Hello, Northeast Ohio Counties!

Mud season has returned to NE Ohio this past week. The warm weather is causing localized flooding in many locations in our area, and will stick around for at least a few more days.

We have a great schedule of talks lined up for our annual NE Ohio Agronomy School on February 21st. We’ll be discussing precision ag, tax changes for 2018, and other topics that you will need to know for this growing season. If you would like to attend (or sponsor) this event please see the flyer at the end of the newsletter.

David Marrison
Extension Educator
Ag & Natural Resources
Ashtabula County

Lee Beers
Extension Educator
Ag & Natural Resources
Trumbull County
Understanding the Tax Cuts and Jobs Act
By Anna-Lisa Laca, Ag Web Online and Business Editor

Just before Christmas, President Trump signed the Tax Cuts and Jobs Act into law. This is the first major tax overhaul since 1986 when President Ronald Reagan was in office. Many agriculture groups, say the new law is a “net benefit” for farmers. “In addition to lowering the tax rate, almost all of the important deductions and accounting methods farmers use stayed in the bill,” says Pat Wolff, senior director of congressional relations at AFBF. Keep in mind, she adds, the tax savings won’t go into effect until next year when farmers file their 2018 taxes.

“In the short-term, it is clear most farmers will pay less,” says Brian Kuehl, federal affairs director for KCoe Isom. However, some tax provisions are set to expire beginning in 2022, which could cause farmers to pay more in taxes down the road. “In the long-term, we could see a tax increase,” Kuehl says. “A lot of the good provisions for farmers, [for example] the pass-through rates, are set to expire. Some of the bad provisions for farmers, like some of the deductions they are used to taking, are gone for good.”

Here are the top 9 ways the Tax Cuts and Jobs Act might impact your farm operation:

1. **Individual Tax Rates.** Other than the 10% and 35% tax brackets, all of the other individual tax brackets have been lowered. "The reduction ranges from about 15% to 25% on income between $20,000 and $400,000 for married couples," says Paul Neiffer CPA and principal at CliftonLarsenAllen. "The only range where we see rates go up or stay the same is a narrow window between $400,000 and $480,050. Once a married couple reaches this threshold, the old top rate of 39.6% is reduced to 37% thereafter.” However, these rates go back to the 2017 tax brackets in 2026, adds Jim Wiesemeyer ProFarmer’s Washington policy analyst.

2. **Child Tax Credit.** The child tax credit is double what it was in 2017 at $2,000 per child, with $1,400 of this refundable for families who have no income tax liability. This credit phases out starting at $400,000 for married couples, according to Wiesemeyer and reverts back to $1,000 in 2026.

3. **Standard Deduction and Personal Exemptions.** In an attempt to reduce the number of taxpayers who itemize their tax returns, the new bill increases the standard deduction, but eliminates exemptions. For the average farm couple with four children, the loss of personal exemptions eliminates about $25,000 of deductions, Neiffer says. Under the new code, it’s $12,000 for individuals and $24,000 for married couples. This too goes back to the 2017 rates of $6,350 for individuals and $12,700 for married couples in 2026.

4. **Estate Tax.** The new tax code doubles the estate tax exemption, which Wolff says is a big win for agriculture. The new exemption level of $11.2 million for individuals and $22 million for couples will mean very few farmers pay the tax, she says. It’s important to note that stepped-up basis stays intact and the exemption level will continue to be adjusted for

Northeast Ohio Agriculture

Ohio State University Extension

Ashtabula and Trumbull Counties
inflation. The estate tax exemption levels revert back to $5.49 million per individual beginning in 2026. “As long as there is a threat that lower exemption levels will come back, farmers and ranchers will continue to have to spend money on estate planning,” Wolff says.

5. **The New Section 199A Deduction.** Under the previous law, farmers were entitled to a deduction of up to 9% of net farm income known as the domestic production activities deduction (DPAD). The overall limit was 50% of wages paid and a final limit of taxable income. It could not create a net operating loss. The new law eliminated this deduction. However, it did create a new Section 199A deduction designed to level the playing field between corporations—which are now taxed at 21% while pass-through farmers, would be taxed at 37%. On sales to a non-cooperative, a farmer is allowed a 20% deduction based on net farm income and net taxable income less net capital gains and cooperative distributions, Neiffer explains. “Once that deduction is calculated, the farmer is allowed to add 20% of gross cooperative payments received as a patron. The only limit is taxable income less net capital gains,” he says. Corporations are not allowed to take this deduction and it will expire at the end of 2025. “It’s clear that Congress didn’t draft the 199A section correctly and it’s already causing some problems in the marketplace,” said Kuehl. “We expect that Congress will modify this provision though it’s unclear at this point when or how the provision will be modified.”

6. **Immediate Expensing and Bonus Depreciation.** Under the new tax code, farmers can write off all farm assets other than land, including used assets, in the first year. That’s a big win for farmers, Kuehl says. In addition, the new law increases the limits on Section 179 and makes bonus depreciation 100% again. The downside is bonus depreciation will start phasing out in 2022. “So in the short-term we have a good provision that will really help farmers,” Kuehl says.

7. **Property Taxes and Mortgage Interest.** If you’re in a state with an income tax, the new bill caps the aggregate of personal state and local income taxes, property taxes, etc., to $10,000, Neiffer says. “The property taxes paid on your farm operations and rented farmland continue to be fully deductible,” he says, adding homes purchased after Dec. 15, 2017, are only subject to a mortgage interest deduction up to $750,000.

8. **Business Interest Deduction.** Under the old law, farmers were always able to deduct business interest related to their farm operation, including the purchase of farmland, Neiffer says. Under the new law, if a farm operation has gross receipts greater than $25 million, including certain related parties, then interest deduction will be limited to 30% of adjusted net income. “From now until 2022, farmers can add back interest, income taxes, depreciation and amortization [EBITDA] to arrive at adjusted net income,” he explains. “After that date, farmers will not be able to add back depreciation and amortization.” However, a farmer can elect to fully deduct interest. “The trade-off is farmers must use the Alternative Depreciation System, which has a longer life, on all farm assets with a recovery period of 10 years or longer, and they can’t take bonus depreciation on those assets,” Neiffer explains.
9. **Commodity Gifts To Kids.** Under the old law, if the “kiddie tax” did not apply and a child was in a lower bracket, he or she could also save the difference in the tax rates and save on self-employment taxes, Neiffer says. In other words, the “kiddie tax” would prevent income tax savings but allow for self-employment tax savings. According to Neiffer, the new law subjects children to much higher taxes. “They are subject to the trusts and estates tax rates, which are 37% once income reaches $12,500,” Neiffer says. “Therefore, if the child is subject to the kiddie tax, commodity gifts have become more expensive.” He says Schedule F farmers can achieve similar savings paying appropriate wages to children under 18.

**Dicamba Training On February 9, 2018**

If you have category 1 on your private pesticide applicators license, you probably received a letter from the ODA yesterday detailing new guidelines and restrictions for using dicamba. One of those new guidelines requires specific training for the use of applying new dicamba technologies in crop after emergence. You can find dicamba trainings in Ohio at this website: https://pested.osu.edu.

Local training will be sponsored and taught by Monsanto on February 9, 2018 at 10am at WI Miller and Sons in Farmdale, OH. To register for the event please visit: http://www.cvent.com/d/3tq4b0/4W. This training will allow you to apply Monsanto, Dupont, and BASF products. For more information please contact WI Miller and Sons at 330-876-6573.

**The Federal Government is Getting its Act Together for Rural America**

By: Jodi Henke

On the day U.S. Ag Secretary Sonny Purdue took office, President Trump signed an executive order that created an Agriculture and Rural Prosperity task force. It was created specifically to identify ways for the federal government to come together to improve life in rural America. More than 21 different federal agencies were brought together, all with resources to assist rural communities. Input was also gathered from ag and rural stakeholders across the country.

Anne Hazlett is USDA’s Assistant to the Secretary for Rural Development. She says the task force identified dozens of recommendations for the federal government to consider that would improve life in rural America. The recommendations center around these five areas.

1. **Better e-Connectivity for Rural America** - Access to high-speed, high-capacity internet is necessary for everything from health care to education to market access is necessary for rural Americans, just like it is for people living in urban areas. “Right now, nearly 40% of rural..."
Americans lack access to sufficient broadband and this must change,” says Hazlett. The task force recommends incentivizing private capital investment, including the use of public-private partnerships. It also wants to make investment in high-speed internet infrastructure more attractive by streamlining the burdensome review, approval, and permitting processes.

2. **Quality of Life** - There are pieces of a community that enable the people living there to experience a high quality of life and must be addressed. They include modern utilities, affordable housing, efficient transportation, access to medical service, public safety, and quality education. Hazlett says, as part of this effort, a wide range of federal departments and agencies are also focused on crafting an effective response to the opioid epidemic. “We are really looking at how we can best support rural communities in designing and building solutions that are based on their own specific needs and their strengths,” says Hazlett.

3. **Rural Workforce** - Today’s rural areas are more economically diverse than in the past, which prevents an opportunity for growth in the workforce sector. However, employers want to locate where they know there is a workforce that’s ready for them. Hazlett says the task force found that a data-driven analysis of employee skills and job requirements is needed to help match curriculum and training programs to best serve those employers’ workforce goals. “One of the things that they looked at is career mapping within the education system beginning with K-12 education and continuing through higher levels,” says Hazlett. “What is needed there to help prepare the workforce of the future to fit rural economies?”

4. **Innovation** - The task force concluded that there is tremendous opportunity with the food demand for a growing worldwide population. Globally, the biotechnology sector is a driver. Hazlett says the task force believes this presents an unprecedented opportunity for American farmers and rural communities to excel in the front lines of innovation. “We have technology innovation in agriculture, but beyond we see innovation in manufacturing and mining technology that can also enhance the efficiency and safety of the rural workforce,” says Hazlett.

5. **Economic Development** - The task force found that infusing rural areas with stronger businesses and investing in rural economic development will empower not only these places, but also all of America. Rural business men and women, entrepreneurs, and beginning farmers and ranchers need improved access to capital to help them start, grow, and expand. “We believe that enabling rural-based investment partnerships, whether they’re public or private, can help communities identify and develop projects that are best suited for investment, economic growth, and job creation,” says Hazlett. “Then beyond capital, the task force determined that identifying key regulatory reforms, streamlining processes, and improving inner-agency coordination is needed to create conditions in which the rural economy can thrive.”

**Moving Ahead**

The task force and its effort is much broader than the USDA and the issues that would fall within the jurisdiction of the agriculture committees in Congress. “With Congress preparing to write this important (Farm Bill) legislation, we certainly hope that the task force report will serve as a fresh, strong, and valuable resource to those policymakers as they look at the magnitude of issues that impact these places that the legislation is designed to benefit,” says Hazlett.
With a clear road map, she says things are expected to start happening quickly. There are recommendations that can be worked on now such as regulatory reform and inner-agency partnerships. Hazlett says this will make the federal government more effective and efficient when working toward solving rural America’s challenges and maximizing its opportunities.

**Five Themes Exist in Emerging Consumer Issues**

By Corey Geiger, Managing Editor  

While GMO (genetically modified organism) feeds continue to garner attention from some food retailers and consumers, there are a number of other common dairy farm practices that have gained some attention. The National Milk Producers Federation’s (NMPF) Emily Meredith (shown at right) touched on those matters at the 101st annual meeting of the organization.

1. **Pain management:** This concern relates to pain mitigation when disbudding calves. Polled genetics also has gained attention. “We all know that horned cattle are a safety issue for both cattle and employees. Even so, we must carry out the practice in the best way possible for the animal,” said Meredith, who serves as chief of staff for NMPF. “While polled genetics are available, they cannot be widely incorporated into dairy herds at this time due to reduced genetic values.

2. **Animal housing:** “Animal housing has popped up on the radar as it relates to animal stocking densities within dairy facilities,” Meredith went on to explain to the 800 people attending the joint annual meeting of the National Milk Producers Federation, the United Dairy Industry Association, and the National Dairy Promotion and Research Board at their gathering in Anaheim, Calif.

3. **Calf care:** “Calf care, as it relates to housing and cow-calf separation, has been another issue that has been discussed at times,” said Meredith. “In Europe, consumers are asking how dairy farmers can provide nose-to-nose contact with their dam for two months,” Pete Kappelman, chairman of the Land O’Lakes board added later at the same meeting.

4. **Employees:** “Worker safety and human resources will draw more scrutiny in the coming years,” said Meredith.

5. **Reproductive hormones:** “Consumers and retailers want to know more about them and how they impact cows and dairy products,” she said.

**Northeast Ohio Agronomy School Slated for February 21, 2018**

The OSU Extension offices in Northeast Ohio are pleased to be offering the “2018 Northeast Ohio Agronomy School” on Wednesday, February 21, 2018 from 9:30 to 3:30 p.m. at the Williamsfield Community Center located at 5920 State Route 322 in Williamsfield, Ohio. With NorthEast Ohio Agriculture
profit margins decreasing it will be vital for crop producers to get the biggest bang from the dollars they invest in land rental, seed and fertilizer, technology, chemicals, and crop protection in 2018. A full day of topics with six different speakers has been planned for producers to learn more about the major issues impacting corn and soybean production in northeast Ohio.

Morning Session- Jeff Stachler, OSU Extension Educator for Auglaize County will “ZOOM” in via the internet to help farmers learn how to control troublesome weeds. Learn more about controlling marestail, lambsquarter, common ragweed, redroot pigweed, and grasses. Discussion will also be held on waterhemp, one of Ohio’s newest weeds, which is heading its way east across Ohio. Alan Sundermeier, OSU Extension Educator in Wood County will then help producers learn about Ohio’s Soil Health Initiative. Learn what makes up a healthy soil and how can farmers can measure it. This interactive session will demonstrate water holding capacity, compaction, and biological attributes of soil. Techniques for improving soil productivity will also be discussed. To cap off the morning, David Marrison, OSU Extension Educator for Ashtabula County will help provide tips for making higher profits from your crop enterprise. Learn how to analyze your farm’s financial situation, how to create effective crop budgets and how to examine your cost of production. This session will also examine the new tax legislation and how it will impact agriculture.

Lunch- As always, a hearty farmer lunch prepared by Lahti Catering means attendees will not go away hungry! This lunch is sponsored by W.I. Miller & Sons of Farmdale, Ohio and each of our program sponsors will provide a short industry update during lunch.

Afternoon Session- To kick off the afternoon session, Dr. Scott Shearer, OSU Associate Professor in Food, Agricultural and Biological Engineering will help farmers examine the impacts of soil compaction. Increasing production costs and tighter profit margins are causing many to question the value of new tire or track technologies. This presentation will provide farmers with a foundation for considering the value of these technologies along with field data from studies including grain carts and planters. Dr. John Fulton, OSU Associate Professor in Food, Agricultural and Biological Engineering Technology will then help producers learn how to use precision ag on their small & medium crop farms without breaking the bank. This presentation will cover the basic precision technologies available while discussing potential value. To close out the day, Lee Beers, OSU Extension Educator for Trumbull County will address some of the more volatile issues which producers are sure to face 2018. This presentation will include a discussion on dicamba and much more.

Sponsors & Credits- This workshop is sponsored by the OSU Extension offices in Ashtabula, Trumbull & Geauga Counties with support from W.I. Miller & Sons, Centerra Coop, Doebler’s Hybrids, Pioneer Seeds & the Ohio Soybean Council. Certified Crop Advisor and Private & Commercial Pesticide Credits have been applied for.

Registration- The registration fee for this workshop is $15 per person and includes refreshments, lunch, speaker travel expenses, and program handouts. 2018 Weed Control Guides will be on sale for $16 at the workshop as well as the Ohio Agronomy Guide for $17. Pre-registration is required by February 13, 2018. Make checks payable to OSU Extension, and mail to Ashtabula County Extension.
Changes = Economic Realities in the Beef Cattle Industry!
By Stan Smith, OSU Extension PA, Fairfield County (originally published in the Ohio Farmer online)

As always, there are seemingly lots of changes on the horizon for cattlemen. Some changes involve management decisions and will be made by choice. Others will soon be required to simply continue to have market access. As we move into 2018 the OSU Extension Beef Team has made plans to focus programming on the practices cattlemen will need to embrace in order to insure they maintain access to every available market.

For years we’ve talked about the need for producers to be willing to implement practices such as pre-weaning, dehorning, a vaccination program, and having calves castrated and healed in order to add value to their calf crop. Today, we are hearing with more and more frequency these practices may no longer gain a premium, but will soon be required by the marketplace in order to simply avoid discounts. Fact is, the feeder calf market now commonly experiences an 8 to 12 cent discount on small groups of calves that haven’t been through a weaning and conditioning program.

Last year beef trade with China was opened for the first time in years, however, it comes with the requirement that the beef originate from cattle that are age and source verified. The voluntary tagging and tracking systems we’ve talked about for at least the last 15 years have now become a key that allows cattlemen access to that market.
Pork producers have for years been required to maintain their Pork Quality Assurance certification in order to access markets. Now, Wendy’s has announced that beginning next year they will require any beef they purchase to originate from cattlemen who have a current Beef Quality Assurance certification. Following the lead set by the pork industry over the past several years, and also now Wendy’s as it relates to the beef cattle industry, one must assume that Wendy’s is likely only the first of several who will soon require their producers be current with their BQA certification.

Another piece of the equation that relates directly to sustained profitability in the beef cattle industry is the continued growth in demand for beef product resulting from branded, high quality programs. As one example, despite earlier this decade experiencing the highest beef prices the world has ever seen, 2017 marks the 13th consecutive year of growth for the Certified Angus Beef brand. While reputation fed, carcass merit cattle have long been rewarded in the local market place, it’s not hard to imagine that documented genetic merit cattle being delivered to the marketplace may soon become the next step in the progression for meeting consumer demand for high quality beef that originates from branded programs.

As this winter progresses into spring, programming efforts of the Ohio State University Extension Beef Team will focus on maintaining market access while delivering the kind of cattle that are in demand. This includes a renewed effort to get Ohio’s cattlemen BQA certified, teaching the value of weaning programs that can help insure calf health, and the longer range...
The value of breeding and management programs that result in high quality beef at the time of harvest. The action plan is to offer pre-recorded presentations to County Extension Educators to utilize for programs at the convenience of those in the county. The hope is that this format will reach more total cattlemen than the fixed time webinar format of recent years.

The first of these pre-recorded presentations will be available in early February. In total there will be two approximately 45 minute presentations that follow the theme of “Gaining Greater Market Access for Ohio Feeder Calves.” After these initial presentations have been offered, they will be followed up by offering Beef Quality Assurance (BQA) trainings within local Extension meetings hosted by Extension educators, as well as being offered at auction markets and/or cattle collection points.

If you’re interested in these presentations, participating in BQA certification, and retaining a front row seat to the quickly changing economic realities of the beef cattle industry, contact your County Extension Educator and ask about the dates, times and locations these programs will be offered in your county.

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**Agronomic Crops and YouTube**

*Harold D. Watters, CPAg/CCA*

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This note posted in a prominent Southern Ohio sale facility summarizes a preferred protocol for preparing beef feeders for market!
We know not everyone can attend our meetings so for many topics we produce videos or publish bulletins. Some are short and on the concerns of the day, others are for background on broader topics. The OSU Agronomic Crops Team has a Youtube channel where we place the videos: https://www.youtube.com/channel/UCbqpb60QXN3UJIBa5is6kHw.

One recent addition is from Ryan Haden and Jon Witter on setting up grid soil sampling and then developing a variable rate application map. It can be viewed at: https://youtu.be/kCitqkkRV6Y. This is nicely done, short at 15 minutes, and involves ATI students on our Wooster campus.

Team members post videos as well as the ones we have on our YouTube Channel.

- OSU Weed Science - https://www.youtube.com/user/OSUWEEDS/videos
- Ohio State Precision Ag channel: https://www.youtube.com/channel/UCS_CTrb5ig1wMAAgCocvyBw
- Fertilizer Applicator Training videos - https://agcrops.osu.edu/video/fact-videos
- The Corn, Soybean and Wheat Connection - https://agcrops.osu.edu/video/csw-connection-recordings

While you are in the neighborhood of the AgCrops videos you can also check out our publications page: https://agcrops.osu.edu/publications

- One item of current interest is the FACT training manual - https://agcrops.osu.edu/publications/fact-manual-2017
  - There are two ways to become certified to apply fertilizer going forward. 1) attend on OSU 3-hour certification program, or 2) take the Fertilizer Applicator exam at the Ohio Department of Agriculture – it should be available by about February 1st I hear. The FACT manual is the training publication for that exam.
- Also on this website is the 1995 Tri-State Fertilizer Recommendations publication. After four years of field work (2014-2017) to update this publication, looks like future recommendations will be fairly similar. For now this is still a good publication for phosphorus and potassium recommendations for corn, soybeans, wheat and alfalfa.

The new Ohio Agronomy Guide came out late last spring, here is a link to purchase: https://agcrops.osu.edu/publications/ohio-agronomy-guide-15th-edition-bulletin-472, or visit your local Extension office to pick one up.

**Growing Shiitake Mushroom Program**

The Ashtabula County Extension office will be hosting a shitake mushroom growing workshop on Thursday, March 15, 2018 from 6:00 to 7:30 p.m. During this workshop, participants will learn the basics of growing shiitake mushrooms at home- including the best species of trees to use, log preparation, types of spawn, and inoculation. After a short classroom discussion, participants will drill and inoculate an oak log to take home. Participants are encouraged to bring a cordless drill and a 5/16” diameter bit if they have it, though several will be available to share. The workshop is $25 and space is limited. To register, contact the Ashtabula County
Hydrangea School to be Held on April 26, 2018
The Ashtabula County Extension office is pleased to be offering a Hydrangea School on Thursday, April 26, 2018 at the Ashtabula County Extension Office located at 39 Wall Street in Jefferson, Ohio from 6:30 to 8:30 p.m. Join OSU Extension Educator Eric Barrett to discover the world of hydrangeas. Learn about types, care, pruning and bloom times. You’ll receive a quick reference chart to take to the garden center and a hydrangea plant to take home. The registration fee for this workshop is $30 per person. Please make checks payable to OSU Extension. Registration includes handouts, light refreshments and a hydrangea plant to take home for your landscape. Please mail completed registration form to OSU Extension, 39 Wall Street, Jefferson, Ohio 44047. Due to space limitations, this program will be limited to the first 50 registrants. First come, first served basis. For questions, please call 440-576-9008. A registration flyer can also be obtained at: http://go.osu.edu/ne-events.

Fertilizer Re-Certification Options for NE Ohio
2018 is the first year that Fertilizer Applicator Certificate holders are able to obtain recertification credits, and OSU Extension has multiple options for recertification this year to keep you current. We are offering 4 traditional sessions in Ashtabula (Jan. 12), Geauga (Feb. 2), Portage (Feb. 9), and Trumbull (Mar. 9) counties. These sessions are one-hour long and cost $10/person. Trumbull County is also offering individualized recertification sessions that will help you develop interpret soil test reports and help you customize your fertilizer rates based on the Tri-State Fertility recommendations. The cost for the individualized session is $20/person. This session would work well if you are not able to attend a traditional session, or if you would like assistance developing a fertilizer plan for your farm. For more information about this recertification option, call Lee Beers at 330-638-6783.

Lee’s Monthly News Column
Hello Trumbull County! It’s time to start ordering seeds for this year’s vegetable or herb garden. If you are a regular gardener you know the thrill of planting seeds, watching them grow, and enjoying the harvest when you finally get to eat those garden fresh vegetables. You probably also notice how much cheaper it is to grow your own produce compared to the cost of purchasing these same items at the store. If you don’t usually garden, and especially in light of any resolution you might have to eat healthier or to be more active, 2018 may be the year to give gardening a try.

Packets of vegetable seeds can be purchased at any garden center, box store, hardware supply, or through a variety of online outlets for $2.00 or less. Using green beans as an example, you can purchase about 150-175 seeds per packet, which, when planted in a 20-foot
row, will yield about 10-12 pounds of green beans. Assuming that you use a standard fertilizer rate (or compost) you can expect to pay about $0.20 per pound for green beans that you grow at home. Of course, this is assuming that you count your labor as free, but it is still significantly cheaper than paying $1.49 per pound at the grocery store. You also get the convenience of having a steady supply of fresh green beans in your backyard, and the exercise.

As with the example that I shared above, growing any vegetables yourself will reduce your grocery bill. Lettuce is one of the cheapest and easiest vegetables to grow at home and one packet of seeds will likely provide enough salad for two or three families. I just priced a bag of lettuce at $2.99 per bag over the weekend; you could easily grow 20 bags in a growing season from one seed packet. While I'm not a fan of zucchini, my wife loves it, and one zucchini plant is enough to provide fresh zucchini all summer long for our family of four, along with a few extras that we pass along to neighbors. We didn’t use all of the zucchini seeds that from the one packet we purchases last year, so we stored the remaining seeds in a dry, cool location and we will use them this spring- even more savings by using a single packet of seeds over two years.

While not everyone has the time or equipment to can produce, there are many easy methods for storage. The easiest and cheapest way to preserve your vegetables with all their nutrients is to simply freeze them. All you need is some boiling water, and several zip-seal freezer bags. You can find vegetable specific instructions for freezing at this link from the University of Georgia Cooperative Extension: http://nchfp.uga.edu/publications/uga/uga_freeze_veg.pdf.

If you want to start a garden, but live in an apartment, or have a small backyard don’t give up because many vegetables, fruits, and especially herbs, can be grown successfully in containers. This method does require more cost up front to purchase containers and soil, but will still allow cheaper production of veggies in a small space. If you are working with limited space, consider focusing on produce items that are expensive to purchase, such as fruit varieties developed for containers, or herbs. Raspberries, strawberries, and blueberries are all excellent candidates for container gardens. Just about all herbs will do well in containers, and will even fit in small pots on a counter top. Community gardens are another great way to get involved with gardening.

Our annual Northeast Ohio Agronomy School is scheduled for February 21, 2018 at the Williamsfield Community Center from 9:00am-3:30pm. We have a great lineup of speakers covering a variety of topics, and pesticide/fertilizer credits as well as CCA credits will be offered. Cost for this all-day event is $15 per person and includes a lunch provided by WI Miller and Sons. To register call 440-576-9008, or visit our website for more information.

For more information about gardening, the Master Gardener program, or any other program, call the OSU Trumbull County Extension Office at 330-638-6783 or visit trumbull.osu.edu. Don’t forget to check out and “Like” OSU Extension Trumbull County’s Facebook page for current programs and up to date information.
Hello Ashtabula County! Two of the major educational programs that OSU Extension conducts on behalf of the Ohio Department of Agriculture are the certification and re-certification sessions for farmers who hold a pesticide applicator license and/or fertilizer certification. In order to purchase and buy restricted pesticides to help combat troublesome weeds, diseases and insects, farmers are required to pass a competency test from the Department of Agriculture and then attend a 3 hour re-certification session every three years. Beginning in 2014, farmers who apply fertilizer to more than 50 acres are required to hold a fertilizer certification. And just like the pesticide license, these farmers are required to attend a re-certification session every three years. Today, I would like to share information on our upcoming re-certification programs and provide details on how non-licensed farmers can become certified for these programs.

We have three private pesticide and fertilizer re-certification sessions remaining this winter for farmers to complete their renewal. Over 100 northeast Ohio farmers have already completed their re-certification at our January 5 & 12 sessions here in Ashtabula County. For farmers who were unable to attend these sessions, there are still local options available. These options are February 2 at the Geauga County Extension office, February 9 at the Portage County Extension office and March 9 at the Trumbull County Extension office.

Each of these sessions will offer renewal credits for pesticide re-certification for CORE and for the six agricultural specific areas. These agricultural specific areas include Category 1- Grain and Cereal Crops; Category 2 - Forage Crops and Livestock; Category 3 - Fruit and Vegetable Crops; Category 4 - Nursery and Forest Crops; Category 5 - Greenhouse Crops; and Category 6 – Fumigation. These sessions will also offer for the first time, renewal credits for farmers who have their fertilizer certification.

The registration fee is $35/per person for the private pesticide applicator re-certification session and $10 for the fertilizer re-certification session. Pre-registration is required eight days prior to each session date. Registration links and flyers for each of these programs can be obtained at: go.osu.edu/neohio-pat

For farmers who need to obtain their fertilizer certification, there are two ways to obtain it. The first is to take and pass the fertilizer exam administered by the Ohio Department of Agriculture. The testing dates for these exams are included later in this article. The second way is to attend a three hour training program conducted by us at OSU Extension.

Locally, we will be hosting two fertilizer certification sessions. These programs will be held on February 14 at the Trumbull County Extension office or on March 12 at the Ashtabula County Extension office. Both of these programs will be held from 6:00 to 9:00 p.m. The registration fee for each program is $35 per person and registration is required 7 days prior to the event. To
register, contact the Ashtabula County Extension office at 440-576-9008 or access the registration flyer at: http://go.osu.edu/ne-events

For any farmer looking to obtain a private or commercial pesticide applicators license there is only one option to obtain it which is to take and pass the exam administered by the ODA. To help farmers for the test, we are offering two training workshops which will help participants prepare for the pesticide license exam. This preparatory class will be offered on Thursday, February 8 at the Geauga County Extension office in Burton and then again on March 13 at the Trumbull County Extension office in Cortland. Both classes are scheduled from 1:00 to 4:30 p.m. and the registration fee is $35 per person. This includes study materials and light refreshments. To register for the Geauga class call 440-834-4656 and to register for the Trumbull class call 330-638-6783. A registration flyer can also be found at: http://go.osu.edu/ne-events

For farmers who need to take the ODA tests for the pesticide spray license or for fertilizer certification, we are also pleased to lend our meeting rooms at our local Extension offices to the Ohio Department of Agriculture (ODA) so they can administer these exams. Here in Ashtabula County, the ODA will be testing on March 7 beginning at 10:00 a.m. Additional testing dates of February 21, March 21, April 18, May 16, and June 28 will be held at the Geauga County Extension office and on February 12, March 12, April 9, and May 14 at the Trumbull County Extension office. To register for the exams visit the Ohio Department of Ag’s website (http://www.agri.ohio.gov/apps/odapr/pestfert-prs-index.aspx) and choose the date and location that fits your schedule best.

To close, I would like to share a quote from Democritus who stated, “Happiness resides not in possessions, and not in gold, happiness dwells in the soul.” 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

Women in Agriculture Programs
February 17, 2018
March 17, 2018

Private Pesticide Applicator & Fertilizer Re-certification Sessions
February 2, 2018 from 8:00 to 12:00 noon in Geauga County
February 9, 2018 from 10:00 to 3:00 p.m. in Portage County
March 9, 2018 from 1:00 to 5:00 p.m. in Trumbull County

2018 Northeast Ohio Winter Agronomy School
Wednesday February 21, 2018
2018 Winter Beef School (Calving School)
Thursday, February 22, 2018

Winter Grape School
March 2, 2018

Backyard Chickens
Trumbull County Extension Office 5-7pm
Wednesday, March 14, 2018

2018 Ashtabula County Dairy Banquet
Saturday, March 24, 2018

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

Hydrangea Workshop
Thursday, April 26, 2018

David Marrison      Lee Beers
Ashtabula County Extension Office   Trumbull County Extension Office
39 Wall Street      520 West Main Street
Jefferson, OH 44047     Cortland, OH 44410
440-576-9008      330-638-6783
marrison.2@osu.edu     beers.66@osu.edu
ashtabula.osu.edu      trumbull.osu.edu
Join OSU Extension as we host our annual Agronomy School for crop farmers in Northeast Ohio. This workshop is sponsored by the OSU Extension offices in Ashtabula, Trumbull & Geauga Counties with support from W.I. Miller & Sons & the Ohio Soybean Council. The featured presentations will include:

**Controlling the Most Troublesome Weeds in Northeast Ohio Crop Fields**  
Jeff Stachler, Agricultural & Natural Resources Educator - Auglaize County

**Soil Health Initiative**  
Alan Sundermeier, Agricultural & Natural Resources Educator - Wood County

**Where’s the Money?**  
David Marrison, Agricultural & Natural Resources Extension Educator- Ashtabula County

**Lunch & Industry Trade Talks**  
Sponsored by W.I. Miller & Sons of Farmdale, Ohio

**Soil Compaction**  
Dr. Scott Shearer, OSU Associate Professor in Food, Agricultural and Biological Engineering

**Using Precision Ag on Small & Medium Crop Farms without Breaking the Bank**  
Dr. John Fulton, OSU Associate Professor in Food, Agricultural and Biological Engineering

**Dicamba is Not the Only Volatile Issue for 2018**  
Lee Beers – Extension Educator in Trumbull County

Pre-registration is required by February 13, 2018. Registration fee is $15.00/per person. Registration includes refreshments, lunch, speaker travel expenses, and program handouts. Make checks payable to OSU Extension, and mail to Ashtabula County Extension office, 39 Wall Street, Jefferson, OH 44047. If you have any questions please call 440-576-9008. 2018 Weed Control Guides ($16 each) and the Ohio Agronomy Guide ($17 each) will be on sale at the workshop.

Name____________________________________  Phone________________ _____  
Address__________________________________  City________________ __ Zipcode________ 
Email____________________________________  # of Reservations__________________

____Yes, pre-order a Weed Control Guide for me  
____Yes, pre-order a Ohio Agronomy Guide

Wednesday, February 21, 2018  
9:30 a.m. to 3:30 p.m.  
Williamsfield Community Center  
5920 State Route 322  
Williamsfield, Ohio 44093  
Registration begins at 9:00 a.m.
Controlling Troublesome Weeds in Northeast Ohio Crop Fields
Jeff Stachler, OSU Extension Educator – Auglaize County
Learn strategies for controlling the most troublesome weeds in soybean fields in Northeast, Ohio. Learn more about controlling marestail, lambsquarters, common ragweed, redroot pigweed, and grasses. Discussion will also be held on Waterhemp, one of Ohio’s newest weeds which is heading its way east across Ohio. 9:30 to 10:30 a.m.

Soil Health Initiative
Alan Sundermeier, OSU Extension Educator – Wood County
What is a healthy soil and how can we measure it? This interactive session will demonstrate water holding capacity, compaction, and biological attributes of soil. Techniques for improving soil productivity will also be discussed. 10:30 to 11:30 a.m.

Where’s the Money?
David Marrison, OSU Extension Educator
Low margins are predicted again for 2018. Tips on analyzing your financial situation, crop budgets and cost of production will be shared. This session will examine the new tax legislation and how it will impact agriculture. 11:30 to 12:00 noon

Lunch & Industry Trade Talks - As always, a hearty farmer lunch prepared by Lahti Catering means you will not go away hungry! This lunch is sponsored by W.I. Miller & Sons of Farmdale, Ohio. Each of our program sponsors will provide a short industry update during lunch. Lunch & trade talks will be held from 12:00 to 12:45 p.m.

Soil Compaction
Dr. Scott Shearer, OSU Associate Professor in Food, Agricultural and Biological Engineering
Farmers are presented with a number of options for managing soil compaction. Increasing production costs and tighter profit margins are causing many to question the value new tire or track technologies. This presentation will provide farmers with a foundation for considering the value of these technologies along with field data from studies including grain carts and planters. 12:45 to 1:45 p.m.

Using Precision Ag on Small & Medium Crop Farms without Breaking the Bank
Dr. John Fulton, OSU Associate Professor in Food, Agricultural and Biological Engineering
Technology has become more readily available and economical in recent years providing small to medium farms to adopt and provide value. This presentation will cover the basic precision technologies available while discussing potential value. 1:45 to 2:45 p.m.

Dicamba is Not the Only Volatile Issue for 2018
Lee Beers, OSU Extension Educator – Trumbull County
This session will address some of the more volatile issues which producers are sure to face 2018. 2:45 to 3:30 p.m.

CCA and Pesticide Credits will be offered for producers in attendance.

Williamsfield Community Center
5920 State Route 322,
Williamsfield, Ohio 44093

CFAES provides research and related educational programs to clientele on a nondiscriminatory basis. For more information: http://go.osu.edu/cfaesdiversity.
Ever thought about growing shiitake mushrooms? Native to Japan, shiitake mushrooms (Lentinula edodes) are becoming increasingly popular for their distinctive nutty flavor and high nutritional content. During this workshop, participants will learn the basics of growing shiitake mushrooms at home—including the best species of trees to use, log preparation, types of spawn, and inoculation. After a short classroom discussion, participants will drill and inoculate an oak log to take home. Participants are encouraged to bring a cordless drill and a 5/16” diameter bit if they have it, though several will be available to share.

Space for this workshop is limited and will fill up fast so register today!

Pre-registration is required by March 8, 2018. Registration fee is $25/per person. Make checks payable to OSU Extension, and mail to Ashtabula County Extension office, 39 Wall Street, Jefferson, OH 44047. If you have any questions, please call 440-576-9008.

Name____________________________________ Phone____________________
Address__________________________________ City__________________ Zip code________
Email____________________________________
# of Reservations__________________________ $25 per RSVP
Do you apply fertilizer to 50 acres or more for crops that are primarily for sale? If so, you are required by Ohio law to attend a training session or take a test to become certified. OSU Extension offices in Ashtabula and Trumbull Counties are offering training sessions (no test) that will meet all certification requirements. Pre-Registration is required a week in advance. Cost for this training session is $35/person and includes training materials, and handouts. To register, complete the back portion of this flyer and mail with check to the location you plan to attend. Please make checks payable to OSU Extension.
2018 Fertilizer Applicator Training
Ashtabula and Trumbull Counties

Name ______________________________________________
Address _____________________________________________
City __________________  State_____  Zip_________________
Phone ____________________Email  ____________________

Number of People Attending: _________ X $35/person __________

____________________________________________________

Please make checks payable to: OSU Extension

Please mail to the location you plan to attend.

OSU Extension Trumbull County, 520 West Main Street, Cortland, OH 44410

OSU Extension Ashtabula County, 39 Wall Street, Jefferson, OH 44047

For questions, contact Lee Beers at 330-638-6783 or by email at beers.66@osu.edu