is siloed into those categories, it aims to do the opposite. STEM education is meant to teach how each area depends on the others, hoping that this will pique interest in learning and will help kids understand better how the world works.

4-H has long taken STEM and run with it! 4-H has always been about STEM whether we realize it or not, just take a look back to why 4-H started in the late 1800s.

In the late 1800s researchers found that adult farmers were not accepting of new science and technology coming out of land-grant universities, which made farming impossible to advance. But the younger generations were much more willing to experiment, so educators skipped the parents and brought new findings directly to the kids. This proved so successful that by 1914, 4-H was a nationally recognized program with over 3,000 county offices across the U.S.

Bring that back to today, and 4-H is still bringing research directly from universities to youth, but 4-H now offers more programs (such as a computer science program nationally), support in agriculture through extension, and allows for youth to connect with professionals to help them gain skills in entrepreneurship, public speaking, finances, robotics, veterinary medicine, and more. 4-H aims to get all of us to work together to feed the world, whether we work inside or out, in lab coats or coveralls.

Agriculture uses a ton of technology every day, but because one in six kids in rural America don’t have access to the internet, the computer science courses have traditionally been left out of the picture. Google has invested $6 million into 4-H so far to bridge this gap. Not only is internet access becoming better for rural youth, Google has headed the CS Pathways program through 4-H that Google says has already impacted 1.4 million kids since its launch in 2017. The CS Pathways allows kids to develop skills in analytics, leadership, and problem solving.

National 4-H programs like action awards, the STEM challenge, and resources for at home activities promote STEM in daily life of 4-Hers despite their background or location. 4-Hers across the U.S. have the ability to head to their land grant universities and get hands-on experience in career explorations, financial literacy, and more.

STEM education is meant to marry subject matters in a way that gets kids excited about learning, and helps them choose a career path before graduating high school. 4-H has always been about making the best better by promoting education and adaptation of new technology and research in order for everyone to work together to feed our community, our country, and our world.

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Elizabeth Maslyn is a Cornell University student pursuing a career in the dairy industry. Her passion for agriculture has driven her desire to learn more, and let the voices of our farmers be heard.
It looks like this year Garfield County will be hosting the State FFA Land Evaluation Contest on November 2nd., 2022

Here is a little information on this contest!

The Soils and Land Evaluation CDE helps students gain an understanding of the most basic need for all agricultural pursuits—healthy land on which to grow crops or raise livestock. Participants identify and evaluate soil samples for various indicators, grade plots of land for slope and drainage, and work to determine what type of activity the land would be best suited for.

Pomeroy FFA competed at the State Land Evaluation CDE last year and plans to have a team again this year. FFA members will be competing in contests throughout the month of October in preparation for the State event!

— Kristina Knebel
Did You Know Humans Cannot Live on Protein Alone?

Prehistoric Pacific Coast diets had salmon limits
April 12, 2021
For full article read

In the paper, published online on April 8, 2021 in the American Journal of Physical Anthropology, “Native people were not just eating salmon. There’s a bigger picture,” Washington State University anthropologist Shannon Tushingham, researchers document the many dietary solutions ancient Pacific Coast people in North America likely employed to avoid “salmon starvation,” a toxic and potentially fatal condition brought on by eating too much lean protein.

Some archeologists have contended for years that prehistoric Northwest people had an “extreme salmon specialization,” a theory primarily based on the amount of salmon bone found at archeological sites. Tushingham and her co-authors argue that such a protein-intensive diet would be unsustainable. They point to nutritional studies and a global database of hunter-gatherer diets that indicate people have dietary limit on lean protein of around 35%. While it can vary by individual, exceeding that ceiling can be physically debilitating within a few days and fatal within weeks. Early explorers in the U.S. West subsisting on lean wild game discovered this problem the hard way and called it “rabbit starvation” or “caribou sickness.” This toxic situation can apply to any lean meat, including salmon, Tushingham said. “Yes, salmon was important, but it wasn’t that simple. It wasn’t just a matter of going fishing and getting everything they needed. They also had to think about balancing their diet and making sure everybody could make it through the winter.”

“People try to come up with one ‘paleo-diet,’ but there was no one specific ideal diet,” said Tushingham. There were nutritional baselines that they had to cover, and nutritional limits that they couldn’t exceed. There were many good solutions. It depended on where you lived and the history of your community.”