WASHINGTON STATE UNIVERSITY
WALLA WALLA COUNTY EXTENSION
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http://extension.wsu.edu/wallawalla

Newsletter

May 2018

Announcements

MAY

5 Master Gardeners Return to Downtown Farmers' Market, 4th and Main. Market is open through October on Saturdays from 9am-1pm. Look for the Master Gardeners' booth on Saturdays to get weekly gardening tips and advice on plant problems.

7-13 Milton-Freewater Jr. Show, Milton- Freewater Posse Grounds. Support local 4-H & FFA members as they display their talents and efforts. www.mfjrshow.com.

9 Rural Pathways to Prosperity Conference, 9 a.m. - 12 p.m. WWCC Water & Environmental Center. Business and community leaders will learn about career-connected learning successes, and participate in a facilitated discussion to create local solutions. The event is free to attend. Registration info is at: http://waruralprosperity.wsu.edu/register. More information on page 6.

JUNE

8-10 Waitsburg Jr. Show, Waitsburg Fairgrounds. Come support local youth as they have the opportunity to compete and show their talents.

20 WSU Variety Tours, Walla Walla (Cereals), 1 p.m. For more information, contact Aaron Esser, 509-659-3210 or http://variety.wsu.edu.

22 **WSU Variety Tours, Dayton** (cereals & legumes) Dayton, 8:00 a.m. For more information, contact Paul Carter at 509-382-4741 or visit http://variety.wsu.edu/.

JULY

13-14 Northwest Junior Sheep Exposition, Moses Lake WA, Grant County Fairgrounds**.** Participants learn how to select fast gaining lambs that are heavily muscled and will finish properly**. Entry deadline is May 1 for market lambs and June 15 for breeding and prospect lambs.**

Premium books are entry forms available at: http://extension.wsu.edu/animalag/news/northwest-junior-sheep-exposition/. For more information, contact Sarah Smith at 509-754-2011 or smithsm@wsu.edu.

Updates

Stripe Rust Update April 10, 2018
Adapted from Xianming Chen

Upon checking wheat fields on April 9th in Whitman, Garfield, Columbia, Walla Walla, Benton, Franklin, and Adams counties of Washington and the Umatilla County of Oregon. Winter wheat crops ranged from Feekes 4 to 6. Stripe rust was found in breeding nurseries in Central Ferry, (the rust monitoring nurseries in Walla Walla (**Figure 1**), and nurseries at the Hermiston Station (Umatilla Co., OR) (**Figure 2**). In the Walla Walla experimental fields, stripe rust developed in hot spots in the susceptible borders and appeared on many entries in the nurseries. No rust was found in commercial fields in Whitman, Garfield, Columbia, Walla Walla, and Adams counties. However, stripe rust was observed in Horse Heaven (Benton Co.) and the Connell areas (Franklin Co.). In a field east of Connell, stripe rust was easily observed on grasses, but only one infected wheat leaf was found. Stripe rust was generally hard to find, except in one field in Horse Heaven, the incidence reached 5%.

The previous forecast is close to the normal epidemic level (18% on susceptible checks and 8 - 12% on moderately susceptible – susceptible commercial varieties) is holding. The previous recommendations should be implemented: 1) For susceptible or moderately susceptible winter wheat varieties (ratings 5 to 9 on the Buyers' Guide), use fungicides at the time of herbicide application. For varieties with lower ratings, apply fungicides only when rust is found and before it reaches 5% incidence or severity. 2) For spring wheat, consider planting resistant varieties (ratings 1 to 4 on the Buyers' Guide).

Figure 1.

Stripe rust in an experimental nursery in Walla Walla, WA

Figure 2.

Stripe rust in a wheat field in Hermiston, OR

Updates, Cont.

The Washington State Department of Agriculture Pesticide Management Division has renewed a permit for applicators in Eastern Washington for 2018. This permit allows for spray equipment to exceed the 25 psi nozzle pressure restrictions when applying Use Restricted Herbicides such as phenoxy hormone – type herbicides (e.g. 2,4-D, 2,4-DB, 2,4-DP, MCPA, MCPB, MCPP, and dicamba) that are in rule WAC 16-230-655 and WAC 16-230-670. The purpose of this permit is to allow use of newer technology and equipment to achieve rule intent of mitigating herbicide drift. Please read the permit, which is posted on the website, carefully to see if it applies to your spray equipment. Contact **R. Scott Nielsen** WSDA Pesticide Compliance Division at snielsen@agr.wa.gov, or (509) 533-2687 if you have questions regarding this permit.

ONION MANAGEMENT REPORTS-April 2018

Carrie Wohleb and Tim Waters WSU Extension

Yellow or White Banding At Soil Line: Have you ever seen these narrow yellow or white bands on onion seedlings at or just above the soil line, like in the pictures above and below? This is something we see sometimes in the Columbia Basin. It occurs when onion seedlings are suddenly exposed to high soil temperatures. The effect usually occurs after an extended period of cool and overcast weather because those conditions tend to slow the development of the protective waxy layer on onion leaves. The banding is most often seen on darker, sandy soils that heat up quickly when the sun comes out and temperatures warm up. The damage happens right at the soil line, but as the leaf or cotyledon emerges, the tissue with the white or yellow band may be pushed up above the soil line. In some cases, the girdled leaf dies back. Since the growing point of the onion is below ground, the plant typically recovers by sending up the next leaf. In our experience, this does not lead to any further problems although the plant development may be slowed a little as a result of losing photosynthesis of the emerged cotyledon or leaf. It just requires some time and patience waiting for the next leaf to grow. Roundup (glyphosate) drifted onto onions can cause a similar symptom, but the bands tend to be wider and not as uniform.

The images were taken by Lindsey du Toit, WSU plant pathologist, and crop consultants who observed this banding effect on onion seedlings in the Columbia Basin.

THE DISPOSITION TRIANGLE

Gwen-Alyn Hoheisel, WSU Extension Regional Specialist, Benton County, WA

Now is the time to prepare your sprayers for the spring. The greatest return on your investment is to 1) change your pressure gauge, 2) change your nozzles, and 3) check your speed. These three items cost virtually nothing but have huge impact on the output (GPA) applied. They are the deposition triangle (Fig 1). The pressure gauge is the only device telling you the psi at application. Pressure determines the amount of liquid output and droplet size. The higher the pressure, the more gallons per minute per nozzle and the finer the droplet. If the pressure gauge is not accurately reading the pressure, the sprayer could be delivering 10-20% more product. Nozzles that are worn not only put out more than intended but change the pattern. In my surveys of calibrating sprayers, worn nozzles have put out more than 40%, but on average 20%. We intuitively know that speed effects output.

Think of a block with large pear trees in which we might drive 2 mph to achieve 200 GPA as opposed to a trellised central leader apple block in which we drive 3 mph and lower 100 GPA. However, how we measure speed is analogous to the pressure gauge; if the tool is bad, so is the assessment. Relying on the tractor speedometer or the rate controller is not advised without confirming manually that they are accurate. Rate controllers can be off because of poor tire pressure (wheel sensor models), sensor location (gps models), or constants in the calculation of speed. A manual check may show that the speed is off as much as 0.5 mph, which depending on GPA can apply 15% more than intended.

To examine the return on the investment (ROI), let's consider a pesticide spray that costs $60/acre and the percent overapplication that can occur if the equipment is not functioning properly.

The return on investments are quite large because the initial investments are low. These savings could be even larger when considering a sprayer is used over multiple 50-acre blocks and many applications cost more than $60/acre. Now is the time to change to new ceramic nozzles, new pressure gauges, and check the speed.

	Cost /50 acre block if…				
	Cost of item	% over application	applied correctly	over application	ROI
Pressure Gauge	$20	10%	$3000	$3300	1500%
Nozzle (20/sprayer)	$130	20%	$3000	$3600	460%
Speed Check (only 1hr of labor)	$15	15%	$3000	$3450	3000%

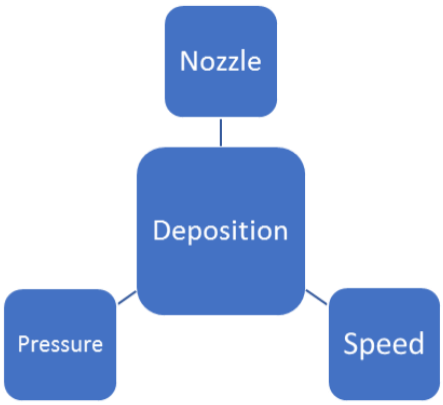


Figure 1. The amount of spray applied to a canopy is affected by operating pressure, tractor speed, and nozzle selection. This trilogy can be thought of as a deposition triangle where all of them affect each other and sprayer output.

Originally published by Washington State Tree Fruit Extension Fruit Matters at treefruit.wsu.edu

PROTECTING YOUR IDENTITY Adapted from WSU FS281E by Christian Koehler

Watch For Imposter Scams

Reports to the FTC of imposter scams jumped from less than 126,000 incidents in 2013 to 350,000 cases in 2015, and this reflects only the number of reports to the FTC. Of those 350,000 incidents reported, 228,000 — more than 65% — were IRS imposter scams (Kando-Pineda 2016, slide 80).

Identity thieves in general, but particularly imposter scams, prey on trusting and accepting individuals. The imposters contact individuals by email (phishing), phone, or in person. Regardless of how the imposter contacts the individual, the imposter will attempt to win the confidence of the victim and secure money directly, or personal information. Some common themes include dating site pickups, relatives or friends needing help, technology alerts or updates, changes in financial account information, and the very popular IRS tax return issues.

Posing as a Microsoft employee, an imposter may then ask the individual to download “antivirus software.” The imposter might connect with someone in a chat room and suggest they “take their conversation off-site,” later fabricating a story and asking for money. In the case of the IRS scam, the imposter may call, even masking their caller ID to show that the call has originated with a number having the Washington DC 202 area code. Many imposter scams depend on a sense of urgency, requesting that you take quick action, sending money or providing access to your computer or account information.

Recommendations for handling imposter scams include:

- **Don’t** trust caller ID
- **Don’t** send money or give out personal identification
- **Don’t** be pressured by time
- **Do** hang-up, delete the email, ignore texts, or close the door
- **Do** research and check online to verify any information independently of the information or links provided in emails, texts, or by callers
- **Do** call the individual, business, or organization directly

Check for Evidence of Identity Theft

Carefully check bank statements and credit card and utility bills monthly. Save all receipts to verify that account charges are accurate. Be aware of your billing cycles, noting when to expect bills. Use direct deposit when possible for your IRS refund or other expected refund checks.

If you use online banking, check your account activity more frequently, particularly purchases made with your debit card. You can also call your financial institution to check account balances. Debit cards do not offer the same protection for fraudulent purchases as credit cards. You can be responsible for all unlawful withdrawals until you notify the financial institution about the error or stolen information. Your particular financial institution may provide additional protections. Be sure to read the disclosure statement provided for your account. Know your responsibility for notifying the issuer regarding fraudulent charges.

At least once a year, request a copy of your credit report from http://AnnualCreditReport.com. You can also request a copy by phone by calling (877) 322-8228, or by mail by filling out the Annual Credit Report Request form (available at AnnualCreditReport.com) and mailing it to: Annual Credit Report Request Service, P.O. Box 105281, Atlanta, GA 30348-5281. You are entitled to receive a free copy of your credit report from each of the three credit reporting agencies: Equifax, TransUnion, and Experian every 12 months.

Regardless of how you choose to request your credit report, you have the option to request all three reports at one time or you can choose to order one report at a time. By requesting the reports

separately, you can space your requests, one for each of the three companies, throughout the year. With this method you can monitor your credit more frequently.

Health

DRY KIDNEY BEANS NEED TO BE BOILED
Martha Filipic, Ohio State

Many people don't know the risk posed by dry red kidney beans when they're not cooked properly.

The problem isn't bacteria, but something called "phytohaemagglutinin," also called PHA, or kidney bean lectin. Lectin is a type of protein that performs all sorts of functions in both plants and animals. But some types of lectin, including this one, can be toxic at high levels.

If this lectin isn't destroyed by thorough cooking, you'll be sorry. According to the U.S. Food and Drug Administration's "Bad Bug Book," eating as few as four or five improperly cooked red kidney beans can cause severe vomiting within a few hours, followed by diarrhea.

Although some cases have required hospitalization, people normally feel better within three to four hours after symptoms start. That's one reason why authorities suspect there aren't many recorded cases of this particular foodborne illness in the U.S. People usually begin to get over the illness just about the time they might think of contacting their doctor.

Other types of beans also contain PHA, but it's much more concentrated in red kidney beans. For example, the unit of measurement for the toxin is called "hau," for "hemagglutinating unit." Raw red kidney beans have anywhere from 20,000 to 70,000 hau, but that drops to 200 to 400 hau when the beans are fully cooked — not enough to be a problem. White kidney beans, or cannellini beans, contain only about one-third of the toxin as red kidney beans. Broad beans, or fava beans, contain just 5 to 10 percent of what's in red kidney beans.

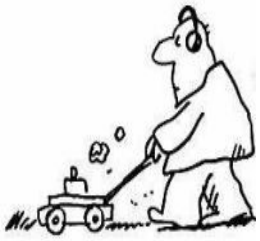
The FDA recommends these steps for preparing dry red kidney beans:

- Soak the beans for at least five hours in water. It's not a bad idea to change the water periodically, but it's not necessary for safety.
- Drain the beans from the final soaking water.

Boil the beans in a pot of fresh water for at least 30 minutes. Note: Research indicates that the toxin is destroyed when boiled at 212 degrees F for 10 minutes, but scientists recommend 30 minutes to be certain the beans reach the proper temperature for the amount of time necessary. Don't use a slow cooker: It likely won't get hot enough.

Gardening

WORK SAVING TIPS FOR LAWNS
Walla Walla County WSU
Extension Bulletin #231



#1 <u>Cut the Grass Higher</u>

Raise the height of your mower. Most Inland Northwest turf grasses should be cut at 2½ -3½ inches. Mow often enough that not more than one third of the leaf blade is cut off at each mowing to reduce stress on the grass plant. If your grass blades are falling over resulting in uneven cutting, try lowering the mower deck by a half-inch at a time until you find the preferred height.

Taller grass:

- looks greener overall and helps hide problem spots.
- delivers more nutrients to the roots for a healthier plant.
- shades weed seeds to help prevent germination.
- shades the soil conserving water and improving heat and drought tolerance.
- grows more slowly, requiring less frequent mowing.

#2 <u>Mulch Your Grass Clippings</u>

Leave grass clippings on your lawn to decompose and return their nitrogen to the soil. A season's worth of grass clippings is equivalent to one or two applications of fertilizer. Mulched grass clippings also shade the surface of the soil and make it harder for weed seeds to germinate. Freshly mulched grass clippings attract earthworms, who help break down thatch and aerate the soil.

If you don't have a mulching mower to chop up the grass clippings finely, you may need to make a couple of passes with the lawnmower to get them chopped up enough. Cutting the grass often enough that the clippings aren't so thick will help make them disappear into the lawn.

#3 Sharpen Your Mower Blade

The mower blade needs attention at least once a season, and two or three times might even be necessary, depending on your use. Sharpening the blade will result in a clean cut and avoid tearing the grass and wounding the grass blades, which makes them more susceptible to infection and evaporative loss.

#4 Water Properly

The two biggest mistakes when it comes to watering your lawn is watering at the wrong time and overwatering. The best time to water is early in the morning. Less water is lost through evaporation and the leaves have time to dry out before evening. Wet leaves overnight provide ideal conditions for fungal growth.

Water deeply and infrequently, about one inch per week. Decrease the amount of water during cool or wet weather and increase the amount during hot weather. Use a shovel to make sure that the water is getting down 6-8 inches to encourage deep roots. Frequent, short watering times helps keep the grass green, but doesn't build strong roots. A constantly moist top layer results in thatch, moss, and disease.

#5 Aerate

Aerating your lawn every couple of years allows air, water, and nutrients to get deep into the root zone of grasses and helps prevent excess thatch buildup.

#6 Fertilize Less

A soil analysis will tell you what nutrients are missing and how much of each is needed. Contact your Extension office for a list of soil test laboratories. Better quality fertilizer typically combines both slow- and fast-release fertilizer. If you only fertilize once a year, do it in the Fall.

#7 Minimize Weed Killers

A pre-emergent early in the Spring to prevent crabgrass and a post-emergent in mid October for broadleaf weeds helps to keep most weeds under control. Some spot spraying in Spring should finish the job.

#8 Less Lawn

Consider shade-loving ground covers, ornamental grasses and plants instead of lawn.

Shape existing flower beds and corner areas to eliminate sharp angles and corners to make easier curves to mow around. Combine isolated trees and shrubs into islands to eliminate mowing around single items in the lawn.

Master Gardeners

PLANT CLINICS & FARMER'S MARKET

Visit the Walla Walla Extension office on Tuesdays and Thursdays from 9:00 to11:00 a.m. and 2:00 to 4:00 p.m. Bring in your home garden or lawn questions or problems and speak to a Master Gardener. Problem plant samples may be left at any time during office hours and a Master Gardener will look at the specimen during clinic hours and contact the home owner with recommendations.

Master Gardeners will also have a booth at the Downtown Farmer's Market on Saturdays beginning May 6th. Visit with our Master Gardeners and pick up free tip sheets on a variety of gardening topics.

4-H

The annual 4-H Super Saturday was held on March 23rd in Saint Patrick's Community Building. Many local volunteers presented workshops on a variety of topics.

April's presentation contest was a great success. More than 90 youth participated in the April 4-H contest. 4-H members will have the opportunity to return for a contest in May to improve their presentations.

Come support the accomplishments of our 4-H youth! On May 7th-13th, 4-H members will be participating in the Milton-Freewater Junior Show and on June 8th-10th they will be exhibiting at the Waitsburg Junior Show.

POSTMASTER:
Send address changes to:
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328 WEST POPLAR
WALLA WALLA, WA 99362

You are invited to participate in the free Rural Pathways to Prosperity (P2P) conference to help our *local* workforce.

For the past year the State of Washington has been highlighting career connected learning and its importance to our workforce. Last May Governor Inslee held a Career Connected Learning Summit that was facilitated by WSU Extension. This P2P conference dovetails the summit, but the focus will be on education & industry partnerships in *rural* areas.

The P2P conference is scheduled for **May 9 from 9:00 am to noon at Walla Walla Community College Water and Environmental Center.** The conference will include statewide guest speakers who will deliver a message via technology; the rest of the day will be spent in engaging, interactive conversation around workforce issues and solutions specific to our region.

We need our community and educational leaders to attend. Please consider joining us!

There is no cost, but registration will be requested. You are welcome to spread the word to others who you think should be there. **Registration link is:** http://waruralprosperity.wsu.edu/register**.**

Family Living

COMPACT FLUORESCENT BULB CLEANUP

Before Cleanup

- Have people and pets leave the room.
- Air out the room for 5-10 minutes by opening a window or door to the outdoor environment.
- Shut off the central forced air heating/air-conditioning system, if you have one.
- Collect materials needed to clean up broken bulb:
  - o stiff paper or cardboard;
  - o sticky tape;
  - o damp paper towels or disposable wet wipes (for hard surfaces); and a glass jar with a metal lid or a sealable plastic bag.

During Cleanup

- **DO NOT VACUUM.** Vacuuming is not recommended unless broken glass remains after all other cleanup steps have been taken. Vacuuming could spread mercury-containing powder or mercury vapor.
- Be thorough in collecting broken glass and visible powder. Scoop up glass fragments and powder using stiff paper or cardboard. Use sticky tape, such as duct tape, to pick up any remaining small glass fragments and powder. Place the used tape in the glass jar or plastic bag. See the detailed cleanup instructions for more information, and for differences in cleaning up hard surfaces versus carpeting or rugs. Place cleanup materials in a sealable container.

After Cleanup

- Promptly place all bulb debris and cleanup materials, including vacuum cleaner bags, outdoors in a trash container or protected area until materials can be disposed of. Avoid leaving any bulb fragments or cleanup materials indoors.
- Next, check with your local government about disposal requirements in your area, because some localities require fluorescent bulbs (broken or unbroken) be taken to a local recycling center. If there is no such requirement in your area, you can dispose of the materials with your household trash.

If practical, continue to air out the room where the bulb was broken and leave the heating/air conditioning system shut off for several hours.

If you have further questions, please call your local poison control center at 1-800-222-1222.

WASHINGTON STATE UNIVERSITY
WALLA WALLA COUNTY EXTENSION
Celebrating 100 Years of Extending Knowledge

Debbie M. Williams
County Extension Director

Extension programs and employment are available to all without discrimination. Evidence of noncompliance may be reported through your local Extension office.