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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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.
Grain Inspections On The Mighty Columbia
Adapted from Chris McGann, WSDA Ag Briefs

A few cups of wheat randomly spill into an orange plastic contractor’s bucket under one of four dusty pipes extending down from the ceiling at WSDA’s Longview office.

This small sample weighs just a few pounds, but it wields tremendous power. It could validate a multi-million dollar contract. Or, it could bring a 124-million pound shipment to a standstill. Even more than that, the inspections conducted every day by the 75 commodity inspectors and technicians at the flour Washington loading docks along the Columbia river carry the responsibility of protecting a large slice of the U.S. agriculture export economy.

Grain Inspection Supervisor, Colleen Butcher, oversees operations at the Columbia River field offices. She’s there to make sure the quality of the grain going onto the ship matches the specifications listed on each load order. Her teams inspect the grain for impurities, moisture content, and overall quality or grade, comparing those findings with the facilities for sanitation and proper handling. It’s all about quality control and consumer confidence, she says. “There have been issues in the past of selling product and what they are receiving on the other end is not what they thought they were going to be getting,” Butcher said. “This is the United States’ way of guaranteeing that the grain that is being requested is the grain that they will receive.”

Washington is one of only a few states delegated to conduct export grain inspections by the U.S. Department of Agriculture (USDA). WSDA staff inspects, logs and sets aside portions of the samples in case of a future dispute at the same time the trainload of grain floats down sealed, air-cushioned conveyor belts onto a giant Panamax freighter at the dock.

“This whole operation is functioning on receiving that grain, that way they can export it,” Butcher said. Mountains of wheat from Eastern Washington arrive by river barge and train each year, but the grain, mainly wheat, corn, soybeans and sorghum, comes from all over the West including Idaho, Oregon, the Dakotas, Montana, Colorado and beyond. For Midwest grain, Longview and the other grain facilities along the lower Columbia River are the gateway to Asia.
The Columbia River has multiple elevators and loading operations. “We receive grain twenty-four hours a day, seven days a week, all year long,” Butcher said. “In most cases, the grain’s final destination will determine which part of the United States it’s exported from.”

**A Different Kind Of Continental Divide**

Flowing much like water on divergent paths from the Continental Divide, grain heads in one of two directions from western grain country.

In most cases the grain goes east to the Mississippi River and the Gulf of Mexico, bound for Europe and Africa, or West to the Columbia and the Pacific Ocean, with Asia and the Middle East as its likely destination. For grain headed for Asia, “It will come through the Columbia River,” Butcher said.

**Linchpin For The Industry**

“We are Quality assurance, We are making sure that the grain that is being loaded onto that export vessel is meeting contract specifications,” Butcher said.

Butcher says the inspections protect the buyers, but also, perhaps even more so, they protect the producers. If a producer can’t assure the buyer that what they send is actually going to be up to the specification that they buyer wants and has agreed to, the whole market could be damaged, Butcher said.
Pesticide Drift Alert!

In early spring of last year a high number of pesticide drift incidents, affecting workers and neighbors, happened in tree fruit growing areas. To avoid a repeat, WSDA is urging all applicators to follow all pesticide label instructions carefully and in a manner that will prevent off-target drift to workers, neighbors, or sensitive sites. To ensure pesticides do not drift beyond the intended treatment area, pesticide applicators must:

- Read the label on the pesticides being applied and abide by all precautions and restrictions on safe handling, necessary protective equipment, buffers, the effect on crops and more. Be especially diligent near sensitive areas such as highways, homes, schools and other occupied dwellings.
- Properly calibrate equipment. Use proper nozzles, nozzle configuration, proper air and water volumes and pressure to keep the spray on-target.
- Evaluate conditions such as wind speed, wind direction and temperature. Do not apply during a temperature inversion.

Halt the application if conditions change and create a risk of drift to off target areas, or if anyone approaches the area without proper protection. The Worker Protection Standard now requires an air-blast applicator to suspend the application if anyone (other than a properly trained and equipped handler) enters a 100 foot circle around the sprayer. This is called the Application Exclusion Zone (AEZ).

This additional task has proven to be very helpful in preventing exposure incidents: Before making an application, communicate your spray plans to neighboring farms and neighboring residents, and scout the areas bordering the target site for unprotected workers or other persons.
Protect Horses From Herpes Virus
Dr. Amber Itle, Washington State Veterinarian

Equine Herpes Virus (EHV) is an emerging, potentially fatal animal disease in the United States. It not only has the potential to affect horse health but, because it’s highly contagious and requires lengthy quarantines or cancellations of events like rodeos and fairs, the economic consequences can be equally devastating. As we enter the time of year when horses are more active and travel to public events, it’s especially important to observe appropriate biosecurity measures, vaccinate, and watch for signs of the disease.

A Case In Washington
Just recently in May, a horse in Thurston County tested positive for equine herpes virus 1, resulting in a quarantine of the boarding facility where it was kept.

What To Watch For
Given the infectious nature of EHV-1, WSDA asks horse owners to follow these recommendations. Watch your horse for signs of possible infection including:

- Fever of 101.5 F or higher.
- Discharge from the eyes or nose.
- Respiratory symptoms.
- Swelling of the limbs.
- Spontaneous abortions.
- Neurological signs such as unsteady gait, weakness, urine dripping, lack of tail tone and recumbency.

Check your horse’s temperature twice daily, ideally first thing in the morning and last thing at night. Also, check before administering medications since some can lower body temperature.

Notify your veterinarian immediately if you detect any of the symptoms above. Your veterinarian may want to take nasal swabs for virus detection or blood samples for evidence of exposure to EHV-1.

When the virus is detected, WSDA and local veterinarians work closely with affected communities to ensure the best biosecurity standards are practiced.

The time between exposure and illness from EHV-1 varies from two to 10 days. By self quarantining animals with possible symptoms, practicing good biosecurity and contacting your veterinarian as soon as you suspect symptoms, you can help prevent the spread of this virus.

For more information, contact WSDA’s Animal Health Program.
Hello Gardeners,

I hope that everyone is enjoying their gardens this summer. At my house during May and June, we didn’t get much rain. The outlook for July and August is for above average temperatures and below average rainfall.

Our lawns and gardens need to be watered two to three times a week. A deep watering is more beneficial than a short watering everyday. Water long enough to get the soil moist below the roots to encourage them to go deeper and become more drought tolerant. Mow your lawns higher and this will help shade the roots. It would be nice if we get some summer rains to help us out, but it doesn’t look like we will get much.

With our hot, dry, windy weather, comes spider mites. If the foliage starts looking white, this could be the problem. Aphids are also eating many plants. In the vegetable garden, be on the lookout for cabbage moths, they are white moths with a black spot on the wing tip. Stink bugs also like hot days and do a lot of damage to many veggie crops. Slugs are also still around in moist shade areas. When using slug bait, get the kind that is not harmful to pets. Some bait, dogs will eat and it may cause them to become very sick or die.

Try not to let your tomato plants dry out, keep them evenly moist. Dry soil, followed by lots of water promotes blossom end rot, a hard black spot on the bottom of the fruit. A calcium deficiency can also cause this problem. Uneven watering can also cause fruit to split. They also set less fruit if the weather stays over 90 degrees for several days.

If you have a bare spot in the vegetable garden, plant some beans or corn, which are short day to maturity plants. If we have a warm September and October you will get the reward of late vegetables. Harvest garlic at the end of July and into August, depending on variety.

When taking care of your annuals, keep the spent blooms picked off so that they will keep blooming. Perennials may re-bloom if cut back and given a little fertilizer and kept well watered.

Divide or move Iris plants in July or August. Replant the rhizomes that are firm and have leaves, on small mounds with the roots just covered. Keep them well watered to establish.
Don’t put your weeds with seed heads or plants that are diseased in your compost pile. A powdery mildew will come with the hot days and cool nights. Foliage with this mildew that has been cut off should not be added to your compost. Your compost may not heat up enough to kill weed seeds or plant disease.

If you haven’t done so already, thin the fruit on your trees. A minimum of 4” to 6” spacing will help them develop larger fruit and reduce the weight on the limbs. Also, take the fruit off on the ends to help reduce weight.

Would you like to attract beneficial insects and repel bad bugs in your garden? Consider planting a few of the plants listed below.

- **Bronze Fennel:** Wards off aphids and slugs. This plant can be invasive so plant the Fennel in containers and place in the garden where you need them.

- **Peppermint:** attracts Damself bugs which prey on caterpillars, mites, potato beetles and cabbage worms.

- **Marigolds:** Ward off aphids and attract bees and wasps which prey on caterpillars, aphids and white fly.

- **Dill:** Attracts bugs which prey on white flies. It will ward off squash bugs and spider mites.

**Don’t Forget The Master Gardener Clinics!**

Bring any of your problems, questions samples to the WSU/Garfield County Extension Office any day of the week, or come and see us on Wednesday’s from 1:00 to 3:00 PM. We will answer your gardening questions and identify weeds, plants and insects!
Every year we find babies. Here is a flow chart from Blue Mountain Wildlife to help you decide the right thing to do when you happen upon a little one in your yard! The closest wildlife rehab is Blue Mountain Wildlife located in Pendleton. They have drivers that will meet you to bring injured or sick animals in. Their phone number is 541-278-0215.

So You Found a Baby Bird

Now What?

Is bird hurt or sick (unable to flutter wings; bleeding, wings drooping unevenly; weak or shivering; attacked by cat/dog?)

Is bird feathered?

No

Is it intact?

No

Make a substitute nest. Poke holes in bottom of berry basket/margarine tub; line with dry grass, the old nest, or pine needles; hang from original or nearby tree.

Put baby back in nest. Observe from a distance. Are parents visiting nest?

Yes

No

Put bird in bushes or on a tree limb nearby. Watch from a distance. Are parents nearby?

Yes

No

Leave the area. Baby is OK.

No

Leave the area. Baby is OK.

Leaves the area. Baby is OK.

Call a wildlife rehabilitator.

To Find a wildlife rehabilitator in your area, contact:

-Your state wildlife agency
-Humane Society
-Audubon Society
-Wild bird stores
-City Animal control officer
-Veterinarian (wildlife/exotic)
-US Fish & Wildlife Service

Unable to reach a wildlife rehabilitator? Call your state wildlife agency or a wildlife Veterinarian.

To Rescue: Put the baby in a box with air holes & a towel/blanket. Put a warm pack near the baby under the towel. Close up the box, and keep it in a quiet, dark place.

If you find a baby duck, goose, quail or kilddeer:

-If you know the mother is dead, or if baby is injured, call a wildlife rehabilitator right away.
-If baby is separated from the mother and you know where she is, place baby close by so she can hear it. Watch from a distance.
-If the mother is not found or does not claim the baby within an hour, call a wildlife rehabilitator. If you cannot reach one, rescue the baby (see instructions above).

A baby's best chance for survival is with its mother!
Family Living

Food Safety Basics—Fundamentals of Canning
Stephanie Smith, Ph.D.
Consumer Food Safety Specialist, Washington State University

Fundamentals of Canning

• Extends shelf life of food
• Prevents growth of microorganisms
• Improperly canned food can result in growth of *Clostridium botulinum*
  • Causes the disease botulism, and is usually deadly
• Proper canning prevents growth of *C. botulinum*

Factors Influencing Growth of *C. botulinum*

• **Food** source – your food
• **Acidity** (pH) – pH > 4.6
• **Temperature** – Killed at temperatures of 240°F; water boils at 212°F at sea level

• **Time** – Can reproduce rapidly and make toxin
• **Oxygen** (or lack thereof) – Canned food provides the right no oxygen environment for growth
• **Moisture** (Water Activity) – Water activity below 0.86 prevents growth of *C. botulinum*
  • Amount of water available for use by enzymes microorganisms, etc.
pH and Acidity

- Pathogenic bacteria, especially Clostridium botulinum, grow well at pH 4.6-7.5
  - Acid foods = pH 4.6 or less
  - Low acid foods = pH > 4.6

- pH of Selected Foods
  - Apples 3.3-3.9
  - Grapes 3.3-4.5
  - Tomatoes 4.3-4.9
  - Peas 5.8-7.0
  - Beans 5.7-6.2
  - Corn 6.0-7.5
  - Chicken 6.5-6.7
  - Beef 5.1-6.2
  - Seafood 5.5-7.3

### Acid Foods – pH<4.6
- *C. botulinum* controlled by:
  - Moisture - Low water activity (e.g. sugars, pectins)
  - Acidity - Low pH (<4.6)
  - Temperature and Time - kills other microorganisms (e.g. *Salmonella*, *E. coli*) and ensures proper heat penetration

### Low Acid Foods – pH ≥4.6
- *C. botulinum* controlled by:
  - Acidity (adding acid for acidified foods)
  - Temperature ≥240°F
  - Time – To ensure proper heat penetration

All foods with a pH of 4.6 or greater must be acidified (e.g. pickled) or pressure canned for safety!
Heat Penetration

• Heat penetration studies done on tested recipes
  • Ensures enough processing time for type of food
• Cold spot must reach correct temp for correct length of time to destroy *C. botulinum*
• *Follow recipe exactly!*
  • *Thickeners, fats, oversized food pieces, recipe changes, can all affect heat penetration.*
• *Heat up and cool down included as part of total required process/times*
• Use proper canner *always!*

Ensuring Safe Canned Food

• Always use recipes from USDA or Universities
  • These have been researched to ensure safety
• Follow directions *exactly*
• Never make modifications to the recipe or process, or use non-researched recipes
• Have gauges tested at least annually on dial gauged pressure canners
• If food wasn’t processed properly, you can
  • Refrigerate it immediately
  • Throw it away
  • Freeze it
Another great year at Bi-County 4-H Camp is in the books!

Counselors

Spirit Day

Karate Class

Spirit Awards
The 4-H Robotics Camp was held this year June 25-27 at the Pomeroy Elementary School. This camp is designed to give kids the opportunity to learn about Lego Mindstorm robotic systems, engage in challenges, and explore F.I.R.S.T. (For Inspiration and Recognition of Science and Technology) and much more.
Contest Winning Raspberry Cream Pie
Taste of Home

**Ingredients**

- 1-1/2 Cups Crushed Vanilla Wafers (about 45)
- 1/3 Cup Chopped pecans
- 1/4 Cup Butter, Melted

**Topping:**

- 1 Cup Sugar
- 3 Tablespoons cornstarch
- 3 Tablespoons Water
- 2-1/2 Cups Fresh or Frozen Raspberries, divided

**Filling:**

- 1 Package (8 ounces) Cream Cheese, softened
- 2/3 Cup Confectioners’ Sugar
- 2 Tablespoons Orange Liqueur
- 1 Teaspoon Vanilla Extract
- 1 Cup Heavy Whipping Cream, whipped

**Directions**

1. Combine the wafer crumbs, pecans and butter. Press onto the bottom and up the sides of a greased 9 inch pie plate.

2. In a large bowl, beat the cream cheese, confectioners’ sugar, liqueur and vanilla until light and fluffy. Fold in whipped cream. Spread into crust. Chill until serving.

3. In a small saucepan, combine sugar and cornstarch; stir in water and 1-1/2 cups raspberries. Bring to a

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