Purdue Extension
Washington County

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Purdue EXTENSION NEWS

October/November 2022

Dear Friends and Extension Families,

It's starting to feel like fall! October means time for harvest, pumpkins, changing leaves and new 4-H enrollment. There lots of events scheduled for this fall, including 4-H kickoff nights, PARP programs, horticulture education and healthy incentive programs so be sure to check out the many upcoming opportunities in this newsletter. We look forward to seeing you!

Megan, Danielle, Sonya, Melissa & Rhonda

SOME OF THE TOPICS IN THIS ISSUE:

- * New 4-H Enrollment
- * 4-H Ice Cream Social
- * IBEP PT Bull Sale
- * Woolly Bears and Winter
- * Pesticide Applications for Small Acreage
- * WALKtober

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Upcoming 4-H Dates

October 1st-2nd – 4-H at Old Settler's Days

October 17th – Jr. Leader Callout Meeting October 17th – 4-H Council Meeting

October 24th-28th – Washington County 4-H Week

October 24th – Annual Meeting October 27th – 4-H Club Ice Cream Social

October 28th – Boston Blazers Club Meeting (6:30)

November 1st - Camp Counselor Applications Available

November 1 - Camp Counselor Application November 4th-5th - Area 2 Jr. Leader Retreat November 7th - Boston Blazers Club Meeting (6:30) November 14th - Jr. Leader Meeting

November 14th – 4-H Council Meeting November 17th – 4-H Kick-off Event November 22nd – Cheese Ball Making (orders due 11/15)

Time to Enroll for the New 4-H Year

Believe it or not, it is time to start enrolling in 4-H for the 2022-2023 year! All 4-H members and volunteers will need to re-enroll, beginning on October 1st. To enroll, visit v2.4honline.com or stop by the Extension office. Be sure to sign up early to make sure you receive all of our information!

Get a Free 4-H T-shirt

Speaking of enrollment – Any 4-H member that enrolls and pays by December 1st will get a free Washington County 4-H t-shirt, sponsored by 4-H Council. This applies to volunteers as well. Volunteers must reenroll and complete their online training as well. T-shirts will be available in the Extension Office sometime after October 1st!

Washington County 4-H Week

We will be celebrating Washington County 4-H the week of October 24th. If you have yard signs, that would be the time to put them out. If you don't have a vard sign and would like one, come by the Extension Office any time after October 1st and pick up a new one. Look for information on enrollment being sent home from schools that week as well as a special 4-H Week insert in the newspaper. We will also be having our 4-Ĥ Club Ice Cream Social that week. More information included later in the newsletter.



Jr. Leaders

Callout Meetings – All 7th-12th graders are invited to attend the first two Jr. Leader meetings to see what it is all about. They will be on Mondays, October 17th and November 14th, beginning at 6:00 p.m. at the Extension Office. More information will be sent to 4-H members, but please ask Megan if you have any questions.

Area 2 Jr. Leader Retreat – This year, the Jr. Leader Retreat will be held on November 4th and 5th at PYOCA in Brownstown. Registration will be due later this month. Let Megan know if you are interested in attending this fun event with other teens from around the area.

Cheese Balls – We will be making cheese balls on Tuesday, November 22nd after school. Please plan to come and help if you are available. We will only be making them twice this year. Orders will be due to the Extension Office by the end of the day on Tuesday, November 15th.

Attention Volunteers!

Club Leaders – It is time to start planning club meetings for this fall/winter! Please call Rhonda and make sure she gets your meetings on the calendar so we can let families know.

Ice Cream Social – This event will be held on Thursday, October 27th from 6-8 p.m. at the Extension Office. We would like as many clubs as possible to be there so new families can see what we have to offer. If someone from your club will be there, please let me know so I can add you to the list and make sure we have enough tables available. Once I know which clubs will be there, I will let you know what ice cream topping to bring.

Re-Enrollment – Please make sure you re-enroll online for the new program year. That can be done at v2.4honline.com. The training must also be completed at that time. Please let me know if you have any questions.

Ice Cream Social

Join us on Thursday, October 27th from 6-8 p.m. at the Extension Office for our 4-H Club Ice Cream Social! You can get a bowl of ice cream and then visit all of our clubs for different toppings. You can also visit Melissa and Rhonda when you are finished to get enrolled and get your 4-H t-shirt!



November Kick-off Event

We will be having two kick-off events this year on November 17th and December 15th at 6:00 p.m. at the Extension Office. These events are for current and new 4-H members. We will have a lot of fun activities, games, and snacks. You can come and learn about 4-H and then get enrolled either night as well.

4-H Newspaper Insert

The Salem Leader will be doing an insert for Washington County 4-H Week. We would like to feature stories and pictures from our 4-H members. If you would like to write an article on any part of your 4-H experience, please let Megan know. We need any articles and pictures either emailed or brought to the office on a thumb drive by October 8th.

Premium Money

Just a reminder that premium vouchers from the 2022 fair need to be cashed at First Savings Bank by October 15th.

Washington County Fair 2023

Save the date for the next Washington County Fair – June 18th-24th, 2023.



Extension Annual Meeting

The Extension Annual Meeting and 4-H Recognition has been scheduled for October 24, 2022, beginning at 6:30 p.m. At this meeting, we will be recognizing our 4-H volunteers as well as youth members on their accomplishments. All 4-H families should have received an invitation with more information.





Upcoming Ag. & Natural Resources Programming

Using Cover Crops in the Crop Mix Workshop, October 5

Purdue Extension – Clark Co. is hosting a cover crop workshop on Wednesday, October 5, 2022 from 9:00 am – 12:00 pm at the Clark Co. Fairgrounds Community Building (9608 Hwy 62, Charlestown). Topics include improving soil structure and fertility, combatting pests and weeds, enhancing wildlife habitats, and planting emergency livestock forage. Private and commercial applicator (Cat 1 & RT) are available. Registration is required to receive applicator credits. Register at https://purdue.edu.ca1.qualtrics.com/jfe/form/SV abEHofzMEY18hGS.

Purdue Fencing School, October 8

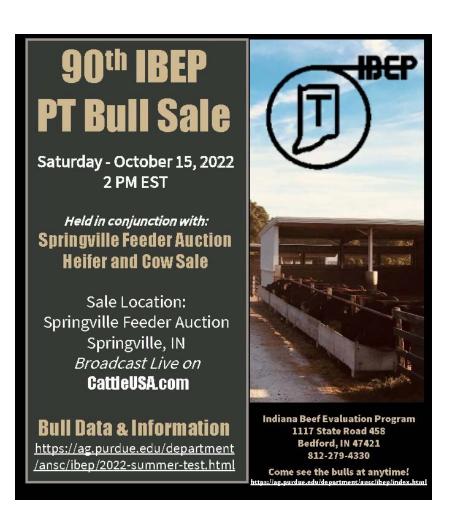
Livestock producers are invited to the Purdue Fencing School on Saturday, October 8, 2022 at the Southern Indiana Purdue Ag. Center (11371 E. Purdue Farm Rd., Dubois) from 1:00-5:50 pm to learn about fence options and installation through hands-on presentations and demonstrations. Topics include: types of permanent fencing; brace construction; fence installation; portable fence options; energizer sizing and installation; fence laws and regulations. For registration and questions contact Purdue Extension – Dubois Co. at 812-482-1782. Cost is \$20 per person.

Your Land, Your Legacy, October 14

The Washington Co. Conservation Partnership and Washington Co. Community Foundation invite Washington Co. women landowners and managers to the 2022 Your Land, Your Legacy program on Friday, October 14, 2022 at the Community Foundation Building (1707 N. Shelby St., Salem) from 9:00 am – 3:30 pm. Participation is free, but RSVPs are limited to 25 and due no later than Friday, October 7, 2022. Program topics and field visit are related to forest issues, wildlife, and pollinator habitat. For more information and to RSVP contact the Wash. Co. SWCD office at 812-883-3006 ext. 3 or dawn.humphrey@nacdnet.net.

Purdue Extension – Wash. Co. Annual Meeting, October 24

All Washington County farm families, agribusiness people, Extension supporters, and Extension program participants are invited to the Purdue Extension – Washington County Annual Meeting & 4-H Recognition Banquet on Monday, October 24, 2022 at Southern Hills Church (Hwy 135 South, Salem) beginning with dinner at 6:30 pm. The meeting/banquet will feature the presentation of volunteer and youth awards, recognition of the "Friends of 4-H" and "4-H Volunteer of the Year," an update on Purdue Extension, and the election of new Extension Board members. Donations will be collected to assist Washington County's PCARET members. RSVP's are required by Friday, October 14 by calling the Extension office at 812-883-4601.



Small Ruminant Lunch 'n Learn Series, October – December

The Small Ruminant Lunch 'n Learn Series will take place each month at noon October through December 2022. The link for each session is https://bit.ly/2022PurdueSheepGoat. Session topics are: October 27 – Hoof Care; November 17 – First Aid for Sheep & Goats; December 15 – Winter Feeding for Small Ruminants.

NAILE, November 3-17

The North American International Livestock Exposition is November 3-17, 2022 at the Kentucky Livestock Exposition Center in Louisville, KY. Visit www.livestockexpo.org for more information.

Area 2 Fall PARP Program, November 10

Private and Commercial Applicators, watch for more information coming soon about the annual Area 2 Fall PARP Program scheduled for Thursday, November 10, 2022. The same program will be offered in Clark County (morning), Washington County (afternoon), and Harrison County (evening). Applicators will receive credit for attending one program only. Contact the Extension office with questions. Private applicators will receive a mailing with more information soon.

Indiana Master Cattleman Program, December 2022-March 2023

Beef cattle producers are encouraged to participate in the 2022-2023 Indiana Master Cattleman 11-week course in Jackson Co. on Tuesday evenings (Dec. 6, Dec. 13, Jan. 10, Jan. 17, Jan. 24, Jan. 31, Feb. 7, Feb. 14, Feb. 21, Feb. 28, March 7, March 14 - snow make-up day) March from 6:00-9:00 pm. The program is designed to help beef producers improve profitability through an increase in production efficiency, forage utilization, reproductive success, genetic selection, herd health and business management. Cost is \$200 per person. An additional person from the same farm or family is \$100. Class size is limited to 25. Applications are available for interested producers. Contact the Extension office for more information at dhowellw@purdue.edu or 812-883-4601.

Hoosier Beef Congress, December 2-4

The Hoosier Beef Congress is December 2-4, 2022 at the Indiana State Fairgrounds in Indianapolis, IN. A schedule of activities is available at https://hoosierbeefcongress.com/.

IBCA & Purdue Area 2 Beef Meeting, December 10

The annual Area 2 Beef Meeting is Saturday, December 10, 2022 at 5:00 pm at Southern Hills Church (1645 Hwy 135, Salem). The meeting will feature great food and valuable information on a variety of beef topics. RSVPs are required by Monday, December 5, 2022 to the Purdue Extension – Lawrence Co. office at 812-275-4623. Area 2 Counties are: Clark, Crawford, Floyd, Harrison, Lawrence, Orange, Scott, Jackson, and Washington.

Heart of America Grazing Conference, February 20 & 21

The 2023 Heart of America Grazing Conference is Monday, February 20 and Tuesday, February 21, 2023 in Ferdinand, IN. Featured speakers are: Dr. Greg Halich, University of Kentucky; Dr. Alan Franzluebbers, USDA-ARS North Carolina; Mr. Johnny Rogers, Amazing Grazing Project Coordinator, North Carolina State University; and several local grazing celebrities. Topics include: bale grazing; soil science and soil health; the power of managed grazing; grazing options with small ruminants; experiences from seasoned graziers. More information is available at the Indiana Forage Council website and Facebook pages www.indianaforage.org.

Save the Date:

Wash. Co. Tourism Commission Pumpkin Walk – Saturday, October 29, 2022 – Pioneer Village in Salem, IN.

<u>Forestry Invasives Webinar Series</u> – Thursday, November 3, 10, & 17, 2022 – Zoom.

<u>Agriculture Women Engage Conference</u> – February 21-23, 2023 – Terre Haute, IN

Please watch for future ANR programming efforts via the Purdue Extension – Washington County Facebook page and emails from the Extension office!

Applicator License Renewal

Letters will be mailed soon to private and commercial applicators with information regarding the renewal of licenses and credits obtained. The Indiana Office of the State Chemist is also sending renewal letters to both com-

mercial and private applicators. Please watch for these in the mail and return as soon as possible. If you have questions about the information you received or are in need of credits, contact the Extension office. We are happy to help! PARP programs can be found at: https://ppp.purdue.edu/private-applicators/

recertification-parp/parp-events/. Commercial programs: https://www.inplants.oisc.purdue.edu/USAPlantsIN/PesticideApplicator/MeetingSearch.aspx.

What Says the Woolly Bear About Winter?

Now that summer is winding down, things like pumpkin spice, Halloween costumes, and hoodies may start appearing. Conversations may also start to turn toward predictions regarding the upcoming winter. A quick Google search reveals that there seems to be a negative anticipation about the 2022-2023 winter season, with some outlets predicting colder than average temperatures and possibly even higher than average amounts of snowfall. Though only time will tell if these models and predictions come true, others may turn to an unexpected meteorologist when prognosticating

about the winter: the humble woolly bear caterpillar.

The woolly bear is also known as a woolly worm as a larva. They are a part of a group of moths known as "tiger moths." The specific weather predicting species is *Pyrrharctia Isabella*, also known as the Isabella tiger moth. The adult form of the moth is a pale orange/light brown when the wings are closed. There can be broken black dots and lines on the wings as well. This species exhibits sexual dimorphism, which can be seen when the wings are open for flight. Isabella tiger moth females have slightly rosy hindwings, while males have pale orange hindwings.

Figure 1: Adult woolly bears are called Isabella tiger moths, and they are a pale orange color when viewed with the wings closed. The moths are usually seen in the late spring/early summer. (Photo: Rebekah D. Wallace, University of Georgia, Bugwood.org)

The larval form is undoubtedly the more famous stage of their life cycle. They overwinter as caterpillars and can be found first in the spring. These winter warriors will pupate and become adults, laying eggs that will hatch into the next generation of caterpillars, which are seen as summer ends. While they are hairy throughout their lives, they don't develop the thicker furry coat with bands of black and orange until almost completely grown. The larval stage is known to feed on a variety of plants, including grasses and clover, as well as sunflowers, milkweed, corn, maples, and birches. They aren't normally considered a significant pest though.

When they pupate, the hairs from their body are incorporated into a cocoon that helps protect the pupal form. If you have ever looked under a log and found what looks like a webby hairball, it could have been a woolly bear inside there developing into an adult moth.

Folk wisdom holds that the woolly bear can be an indicator for upcoming winter weather when caterpillars are found in the autumn. There are two methods of prediction that can be employed. In the first, looking at the caterpillars for the relative amount of black hair versus orange hair will demonstrate how drastic winter might be. The more black hair compared to orange, the worse winter will be. A more analytical version of this folk wisdom is that the 13 body segments of the caterpillar represent the 13 weeks of winter. Looking at where black versus orange appears can tell when winter will be at its

worst on the calendar.

Others believe that the direction the caterpillars are crawling can predict the weather. If they are heading south, then Old Man Winter has the worst in store for us.

It may not surprise anyone to hear that this particular method of winter foretelling has been found inaccurate. No correlation has been found between caterpillar color form and the severity of winter. tion, not only year-from-year, but caterpillar-tocaterpillar.

Even though they won't be hired by the Weather Channel anytime soon, woolly bears do have a unique connection to winter. As mentioned before,

Woolly bears can be highly variable in their colora-

the caterpillar is the overwintering stage of this moth species. This is fairly unique as many moths would overwinter as an egg or as a pupa, both inactive life stages that can safely hide away from chilly temps. Woolly bears survive the winter by finding an out of the way spot to hide from cold air temperatures. Further, they produce glycerol, an antifreeze like chemical, which can allow them to be super cooled to subzero temperatures for extended periods of time and still survive. So, even if they can't tell us how cold the upcoming months maybe, they will be prepared for the worst!

Jonathan Larson, University of Kentucky Entomology Extension Specialist Printed September 13, 2022 in Kentucky Pest News



Figure 2: Woolly bear caterpillars are known for a black and

brown banding pattern to their

"fur." Folk wisdom tells us that

these hairs may help when pre-

dicting winter weather. (Photo: Whitney Cranshaw, Colorado

State University, Bugwood.org)

As Soybeans Mature, Watch for Pod Feeders Moving In Late

- Many Indiana soybeans are at or near R6
- Stink bugs and bean leaf beetles are attracted to soybeans at this stage
- Scouting and timely insecticide sprays will minimize damage

As the soybean crop begins to mature and the plants "shut down," many insects are no longer interested in these plants. However, for a different group of insects this is effectively ringing a "dinner bell" – the olfactory signals from developing pods indicate a rich protein source for insects that are doing some

fall feeding before going into overwintering stages – these include bean leaf beetles and various stink bug species.

We've written about stink bugs several times in recent years, as they are one of the few insect pests that are actually on the rise in recent years. Key points to remember are that they are not readily controlled by earlier (i.e. R3) insecticide applications, and they can cause serious quality losses by feeding through pods and introducing fungi and yeasts into the seeds inside.



Green stink bug nymph feeding on a soybean pod. Note the bean leaf beetle damage (scarring) in the background. (*Photo Credit:* John Obermeyer)

Similarly, bean leaf beetles, although primarily interested in leaf feeding and not as able to penetrate the pods, will feed on and scar pod surfaces – sometimes

penetrating to the seeds beneath. In both cases, it's not the yield loss due to direct feeding, but the opening of the pod to a range of pathogens that can erode grain quality, including in storage.

To assess risks of both pests, the solution is walking fields and scouting. A sweep net is also useful (but not mandatory). Both of these pests are active during the day, and you will see them and evidence of their feeding quite readily. Even if these are fields you scouted a week or two ago, it is important to return – as the "ripening" pods are the attractant, particularly for stink bugs. They often don't enter the fields in large numbers until the later stages of pod development. At or near 5% of pods with visible bean leaf beetle damage and/ or more than 10 beetles/foot of row are thresholds for bean leaf beetles. Stink bug damage is very difficult to see from the outside of the pod, so a threshold of 20 stink bugs/100 sweeps is recommended. Once the pods are no longer green, stink bug numbers will decline rapidly as the pods are far less attractive when brown and dry.

Christian Krupke, Purdue Extension Entomologist Printed September 8, 2022 in Purdue Pest & Crop Newsletter

Exercise Caution When a Similar Triple Numbered Fertilizer Source is Recommended

After four decades as Purdue University's Forage Extension Specialist, there is one forage production practice recommendation that draws my ire and has become a major pet peeve; so much that every time the recommendation is offered I think I lose another hair follicle on my head and legs. Not many hair follicles are left.

It has been said that one cannot attend an agronomic meeting without the importance of soil testing, liming and fertilization being mentioned and discussed. There is a bit of truth in that statement. It is critical to know what nutrients are needed to meet a specific crop's realistic production goal, to keep input costs in check, and to be good stewards of the environment.

My academic pet peeve is the recommendation of "X" hundred pounds of 12-12-12 or 19-19-19 (N-P₂O₅-K₂O) as the **sole source** fertilizer for forages. Why does this disappointment me? Let me give a real happening between a forage producer and me that describes the frustration I have when this recommendation is given, especially when it comes from a fertilizer retailer.

Farmer "Joe" called me and said that he had a soil test in hand and was surprised that the recommendation provided by the fertilizer input provider roughly scratched on the soil test report was 300 pounds of 12-12-12. Farmer "Joe" was well trained and stated, "I went through all the effort of getting the soil sampled and tested and I end up with a recommendation like that." I asked that the soil test information be faxed to me. Sure enough, the "300 pounds 12-12-12" numbers and letters were easily found with no other comments or fertilizer sources cited on the report.

"Joe" was raising an alfalfa-orchardgrass mixture for hay. The alfalfa component of the mixture was half of the dry matter. He didn't need the first 12 of 12-12-12 as the alfalfa, a legume, was supplying adequate nitrogen to the orchardgrass component. "Joe" didn't need the third 12 either as the soil test was very high in potassium (K). A low phosphorus (P) soil test level, coupled with a 6-ton yield goal of hay per acre, indicated that 80 pounds of P_2O_5 should be applied. How much P_2O_5 per acre was recommended by the vendor?; 300 pounds per acre x 0.12 = 36 pounds P_2O_5 , far short of the 80 pounds per acre that should be applied. Dollars recommended to be invested in N and K_2O should have been allocated to P_2O_5 .

Thankfully, "Joe" contacted me. Proper rates of nutrients were applied and one of my hair follicles was saved. Don't accept a sole source fertilizer recommendation of 12-12-12 or 19-19-19 without verifying that it truly meets the forage needs.

A timely comment – Late August and early September is an ideal time to apply 30 to 50 pounds of nitrogen per acre in a rotational stocking program to paddocks that are dominantly cool-season grasses. The forage produced can be grazed late in the season and should extend the number of grazing days. Will a sole source, equal value number fertilizer for N, P_2O_5 , and K_2O be what the soil test recommends be applied?; I highly doubt it.

Keith Johnson, Purdue Extension Forage Specialist Printed August 26, 2022 in Purdue Pest & Crop Newsletter



HORTICULTURE NEWS

Upcoming Horticulture Programming

Sunnyside Master Gardeners' Garden Lecture Series, October 15 See flyer on page 13.



Fall 2022

Garden Lecture Series "Helping Others Grow"

Presented by Sunnyside Master Gardener Association
In conjunction with the Purdue Cooperative Extension Service, Floyd County

Saturday, October 15, 2022

8:30 a.m. - 2:00 p.m. Ivy Tech Community College

- Program -

Registration and Continental Breakfast – 8:30 a.m. Welcome – 9:00 a.m.

Climate Change and Adaptation in the Garden – 9:10 a.m.

Hans Schmitz – Lead Conservation Agronomist, Purdue University

- Break –

Fall Gardening for Pollinators – 10:25 a.m.

Gina Anderson - ANR Educator, Purdue Cooperative Extension Service, Floyd County

Lunch – 11:25 a.m. Information Booths Open

Community Gardens 12:10 p.m.

Katie Davidson – Community Wellness Coordinator
- Break –

Building a Japanese Garden at Waterfront Botanical Gardens 12:35 p.m.
Kasey Maier, President and CEO, Waterfront Botanical Gardens
The Plants in a Japanese Garden
Andrew Hagerty, Horticulture Manager, Waterfront Botanical Gardens

Cost: \$40 includes all 4 presentations, a continental breakfast and a light lunch

Registration in advance is required at https://www.sunnysidemg.org. Contact Sunnyside Master Gardeners via email at sunnysidegardeners@gmail.com if you cannot register online. Seating is limited and registrations will be taken on a first come, first-serve basis. Registration with payment must be received no later than October 9, 2022. Certified Master Gardeners earn 4 hours Advanced Training for the entire day. If there are questions, or in case of inclement weather, call 812-948-5470 or email Gina Anderson at gmanders@purdue.edu.

Directions to Ivy Tech:

lvy Tech is on Hwy 311 near Exit 9 off I-65 at Sellersburg, Indiana. Turn west on Hwy 311 at Exit 9. The entrance to Ivy Tech is on the left shortly past the turn onto Hwy 311. After turning into the Ivy Tech campus, follow the event signs around the main building to the Caesar's Foundation Assembly Center.

It is the policy of the Purdue University Cooperative Extension Service that all persons have equal opportunity and access to its educational programs, services, activities, and facilities without repara to race, religion, codor, sex, age, national origin or ancestry, marital status, parental status, sexual orientation, disability or status as a veteran. Purdue University is an Affirmative Action institution.

Indiana Horticulture Conference, January 23-24

Purdue University will host the Indiana Horticulture Conference at the Beck Agricultural Center in West Lafayette, IN on January 23-24, 2023. This two-day conference will feature educational sessions for commercial fruit and vegetable producers. Certified Crop Adviser credits will be available. More information will be available soon.

If you have questions about this conference, please contact Stephen Meyers (<u>slmeyers@purdue.edu</u>) or Lori Jolly-Brown (<u>ljollybr@purdue.edu</u>).

Save the Date:

Wash. Co. Tourism Commission Pumpkin Walk – Saturday, October 29, 2022 – Pioneer Village in Salem, IN.

Specialty Crops PARP – More Information Coming Soon!

Please watch for future HORTICULTURE programming efforts via the Purdue Extension – Washington County Facebook page and emails from the Extension office!

Publication about Decline of Woody Plants

Woody plant stress has many potential causes that can ultimately lead to decline and death of landscape trees and shrubs. The University of Kentucky Extension has a publication discussing the symptoms and common causes of stress and decline in woody plants. The publication has a brief section on ecology and physiology explaining how each part of a woody plant's anatomy performs unique functions, all of which are necessary for healthy growth. Suggestions for preventing and managing plant stress are also included in the publication, "Stress & Decline in Woody Plants (ID-50)" found at: http://www2.ca.uky.edu/agcomm/pubs/id/id50/id50.pdf.

Pesticide Calculations for Small Acreage

Most agricultural pesticide labels list use rates on a per acre basis, but this can pose an issue for many producers of specialty crops. Often only a small fraction of an acre needs to be treated and it is important to apply these pesticides at the correct dosage. Over-application is illegal, as it may result in excessive residues on the harvested produce and injury to plants; it would also be a waste of money. Under application can result in ineffective control, foster

the development of resistance, and also be a waste of money. So, determining the correct amount for the proper dosage is required. While there are many different methods to do this, this article outlines the simple process I use to determine amounts of products needed for small acreages.

1. Select the rate per acre

While this sounds simple and straight forward, select the rate listed on the label for the crop to be treated; many labels list a range of rates allowing the user to select a rate within the range. Generally, the low rate is used for small plants and light insect or disease pressure. As the plants get larger or insect and disease pressure increases, higher rates within the range should be selected. However, do



Figure 1. Mapping program, like Google Maps, can be used to determine the area of irregular-shaped fields.

not apply more than what is listed on the pesticide labelling.

2. Determine the area to be treated

The simplest method is to measure the width and length of the area to be treated and multiply those two numbers together. For example, if the area to be treated is 24 feet by 150 feet, then the area would be 3,600 square feet (24 x 150 = 3,600). There are 43,560 square feet in an acre, so in this example, the acreage to be treated would be 3,600 divided by 43,560, or 0.0826 acre (3,600 / 43,560 = 0.0826).

While this method works well for rectangular fields, it can be difficult to determine the area of some irregular-shaped fields. On-line mapping programs, like Google Maps, can calculate the area of irregularly shaped objects. Bring up the field with the mapping program and right click on the edge of the area to be treated and select 'measure distance.' Add more points around the perimeter by right clicking on those points until the object is encircled. The area of the object will be provided in square feet. Convert square feet to acres by dividing the number by 43,560 square feet.

3. Determine the amount of product needed for the area to be treated

Take the rate per acre you selected in #1 and multiply that by the acreage you calculated in #2. For example, you want to apply 5.2 fluid ounces per acre and the area to be treated is 0.0826 acres, then the amount of product needed would be 0.43 fluid ounces ($5.2 \times 0.0826 = 0.43$). You would need to put the 0.43 fluid ounces in the correct amount of water and apply it evenly to the area to be treated. But it can be difficult to measure 0.43 fluid ounces, so I would convert this to milliliters (ml) so I can use a plastic syringe for accuracy. There are 29.6 ml in a fluid ounce, so in our example, you would multiply 0.43 by 29.6 to get 12.7 ml. This is the amount of pesticide needed to treat the field and this can be measured easily and accurately with a syringe.

Another way to measure small amounts of fluids is to use teaspoons or tablespoons. A teaspoon is approximately 5 ml and a tablespoon is 15 ml. So, 12.7 ml would be about 2 1/2 teaspoons. But keep in mind that these spoons must to be dedicated to only measure pesticides and not used for other purposess.

4. Determine the amount of water needed

The method I use is to completely fill the sprayer I plan to use with plain water, and then spray a known area. Then, I measure the amount of water needed to refill the sprayer. For example, I measure out an area 3 feet wide by 100 feet in length (300 square feet). I fill my sprayer and apply water to that area in the same way I plan to apply the pesticide (same speed, pressure, nozzles, etc.). Suppose it took a quart of water to refill the sprayer. To determine the water per acre, take the water needed and multiply by 43,560, and then divide by the area we treated. So, in this example, 1 quart x 43,560/300. The result is 145.2 quarts per acre which equals 36.3 gallons per acre. Multiply this by the area to be treated from #2 to determine the amount of water you need to mix with the pesticide. Here we would need 0.0826 acres x 36.3 gallons. The total amount of water needed would be 3 gallons of water (0.0826 x 36.3 = 3.0). So, to apply the pesticide in this example, put 12.7 ml in 3 gallons of water to treat an area 24 by 150 feet in size.

The same process can be used with dry pesticides, but the conversion from ounces to grams would be 1 ounce equals 28.35 grams.

Ric Bessin, University of Kentucky Extension Entomology Specialist Printed August 30, 2022 in Kentucky Pest News

Adding Organic Materials Directly to the Garden

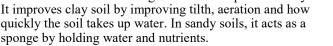
If the summer weather has brought an early end to your garden, consider adding organic materials directly to the soil rather than composting. Materials such as residue from lawn renovation, rotted hay, old mulch or rotted silage can be added and then tilled in. Leaves fallen from trees can be added as they become available. Most grass clippings can also be tilled in but avoid grass clipping from lawns that have been sprayed with a crabgrass killer. This product can carry over and harm the garden the following year. Crabgrass preventers applied in the spring are fine but crabgrass killers are not.

Organic materials can be spread to a depth of about 3 inches and tilled or dug in. Coarser materials such as tree leaves or garden residue should be shredded before tilling. A lawn mower with a bagging attachment can be used to shred this material and collect it in one operation. Be sure the soil is not too wet before tilling. During warm weather, the material will decompose quickly

and the process can be repeated every two weeks. Later in the fall, it may take longer. This process can be repeated from now until late November to early December.

Remember that organic matter helps almost any soil. It improves clay soil by improving tilth, aeration and how

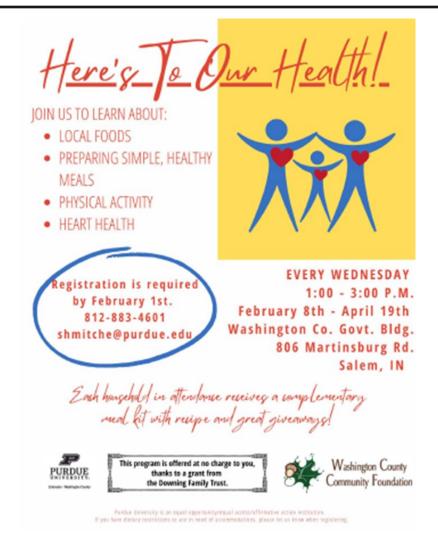
sponge by holding water and nutrients.





Source: Ward Upham, Kansas State University Horticulture Department







Be Heart Smart is for individuals who want to learn more about preventing heart disease by making heart-healthy lifestyle changes. This program will teach participants how to **monitor risk factors** for heart disease and how to **make simple changes** to their daily routine that can improve their heart health. This program, comprised of four lessons, will be delivered over the course of 4 weeks (one lesson per week for four weeks).

Typically, there is a \$15.00 fee for this program. Fortunately, Washington County received funding from Connections IN Health and the Cardiovascular, Asthma, & Diabetes Institute. This means the program is **free to the public** on these dates in 2023:

Date: February 7, 14, 21, and 28

Time: 1:00

Where: Washington County Government Building

806 Martinsburg Road, Salem

Registration required: Contact Sonya Mitchell at schmitche@purdue.edu or

call 812-833-4601



Dining with Diabetes (DWD) is a cooking school for people with diabetes, those at risk for diabetes, and caregivers of those with diabetes. DWD consists of four weekly sessions and a three-month reunion session.

Nutrition and physical activity are keys to managing your type 2 diabetes. But where do you start? The Dining with Diabetes program can help!

- Dining with Diabetes consists of four sessions and a reunion.
- Adults with type 2 diabetes (or who are at risk) are invited to participate. Family members, caregivers, and support persons, too.

The schedule:

Week 1 — What is diabetes? / Snacks & appetizers

Week 2 — Carbs & sweeteners / Desserts

Week 3 — Fats & sodium / Main dishes

Week 4 - Putting it all together! / Side dishes

Due to funding received from Connections IN Health and the Cardiovascular, Asthma, & Diabetes Institute, this 4-week program (normally \$40.00) is **free to the public** on these dates in 2023:

Dates: May 9, 16, 23, and 30, Reunion Session - August 22

Time: 1:00pm - 3:00pm

Where: Washington County Government Building

806 Martinsburg Road, Salem

Registration required: Contact Sonya Mitchell at shmitche@purdue.edu or

call 812-833-4601.

WALKtober

During the month of October, enjoy the great outdoors. Get outside and walk! Walk for fun – alone or with friends and family, or as physical activity. Join this community walking challenge for added motivation!



Register for **Walktober** here: https://bit.ly/walktober22. Once registered, your Activity Log will be emailed to you. Simply track your steps or movement minutes. Turn in your activity log, weekly or for the month, for an opportunity to win prizes!

Washington County Walking Club

Pumped about WALKtober and want to keep it going? Contact Sonya Mitchell at shmitche@purdue.edu to get involved in the Washington County Walking Club. Groups walk at various times and locations. Let us know what works for you and we'll connect you to other likeminded walkers!



Full Circle



A Curriculum-Based Support Group for Caregivers

Over 34 million people in the U.S. are caring for someone over the age of 50.

Whether you are caring for a parent, spouse, or other loved one, we invite you to join us monthly where we will discuss important topics that caregivers face on a daily basis and simply lend a listening ear and provide emotional support for any questions you may have or matter you would like to discuss.

An adapted curriculum from Illinois Extension will be presented each session. Some topics include:

- ♦Caregivers Need Care Too
- Care for Couple Relationships
- Losses and Mixed Emotions
- Speak Clearly, Listen Carefully
- Changing Relationships
- ♦ Eldercare Resources

When: Every first Monday of the Month (except holidays)
~ 6:00 dinner (shared costs), meeting follows at 6:45pm ~
Where: Washington Co. Government Building
Meeting Room
806 Martinsburg Rd., Salem, IN

There is NO FEE to participate! For more information contact Sonya Mitchell at 812-883-4601 or email shmitche@purdue.edu.



Purdue University is an equal opportunity/equal access/affirmative action institution.

During our Full Circle meetings we share resources, including our list of available caregivers, helpful community agencies, and programs that support our efforts such as Eldercare Simplified.

Eldercare Simplified

Educational Series

Please join us for an educational series covering pertinent topics for family and caregivers.

October 18, 2022 from 6:00 p.m. - 8:00 p.m.: Hoosier Uplands and A Family of Hospice
Care Providers - SouthernCARE

November 15, 2022 from 6:00 p.m. - 8:00 p.m.: American Senior Communities and Adaptive Hospice

December 20, 2022 from 6:00 p.m. - 8:00 p.m.: The Alzheimer's Association Snacks will be provided.

More educational opportunities to come in Spring 2023!

There are 20 spots available for each session. Please reserve your spot by calling 812-883-7496.



Ascension St. Vincent

911 N. Shelby Street | Salem, IN 47167 812-883-7496 ascension.org

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Our office is located at 806 Martinsburg Rd., Suite 104, which is building. Office hours are 8 a.m. to 4:00 p.m. Monday through on the lower level of the Washington County Government

programs and facilities without regard to race, color, sex, religion, special assistance for your participation in an Extension event, orientation, or disability. If you have a disability that requires please contact the Washington County Extension Office at: All persons shall have equal opportunity and access to our national origin, age, marital status, parental status, sexual

Phone: 812-883-4601

PURDUE

Extension

MISSION OF THE COOPERATIVE WASHINGTON COUNTY

EXTENSION OFFICE

Extension Service is education of Indiana grant university research and knowledge citizens through the application of land-The mission of the Purdue University

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