

Spring 2019

Purdue Extension Greene County Agriculture & Natural Resources Newsletter

BQA (Beef Quality Assurance) Training Coming to Greene County

Purdue Extension – Greene County will be offering a BQA training and certification program on Wednesday, May 8 at the Greene County Community Event Center starting at 7:00 PM and ending at 9:00 PM. Light refreshments and drinks will be provided by the White River Valley Cattleman Association.



Beef Quality Assurance is a nationally coordinated, state implemented program that provides systematic information to U.S. beef producers and beef consumers of how common sense husbandry techniques can be coupled with accepted scientific knowledge to raise cattle under optimum management and environmental conditions.

BQA guidelines are designed to make certain all beef consumers can take pride in what they purchase - and can trust and have confidence in the entire beef industry.

In response to consumer demand by food service companies for more beef quality assurance, some major beef processors will require its suppliers to have the BQA certification by January 1, 2019. Major buyers such as Tyson and National Beef Packing are requiring a BQA Certification by January 1, 2019. Auction Markets will have two options. An auction market may require all fed cattle suppliers to be BQA certified to sell in auction or they must announce from the auction block during the sale which cattle are and which cattle are not sourced from a BQA certified supplier.

The trainings are two hours long. Certifications are good for 3 years. Only one person from each operation is required to be certified to ensure the entire operation follows BQA standards. However, everyone who handles and manages fed cattle is encouraged to become BQA certified. Producers also have the option to earn their BQA certification online at <https://www.bqa.org/>.

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Save the Date!

Master Gardener Flower & Patio Show

Fri.-Sat., May 3-4

Greene County
Community
Event Center

BQA Training

Wed., May 8

Greene County
Community Event
Center

Grazing 102

Fri.-Sat., June 21-22

Southern Indiana
Purdue Ag Center,
Dubois, IN



Scout alfalfa fields now

Heaving of alfalfa taproots has been found in southern Indiana, and a Purdue expert feels that this damage could be more widespread. It's time to scout alfalfa fields now for heaving damage, and to begin scouting shortly for alfalfa weevil.

Keith Johnson, Purdue forage specialist, recently sent an alert to be on the lookout for alfalfa heaving. "With the extreme temperature swings this winter and moist soils, I would expect that this damage could be more widespread than most years," said Johnson. "I would encourage growers of alfalfa to scout fields for winter injury and heaving."

Heaving is a condition that periodically occurs over winter when freezing and thawing eventually push plant crowns and upper taproots up and out of the soil a few inches. Johnson said, "Soil heaving is a condition that predisposes many forage crops to disease."

If heaving is found, Johnson recommended adjusting cutting height so crowns are not severed from the taproot when mowing occurs. "Heaving can cause wounds to the taproot which results in the possible movement of pathogens into the alfalfa," said Johnson. "In severe cases alternative forages may need to be seeded to meet the forage inventory needs of livestock owned by producers."

"As temperatures warm in April, scouting for the presence of alfalfa weevil should be a routine task, too," Johnson said. Larvae are small and pale green with black heads. Each has a distinct white stripe on the back that runs the length of the body. When fully grown, it will reach 3/8 inch (9 mm) in length.

Before first cutting, walk a representative sample area in the field in an "M" pattern. Examine 5 plant stems at each corner and middle of the "M" and note feeding injury, size of larvae, diseased, larvae, plant maturity and stem length.

Early attacks by alfalfa weevil larvae are pinholes in leaves, particularly near the stem growing point. Later, larger larvae instars (larvae that have undergone molts to grow) shred or skeletonize leaves. Fields with severe leaf damage will appear gray.

Alfalfa weevil adults are brown and have a darker brown stripe on the back that runs the length of the body. Adults also have a prominent "snout."

Scouting and management guidelines may be found in Purdue Extension's *Forage Field Guide*, available for purchase at Purdue Extension offices, or online through the Education Store, www.edustore.purdue.edu. Additionally, search for a free downloadable publication at the Education Store titled, "Alfalfa Insect Control Recommendations."

Source: John E. Woodmansee, Purdue University Extension



Opportunity knocks to serve on Indiana corn checkoff board



Hoosier farmers interested in directing Indiana corn checkoff investments can now sign up to run for election to the Indiana Corn Marketing Council (ICMC) board of directors. ICMC manages the state's corn checkoff investments with the goal of supporting and growing Indiana's corn industry. Five seats on ICMC's board of directors are up for re-election in 2019.

"For many years, corn growers in Indiana have benefitted from the volunteer leadership of those who have served on the ICMC board," said Greentown, Ind., farmer Denny Maple, who is also an at-large member of the ICMC board. "We rely on farmers to fill these leadership positions to help the Indiana corn industry remain strong and effective. New perspectives and ideas will help our corn research and promotion efforts."

Board members determine the promotional, educational and research activities funded by the corn checkoff. ICMC's strategic plan focuses on market development, production research and farmer services. Priorities include ethanol, transportation infrastructure, production research, livestock promotion and international exports.

To run for an ICMC director seat, Indiana corn farmers must be at least 18 years old, a registered Indiana voter and a resident in the appropriate district. All farmers who submit a valid petition by June 30, 2019 will be listed as a candidate on the election ballot. Voting takes place at Purdue Cooperative Extension Service county offices in August 2018.

One seat is open in each of Districts 1, 4 and 7. Two statewide, at-large seats are also open. Here is the breakdown of each district:

- District 1 – The counties of Lake, Porter, LaPorte, Starke, Pulaski, Jasper, White, Benton, and Newton.
- District 4 – The counties of Warren, Tippecanoe, Montgomery, Putnam, Owen, Clay, Vigo, Parke, Vermillion, and Fountain.
- District 7 – The counties of Sullivan, Greene, Daviess, Martin, Knox, Dubois, Pike, Gibson, Warrick, Spencer, Vanderburgh, and Posey.

Farmers interested in seeking a director position should submit a petition to the ICMC office before June 30, 2019. Farmers can download any necessary forms at www.incorn.org/elections or by calling Chris Weldon at the ICMC office at 1-800-735-0195. Forms are also available at all Purdue County Extension offices.

Newly elected directors will begin a three-year term Oct. 1, 2019. ICMC directors can serve three consecutive full terms or a total of nine consecutive years. For more information about Indiana Corn Marketing Council, visit www.incorn.org.

The Indiana Corn Marketing Council was established by the Indiana General Assembly to promote the interest of corn growers in the state and manage corn checkoff funds. The Council is composed of 17 voting farmer directors and seven appointed industry, and government representatives who direct investments of corn checkoff funds on behalf of more than 28,000 Indiana corn farmers. The ICMC is working to build new markets for corn through the promotion of grain marketing, livestock, production research, ethanol, and environmental programs. Learn more at www.incorn.org.

This communication was funded with Indiana corn checkoff dollars.

Please don't top your trees

Topping a tree is an all-too-common practice among homeowners, particularly when their trees become too tall and pose a possible threat to the house or overhead power lines. Some have the trees topped because they believe, or are led to believe, that topping is a good pruning practice.

Some situations obviously require the removal of large limbs for the sake of safety. But topping is a drastic step that ultimately endangers the tree's life. Removing such a great quantity of growth in one shot throws off the roots-to-shoots balance that the tree has gradually developed all those years. The much-reduced leaf surface will not be able to manufacture sufficient food reserves to feed the large root system. As roots starve, the rest of the tree will suffer from insufficient moisture and nutrients.

Another drawback to topping for many tree species is the stimulation of numerous, upright branches that grow straight up. These shoots are typically very soft, weak growth that breaks easily and is more susceptible to attack by diseases and insects. These shoots are rapid growers, so the tree will soon be back to and exceed its original height.

Stubs left by the topping are usually too large for the tree's defense process of callusing to seal the wound. Thus, stubs also become easy prey for insects, diseases and decay, and large stubs drastically disfigure the tree's natural beauty.

There are alternatives to topping when size reduction is required. Thinning out the canopy by removing selected branches completely back to their point of origin will reduce the tree's size while maintaining more of its natural shape. Cuts will be less conspicuous and should heal more rapidly. Thinning is a more time-consuming process that requires a more skilled hand, which usually translates to higher expense. In many cases, you'll need to hire a professional arborist to safely and correctly complete the job.

If the tree isn't worth the investment to do the job correctly, it's probably better to remove the tree entirely rather than top repeatedly. In the case of overhead power lines, it really is best to remove the tree and start over with a more appropriately sized plant. But if the tree is worth saving, make the right investment in a healthy future.

For more information on proper pruning techniques, see the following Purdue publications:

- Pruning Ornamental Trees and Shrubs
<https://www.extension.purdue.edu/extmedia/HO/HO-4-W.pdf>
- Why Hire an Arborist
<https://www.extension.purdue.edu/extmedia/FNR/FNR-FAQ-13-W.pdf>
- What's Wrong With Topping Trees
<http://www.extension.purdue.edu/extmedia/FNR/FNR-FAQ-14-W.pdf>
- Tree Pruning Essentials
<https://extension.purdue.edu/extmedia/FNR/FNR-506-W.pdf>

Source: B. Rosie Lerner, Purdue Consumer Horticulture Specialist



Rhubarb is prone to bolting

We humans can be so difficult to please. When plants flower when we want them to, we call it blooming. But when plants flower when we don't want them to, we call it bolting. Flowering is an undesirable trait when growing rhubarb; therefore, bolting describes the event.

Gardeners frequently ask why their rhubarb is bolting. Well, if you think of it from the plant's perspective, it is just a part of the plant's natural life cycle. Flowering is part of the reproductive phase that leads to the production of fruit and seed.

But from the gardener's perspective, the production of flowers, fruit and seed in rhubarb wastes the plant's resources, which could be better spent on producing edible stalks or storing carbohydrates to use for the following season. And if allowed to mature seed, the resulting seedling offspring are often less desirable than the mother plant, which we paid good money to buy as a named cultivar. In fact, seedling offspring are often more likely to bolt than some of the more modern hybrid cultivars. Seedling offspring can also be vigorous enough or just numerous enough to take over the original planting.

It does appear that some rhubarb plants are more prone to flowering than others. Old-fashioned varieties, such as Victoria and MacDonald, are reported to be heavy seed stalk producers. Canada Red and Valentine are less likely to bolt. Plant maturity is also a factor, with more mature plants being more likely to bolt than youngsters. Dividing the crowns every 4-5 years should help rejuvenate the planting. Applying moderate amounts of fertilizer, such as well-composted manure, each spring should also discourage bolting.

Weather no doubt has a role to play as well. Rhubarb is a cool season perennial that can remain productive for 8-15 years, if given proper care. Plant stress, such as temperatures above 90 F, prolonged drought during hot weather, poor nutrition, etc., may also promote bolting.

The bottom line is that rhubarb may bolt for a variety — and likely a combination — of several factors. Many gardeners may not know what cultivar they have, and there's not much we can do about the weather. So, if your rhubarb should happen to bolt, remove the flowering stalks just as soon as they are visible, to which the plant will likely respond by sending up another. If you keep at it, soon the plant will return to the desired priority for foliage production.

Another question that sometimes comes up is whether the flowering makes the leaf stalks poisonous. The answer is no, the leaf stalks remain edible, regardless of whether flower stalks are present. However, the leafy blade portion is always poisonous due to a high level of oxalic acid.

Source: B. Rosie Lerner, Purdue Consumer Horticulture Specialist

Terrestrial invasive species rule signed by Indiana Governor

The Invasive Terrestrial Plant Rule was signed by Governor Holcomb and published on March 18, 2019. The rule goes into effect 30 days after publishing, so it will be effective later in April.

The rule states with respect to the 44 plant species included on the rule:

“a person must not:

- (1) Sell, offer or grow for sale, gift, barter, exchange, or distribute a species;
- (2) Transport or transfer a species; or
- (3) Introduce a species.
- (4) Subdivisions (1) and (2) of this subsection are effective one year after the effective date of this rule.”

Note that section (3) “Introduce a species” is effective immediately (around April 16, 2019).

Selling, offering, distributing and transport doesn't go into effect until April of 2020, so nurseries will have some time to sell down their stock. This is an important component of the rule to minimize economic loss to nurseries that grow and/or sell the few commercially available species that are on the list. Currently there is no mandate to eradicate existing plantings in nurseries, landscapes, or forested areas.

What is an Invasive Species?

An Invasive Species is defined in Executive Order 13112 as “an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health.” These species often change their habitats by outcompeting native species for the resources needed to survive. The result is loss of diversity and degradation of natural habitats.

What damage do invasive species do?

Invasive species often displace native species, reducing diversity and degrading the habitats in which they have been introduced. These invaders have negative effects on property values, agricultural yields, public utilities, recreation, and tourism. In addition, Indiana landowners and managers spent over \$5 million controlling invasive plants in 2012 according to a survey by the Indiana Invasive Species Council's Invasive Plant Advisory Committee. The economic impact of invasive species globally has been estimated at 5% of GDP which in Indiana approaches \$15 billion.

What is Indiana doing?

The Terrestrial Plant Rule (312 IAC 18-3-25) designates 44 species of plants as invasive pests. This rule makes it illegal to sell, gift, barter, exchange, distribute, transport or introduce these plants in the State of Indiana.

What is Purdue Extension doing?

Purdue Extension has a long history of addressing invasive species including invasive plants with established programs and expertise, and a reach into every county with dedicated Educators. Information about these efforts are being updated in the Report Invasive website, hosted by Purdue College of Agriculture and the Indiana Invasive Species Council.

What does the Terrestrial Plant Rule restrict?

These plants are not to be sold, gifted, bartered, exchanged, distributed, transported or introduced in Indiana.

The following are prohibited invasive terrestrial plants and are declared pests or pathogens regulated under this section:

- | | |
|---|---|
| (1) <i>Achyranthes japonica</i> (Japanese chaff flower). | (23) <i>Hesperis matronalis</i> (dame's rocket) |
| (2) <i>Ailanthus altissima</i> (tree of heaven) | (24) <i>Humulus japonicus</i> (Japanese hops) |
| (3) <i>Alliaria petiolata</i> (garlic mustard) | (25) <i>Lepidium latifolium</i> (pepperweed) |
| (4) <i>Alnus glutinosa</i> (black alder) | (26) <i>Lespedeza cuneata</i> (sericea lespedeza) |
| (5) <i>Artemisia vulgaris</i> (mugwort) | (27) <i>Ligustrum obtusifolium</i> (blunt-leaved privet) |
| (6) <i>Arthraxon hispidus</i> (small carpgrass) | (28) <i>Lonicera japonica</i> (Japanese honeysuckle) |
| (7) <i>Berberis thunbergii</i> (Japanese barberry) | (29) <i>Lonicera maackii</i> (Amur honeysuckle) |
| (8) <i>Carduus acanthoides</i> (spiny plumless thistle) | (30) <i>Lonicera morrowii</i> (Morrow's honeysuckle) |
| (9) <i>Carduus nutans</i> (musk thistle) | (31) <i>Lonicera tatarica</i> (Tatarian honeysuckle) |
| (10) <i>Celastrus orbiculatus</i> (Asian bittersweet) | (32) <i>Lonicera x bella</i> (Bell's honeysuckle) |
| (11) <i>Centaurea stoebe</i> (spotted knapweed) | (33) <i>Microstegium vimineum</i> (Japanese stiltgrass) |
| (12) <i>Cirsium vulgare</i> (bull thistle) | (34) <i>Morus alba</i> (white mulberry) |
| (13) <i>Conium maculatum</i> (poison hemlock) | (35) <i>Phalaris arundinacea</i> (reed canarygrass) |
| (14) <i>Convolvulus arvensis</i> (field bindweed) | (36) <i>Phellodendron amurense</i> (Amur cork tree) |
| (15) <i>Coronilla varia</i> (crown vetch) | (37) <i>Phragmites australis subspecies australis</i> (common reed) |
| (16) <i>Dioscorea polystachya (oppositifolia)</i> (Chinese yam) | (38) <i>Polygonum perfoliatum</i> (mile-a-minute vine) |
| (17) <i>Dipsacus fullonum</i> (common teasel) | (39) <i>Reynoutria japonica</i> (Japanese knotweed) |
| (18) <i>Dipsacus laciniatus</i> (cut-leaved teasel) | (40) <i>Reynoutria sachalinensis</i> (giant knotweed) |
| (19) <i>Elaeagnus umbellata</i> (autumn olive) | (41) <i>Reynoutria x bohemica</i> (Bohemian knotweed) |
| (20) <i>Euonymus fortunei</i> (wintercreeper) | (42) <i>Rhamnus cathartica</i> (common buckthorn) |
| (21) <i>Euphorbia esula</i> (leafy spurge) | (43) <i>Vincetoxicum nigrum</i> (black swallow-wort) |
| (22) <i>Frangula alnus</i> (glossy buckthorn) | (44) <i>Vincetoxicum rossicum</i> (pale swallow-wort) |

Alternatives for invasives: <https://www.extension.purdue.edu/extmedia/ID/ID-464-W.pdf>. For more information on the rule and invasive species: <https://www.in.gov/dnr/naturepreserve/4736.htm> or <https://www.entm.purdue.edu/iisc/>.

Source: Kyle Daniel, Purdue Nursery & Landscape Outreach Specialist

New Traminette campaign showcases Indiana's thriving wine industry

Eight years ago, the Purdue Wine Grape Team asked Indiana residents and tourists to "Try On Traminette," the state's first signature wine. On April 1, the team will launch a new marketing campaign for Traminette encouraging consumers to make this versatile white wine their go-to choice for everyday and special occasions.

"Choosing a signature variety in a state of varying temperatures and growing conditions was challenging," said Bruce Bordelon, professor of horticulture, grape and small fruits Extension specialist and member of the Purdue Wine Grape Team. "Traminette was selected due to its outstanding quality and versatility, although it can be harder to grow than other wine grape varieties."

"Grape growing is never without its perils," Bordelon said. "What matters is wine quality. If the wine is poor quality, it doesn't matter if the grapes are easy to grow or not. With Traminette, the potential for wine quality is so good that for many Indiana vineyards the potential for an excellent wine makes the challenges of growing it worth the trouble."

Since the first campaign, the state's signature wine has become a staple variety for Indiana's 116 wineries and tasting rooms, which to date have generated \$94 million in Indiana tourism spending. Well-suited to a hot summer day or to being paired with rich foods, Traminette ranges from lightly sweet to dry with the floral aroma and spicy flavor characteristic of its Gewurztraminer parent.

"It's encouraging to feel that connection to Traminette as the state wine," said Eric Harris of Two EE's Winery in Huntington, which captured the title of Indiana Traminette of the Year at the 2018 INDY International Wine Competition. "It's something that everyone is producing, but we are still setting expectations for how an Indiana Traminette should taste. At Two EE's, we believe that balance is key — lightly sweet, with just a bit of residual sugar."

The Purdue Wine Grape Team's 2019 Traminette campaign will include radio and television advertisements across Indiana, Chicagoland, and in Louisville. These will be accompanied by print media, winery tours, and educational materials on winemaking and tasting — all aimed at generating long-term economic impact for the state's wine industry and signature grape. This time, instead of just "trying" Traminette, however, the Purdue Wine Grape Team hopes consumers will experience the wine coming to life firsthand at an Indiana winery or tasting room.

"I think our tasting room succeeds because our approach is accessible" said Harris, whose Two EE's Winery was voted "America's Best Tasting Room" in a 2017 USA Today poll. "We pride ourselves on being knowledgeable, but we don't believe visitors need to know everything to have a great time."

Source: Bruce Bordelon, Purdue Professor of Horticulture & Jessica Mehr, Purdue Communications Specialist



Legal hemp raises questions about pesticides

The legalization of industrial hemp in the 2018 Farm Bill is good news for farmers — especially tobacco growers dealing with declining demand for their crop. The bad news? If they find pests or disease damaging hemp crops, there are no pesticides that are considered safe or legal to protect them. Industrial hemp, which can be used for fiber in textiles, is a member of the cannabis species but contains less than 0.3 percent Tetrahydrocannabinol (THC), which gives users a high, and also cannabidiol (CBD), which is purported to have multiple uses. Since cannabis has until now been a federal schedule 1 drug — akin to heroin and LSD — it was illegal to grow, and pesticides have never been approved for use on the plant. That will change when the provisions of the Farm Bill go into effect, but potential growers still face many hurdles. In a paper published in the journal *Crop Protection*, Purdue University researchers lay out the problems surrounding the lack of pesticide regulations for cannabis.

"Pesticide regulations are narrow and confusing. A product approved for use on soybeans or corn can only be legally used for those products. It's illegal to go off-label and use a pesticide on another crop," said Janna Beckerman, a Purdue professor of botany and plant pathology and co-author of the study. "It can take many years for manufacturers to prove the safety and efficacy of their pesticides, and many more to get all the federal approvals. In the meantime, our hands are tied."

In the paper, Beckerman, Leah Sandler, a Purdue graduate research assistant, Fred Whitford, director of Purdue Pesticide Programs, and Kevin Gibson, a Purdue professor of botany and plant pathology, call for a clear federal framework that defines pesticide rules for cannabis, research funding that will lead to valuable information for hemp growers, and policies and procedures that will ensure the safety of products derived from cannabis. "There's already a lot of interest from potential growers, and if the farming community sees hemp as a viable crop, then we need to be working to address the concerns they're going to have surrounding crop protection," Sandler said. "You'd really rather have everything in place before you have people growing cannabis or hemp, but that hasn't happened. It will take considerable effort to take the steps necessary to ensure that cannabis can be grown safely and that growers will have the tools necessary to protect their crop investments."

The researchers also suggest that any federal pesticide regulations for cannabis should clearly define how those rules apply to cannabis grown for use as marijuana. Thirty states have legalized marijuana for medicinal or recreational use, and the Pew Research Center reports that 62 percent of American support marijuana legalization, suggesting that more states may adopt similar laws. Still, if the federal government continues to categorize marijuana as a schedule 1 drug, anyone growing cannabis for marijuana use in the 30 states that have legalized it will still be prohibited from using pesticides on their plants, whether they are grown commercially or for personal use. That could lead to confusion and serious consumer safety issues, Beckerman said, because of the differences in the ways hemp and marijuana are used. A pesticide that is safe for hemp being turned into fiber may not be safe for use on marijuana or for CBD, since those products are often concentrated and consumed or inhaled by consumers.

"When a highly valued crop has problems, people are going to apply pesticides. But unlike many of our currently regulated crops, cannabis can be dried or turned into oils, concentrating it and any chemicals put onto the plants," Beckerman said. "We don't know how those concentrations might affect users who ingest and inhale the end products." But growers go off-label to protect their cannabis plants, as evidenced by lab tests of marijuana that show illegal pesticide residues. "There are some natural, herbal types of pest- and disease-control products out there, but they are not regulated, kind of like herbal supplements you see at the store that promote health benefits. We don't know if they're safe, and we don't know if they work," Whitford said. "So growers go off-label, and not only is that dangerous, but it risks their crop as well. If those crops are tested and show any levels of illegal pesticide use, the entire crop can be confiscated."

Source: Brian Wallheimer, Purdue Communications Specialist

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Happy Spring

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