



## Announcements

### November

**5 Introductory Pest Management**, 8:30 a.m. to 3:30 p.m. at the WWCC Water and Environment Center. Cost is \$20 which includes lunch. The course will offer 5 WSDA credits, 4 core and 1 regular ODA pesticide credits. Register at <http://wsu-seminar.bpt.me> or at the Extension Office. Tickets will be available at the door.



**15 4-H Achievement Night**, Walla Walla County Fairgrounds Community Building, 5:00 p.m. Come join us to celebrate the achievements of our 4-H youth. Come early to see all of the silent auction items. Bring a hot dish and a salad or dessert, serving utensils, plates, and silverware for your family and guests. Coffee and punch provided.



If you would like to donate an item or a service to the 4-H silent auction, please bring it to the WSU Extension office at 328 West Poplar Street by November 9th. No used items, please.



**17 Walla Walla County Noxious Weed Board Public Meeting**, WSU Extension Office, 328 West Poplar at 1:30 p.m. Open to anyone who would like to add their input to the 2015 county weed program.



### December

**8 Pest Management for Cereal Grain Cropping Systems**, Walla Walla Regional Airport, 8:30 a.m. to 4:30 p.m. Call 509-524-2685 for questions. Fee of \$10 includes lunch.

**10 Pest Management for Pulse Grain Cropping Systems**, Walla Walla Regional Airport, 8:30 a.m. to 1:00 p.m. Call 509-524-2685 for questions. Fee of \$10 includes lunch.

### 15, 16 Pesticide Training & Recertification

Pasco, Holiday Inn Express at the TRAC, 8:30 am – 4:30 pm. Classes for the 2015-2016 WSU Eastern Washington Pesticide Education will be held in Pasco. Class fee is \$60/ day (not including license and testing fee). Registration forms available at the Extension Office along with testing materials. Registration for the courses online at: <http://pep.wsu.edu>. Internet pre-license classes are also available for a fee at: <http://pep.wsu.edu/ewplf/>. Internet Recertification One-Credit Classes are available at: <http://pep.wsu.edu/rct/recertonline/>. For questions, call 509-335-2830.



### January

**14 Agronomy and Soil Science Seminar**, WWCC Water and Environment Center, 8:00 a.m. to 4:30 p.m. Call 509-524-2685 for questions. Fee of \$20 includes lunch.

## 4-H



**Congratulations** to all of our 4-H state fair participants. Please make sure to thank Platt Electric for shipping all our state fair exhibits!

### 4-H Still Life Exhibitors:

Miriam Bennett, Nathanael Bennett, Carolyn Bergman, Lauren Bergman, Cora Borgens, Emma Borgens, Mya Dalgleish, Megan Foertsch, Makenzie Frost, Lauren Green, Angelea Larish, Gabrielle Longmire, Justin McColley, Alicia Newcomb, Kiana Newcomb, Gracie Olmstead, Annaka Roland, and Bethany Voss.

### 4-H Contest Participants

Livestock Judging: Skylar Druffel, Tanner Druffel, Jared Farley, Bow Maiden; Fashion Revue: Lauren Green, Marissa McBride, Rem McBride, Kelly Michelson, Arianna Wylie; Public Presentation: Angelea Larish, Alicia Newcomb; National Equine Contest: Gabrielle Longmire; Kitchen Activities: Garrett Green, Kiana Newcomb; Clothing Judging: Garrett Green; Foods Judging: Garrett Green; Table Setting: Lauren Green; Creative Consumer: Marissa McBride.

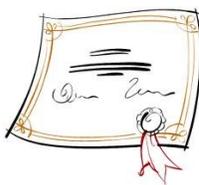
## Union Bulletin Supports 4-H Program

A special thank you to the Union Bulletin for the gracious donation of ad space to celebrate *National 4-H Week!*

## 4-H Potluck, Auction, & Awards Program

All 4-H families, friends, and supporters are invited to the 4-H Achievement Program on Sunday, November 15th starting at 5 p.m. The evening includes a potluck dinner, silent auction, and awards program.

Join us in celebrating another successful 4-H year!



## Home & Garden

### DIGGING SUMMER BULBS

Source: Marianne C. Ophardt  
WSU Extension Faculty

As weather cools in the fall it is time to plant spring flowering bulbs, but it is also time to dig tender summer flowering "bulbs." This includes plants with tender bulbs, corms, and rhizomes like dahlia, canna, and gladiolus. The "bulbs" are dug after the first hard frost in the fall and stored over the winter in a place where they stay cool but not freeze.



The best time to dig is about two weeks after the plants are hit by a hard frost, giving the top of the plants a chance to die back. After waiting the two weeks, dig the bulbs, corms or rhizomes up, cut the tops of the plants down to about six inches from the ground. Carefully use a garden fork to lift them out of the ground. Take care not to injure the "bulbs."

Shake as much soil off the bulbs and then clean the remaining soil off with water from the hose. Again, be careful not to injure the bulbs. Place them in a single layer on newspaper or cardboard in a protected in a dry spot like your garage for a day or two.

**Dahlias:** Over the summer the dahlia tubers will have developed into a cluster of tubers. These will be divided in the spring when you go to replant them. Do not cut them into separate tubers before storing them.



Place the clusters in single layers in cardboard boxes or paper grocery bags. Start out with a layer of dry sawdust, peat moss, vermiculite, or wood shavings first and then cover the tubers with a generous layer of the same material. Before storing, use a permanent ink marker to write the name of the cultivar directly on several tubers in the cluster, or write it on the bag if you store clusters in individual paper bags. Store the tubers in a cool location (40 to 50 degrees F°) where the temperature will not go below freezing. Next year's growth will sprout from the buds that are located at the crown at the base of the old stems.

**Canna:** Cannas have rhizomes. They are treated pretty much the same as dahlias for digging and storage. The clump of rhizomes can be replanted next spring or divided and replanted. New growth next year develops from buds at the base of this year's stems.



**Gladiolus:** Gladioli grow from corms that resemble bulbs. These can be dug after frost kills the leaves or six to eight weeks after all the flowers have faded. These are dried or "cured" for a longer period of about two to three weeks in a warm (80 degrees F), dry spot out of the sun. When dry enough the old shriveled corms and tiny corms (called cormels) can be easily broken away from the base of the new corms and discarded. Do not remove the protective husks around the corm. Gladiolus corms do not need to be packed in dry materials like sawdust.



Place them in mesh onion sacks or open paper bags to allow for good air movement. Store them under cold (35-40 degrees F) conditions with low humidity where they will not freeze.

This all sounds like considerable effort at a time of year when you are almost happy to see the end of the season. Do you really have to dig and store them every year? Some years dahlias and gladioli may survive if left in the ground, but it is hard to predict when or how severe the winter will be and replacing all your summer bulbs can be costly. If you cannot bear to lose your summer bulbs, it is best to dig and store them.

## Financial Fitness

### CREATING AND FOLLOWING A SPENDING PLAN MAKES FINANCES EASIER

Source: MU Extension Family Financial Education Specialist Janet LaFon, [lafonj@missouri.edu](mailto:lafonj@missouri.edu)

Creating a spending plan and following it is a simple way to take control of one's finances, according to Nellie Lamers, family financial education specialist with University of Missouri Extension.



"It is simple, but I would not say easy. There are a few things that are hard about creating a spending plan, including sitting down and doing it, figuring out your income and expenses, and sticking with it," said Lamers. There are five basic tips can make the process easier.

1. Take some time to consider your values. Whether we know it or not, our values play a big part in how we handle our money. Consider this example, say one of your main priorities in life is your family, how does this priority affect your finances?
2. Write down your goals and decide on goals both individually and as a family. Simply writing down your goals gives you a much greater chance of achieving them.
3. Track your income and expenses. Most of us have a pretty good idea of what our income and expenses are; however, most of us also have spending leaks.
4. Consider needs, wants and fixed, variable and periodic expenses. "It is easy to tell ourselves we need something but if you take the question seriously it can put things in perspective," said Lamers.
5. Create your spending plan and write it down. Use the University of Missouri Extension publication "[GH3830 Managing Your Money](#)" (download the free pdf) as it offers helpful information and worksheets for creating your plan.

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## Family Living

### RESOURCES FOR HOME PRESERVING VENISON

Source: *National Center for Home Food Preservation University of Georgia; Revised October 2013*

#### Introduction

Venison offers variety and an unusual flavor to the fall and winter table. When handled properly it can make an excellent meat. It can be refrigerated or frozen as meat cuts or sausage. It can also be preserved by canning, curing, or drying.



#### Field-to-Refrigerator

Use care when field-dressing the deer. Contaminating the carcass is one of the most common errors hunters make. Cool the carcass to 35 to 40°F as soon as possible. See more information in *Proper Care and Handling of Venison from Field to Table*, and *Proper Processing of Wild Game and Fish*. Available from Penn State Cooperative Extension.

#### Aging Venison

Aging the carcass will help dissipate the game taste and permit naturally occurring enzymes to tenderize the tissues. Proper aging also firms the meat, giving it better cutting quality. Aging the carcass should be conducted at 40° F or less for no more than 2 to 3 days. Never age at room temperature. Improper storage facilities increase risk for spoilage. If using the venison for sausage, aging is not required.

#### Refrigerator Storage

Store any unfrozen meat in the refrigerator at 40° F or less, and use it within 2 to 3 days. Keep raw meat separated from other foods and on trays with a lip below any produce or ready to eat foods in order to prevent cross-contamination in the refrigerator.



#### Freezing Venison

Trim fat and clean cuts so they are ready for end use. Fat will go rancid quicker and often has a very "gamey" undesirable flavor. Use packaging made for the freezer. For best quality, wrap the meat tightly in waxed paper, plastic freezer wrap, or heavy-duty aluminum foil. For added protection, seal wrapped meat in a plastic freezer bag or container. Push out as much air as possible. Seal, label and date each package. Home vacuum sealers will also work for packing venison for freezing. Follow manufacturer directions for vacuum sealing. Freeze

## Farming & Livestock

no more than 4 pounds per cubic foot of freezer space within a 24-hour period. If space in the home freezer does not permit spreading the packages out, take the wrapped meat to a processing plant or meat locker for quick freezing.

Store ground venison in a freezer at 0°F or colder for 3 months for best quality. Venison roasts and steaks can be stored 6 to 9 months at this temperature. Meat quality and flavor will deteriorate in the freezer over time. Proper dressing, handling, packaging, quick freezing, and colder freezer temperatures will help maintain meat quality for the longest period of time. Thaw meat in the refrigerator or microwave, never at room temperature.

### Drying Venison (making jerky)

Homemade venison jerky was responsible for an outbreak of foodborne illness several years ago. Therefore use only “new” and updated processing recommendations as suggested below:



University of Georgia: <http://nchfp.uga.edu/how/dry/jerky.html>  
Colorado State University: <http://www.ext.colostate.edu/pubs/foodnut/09311.html>

The jerky will be as brittle as a green stick; it won't snap clean as a dry stick does. Be sure to test it after cooling because it will be pliable when it is still warm.

Making low-salt jerky is not recommended. The salt binds the moisture in the meat and thus any bacteria on the meat are more quickly killed because they do not have water available to them.

### Venison Cooking Tips

The key to cooking venison and to making it tender, moist and delicious is understanding that it has very little fat or fat cover. Add butter or cheese, or baste with other fats for improved flavor. Without much fat cover, the meat tends to dry out. Cook venison slowly using moist heat and baste often with a marinade sauce or oil. Don't overcook. A roast may also be wrapped in aluminum foil after browning or covered in a roasting pan. Strips of bacon may be placed on a roast for self-basting. For these foods to be safe, internal temperatures must be high enough to kill any harmful microorganisms. Cook ground meats, chops, steaks and roasts to 160°F. Venison can be substituted for meat in many recipes and makes an excellent variation to your menu.



### A GOOD STRAW YEAR: BALES ARE IN BIG DEMAND IN NORTHWEST

Source: Seth Truscott, [struscott@wsu.edu](mailto:struscott@wsu.edu)

To bale or not to bale?

That's a question farmers face every year about wheat straw, which can be seen stacked in large quantities throughout Washington's wheat country as harvest season ends.



A secondary crop for farmers whose prime concern is grain, Northwest straw is sought after by mushroom growers, livestock owners and, increasingly, for pulp. If people are willing to pay for it, farmers will bale it," said Randy Fortenbery, professor and Small Grains Endowed Chair at the School of Economic Sciences at Washington State University.

"The price of wheat moves the price of straw," Fortenbery said. "And it's not cheap to bale straw." When wheat prices are low, farmers may decide to get extra revenue by selling straw. If wheat prices look favorable, they may decide to put straw back in the ground as an organic-matter boost to next year's grain crop.

### Increased demand

"Wheat straw has definitely increased in demand over the last couple of years," said Bill Lozier, director of supply chain for Pacific Ag, a Hermiston, Ore., based company that harvests and sells feed crops nationally. "We sell as much as we can contract for." Lozier credits rising straw prices to increased demand from mushroom growers in Washington and Canada. "That's where a lot of our straw is going," he said. "A big mushroom farmer may buy more than 30,000 tons a year."

Domestic agricultural demand for straw remains strong. Northwest dairies and feedlots buy straw for bedding, and some feeders blend straw into their rations for fiber. Wheat straw alone makes for poor fodder. Low in protein and hard to digest, it's best suited for cattle in the fall, when cows have lower nutrient requirements.

In May, storms damaged the state's alfalfa crop. And, with the ongoing drought, farmers might not have gotten a second cutting of hay this year.

“That makes for a problem of feed availability for cows,” said Don Llewellyn, Regional Livestock Specialist with WSU Benton County Extension.

“Farmers and ranchers have to look at different crop residues, like wheat straw, to fill the gap and get back on track. With an appropriate protein supplement, wheat straw can be an acceptable alternative feed.”



One might assume Washington’s ongoing drought would have put a drag on straw production. Not so, says Lozier. “May turned really wet, so it’s been a good straw year,” he said.

### **Nutrient export**

“I’ve never seen this many bales, or so much baling going on in this region,” said Stephen Guy, an Extension agronomist at Washington State University. In the field as well as in the bale, “straw has a tangible value,” said Guy. Left in the field, straw decomposes over time, adding organic matter, which helps water infiltration and retention, nutrient availability and soil structure.

When you sell straw, “you’re exporting nutrients off the farm that must be replaced by fertilizer you have to buy,” said Guy. Straw contains nitrogen, potassium, phosphorus and sulfur in low concentrations. Guy calculates that it takes about \$20 in fertilizer to replace these nutrients in a ton of straw.

But while nutrients can be regained from fertilizers, organic matter itself is more difficult to replace. That drain isn’t noticeable at first. “A farmer could do it for several years before they’d see a difference,” said Steve Norberg, Regional Agriculture Specialist with WSU’s Franklin County Extension. “But it is going to show up.”

### **Nuanced approach**

With grain yields per acre—and residue yields—on the increase, Harrison Pettit, a co-owner of Pacific Ag and the company’s vice president of business development, says straw harvest requires a nuanced approach.

Good residue management, he said, is sustainable for the soil and adds more return per acre for the farmer.

“You can’t just take,” Pettit said. “It’s about not taking too much and leaving the right amount for long-term soil health. We feel we’re benefitting the

grower and their ground by taking the right amount off.”

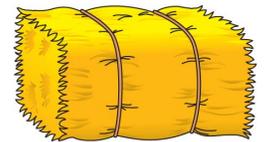
### **Big bales**

Farmers started making the switch to “large square” straw bales, three-by-four-by-eight feet in dimension, highly compacted and up to a ton in weight, a few decades ago.

Traditional “small” bales, about 15 by 18 by 40 inches, weighing about 50 pounds, can still be found at farms and feed stores. But with a large bale, farmers can move a ton of hay in a single operation instead of 40. “Time is money,” says Norberg. “The beauty of the large square bale is that it fits perfectly on the beds of trucks, so farmers can max out the weight they haul.”

### **Straw pulp mill**

The northwest straw market will change when Columbia Pulp, a Dayton-based company that turns straw into paper pulp, hits full production in 2017. Columbia Pulp is developing a 140,000-ton-per-year pulp mill on 449 acres near Lyon’s Ferry. Manager John Begley said the company began purchasing straw from this year’s harvest. He expects the mill to begin production following the 2016 harvest, reaching full capacity the next year.



When that happens, Begley predicts that Columbia Pulp will buy about 220,000 tons. “By our estimation, this will about double the amount of straw being baled in our area,” he said.

## *Updates*

### **NEW ‘ALIEN’ WASP DISCOVERED IN WASHINGTON STATE**

Source: Linda Weiford, WSU News

PULLMAN, Wash. – The discovery in Washington state of a parasitic wasp that kills its host like a scene from the “Alien” sci-fi movie has entomologists cheering from the west coast to the east.

That’s because the wasp’s victim – the brown marmorated stink bug – is far more wicked. What’s more, the wasp, which hails from Asia and is being studied under quarantine in the U.S., has been found living at a public park in Washington.

Two small clusters of *Trissolcus japonicus* were discovered in Vancouver, Wash., by a field technician with Washington State University’s Tree

Fruit Research and Extension Center, according to entomologist Elizabeth Beers who supervises the worker. “We did not expect to find this wasp here and are very excited about the discovery. In the insect world, we struck it rich,” she said.

The efficient killer is only the size of a typed comma. (Photos courtesy of the USDA)



Here’s why: Since 2007, the U.S. Department of Agriculture (USDA) has been directing studies of *T. japonicus* in quarantine laboratories to determine if it can be released in the wild to destroy the crop-wrecking

brown marmorated stink bug. This stink bug species, which also originated in Asia, has caused millions of dollars in damage to fruit orchards in the Mid-Atlantic since it was discovered in Pennsylvania less than two decades ago.

When the weather turns cold, the bugs invade warm buildings. When crushed, they emit a stench like dirty socks.

### ‘Right under our noses’

As the shield-shaped stink bug moves east to west – strengthening its grip on Washington, Oregon and parts of California – the equivalent of a SWAT team of insect experts has been searching for ways to stop it.

“Because the brown marmorated stink bug is not native to this country, it’s less likely that natural enemies exist here to destroy it,” said Beers, WSU’s representative on this scientist SWAT team, which is comprised of some 52 scientists from 10 institutions. “As it turns out, there’s one right under our noses.”



And that would be the tiny *T. japonicus*, found by WSU tech assistant Josh Milnes on the leaves of a maple tree in Vancouver, first on Aug. 14 and again on Sept. 23. The 20-plus wasps in each cluster had just finished destroying the brown marmorated stink bug eggs that Milnes had left at a sentinel study site, said Beers.

Here’s where things get “Alien”-like. The female wasps, no bigger than a typed comma, lay eggs inside clusters of stink bug eggs. After a wasp egg hatches, the larva eats the stink bug egg host, “killing it in the process and then bursting out as an adult wasp,” Beers said.

The wasp specimens were sent to USDA research entomologist Elijah Talamas in Washington, D.C.,

who positively identified them as the Asian wasp species, explained Beers.

“When I heard the news, I thought, Oh my gosh, this is a biocontrol game-changer,” said USDA entomologist Tracy Leskey in West Virginia, leader of the national stink bug research team.

Though several *T. japonicus* wasp clusters have been found in Maryland and Virginia during the past two years, “the fact that the wasp showed up 3,000 miles away in Washington tells us that the stink bug’s natural enemy is deployed for attack,” she said. The discovery also suggests the wasp was accidentally brought to this country multiple times, much like the very stink bug it destroys, she explained.

### Biological warfare hitchhikers

Most likely, *T. japonicus* traveled here undetected in stink bug egg masses on plant cargo shipped from Asia, said USDA research entomologist Kim Hoelmer who studies the wasp species in a quarantine lab in Delaware. It’s also possible that an adult wasp or two hitched a ride on a jet and simply deboarded with the humans.

So what happens when scientists hunting for a bug killer discover the killer living in a public park?

As scientists monitor *T. japonicus* to see how much it spreads in the field, research will continue in lab settings, said Hoelmer.

“We don’t want to introduce a non-native wasp that kills native stink bug species beneficial to our crops,” he explained. So far, however, the research looks promising that this tiny prizefighter favors the brown marmorated variety, he said.

Oh, and more good news for Americans: this wasp doesn’t sting.

### Contacts:

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WASHINGTON STATE UNIVERSITY  
WALLA WALLA COUNTY EXTENSION

Celebrating 100 Years of Extending Knowledge

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County Extension Director

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