Hello, Northeast Ohio Counties!

Finally some rain! Trumbull County received at least an inch in most locations in the past 48 hours and the crops are looking better as a result. That stretch of about 10 days without significant rainfall, in conjunction with high temperatures, really stressed the corn. Most topsoil in the region was in the “Short” stage, or what the USDA calls dry soil that inhibits seed germination. Our subsoil moisture is still adequate, but many crop roots are not able to access the deeper soil at this point.

The Ashtabula and Lake County Master Gardener training is well under way! David, Tom, and Lee were out talking botany last week in Jefferson. The Trumbull County Master Gardeners will be holding their training class in February 2018.

Stay safe and have a great week!

David Marrison
Extension Educator
Ag & Natural Resources
Ashtabula County

Lee Beers
Extension Educator
Ag & Natural Resources
Trumbull County
Ohio Will Soon Permit Certain Agricultural Utility Vehicles to Travel on Public Roads
Written by: Chris Hogan, Law Fellow, OSU Agricultural & Resource Law Program

A new Ohio law affects farmers that plan to use certain utility vehicles this planting season, including Gators, Mules and other utility vehicles with a bed designed to transport cargo. The new law is part of the 2018-2019 transportation budget, formally known as House Bill 26. HB 26, which goes into effect on June 30, 2017, permits vehicles to travel on any public road or right of way—other than a freeway, when travelling from one farm field to another for agricultural purposes.

Under HB 26, utility vehicles are now expressly required to display a triangular Slow-Moving Vehicle (SMV) emblem. Previously, it was up to local law enforcement to interpret the law and decide whether a utility vehicle should have a SMV. The new law also clearly allows utility vehicles to travel on public roads between farm fields, whereas the old law required farmers to know whether the county or township allowed utility vehicles on the road. Utility vehicle operators can read more about the old law in our previous blog post on APVs, ATVs, and four-wheelers here.

What Qualifies as a “Utility Vehicle?”
Farmers should be aware that this law only covers what it defines as “utility vehicles.” This means that the law only applies to vehicles designed with a bed, for transporting material or cargo related to agricultural activities. Not all ATVs and APVs will be included in this definition.

The law is good news for farmers who plan to use utility vehicles this season. If farmers plan to use a utility vehicle on the farm, they should know the following before taking the vehicle out:

➢ In order to use a utility vehicle on a public road, a driver must be traveling from one farm field to another farm field for agricultural purposes.
➢ Utility vehicle drivers must display a SMV on any utility vehicle used on a public road as it travels between farm fields.
➢ Ohio Revised Code Section 5589.10 prohibits the placement of earth, mud, manure, or other injurious materials on a public highway. Therefore, farmers should avoid leaving such debris in the roadway or clean up the roadway if a utility vehicle leaves mud behind.

More information on HB 26 is here, under Sec. 4511.216 on page 328 of the bill.

All Puckered Up
By Pam Smith

DECATUR, Ill. (DTN) -- Pucker up is taking on a specific meaning across the soybean belt as reports of dicamba injury start to mount in several states.
The slightest whiff of dicamba herbicide causes sensitive soybean leaves to cup and pucker. As of June 12, there had been 41 drift complaints implicating dicamba registered with the Arkansas State Plant Board, according to Adrianne Barnes, communications director for the Arkansas Department of Agriculture.

Tennessee Department of Agriculture officials said three complaints have been received so far - two in Dyer County and one in Shelby County. Weed scientists in Missouri and Mississippi have also been walking fields to inspect potential injury. Across the Midwest, there are urgent pleas for applicators to follow proper protocols and to respect neighboring crops and other sensitive areas as spraying ramps up.

University of Arkansas weed scientist Tom Barber told DTN dicamba injury symptoms are widespread in his state. "We already have more complaints than the 32 total cases in 2016, and we're a week or more ahead of the first complaint last year," he said. "That northeast Arkansas crop is still pretty young because of weather and replant -- so we've got a ways to go on spraying."

Barber said he suspects most northeast Arkansas soybean fields that weren't planted to dicamba-resistant seed will be "cupped up."

ARKANSAS EFFORTS
The situation is significant because Arkansas, in particular, took the harshest line on dicamba this year. BASF's Engenia herbicide, a formulation using the BAMPA salt, was the only postemergence product legally available for use in the state. The state also required mandatory applicator training, extended buffer zones around the entire field at application and established a 0.25 mile downwind buffer to sensitive crops. In addition, the state banned the use of any DGA-based dicamba herbicide after April 15, including Monsanto's XtendiMax and DuPont's FeXapan that both contain VaporGrip technology. "The thought during development of these restrictions was an attempt to minimize the amount of injury from off-target movement this season," Barber said. "Unfortunately, that has not been the case."

MISSOURI REMINDER

Cupping symptoms are the first sign that sensitive soybeans may have been exposed to dicamba herbicide. Yield losses depend on the dose and soybeans hit in the reproductive stage typically suffer more. (Photo by Aaron Hager)
Last year growers planted the soybeans and cotton containing the dicamba trait known as Xtend with no approved dicamba herbicide to use with it. Problems came when they reached illegally for generic, more volatile formulations of dicamba. It also put a spotlight on how sensitive soybeans and other plants are to dicamba and led to very specific application requirements around nozzle selection, tank mixing, ground speed, wind speed and boom height. University of Missouri weed scientist Kevin Bradley has no desire to return to the problems he saw in his state last summer. Missouri led the way in the number of official complaints in 2016. "As of last week, there were no official complaints turned in to the Missouri Department of Ag," Bradley said.

However, he issued a terse reminder to applicators this week (http://bit.ly/…) based on what he sees happening in states to the south. "They are a couple of weeks ahead of us usually, and things that happen down there usually happen up here," he said. "I've fielded some complaints, but so far there's been nothing official."

Bradley said there's no question that 2016 issues left an awareness and a watchfulness for injury. That's resulted in some defensiveness too since dicamba has been sprayed on corn for decades. "That's true," Bradley said. "But we haven't been spraying dicamba in June and July on soybean. And we haven't been spraying as much of it as we have the potential to spray right out of the gate on Xtend soybean in its first year of release."

SIGNS OF INJURY
It can also take one to three weeks for dicamba injury to reveal itself, depending on the growth of the crop. Symptoms only appear on newly emerging vegetation, and current hot, dry conditions have slowed plant growth.

Whether the injury is cosmetic or yield damaging depends on dose and what stage the crop is in when the drift occurs. Late vegetative and early reproductive stages of the soybean, peaking around R-1, are the most sensitive, Barber said.

The combination of Xtend varieties being sprayed in both cotton and soybeans is adding to the situation in Arkansas. Barber said so far there's no way to know if the drift complaints are coming from growers using generic formulations or the approved lower-volatility formulation of Engenia.

"Of the fields I've walked personally, 80% to 90% of the situations were caused by physical drift," Barber said. "The wind was blowing too high, they didn't have the correct nozzle set up or configuration, booms were too high or winds were blowing toward a sensitive crop." He said temperature inversions have also been an issue, particularly when applicators were spraying at night.

"There's another 10% to 20% that I'm scratching my head and can't explain. We don't know if it is volatility or movement on dust particles, but in my mind it is some kind of secondary movement right from the initial application."
COMPANIES RESPOND
BASF responded to DTN inquiries on the issue by stating that initial reports of drift issues seem to have been caused by improper application and not following label requirements. However, they also stated that many growers are applying Engenia properly with good results.
In a media release to DTN, BASF said: "We are here to support our customers and, if requested, can assist in investigating an off-target allegation in an advisory capacity to provide technical support." The company has provided free nozzles to growers and has an online digital training module at www.GrowSmartUniversity.com.

Monsanto also told DTN via email that the company is aware of media reports regarding off-target movement of dicamba, but is not willing to draw conclusions on the reports at this time and re-emphasized the importance of following all product labeling and local requirements.

FUTURE ISSUES
Barnes, with the Arkansas Department of Agriculture, said 2017 case files are being investigated. "We do not have final determinations for products that were used, or even if dicamba was involved.

"Each year, the Arkansas State Plant Board handles a significant number of complaints relating to alleged chemical misuse; the complaints may name a suspected chemical, but until inspectors are able to get on site and diagnose based on symptomology, and collect records, there is no way to make a determination on the chemicals used," she said.
Barber also noted that, to be fair, other drift complaints have been filed this year and have involved herbicides such as paraquat and Roundup. However, he said those drift events tend to be more localized and damage 100-200 acres.

"Dicamba complaints have been much more widespread and may cover 1,000 acres or more each time," he noted. "But there is also a much higher acreage planted to Xtend crops and sprayed with dicamba this year compared to last year." In Phillips County alone, some 20,000 acres are estimated to have some amount of dicamba drift injury. More than 7,000 acres of drift have been reported in Mississippi County -- including most of the soybean research plots at the Northeast Arkansas Research and Extension Center at Keiser.

‘Raise Your Hand for Ohio!’ for 4-H

Ohio is ranked number 1, and Shelley Mather Meyer wants you to help keep the Buckeye state in first place.

Wife to Urban Meyer, coach of The Ohio State University’s men’s football team, Shelley Meyer recently “raised her hand” as an alum of 4-H, the national youth development program, by reciting the 4-H pledge for a social media effort.

As part of its “Raise Your Hand” campaign, National 4-H wants alumni to sign in at 4-H.org/alumni. The state with the most registered alumni by the end of June will bring home
$20,000 to use towards 4-H programming. On May 10, Ohio led the competition with 10,217 alumni. Coming in second was Indiana with 7,362.

4-H gives youth the opportunity to learn by doing and develop the skills they need to handle what life sends their way.

For Shelley Meyer, 4-H helped prepare her for the public life she leads as the first lady of Buckeye football. “I was president of our club, so I developed leadership skills. You have to get up in front of judges and talk about your outfit (she took sewing projects), so you develop speaking skills and confidence. Plus, you are relating to people all of the time.” While she grew up on a livestock farm, helped bale hay and drive a tractor, Meyer did not take livestock projects. She still remembers the beige terry cloth sweatsuit she sewed and serving as the Miss Ross County Junior Fair Queen.

The National 4-H Raise Your Hand Alumni Campaign has entered its final month and we need your help to get to the finish strong! A first place finish for Ohio will result in a $20,000 cash prize and your local program could benefit directly. In Ohio we are asking everyone to participate and the prize money will be divided among the 35 counties with the most hands raised! Don’t wait, go to 4-H.org/alumni today and Raise Your Hand.

— College of Food, Agricultural, and Environmental Sciences, Ohio State University

Research focuses on reclaiming strip-mine sites for biofuel crop production
By Amy Duke

UNIVERSITY PARK, Pa. — Strip mines are so common in rural Pennsylvania that many people are unfazed by the sight of rock-filled piles of dirt and tracts of barren land.
Marvin Hall, a researcher in Penn State's College of Agricultural Sciences, is not one of those people. To him, all land has value, and his research efforts focus on bringing a highly productive life back to damaged land with a crop that can be used as an alternative fuel source.

"In Pennsylvania, there are hundreds of thousands of acres that have not been reclaimed after strip mining," said Hall, professor of forage management in the Department of Plant Science. "If we show that land can be highly productive after mining, then maybe we'll see fewer abandoned strip mines and more grassy fields."

Hall's research is taking place on a "reclaimed" strip mine in Clearfield County, near the Centre County borough of Philipsburg. The property had been deep mined about 50 years ago and then strip mined in the mid-2000s. The post-mining remediation of the property with lime, fertilizer and a 10-inch layer of rocky earth did little, if anything, to restore the land. Hall first visited the site in 2008.

"It looked like a moonscape — the ground was filled with rocks and boulders, and the soil had poor water-holding capacity, all common problems after strip mining," Hall said. "I honestly didn't know how we were going to get anything to grow on it."

But he saw promise in one crop — switchgrass. It's a hardy, deep-rooted perennial grass that's known for its ability to grow despite poor soil quality, drought or flood. Its deep roots can break through rocky soil layers, improving long-term soil structure. It grows as high as 6 feet, requires little maintenance or fertilizer, and produces crops for up to 20 years. Switchgrass has many environmental and commercial benefits, such as providing shelter and food for wildlife, soil conservation, livestock feed, animal bedding, mulch and landscaping.

Perhaps most important in the strip-mine setting is that switchgrass can serve as a renewable energy source — its biomass can be condensed into fuel pellets for heating, and it also can be used to make ethanol, an alternative to gasoline. It's a carbon-neutral fuel, meaning what carbon dioxide it releases into the atmosphere as a fuel is reabsorbed and used by plants for growth, and that's good for the environment.
Another advantage is that switchgrass can produce high yields — an acre can yield 7 or 8 tons of dry matter when harvested; one ton can be converted to about 80 gallons of ethanol, according to Hall.

Because there are numerous switchgrass ecotypes, or varieties, determining which ones would survive — and thrive — on strip-mine ground in the region has been the focal point of Hall's research. To learn more about the soil's composition and other environmental factors that could affect growth, he worked with colleagues Rick Stehouwer, professor of environmental soil science, and John Carlson, professor of molecular genetics, both of Penn State's Department of Ecosystem Science and Management.

Stehouwer, who shares an interest in land reclamation, knew the property well as he was conducting experiments there with Hall; Stehouwer's research focused on the use of agricultural manure and paper-mill sludge to rebuild soil quality and sustainability for the purpose of growing biomass crops — a perfect complement to Hall's work.

"The soil (at the Philipsburg site) was what we typically find in post-mining areas — very low in nutrients like phosphorus, nitrogen and calcium, low in organic matter and filled with rocks — all factors that make it difficult for plants to grow," Stehouwer said.

After reviewing test results and his colleagues' recommendations, Hall connected with researchers from switchgrass breeding programs at Cornell and Rutgers universities and selected 150 ecotypes of seedlings for the first screening crop in 2013. With the help of graduate students, 4,000 seedlings were planted on several plots of the land, with the goal of identifying varieties that fared well and those that didn't.

Over the next three years — the time it takes for switchgrass to reach maximum yield — Hall and graduate students made regular trips to the site to monitor and document plant growth, soil conditions, insect damage and plant disease. They also focused on weed control, as weeds can be detrimental to seedlings' first year of root development.

After studying the data and pinpointing 30 switchgrass ecotypes that performed best, the team will plant an additional 1,500 seedlings this summer. At the end of the final, three-year study period, the plan is to narrow the selection to the top five performers for the land conditions and climate, and make seed from these selections available to the public for planting. Hall is pleased with the progress made.

"The differences we found in the productivity of different varieties have been amazing," he said. "We hope in the not-too-distant future we will be using old coal mines once again to produce our fuel."

Funding for the research has been provided by NEWBio — the Northeast Woody/Warm-season Bioenergy Consortium — a regional project funded by the U.S. Department of Agriculture's...
Northeast Ohio Agriculture

National Institute of Food and Agriculture to promote next-generation bioenergy production in the northeastern United States.

Penn State is the lead institution in the consortium, which also includes Cornell University, SUNY College of Environmental Science and Forestry, West Virginia University, Delaware State University, Ohio State University, Rutgers University, USDA's Eastern Regional Research Center, and the U.S. Department of Energy's Oak Ridge National Laboratory and Idaho National Laboratory.

**Sorghum x Sudangrass, a Real “Slump Buster”**

By Mike Estadt, OSU Extension Pickaway County

Source: [http://u.osu.edu/beef/2017/06/14/sorghum-x-sudangrass-a-real-slump-buster/](http://u.osu.edu/beef/2017/06/14/sorghum-x-sudangrass-a-real-slump-buster/)

Major League Baseball players are infamous for trying strange practices to get out of hitting slumps. Not shaving, not showering, and trying to keep the routine they used when the bat was finding the ball. Grazers in part of Ohio typically have a period of time called the “summer slump”, usually in late July and early August when hot and dry weather force cool season grasses into partial dormancy. Quite often we become like baseball players trying the same routine.

Sometimes we as grass managers need to look to the bench and insert a pinch hitter into our forage lineup to help our cows keep up with nutritional demands. Enter Summer annual grasses. This article will highlight Sudangrass. *Sorghum × drummondii* (Sudangrass), is a hybrid-derived species of grass raised for forage and grain native to tropical and subtropical regions of Eastern Africa. Sudangrass is smaller in plant architecture, has finer stalks, produces more leaves than forage sorghum and develops multiple tillers. Compared to forage or grain sorghums, sudangrass looks more like a “grass” plant. It possesses excellent re-growth ability with very quick recovery following cutting or grazing, compared to
forage sorghum or sorghum-sudangrass hybrids. Total biomass tonnage for a single harvest generally will be less than yields of forage sorghum. Sudangrass is primarily utilized for grazing and hay production and can serve as an excellent cover-crop.

The new and improved varieties possess genes that makes them highly digestible and desirable to ruminant diets. This gene is referred to as a BMR-6 which stands for Brown Mid rib. The Brown Midrib-6 gene lowers the lignin content of plant leaves to improve digestibility and palatability.

From here I would like to describe how I utilize this outstanding summer forage option. Most grazers are advised to have a sacrifice lot to bring cows in on when extreme weather conditions could damage our forage stands. Grazing either extremely wet or extremely dry pastures can cause long term damage to our pasture. For me it is a 5 acre pasture adjacent to handling facilities and winter feed pads.

Establishment: When soil temperatures reach 60 degrees seed is planted with a no-till drill at a rate of 35 pounds per acre, 1 inch depth. Under favorable growing conditions, apply 1-1.25 lbs of nitrogen per day of planned growth. For example, for a planned 60- day harvest, apply 50-75 lbs. of nitrogen.

Grass is usually grazed 45 to 55 days after emergence. For best quality and yield under multiple-grazing, harvest at 40 days or 40” of growth, which ever comes first.

Protein will decline as harvest is delayed. Energy will increase upon heading due to continued sugar formation in the stalks and leaves and carbohydrate deposition in the developing grain.

Careful attention should be paid to the grazing height. To allow for rapid re-growth, leaving 2 nodes or 6” is optimal. You will see increased tillering of plants thus thickening up the stand for subsequent grazing. A note of caution. These plants can accumulate a chemical called Prussic acid following large nitrogen fertilizer applications followed by drought and following a killing frost. Grazing should be delayed at minimum 7 days following a killing freeze later in the fall.
The biggest and most important question you should ask me is *What does it cost?*

Seed: $30/acre  
Fertilizer at seeding (includes 50 units of N): $50/acre  
Planting cost: $10/acre

I turned 56 mature bred fall calving cows into 5 acres on July 18th, forty-one days after planting. Cows grazed for three days. At 168 grazing days (56×3) and $90 per acre it comes to roughly 53 cents per cow per day.

An additional 50 units of N was applied after the first grazing. The cows were grazed an additional 5 days during the second half of August. Regrowth was amazing during those hot days last summer, and as you can see from the accompanying pictures the grass had tillered out and grown to about 16-18 inches, 15 days post grazing. And, with only fertilizer costs for the second grazing needing to be considered, the cost for those additional 5 days of grazing came to less than 20 cents per cow per day. Unfortunately, near drought conditions in Pickaway County last fall prevented the opportunity for any additional grazing.

So if you’re facing feeding winter feed stocks of hay during the summer slump or letting them “Pick” your drought stressed pastures, may I suggest you consider putting summer annuals in your lineup. They are a home run!

**Effective High Tunnel Vegetable Growing Workshop—**  
**Wednesday, June 21, 2017**  
By Erik Draper, Geauga County Horticulture Educator

The Ohio State University Extension of Geauga County is offering an educational workshop on June 21, 2017 from 9:00-4:00pm at the OSU Extension, Geauga County office, located at 14269 Claridon-Troy Road, Burton, OH 44021. During this interactive workshop, we will discuss the emerging challenges of how to best use low, mid, and high tunnels (hoop huts/greenhouses) in commercial vegetable production. Register quickly because CLASS SIZE IS LIMITED to the FIRST 50 participants and PRE-registration is required. The total registration cost for this workshop is $20 per person (used for refreshments and lunch).

This interactive workshop will feature discussions on individual practices, like how to effectively manage multiple factors of soils, crops, pests, and diseases, from before planting the crop, to after the harvest. The intent is to integrate good horticultural and cultural practices and
techniques, to develop an effective approach for high quality vegetable production in high-tunnels.

All participants of this workshop, will have the opportunity to learn from the experiences, both good and not so good outcomes, of everyone in the workshop. The topics and discussions will flow from questions posed to the presenters; namely' Brad Bergefurd (horticulture), Luis Canas (pest management), Erik Draper (horticulture), Matt Kleinhenz (horticulture), and Sally Miller (disease management). These presenters will serve as informational science-based resources for this workshop, all representing The Ohio State University.

For additional information and to register, please contact the Ohio State University Extension Office by calling (440) 834-4656, or email to ward.714@osu.edu. Registration is $20 per person, cash or check. Please mail payment by June 16, payable to "Ohio State University Extension", P.O. Box 387, Burton, OH 44021. More information can be found at http://geauga.osu.edu.

**Maple Syrup Value Added Products Workshop**
By Les Ober, Geauga County

Marketing maple syrup in recent years has been a challenge. Unless you have well established retail markets at least a portion of your syrup has to be sold on the bulk market at a lower price. If you are only marketing your syrup in containers you may be missing out on one of the best opportunities to sell your product. Selling your syrup through value added products such as candy, maple coated nuts and other maple products can greatly enhance your bottom line. It also represents the best chance for a small producer to break into the market. The problem is where and how do you get started making maple value added products?

The Geauga County OSU Extension has invited one of the most recognized authorities on maple confections, the author of the Cornell University Maple Confections Notebook, New York State Maple syrup Specialist Stephen Childs. Steve will present two programs. On Saturday June 24, 2017 from 9:00 am to 1:00 pm at the OSU Extension office, Geauga County, 14269 Claridon Troy Road, Burton, OH 44021. Steve will demonstrate how to make some of the most popular maple confections and products. The Saturday morning program will be a limit of 35 attendees. As an added bonus, Steve will present a program on Friday Evening June 23rd starting at 7pm at the OSU Extension office, covering some of the new and exciting maple production research now being conducted at Cornell University. This will include some of the recent results in tap hole sanitation and 3/16 tubing.

If you are a maple producer this will be a great opportunity to increase your knowledge in maple products and production. The cost of the confections class will be $25.00 per person. If you are attending the Saturday Program there will be no additional charge for Friday evening. If you choose to attend only the Friday evening program, the charge will be $10.00. Both programs will require advanced pre-registration by June 19th. If you are coming to the confections class we are asking that you submit payment in advance because of the limited access. For more
information, or to pre-register for this great maple syrup educational weekend please call the Geauga County OSU Extension at 440-834-4656 or send payment payable to OSU Extension, P.O. Box 387, Burton, OH 44021.

David’s Weekly News Column
Hello, Ashtabula County! A few weeks ago, I mentioned it would be nice to receive a nice stretch of weather for farmers to finish planting soybeans and to make a dent in our hay baling. Starting Friday, June 9, we had a week of hot and dry weather. It was perfect for planting soybeans and baling hay. In fact, I don’t think I have ever seen so much hay down at one time across the county. What a great timely stretch of weather. I know they hay we made is right up there with last year’s quality with higher yields! It was nice to see some rain this past Sunday. Can we ask for the rains to come at the right time for the remainder of the summer?

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A lot can change in 12 years! That’s why the 2005 edition of the Ohio Agronomy Guide was just revised to offer the most up-to-date guidelines for planting corn, soybeans, wheat and forages in Ohio, managing the pests they attract and enriching the soil in which they grow. All the guidelines offered in the book are specific to Ohio and based on research in Ohio fields.

The guide is Ohio’s go to guide for crop production practices and offers advice from 19 contributors including agronomists, entomologists, plant pathologists, soil scientists and agricultural engineers. This new edition includes three new chapters: cover crops and how to manage them, precision agriculture and setting up field trials on farms. These three chapters blend in nicely with the revised chapters from the previous version. Chapters include: Ohio’s Climate and Soil, Soil and Water Management, Soil Fertility, Corn Production, Soybean Production, Small Grain Production, Forage Production, Multiple Cropping and Pasture and Grazing Management.

The newly revised Ohio Agronomy Guide is $15.75 and will be available soon at the Ashtabula County Extension office or can be purchased now through the CFAES Publications e-store at http://go.osu.edu/OhioAgronomyGuide. Call the Ashtabula County Extension office at 440-576-9008 for more details.

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We have a lot of great maple syrup producers across the region. Producers are always looking for ways to increase profitability. One way for maple producers to do this is through value added products such as candy, maple coated nuts and other maple products. So do you want to learn more about adding value to your maple syrup?

If so, the Geauga County OSU Extension is bringing in one of the most recognized authorities on maple confections, Stephen Childs, New York State Maple Syrup Specialist to northeast Ohio on June 23 & 24 to teach two dynamic workshops. Stephen is the author of Cornell University’s Maple Confections Notebook which is the go-to guide for maple producers making maple candy.
While in Ohio, Steve will present two programs. On Saturday, June 24, 2017 will teach a maple confections workshop from 9:00 am to 1:00 pm at the Geauga County Extension office in Burton. During this class, he will demonstrate how to make some of the most popular maple confections and products. This program will be a limit of 35 attendees.

As an added bonus, Steve will present a program on the evening before, June 23, on the new and exciting maple production research being conducted at Cornell University. This will include some of the recent results in tap hole sanitation and 3/16 tubing. If you are a maple producer this will be a great opportunity to increase your knowledge in maple products and production.

The cost of the confections class is $25.00 per person. If you are attending the Saturday Program there will be no additional charge for Friday evening. If you choose to attend only the Friday evening program, the charge will be $10.00. Both programs will require advanced pre-registration. For more information, or to pre-register for this great maple syrup educational weekend please call the Geauga County OSU Extension at 440-834-4656.

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To close, I would like to leave you with a quote from Joel Osteen who stated “You're going to go through tough times - that's life. But I say, 'Nothing happens to you, it happens for you.' See the positive in negative events.” Have a good and safe day!

**Upcoming Extension Program Dates**
The following programs have been scheduled for Northeast Ohio farmers. Complete registration flyers can be found at: http://ashtabula.osu.edu/program-areas/agriculture-and-natural-resources/upcoming-educational-programs-deadlines

**Fertilizer Certification Sessions**
August 17 at Trumbull County Field Day (location TBD) from 9:00 a.m. to 3:00 p.m.
September 14 at Geauga County Extension Office from 1:00 to 4:00 p.m.

**Producing Vegetables in High Tunnels**
June 21, 2017 in Burton, Ohio

**Maple Syrup Value Added Products Workshop**
June 23-24, 2017 in Burton, Ohio

**2017 Ashtabula County Beef Banquet**
Saturday, November 11, 2017

**Private Pesticide Applicator Recertification Sessions**
November 16, 2017 from 1:00 to 4:00 p.m. in Lake County
January 12, 2018 from 9:00 to 12:00 noon in Ashtabula County
February 2, 2018 from 1:00 to 4:00 p.m. in Geauga County
February 9, 2018 from 9:00 to 12:00 noon in Portage County
March 9, 2018 from 9:00 to 12:00 noon in Trumbull County
2018 Northeast Ohio Winter Agronomy School
Wednesday February 21, 2018

21st Annual Joe Bodnar Memorial Northern Classic Steer & Heifer Show
Saturday, April 21, 2018

THE OHIO STATE UNIVERSITY
COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

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CFAES provides research and related educational programs to clientele on a nondiscriminatory basis. For more information: http://go.osu.edu/cfaesdiversity.
What:
A workshop addressing persistent and emerging challenges in using low, mid, and high tunnels in commercial vegetable production more effectively.

Goal: Help growers use tunnels more effectively, regardless of scale, setting, system, or time of year.

Plan: Discuss individual tactics and integrated approaches for including tunnels more effectively in managing crops, soils, pests, and diseases from before planting to after harvest.

Who:
The program is best for growers who have some experience with tunnel-based production or who are serious about beginning to include it in their vegetable business. Everyone present will learn from each other. Brad Bergefurd (horticulture), Luis Canas (pest management), Erik Draper (horticulture), Matt Kleinhenz (horticulture), and Sally Miller (disease management) will serve as resource people representing The OSU.

Why
Vegetable growers and people who look to serve them need to discuss persistent and emerging production issues and possible solutions for them. This workshop will be an opportunity for growers and advisors to educate each other on major issues related to using low, mid, and high tunnels in commercial vegetable production.

How
No formal presentations are scheduled. Instead, learning will take place through interactive small and whole-group discussion. Matt Kleinhenz and Erik Draper will facilitate discussion. Responses to questions will rely on experience but they may also include pictures, drawings, publications, and other resources.

Register soon. Space is limited to 50 participants and PRE-registration is required.
Registration fee = $20 per person (used for refreshments and lunch).

To register, please mail payment by June 16 payable to Ohio State University Extension – P.O. Box 387, Burton, OH 44021. For questions, call or email Erik Draper (440.834.4656; draper.15@osu.edu) or Matt Kleinhenz (330.263.3810; kleinhenz.1@osu.edu).

The workshop is partially supported by USDA NIFA 2014-7000622507.
Maple Syrup Value Added Products Workshop

Guest Speaker Stephen Childs, Cornell University, Maple Syrup Specialist

Geauga County OSU Extension has invited Steve Childs to put on two programs for local maple producers. On Friday evening, June 23\textsuperscript{rd} at 7:00 pm, Steve will present a program on maple research at Cornell University. On Saturday June 24\textsuperscript{th} at 9:00 am, Steve will cover making value added maple products.

The Friday evening program will cost $10.00. The cost for Saturday’s value added workshop is $25.00 or $30.00 if you are attending both Friday and Saturday programs. Saturday’s program will be limited to 35 participants only.

The Cornell Maple Confections Handbook will be available for an additional $25.00.

Preregistration is required by June 19th - call OSU Extension at 440-834-4656 or send payment payable to OSU Extension, P.O. Box 387, Burton, OH 44021

FRIDAY AND SATURDAY
JUNE 23 & 24, 2017

Location:
OSU EXTENSION, GEauga COUNTY PAttermON CENTER
14269 CLARIDON TROY RD BURTON, OH 44021

PRE-REGISTRATION IS REQUIRED BY JUNE 19TH.