Purdue Extension Lawrence County Agriculture & Natural Resources Newsletter

ANR News:

<u>CHANGES</u> to borrowing Soil and Hay Probes from Ext. Office

Effective immediately, anyone who wishes to borrow a soil probe or hay probe from our Extension Office can still do so but the deposit amount has changed to **\$40 CASH** so please be aware of this and prepared when you come to our office to sign one out. We appreciate your understanding with this policy change. Thank you.

Indiana Pesticide Regulation Changes

The Office of the Indiana State Chemist (OISC) and the Indiana Pesticide Review Board have approved regulatory changes effective January 1, 2023. Changes will be addressed at all 2023 Private Applicator Recertification Programs (PARP). Changes focus on restricted use pesticide application by certified applicators, recordkeeping, and restructuring of penalties/fines. Additional info can be found: <u>https://oisc.purdue.edu/pesticide/index.html</u> under "News."

Kentucky Pest News Resource: The most recent releases of info from the Kentucky Pest News by clicking <u>here</u>.

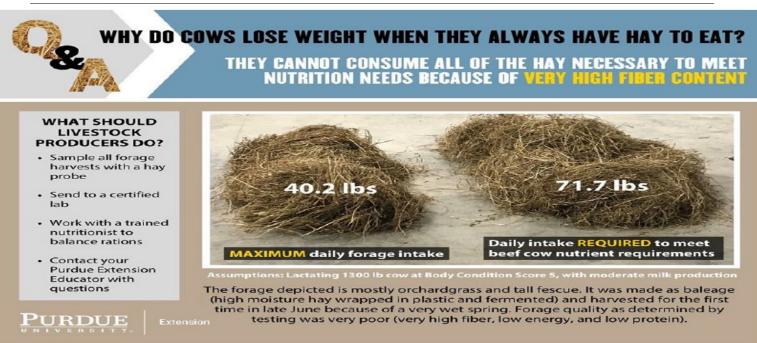
Researchers Need Participation in Maple Syrup Producers Survey

Purdue has acquired grant assistance to help with the development of the Indiana maple syrup industry. As part of that grant we are surveying producers on their production practices and challenges. A press release sharing more details about the grant can be found at: <u>https://ag.purdue.edu/news/department/forestry-and-natural-resources/2023/08/community-participation-needed-for-maple-syrup-survey.html</u> To assist in this effort by completing the survey, please visit this link: <u>https://purdue.ca1.qualtrics.com/jfe/form/SV_eP6n0T3KiBzc6uW?_ga=2.261418701.1328489001.1691067240-1185253094.1691067239</u>.

Upcoming Springville Feeder Auction Sale Dates for 2023:

Springville Feeder Auction Association

September 8 - 1:00 PM EST All Beef Breed Calves, Yearlings, & Bull Calves	October 14 - 2:00 PM EST IBEP Fall Bull Sale Heifer & Cow Sale
October 6 - 1:00 PM EST	November 3 - 1:00 PM EST
Black & Black White Face Calves (No Bulls)	All Beef Breed Calves, Yearlings, & Bull Calves



Seasonal Tips for Cattlemen

AUGUST

- Discuss brucellosis vaccination with your veterinarian.
- Pregnancy check heifers 35-60 days after breeding season ended.
- Cull open heifers.
- Apply 50 lbs., per acre, if warranted nitrogen to fescue to be stockpiled for fall and winter grazing at beginning of month.
- Plan marketing strategy for the weaned calves (preconditioning sales, etc.).
- Check handling facilities for the fall processing.
- Seed oats, turnips, and annual ryegrass now for fall grazing.

SEPTEMBER

- Give booster shots for clostridial diseases and vaccinate calves for IBR-PI3, BRSV, and BVD 2-4 weeks prior to weaning.
- Treat cows and calves for lice and grubs. Consult your veterinarian.
- Weigh calves at weaning for performance evaluation of the cow herd.
- Purebred producers should tattoo calves and send appropriate reports and/or records of ALL calves to your national breed association testing program.
- Select potential replacement heifers from the non-implanted heifer group.
- Pregnancy check cows and cull open, low performing, and problem females.
- Put weaned calves on a productive pasture. In preconditioning programs, feed 4-8 pounds/head/day of 14-16% crude protein concentrate with high quality pasture or hay.
- Harvest corn silage if near 60-65% moisture.
- Provide trace mineralized salt containing selenium for the dry cows or continue providing complete mineral mix.
- Seed wheat, rye, and triticale for fall and spring grazing or hay or grazing in the Spring.



Timely Beef Related Articles that Might be of Interest:

Go to this link (<u>http://u.osu.edu/beef/</u>) to find any of the following:

- Corn Silage Pricing Tool
- August Hay Production Estimates are Encouraging, but Variation Still Exists
- Feed Situation
- Mineral Supplementation on Pasture
- What makes a "Good Complete" Mineral?

Seeding Dates And Rates For Grasses & Legumes

Forages	Seeding Dates	Seeding Rate (Pounds Pure Live Seed Per Acre)*	
			-J
Grasses			Y-
Barley	Sept. 15 - Oct. 15	96	715
Kentucky Bluegrass	•	5-10	11
Orchardgrass	Aug. 1 - Sept. 1	10	-
Reed canarygrass	Aug. 1 - Sept. 1	6-8	-07
Rye	Sept. 15 - Oct. 30	112	. 1
Ryegrass	Aug. 1 - Sept. 1	15-20	
Smooth bromegrass	Aug. 1 - Sept. 1	10-15	0 0*
Spring Oats	Aug. 1 - Sept. 1	96	
	(Fall Grazing)		. 2
Tall fescue	Aug. 1 - Sept. 1	15	16
Timothy	Aug. 1 - Nov. 1	3-6	TATE
Triticale	Sept. 15 - Oct. 30	100	
Wheat	Sept. 15 - Oct. 30	120	- 65
Legumes			1 V
Alfalfa	Aug. 1 - Sept. 1	12-15	50
Alsike clover	Aug. 1 - Sept. 1	6-10	T
Birdsfoot trefoil	Aug. 1 - Sept. 1	4-6	Nº 9
Hairy vetch	Aug. 1 - Oct. 1	20-30	51
Ladino clover	Aug. 1 - Sept. 1	2-4	all
Red clover	Aug. 1 - Sept. 1	8-10	1
White Dutch clover	Aug. 1 - Sept. 1	2-4	
		* Rate as Pur	e Live Seed



e as rure Live Seed

Additional information on seeding forages for hay and pasture use in Indiana can be found in "Forage Selection and Seeding Guide for Indiana" (AY-253-W) by Johnson, Rhykerd and Trott at:

How Does Wildfire Smoke Impact Corn Growth?

Dan Quinn, Purdue Extension Corn Specialists, Printed July 11, 2023 in Purdue Pest & Crop Newsletter

In recent years, Indiana has experienced an increase in air quality concerns during the summer due to elevated incidence and severity of wildfires in Canada and the western U.S. In late-June of 2023, air quality warnings were issued throughout Indiana due to smoke caused by Canadian wildfires, which resulted in a noticeable haze and reduction in direct sunlight. Therefore, not only is this a concern for human health, the question that is also asked by many farmers is "how is the smoke impacting crop development?". And, as you may have guessed the answer to this question can be tricky and often results in the quintessential extension answer of "it depends". Haze and reduced air quality from wildfire smoke can result in both negative and positive impacts on crop growth. The first negative impact is a reduction in light availability, which can reduce crop photosynthesis. For example, during the week of June 26, 2023 (when air quality concerns were the greatest), average weekly solar radiation was decreased by 32% as compared to the week prior (June 12) and the week after (June 31) in West Lafayette, IN (Purdue Univ. Mesonet). Wildfire smoke in the atmosphere can reflect portions of incoming sunlight, thus reducing the total amount available to plants. Reductions in light availability from wildfire smoke are more likely to impact corn than soybean. This is due to corn being a C4 photosynthesis crop and having a higher light saturation point (the point at which further increases in light do not increase photosynthesis). Soybean is more susceptible to changes in CO2. The second negative impact caused by wildfire smoke is an increase in ground-level ozone. Ground-level ozone can be both harmful to human health and crop growth. Wildfires can emit various air pollutants which can form ozone when reacted with sunlight. Ozone can cause harm to both corn and soybean by entering the plant through the stomata and causing harm to plant tissue during respiration. Since both reductions in sunlight and increases in ozone can cause photosynthesis reductions, corn may also be inclined to remobilize carbohydrates from the stalks later in the season to satisfy grain fill requirements, thus increasing the potential for weak stalks and lodging prior to harvest.

In contrast to negative impacts caused by reduced sunlight and increased ozone, wildfire smoke in the atmosphere can also have positive effects on crop growth. One positive effect is that not only can wildfire smoke reflect sunlight, it can also scatter sunlight. By scattering the light, this can allow light to penetrate deeper into the crop canopy and increase plant photosynthesis. Furthermore, when light is scattered and direct sunlight is reduced, this can also lower leaf surface temperatures which can benefit crops under drought stress. Lower leaf temperatures can reduce the amount of transpiration (water movement and evaporation from the plant) needed to cool the plant and reduce overall water stress.

Overall, corn is more susceptible to the negative effects of wildfire smoke during the grain fill stages and the good news is that the majority of corn in Indiana was in the vegetative stages during the smoke presence in 2023. Therefore, minor or no yield loss is expected throughout the state. However, much is still needed to be learned about the impacts of wildfire smoke on crop growth, and as these events become more frequent, it will be important to pay attention to them in the future.

ANR News in-brief items for your consideration... (cont.) September Horticulture Calendar

Lawns, Tree Fruits, Landscape Plants, and Woody Ornamentals

September

- Fall is a good time to plant many container-grown or balledand-burlapped nursery stock. Prepare a good-sized hole, plant at the same depth it grew in the nursery and water thoroughly. Mulching will help protect against large fluctuations in soil temperature and moisture. Be sure to stake or guy-wire tall plants to protect them from strong winds. Wrap tree trunks to protect against frost cracks or animal damage.
- Do not be alarmed if your evergreens, particularly white pine and arborvitae, drop some older needles. All evergreens shed needles at some time, but not all at once as deciduous plants do.
- Harvest apples, pears, grapes, and everbearing strawberries and raspberries. Remove raspberry canes after they bear fruit.
- Clean up fallen fruits, twigs and leaves around apple (including crabapple) and other fruit trees to reduce disease and insect carryover.
- To promote the lawn's recovery from summer stress, apply high-nitrogen fertilizer at the rate of 0.5 to 1 pound actual nitrogen per 1,000 square feet. Reseed bare spots or new lawns using a good-quality seed mixture. Seeding in late summer allows the turf to maximize its establishment and rooting prior to the next summer's heat and drought.
- September and October are good months to apply broadleaf weed killers. Be sure to follow all label directions, and choose a calm day to prevent spray drift.

Indoor Plants and Activities

September

- Prepare storage areas for overwintering tender flower bulbs and garden produce.
- Thanksgiving (or Christmas) cactus can be forced into bloom for the Thanksgiving holidays. Provide 15 hours of complete darkness each day, for instance, from 5 p.m. to 8 a.m., for approximately eight weeks. Keep temperature at about 60-65 degrees F. Temperatures of 55F will cause flower buds to set without dark treatment.
- Dig and repot herbs, or take cuttings, for growing indoors over winter.
- Store leftover garden seed in a cool, dry place. A sealable jar with a layer of silica gel or powdered milk in the bottom works well.
- Bring houseplants moved outside for summer indoors before night temperatures fall below 55F.
- Poinsettias saved from last year can be reflowered for this year's holiday by providing complete darkness for 15 hours daily from about Oct. 1 until about Dec. 10.

Flowers, Vegetables and Small Fruits

<u>September</u>

- Dig onions and garlic after tops fall over naturally and necks begin to dry.
- Plant radishes, green onion sets, lettuce and spinach for fall harvest.
- Thin fall crops such as lettuce and carrots that were planted earlier.
- Harvest crops such as tomatoes, peppers, eggplants, melons and sweet potatoes before frost, or cover plants with blankets, newspaper, etc., (but not plastic) to protect them from light frost.
- Mature green tomatoes can be ripened indoors. Individually wrap fruits in newspaper, or leave them on the vine, pulling the entire plant out of the garden. Store in a cool location – about 55-60F.
- Harvest winter squash when mature (skin is tough) with deep, solid color, but before hard frost. Some cultivars will show an orange blush when mature.
- Plant, transplant or divide peonies, daylilies, iris and phlox.
- Save plants such as coleus, wax begonias, impatiens or fuchsia for indoor growing over winter. Dig plants and cut them back about halfway, or take cuttings of shoot tips, and root them in moist vermiculite, soil mix or perlite.
- Watch for garden chrysanthemums to bloom as days grow shorter. Some may have bloomed earlier this summer, which will decrease the number of fall blooms.
- Plant spring-flowering bulbs beginning in late September. Planting too early can cause bulbs to sprout top growth before winter. However, allow at least four to six weeks before the ground freezes for good root formation.
- Dig tender bulbs, such as cannas, caladiums, tuberous begonias and gladiolus, before frost. Allow to air dry, and store in dry peat moss or vermiculite.
- Cut flowers, such as strawflower, statice, baby's breath and celosia, for drying and hang upside down in a dry, well-ventilated area.

<u>Interested in more horticulturally related</u> <u>info?</u>

Please visit this link to read and learn from timely horticulture articles:

https://hnr.k-state.edu/extension/horticultureresource-center/horticulture-newsletter/

Grazing Bites

September 2023

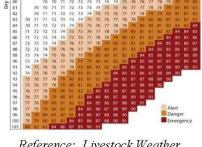
Victor Shelton, Retired NRCS Agronomist/Grazing Specialist

I'm writing this during the last part of August and during an absolute dog day of summer. Dog days of summer signifies very hot, sultry days. I'm really not sure that it has anything to do with dogs except they do tend to be less active and seek the coolest place they can find on such a day -I probably should have done more of the same.

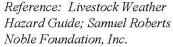
On such dog days, shade does become a lot more valuable. If the shady area is big enough, it is almost always at least ten degrees cooler with shade than without.

Humidity is what really makes it miserable. Now, don't get me wrong, hot is hot, but humid hot, well, it's just downright miserable and sometimes barely fit for man or beast!

Sometime in the late 70's, the term "heat index" was first utilized. It was supposed to indicate the "real feel" for temperatures of 80° F or higher and relative humidity of 40% or more. I don't know shout we



Livestock Weather Hazard Guide



higher, and relative humidity of 40% or more. I don't know about you, but hot didn't seem that hot until they created this new term!

The Samuel Roberts Noble Foundation has done some work on hazardous heat and humidity for livestock. That data has been updated at least once. The latest chart can be found at <u>Heat Stress In Cattle: When It's Hot</u> It's Hot and When It's Not, It's Still Hot! – Noble Research Institute.

In the Midwest, the average humidity in the morning around 5AM is about 80% and about 55-60% in the afternoon at about 4PM. Certainly, there is some fluctuation but to keep it simple, as the temperature goes up, the worse it feels even at the same humidity it was when it was cooler. After a rain, there is more moisture in the air, so it usually feels even muggier than average.

There has been a lot of discussion by people about whether shade is needed or not for grazing livestock. When livestock are not provided adequate shade, heat distress occurs and one of the first things noticed is intake of feed/forage is reduced, slowing or stopping rate of gain with the possibility of weight loss.

The preferred temperature range for cattle (polled cattle), in which they do not need to expend energy to keep their body temperature stable, is about 41°F to 77°F. When the temperature is above 77°F, especially with high humidity, cattle can have heat stress, particularly if nighttime temperatures stay over 70°F. This is especially true if nighttime temperatures are not at least ten degrees cooler than daytime temperatures.

Quite often, early September is still as hot as August, but hopefully not this year. The best thing you can do for grazing livestock is to have paddocks with some shade available, especially in the afternoon and early evening. If that prime space is limited, you may need to move them to paddocks with no shade late evening and then move them to shade late morning to stretch out grazing in areas with shade. Certainly, there is almost always some shade available on the east and north sides of wooded areas. Take advantage of those sites and if

Victor Shelton is a retired Agronomist/Grazing Specialist with the Natural Resources Conservation Service (NRCS). He continues to write Grazing Bites in his spare time from his property in southwest Indiana. - Issue 188

shade is very limited, then consider possibly planting some rows or blocks of trees for future shade or invest in some type of portable shade contraption.

Most of Indiana is out of this year's drought at the moment. Though hay yields have not been good this year for most producers, the last big break in weather found the countryside with lots of freshly mown hay fields and sufficient time to get some dry hay baled up.

It is always a good feeling to reach your comfort zone of stored forage for winter use. Until that time occurs, there seems to be a little added stress and uncertainty. How much is desired beyond that level is somewhat dependent on the individual, but certainly a little bit of extra is never a bad thing because we don't know what the upcoming winter will be like or how long the livestock may need supplemental forage. I highly recommend doing some figuring to make sure that you have enough and then adjusting as needed or as required to keep you in your comfort zone or close to it.

I am an advocate of extending the grazing season and keeping the livestock grazing as long as sufficient cover is maintained and not overgrazed. When soil moisture is fair to good, the opportunity to grow more forage, especially during the last growth curve bump in the early fall, is very good.

Any fields or paddocks that can be deferred starting in early September and allowed to grow can provide a lot of forage for late fall or winter grazing.

Tall fescue stockpiles better than about any other forage. In fact, winter stockpiling of tall fescue is probably one of its more worthwhile uses! Most tall fescue remains standing well even under the weight of snow cover and also maintains its nutritional value better than other forages. Now, understand, I'm talking fall regrowth now, not left over summer growth for the best value, but even summer growth mixed with some fall regrowth is not too bad once it has been frosted a few times.

How do you really get the most out of your stockpiled pasture?

- 1. Graze/mow/hay the field if needed to even out the stand.
- 2. Apply 30-60 pounds of nitrogen in August to early September; I prefer Urea.
- 3. Defer grazing (stockpile) at least one acre of fescue per 1000-pound live weight.
- 4. Let it grow and rotate through the rest of the paddocks or other areas as long as possible.
- 5. Start strip-grazing stockpiled forage, allocating half to three days' worth of forage at a time. We'll talk more about strip grazing in future articles.

If you have not done so already, now is a good time to get feeding areas ready for winter use while the weather and soil conditions are good for cleaning up and applying that material in areas where it is needed. The grazing areas farthest from water and feeding areas and thin soiled slopes are almost always a good choice for application and can use the extra nutrients and organic matter.

Remember, it's not about maximizing a grazing event, but maximizing a grazing season! Keep on grazing!

<u>Reminders & Opportunities</u>

Stockmanship Training - September 29th (Beef focus), September 30th (Sheep/goat focus) – SIPAC. Information available at <u>http://www.indianaforage.org/</u>

For a Free Sample Copy of The Stockman Grass Farmer call 1-800-748-9808 or visit www.stockmangrassfarmer.com – You'll find articles from me there also – tell them I sent you!

Please send comments or questions to grazingbites@gmail.com.

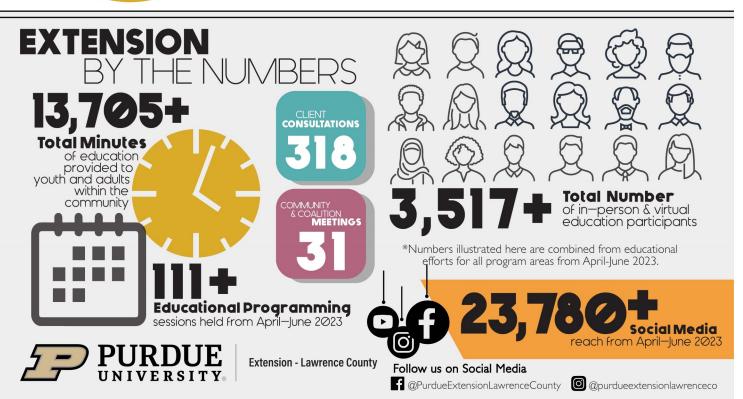
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Purdue Extension-Lawrence County 924 16th Street Bedford, IN 47421

P:812.275.4623 W: https://extension.purdue.edu/lawrence



EXTENSION QUARTERLY REPORT APRIL - JUNE 2023



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Positive Programming Across the Community

In partnership with the Land of Limestone Master Gardeners and Lawrence County Soil and Water Conservation District, garden supplies, plants and seeds were purchased to build several garden plots at Bedford Garden Park. The produce from the garden has been harvested and donated to LIFE Food Pantry and Becky's Place all summer. By the end of June, because of the gardens' success, over

300 pounds of produce was harvested and donated. On August 30th we will be hosting a garden open house at 6pm to share our successes together with the community.

April – June 2023



Food as Medicine Program

The second year of the Lawrence County Food As Medicine program began thanks to funding from IU Center for Rural Engagement/iHOPE. A total of 15 participants regularly attended and received two meal kits per week. During classes at Hamilton Courts, JJ Goldsberry, NEPA, taught nutrition education and demonstrated recipes that participants were able to sample.



NUTRITION EDUCATION

Teen Cuisine

The Teen Cuisine program builds on what students already know about cooking and gives them the opportunity to gain more confidence in the kitchen. Many lessons taught by the Nutrition Education Program Advisor (NEPA) are adapted to the environment and demographics in which the lesson will be taught. When visiting classrooms,a NEPA may bring cooking equipment for students to experience cooking through hands-on learning.

This is the case when visiting Mrs. Courtright's Health class at Mitchell Jr. High. Teen Cuisine is not taught in a kitchen at the school, but in Mrs. Courtright's classroom. She requests her students learn about the sugar content in many beverages teens drink while providing an opportunity to

make nutritious smoothies in various ways. Teens work in small groups reading a recipe, following directions, operating a



blender, and preparing smoothies for everyone in the class to sample. Students commonly sample four to five different smoothies and vote for their favorite. A fan favorite from this lesson was a smoothie made in a baggie. While some students may not have access to a blender at home, they

can create a smoothie by using a Ziploc bag.

Cooking requires many skills and one of those skills is learning to adapt recipes or finding alternative ways to prepare. Teen Cuisine allows students the opportunity to gain experience to help them gain the confidence needed to adapt and try new things.

Eat Smart, Live Strong

Iessons tailored for Senior Citizen contacts made during these lesson

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Block Party: More Than Just Blocks

Building towers with blocks is a childhood experience that many can relate to, but block play can teach important skills that are essential for development. Playing with blocks can help children eight months to eight years learn skills related to math, science, literacy, gross and fine motor development, and social skills. Parents are an integral part of this learning process and can help turn block play into a learning experience. During a Block Party event, parents are educated on how to utilize blocks in an intentional way while actively playing with their child(ren). This hands-on event allows parents to practice what they've learned with guidance from the Health and Human Sciences Educator.

In May, 21 children and 13 parents attended the Block Party held at the Bedford Public Library. After the event, 100% of participants said that they intend to play with blocks with their child. There was also an increase in knowledge related to how block play expands learning skills in children.









Southern Indiana Beef Producer Tour (SIBPT)

1

Southern Indiana is home to most of our state's beef herd, and Lawrence County is one of the leading counties in relation to beef numbers. Local beef producers take pride in raising the best product possible on their farms. They understand the importance of education and working to continually improve their beef production efforts. As such, producers seek opportunities like the SIBPT to advance their knowledge and networking base. The objective of the SIBPT is to provide education to beef producers by visiting progressive beef operations, agribusinesses, and USDA/University Research stations in various states. Since 2005, producers have made tour stops in over 20 states outside of Indiana.

In April 2023, 25 participants visited scheduled stops in northern Indiana and Michigan. During this five day trip, 16 two-hour tours were completed. Based upon attendee responses, 100% indicated that the tour is useful in meeting needs for cattle production, increased their knowledge about cattle production and how it is done in other parts of the country, and plan to adopt/utilize information from tour stops. Our producers learned from fellow tour hosts by viewing hundreds of head of cattle and learning about the following topics: breeding programs/protocols, handling facilities, marketing, alternative feeding, pasture management, forages, weed control, etc. 100% of attendees plan to attend SIBPT in future years.



Photo above features producers on the Beef Tour posing for a photo outside Dr. Pol's Veterinary Clinic in Weidman, Michigan. Dr. Pol is the vet in which 'The Incredible Dr. Pol' is based on, on NatGeo channel.

4-H YOUTH DEVELOPMENT

4-H Grows Here

Today, we regularly hear about programs struggling or declining in participation, and in the past few years, Lawrence County 4-H has struggled with this, as well. However, signs are looking promising and we have exciting areas of program growth to highlight this year.

- 4-H Enrollment has grown by 10.4% over last year. Also an increase of ten 4-H Volunteers.
- Multiple programs have returned after many years.
 - County Tractor Operator's Contest (includes tractors and mowers)- 18 contestants across contests.
 - Shooting Sports- Met the maximum number of 21 participants.
- Animal Enrollment increased from 899 animals (2022) to 1009 animals (2023)- Note: number not including dogs, cats, or poultry
- Creating a Lawrence County 4-H Endowment
- Increase in teen leadership opportunities with Presidents' Circle, Mini Day Camp Counselor Training, and increase in Junior Leader activities and effectiveness
- Lawrence County Members selected as State Junior Leader Council Member, secured a competitive State 4-H Scholarship, and attended two national 4-H activities

• Eight new 4-H project workshops were offered. And much more growth and improvement that is harder to quantify.









EVENT & PROGRAM DATA

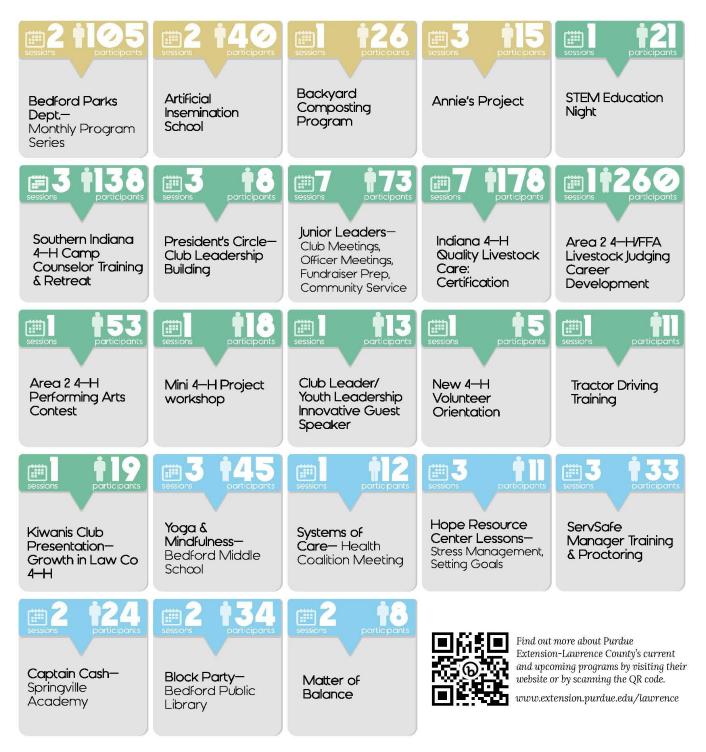
*Indicates the combined collaboration of educators to complete a program.



Find out more about Purdue Extension-Lawrence County's current and upcoming programs by visiting their website or by scanning the QR code.

www.extension.purdue.edu/lawrence





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The Lawrence County SWCD & NRCS are partnering with Purdue Extension to help landowners pay to get their soil tested. The test will be for Lawrence County landowners for <u>gardens, food plots, pasture</u> or <u>crop ground</u>.

Two (2) free test will be offered for each landowner. Please contact Ophelia Davis or Dashia Meadows at Purdue Extension 812-275-4623 or Mandy Robbins at the SWCD 812-279-8117 x 3. All samples must be returned to Purdue Extension by September 29, 2023.

ALL SAMPLES MUST BE DRY! Do not dry in oven. Just lay soil out to air dry before brought into office.









Natural Resources Conservation Service

Extension

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lseals@ufl.edu

ANR News in-brief items for your consideration ... (cont.)



EQUAL OPPORTUNITY INSTITUTIONS



Time: 6:00 pm

Location: Bath House at Otis Park (607 Tunnelton Road, just past Red **Brick Mansion**)

> Speaker: Lola Nicholson

Deadline to RSVP: Monday, September 25th

RSVP: **Bedford Parks Dept**

Phone: 812-275-5692

aray @bedford.in.gov gdorsett@bedford.in.gov September 26th, at the Otis Park Bath House, for a talk from Lola Nicholson, from **Raptor Rise** Rehabilitation. Lola will be bringing an American Kestrel. Great Horned Owl.



and Barn Owl for you to meet up close. She will also be talking about the importance of raptors, how to maintain habitat for raptors, and the role of Raptor Rise Rehabilitation.



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STOCKMANSHIP with Curt Pate

SOUTHERN INDIANA PURDUE AG CENTER DUBDIS, INDIANA

11371 E. Purdue Farm Rd | Dubois, IN 47527

\$30 person per event

From Ryegate, MT, Curt Pate uses his personal experience incorporating effective stockmanship principles supports a "for profit" mindset and focuses on highlighting the increased economic benefits of handling stock correctly. In addition, Curt recognizes the growing public scrutiny surrounding live-stock production and the impact that improved livestock handling practices create for the sustainability of the cattle industry.

Direct questions to towerj@purdue.edu or 812-678-4427

PURDUE UNIVERSITY. Extension







SEPTEMBER 29, 2023 1:00pm - 7:00pm EST Beef focused program

supper will be served

SEPTEMBER 30, 2023 10:00am - 5:00pm EST

Sheep & Goat focused program lunch will be served

Register Online under the events tab

www.indianabeef.org www.indianasheep.com www.indianaforage.org

Mail-in Registration: IBCA 8425 Keystone Crossing, Suite 240 Indianapolis, IN 46240

Full Name:		Circle if member of - IBCA ISA IFC
Email:		Registration Type: (Day 1, Day 2, or Both)
PhoneNumber:		Payment Type: Credit Card or Check <u>\$30/day/person</u>
Address:		Credit Card Type (Visa, Mastercard, Discover)
City:	Total enclosed	Credit Card #
State:	Zip:	Expiration Date/ CV Code

Please make checks payable to Indiana Beef Cattle Association

8425 Keystone Crossing, Suite 240 Indianapolis, IN 46240

If accommodations are needed please contact 812-678-4427.

Registration closes Sept 21st



Livestock folks: Bale Grazing can help you keep your animals on pasture for more of the year; deal with drought; and renovate your pastures. Attend one or both:



- October 5th, 10am-3pm Madison, IN.
 Meet at Jefferson County fairgrounds.
- October 6th, 10am-3pm Dubois, IN. Meet at SIPAC.

FREE WORKSHOP:

- How-to workshop with Greg Halich, Forage Systems Economist from University of Kentucky
- Insights from graziers who use bale grazing in southern Indiana
- Free lunch
- Pasture walk to see how graziers set up their bale grazing, and the results it can have for pastures and livestock





Cooperative

USDA United States Department of Agriculture Natural Resources Conservation Service





RSVP and details at www.indianafarming.org.

Brought to you by:

FACILITATIVE LEADERSHIP





WORKSHOP

This three-day workshop is for both new and experienced leaders, managers, facilitators and graduate students who would like to develop or improve their facilitation skills.

Participants will practice leadership strategies using tools, techniques, verbal skills necessary to lead group discussions, reach consensus and set outcome-based goals. Each participant will plan and lead a 45-minute small group facilitation and receive feedback from instructors and colleagues. The cost of the workshop is \$625 and includes lunch and materials.

OCTOBER 2-4, 2023 MADE AT PLAINFIELD

WORKSHOP SIZE IS LIMITED. REGISTER BY SEPTEMBER 18. LEARN MORE AT **EXTENSION.PURDUE.EDU/CDEXT**



Extension - Community Development



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Natural Resources Conservation Service NATURAL RESOURCES

Park Outdoor Series









RSVP: Autumn Ray @ 812-275-5692

July 25, 2023 @ 6pm

Pioneers of the Lick Creek Settlement Tesa Villalobos, Heritage Program Manager/Archaeologist Bath House @ Otis Park 607 Tunnelton Rd.

August 22, 2023 @ 6pm

Bikes and Biking 101 Tad Armstrong Bath House @ Otis Park 607 Tunnelton Rd.

<u>September 26, 2023 @ 6pm</u> <u>Raptors</u> Lola Nicholson

Bath House @ Otis Park 607 Tunnelton Rd.

October 24, 2023 @ 6pm

Fire in Indiana Dan McGuckin Bath House @ Otis Park 607 Tunnelton Rd.

November 28, 2023 @ 6pm

Special Areas Janet Eger & Teena Ligman Bathhouse @ Otis Park 607 Tunnelton Rd.

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MAGNIFICENT TREES OF INDIANA

Carroll D. Ritter

Featuring more than two hundred gorgeous color photographs of Indiana's champion trees and old-growth forest remnants, *Magnificent Trees of Indiana* is a celebration of the state's natural beauty. Seventy-four trees are featured as well as twenty old-growth woods. Each has been photographed to illuminate the grandeur of the natural world.

Accessible to the outdoor enthusiast, this book details the changes that have occurred over the last two centuries in Indiana's forests, including the landscape geology and physiography. The forest is celebrated as a living community, with highlights including odd forms, curious trees, and unique occurrences—many of which can still be visited today.

Magnificent Trees of Indiana makes for a beautiful coffee-table gift book for any Hoosier or nature lover, walking the reader through the geologic past, into early pioneer times, and onward to the present, all while covering the history, value, and economic importance of our hardwood forests.

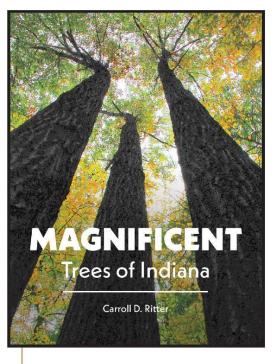
Carroll Ritter's *Magnificent Trees of Indiana* is an excellent addition to the library of anyone interested in Indiana's natural history—its forests and its biological diversity. Ritter is an exceptional naturalist and an excellent writer. In this wonderful volume, he brings the reader from the ancient times to the present, and from landscapes to individual old-growth tracts. We learn about Indiana's biggest trees, the remaining old-growth forests, and about odd and curious trees as well. Ritter's discussion of many individual tree species and old-growth sites, in separate essays, brings the reader right into the quiet forest, periodically startled as a heron takes wing, or inspired as a bald eagle soars overhead. The text about these individual nature preserves describes the cliffs and canyons, floodplain forests, upland oak-hickory forests, and rich mesic beech-maple forests that visitors will encounter. *Magnificent Trees of Indiana* can be returned to often as a reference or enjoyed as a pleasant read at a quiet time."

-JOHN A. BACONE, Director Emeritus, Indiana Division of Nature Preserves, Indiana Department of Natural Resources

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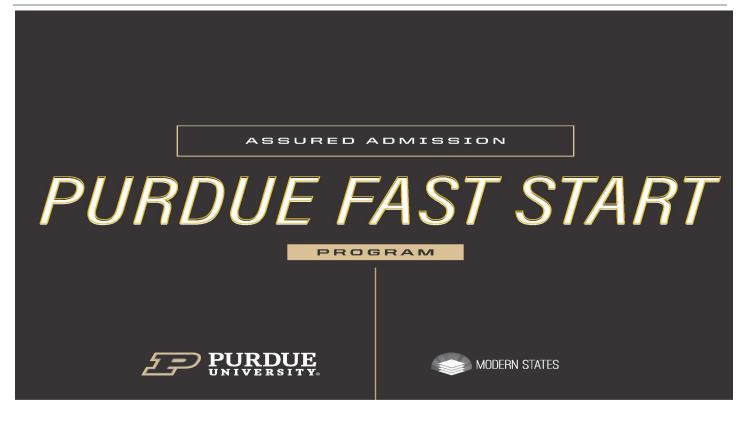
CARROLL D. RITTER is a retired science teacher with a lifelong interest in trees and wildflowers. He attended Purdue University, received his master's degree from Indiana University, and completed advanced coursework in field geology from Western Washington University. After retirement, he assisted Sycamore Land Trust, developing their first and very successful environmental education program working with children of all ages. An avid mountain hiker, backpacker, and photographer, he has logged over two thousand miles on trails in the United States and Canada. He has nominated seven state champion trees over the years, including three new ones for the 2020 Indiana Big Tree Register. He lives in Williams, Indiana, where he practices forest conservation on his own land and still loves and admires his trees.

Connect with the author

Carroll Ritter is available for questions or invitations to group presentations and book signings. Contact him at **outdoorconnect3@gmail.com**



Purdue University Press



At Purdue University, we are empowering students to direct their own futures through the free

PURDUE FAST START PROGRAM,

which makes higher education more affordable for all.

WHAT

Many promising students will now have the opportunity to take their first steps toward a Purdue degree with the new Purdue Fast Start program. Through Purdue's partnership with ModernStates.org, a website featuring more than 30 free, high-quality courses, you can gain assured admission into Purdue by earning free college credit. This partnership will create new opportunities for Indiana students to take giant leaps in their education with a new pathway to Purdue University.

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For more information, go to the Fast Start website at purdue.university/faststart, or call 765-494-1776 or (for hearing impaired) 800-743-3333.

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