Hello, Northeast Ohio Counties!

We have been blessed with a stretch of nice weather that many of you used to your advantage to do some tillage or plant oats. Hopefully the wide spread frost we had on Sunday morning didn’t hurt our fruit crops too bad, but we will know in the next day or two.

As we are all getting ready to hit the planting season with all our effort, please remember to work safely and be patient for farm equipment in the road. I saw a nice statistic to put it this in perspective: two miles behind a farm tractor is equivalent to two stop lights in town. Be patient to prevent an accident or property damage. Stay safe out there!
**20th Annual Joe Bodnar Memorial Northern Classic Steer & Heifer Show a Success**

On Saturday, April 22, the Ashtabula County Cattlemen’s Association held the 20th Annual Joe Bodnar Memorial Northern Classic Steer & Heifer Show at the Ashtabula County Fairgrounds. This show was started in 1998 to give youth under the age of 21 to practice showing their beef heifers and steers which they will ultimately show at the county fair later in the summer. This year 36 youngsters from 3 states showed 41 animals at this day long show. Twenty-one youth were from Ohio, 9 from Pennsylvania, and 6 from New York. Jared Bates from Chandlersville, Ohio served as this year's judge.

Luke Culp from Vienna, Ohio showed the Grand Champion Heifer and Hannah Lucic from Charon, Ohio took home Reserve Champion Honors. Lily Berghorn from Akron, New York showed the Grand Champion Steer and Addie Shaffer from Painesville, Ohio showed the Reserve Champion Steer. Alaina Neczeporenko from Pierpont showed the Ashtabula County Grand Champion Steer.

The youth were also able to practice their showmanship skills with Hannah Lucic from Chardon, Ohio winning the 17-21 year old division and Addie Shaffer from Painesville, Ohio winning the 13-16 year old class. Congratulations to Karly Goetz from Oak Harbor, Ohio for winning the 12 and under showmanship class.

This show would not be possible if it was not for the support of local businesses in Northeast, Ohio. The Champion and Reserve Champion Awards were sponsored by Clemson Towing, Country Creek Cattle, Roll’n B Cowboy Café LLC, Countryside Vet Clinic, Ferguson Show Cattle, and Bortnick Tractor Sales. Additional sponsors of the event included: Andrews Auctioneering, Andover Bank, Ashtabula County Ag Society, Ashtabula County Farm Bureau, Cherry Valley Processing, Creek Side Farms, Easton Culligan Water Conditioning, Highland Livestock Supply, Lenox Farm Equipment, North Coast Animal Bedding, Linde’s Livestock Photos LLC, Northwind Farm, Attorney Katherine Riedel, Rome Feed, Ruck Cattle Company, Valley Feed Mill and Westford Milling Company. Thanks to each of our sponsors for their support of this event.

**Calibrate Your Sprayer to Save Money on Pesticides**

By Alayna DeMartini


COLUMBUS, Ohio — Pickup trucks need occasional tuneups and oil changes, so it stands to reason that a boom sprayer needs a checkup at least once a year before it’s driven out of the barn and onto fields to spray for pests.

Sprayers should be calibrated to determine the actual rate at which they are applying pesticide, then adjustments can be made, said Erdal Ozkan, a professor and spray technology expert with the College of Food, Agricultural, and Environmental Sciences at The Ohio State University.
Applying too little pesticide might not sufficiently defeat a grower’s crawling and flying enemies, and applying too much wastes money, may damage the crop and increases the odds of contaminating ground water, Ozkan pointed out.

“What people don’t know is that sprayers sometimes aren’t spraying the amount that people think they are,” Ozkan said.

As a sprayer’s nozzles wear out, the rate of flow through them increases, so growers may be applying more pesticide than they need.

“That’s like throwing away $25 for every $100 a grower spends on pesticides. Depending on the cost of the pesticides, the number of acres sprayed and the frequency of application, the money wasted could be in the thousands,” Ozkan said.

This potential waste of money and pesticides can be avoided if sprayers are calibrated, he said.

Before calibrating a boom sprayer, find out if all the nozzles are in good shape and free of any debris or dust. If they are clogged, clean them using a soft brush or wooden toothpick — not a knife or other sharp object. Then, fill the sprayer with water, turn the pump on and check the flow rate of each nozzle, at the desired pressure. Compare the output of each nozzle with the output expected when the nozzle is new at that same pressure. If the difference between the two is less than or greater than 10 percent of the new nozzle output, that nozzle needs to be replaced.

Once all the nozzles have been checked and cleaned or replaced, the sprayer is ready to be calibrated to ensure that it applies the desired amount of pesticide.

Calibrating a boom sprayer is not as difficult as it sounds. Though several methods can be used, Ozkan recommends the following one that he considers to be easier and more practical than most methods:

1. Fill the sprayer tank at least half full with water.
2. Run the sprayer, inspect it for leaks and make sure all vital parts function properly.
3. Measure the distance in inches between the nozzles.

4. Measure an appropriate travel distance in the field based on this nozzle spacing. The appropriate distances for different nozzle spacings are as follows: 408 feet for a 10-inch spacing; 272 feet for a 15-inch spacing; 204 feet for a 20-inch spacing; 136 feet for a 30-inch spacing; and 102 feet for a 40-inch spacing.

5. Drive through the measured distance in the field at your normal spraying speed and record the travel time in seconds. Repeat this procedure and average the two time measurements.

6. With the sprayer parked, run the sprayer at the same pressure level and catch the output from each nozzle in a measuring jar for the travel time required in step 5.

7. Calculate the average nozzle output by adding the individual outputs and then dividing by the number of nozzles tested. The final average nozzle output in ounces is equal to the application rate in gallons per acre. For example, if you catch an average of 15 ounces from a set of nozzles, the actual application rate of the sprayer is 15 gallons per acre.

8. Compare the actual application rate with the recommended or intended rate. If the actual rate is more than 5 percent higher or lower than the recommended or intended rate, you must make adjustments in the spray pressure, the travel speed or both. For example, to increase the flow rate, you will need to either slow down or increase the spray pressure. The opposite is true when you need to reduce application rate. As you make these changes, stay within proper and safe operating conditions for the sprayer. Remember, increased pressure will result in increasing the number of small, drift-prone droplets.

9. Repeat steps 5-8 above until the actual application rate is within a 5 percent difference of the intended rate.

Calibrating a sprayer only once at the beginning of the spraying season is not enough to obtain an accurate application rate that is within 5 percent of the desired application rate. The sprayer should be calibrated whenever a grower goes from one field to another that has different soil conditions and/or topography.

For safety reasons, sprayers should be calibrated using clean water only. Always use protective clothing, gloves and goggles when calibrating sprayers and applying pesticides.

Some may argue that calibration is not needed if the sprayer has an automatic rate controller, which will give the set application rate regardless of changes in the travel speed. That is true only if the electronics in the rate controller are functioning properly, Ozkan pointed out.

The controller determines the speed using a radar gun, rather than measuring the revolutions per minute of the wheel. The rotation speed of a wheel will change depending on the condition of the soil. When the soil is loose or the ground is wet, the wheels can slip, which could lead to an inaccurate measure of the rate at which pesticides are being applied.

For more information about calibrating a sprayer, visit go.osu.edu/calibrateyoursprayer.
Children in the Garden - “I Can Grow That!” Workshop on May 20
The Ashtabula County Master Gardener Volunteers invite you to bring your child or children (ages 6 and up) to participate in a hands-on workshop design to get them excited about growing plants and gardening. The “I Can Grow That” workshop will be held on Saturday, May 20 from 9:30 to 11:00 a.m. at the Ashtabula County Extension office located at 39 Wall Street in Jefferson, Ohio.

During this workshop, kids will get down and dirty as they plant seeds and plants to take home to start their own garden. Each child will take home a tomato plant and a choice of flowers, lettuce or green beans. They will learn how to care for their plants and how they can be grown in containers or a traditional garden.

Pre-registration is required by Wednesday, May 17, 2017. Registration fee is $5.00/per child. Milk and cookies will be served and all children need to be accompanied by an adult There is no charge for adults attending with children. 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. Space is limited so make sure to register today!

Ashtabula County Women in Agriculture: Conversations and Crafts
The Ashtabula County Women in Agriculture Program will be hosting their next event on Saturday, April 29, 2017 from 9:30 a.m. to 11:30 a.m. at the Last Resort Bed and Breakfast located at 4373 Cork Cold Springs Road in Geneva, Ohio. The Ashtabula County Women in Agriculture program was started this winter and OSU Extension invites any lady involved in agriculture in Ashtabula County (or surrounding counties) to join this group.

This Saturday’s program will focus on how other women in agriculture are able to balance their farm and personal life while providing effective leadership to their business. During this gathering, a panel of successful women in agriculture will share their experiences and answer questions. After the panel, we will continue the conversations while we make a burlap wreath. Supplies will be provided. Participants can stay after the program to feast on homemade pizza made in an authentic pizza oven. There is a $5 fee to attend this event. Please call the O.S.U. Extension Office (440-576-9008) or email Abbey Averill (averill.10@osu.edu) to register by Tuesday, April 25, 2017. A registration flyer can be found at: https://ashtabula.osu.edu/news/women-agriculture
First evidence found of popular farm pesticides in drinking water
By Ben Guarino

Of the many pesticides that American farmers have embraced in their war on bugs, neonicotinoids are among the most popular. One of them, called imidacloprid, is among the world’s best-selling insecticides, boasting sales of over $1 billion a year. But with their widespread use comes a notorious reputation — that neonics, as they are nicknamed, are a bee killer. A 2016 study suggested a link between neonicotinoid use and local pollinator extinctions, though other agricultural researchers contested the pesticides’ bad rap.

As the bee debate raged, scientists studying the country’s waterways started to detect neonicotinoid pollutants. In 2015, the U.S. Geological Survey collected water samples from streams throughout the United States and discovered neonicotinoids in more than half of the samples.

And on Wednesday, a team of chemists and engineers at the USGS and University of Iowa reported that they found neonicotinoids in treated drinking water. It marks the first time that anyone has identified this class of pesticide in tap water, the researchers write in Environmental Science & Technology Letters.

Gregory LeFevre, a study author and U of Iowa environmental engineer, told The Washington Post that the find was important but not immediate cause for alarm.

“Having these types of compounds present in water does have the potential to be concerning,” he said, “but we don’t really know, at this point, what these levels might be.”

If the dose makes the poison, the doses of insect neurotoxin reported in the new study were quite small. The scientists collected samples last year from taps in Iowa City as well as on the university campus and found neonicotinoid concentrations ranging from 0.24 to 57.3 nanograms per liter — that is, on a scale of parts per trillion. “Parts per trillion is a really, really small concentration,” LeFevre said, roughly equal to a single drop of water plopped into 20 Olympic-size swimming pools.
The Environmental Protection Agency has not defined safe levels of neonicotinoids in drinking water, in part because the chemicals are relative newcomers to the pesticide pantheon. “There is no EPA standard for drinking water,” LeFevre said.

The pesticides, most of which were released in the 1990s, were designed to be more environmentally friendly than other chemicals on the market. The compounds work their way into plant tissue rather than just coating the leaves and stems, requiring fewer sprays. And though the pesticides wreak havoc on insect nervous systems, neonicotinoids do not easily cross from a mammal’s bloodstream into a mammalian brain.

In 2015, environmental health scientists at George Washington University and the National Institutes of Health published a review of human health risks from neonic pesticide exposure. Acute exposure — to high concentrations over a brief period — resulted in “low rates of adverse health effects.” Reports of chronic, low-level exposure had “suggestive but methodologically weak findings,” with a Japanese study associating neonicotinoids with memory loss.

Melissa Perry, a public health researcher at George Washington University who was involved in that review, said via email that the new study “provides further evidence that neonicotinoid pesticides are present in our daily environments. From a public health standpoint, this issue clearly needs better attention.”

The Iowa scientists tracked neonicotinoid concentrations in the local drinking supply from May to July, the seven-week span after the region’s farmers planted maize and soy crops. Every sample contained three types of neonicotinoids: clothianidin, imidacloprid and thiamethoxam.

“All things in the watershed are connected,” LeFevre said. “This is one of many types of trace pollutants that might be present in rivers.” (The USGS released an interactive map of the nation’s water quality on Tuesday, where those inclined can track trends in common pollutants.)

Most water filtration systems target clay, dirt or other particles, as well as pathogenic contaminants like bacteria. They’re not designed to eliminate chemical pesticides — and the properties of neonicotinoids make these compounds unusually challenging to remove. Other types of pesticides stick to soil particles, which are then filtered out. But neonicotinoids can slip past sand filters because they are polar chemicals. “They dissolve very readily in water,” LeFevre said. He invoked a chemistry aphorism: “Like dissolves like.”

This proved out as the research team looked at how effectively the university’s sand filtration system and Iowa City’s different water treatment technique blocked the three neonicotinoids studied. The university’s sand filter removed 1 percent of the clothianidin, 8 percent of imidacloprid and 44 percent of thiamethoxam. By contrast, the city’s activated carbon filter blocked 100 percent of clothianidin, 94 percent of imidacloprid and 85 percent of thiamethoxam. That finding was “quite a pleasant surprise,” LeFevre said. “It’s definitely not all bad news.”

The activated carbon filters are relatively economical, he said. In fact, after the research was completed, the university installed a similar system on its campus.
Given the study’s small sample size and geographical span, Perry said more comprehensive assessments of water supplies are needed “to determine how ubiquitous neonics are in water supplies in other parts of the country.” The chance of that happening is unclear. “There is currently no national effort to measure to what extent neonicotinoids are making it into our bodies, be it through water or food,” she noted.

Can Ancient Grains find their way in modern agriculture?
By Adam Hinterthuer

In November of 2014, an unassuming story appeared in the pages of National Geographic magazine. Little more than a blurb, the modest article promised big things. According to three short paragraphs on a single, glossy page, ancient grains were about to arrive. “Make Way for Millet,” the headline crowed. For ASA and CSSA member Dipak Santra, that tiny article offered a validation of sorts for what has become his life’s work.

“In the U.S., unfortunately, the moment you say ‘millet’ people immediately think bird food, not human food,” says Santra who, as an associate professor and alternative crops breeding specialist at the University of Nebraska’s Panhandle and Research Extension Center, has spent the last nine years working to change that perception.

The word, “millet,” refers to a number of annual cereal grasses that include several distinct species with names like pearl, finger, foxtail, and proso. And, indeed, most millet grown in the U.S. is either for the birds—tiny, round grains destined for backyard feeders and parakeet cages—or harvested as a whole plant and dried for forage for cattle, pigs, and chickens. The National Geographic article, Santra thought, was a sign that things were changing. Perhaps millet in America might one day be seen as it is in many other countries—a valuable and nutritious food for humans and a worthwhile crop to put in the ground. Or at least it could be viewed as a commodity with a higher calling than birdseed.

To Santra, promoting the tasty golden grain, specifically proso millet, just makes sense. It ticks
Northeast Ohio Agriculture

off nearly every box a health-conscious consumer could want—millet is high in fiber, chock full of essential minerals, and to top it off, gluten free. What’s more, it has an impeccable environmental resume.

“All millet has similar characteristics,” Santra says. “It is drought tolerant. It takes limited water to grow. It has a short growing season and needs little to no synthetic fertilizer to get a decent yield.” As climate models call for more frequent droughts and synthetic fertilizers face more scrutiny for environmental impacts, millet could become more palatable for farmers and foodies alike.

Santra loves to show off a side-by-side comparison of a field planted with corn and a field planted with millet taken three miles apart during Nebraska’s historical drought year in 2012. The corn is withered and brown while the millet is lush and green. He says it shows that “this is a perfect crop for a changing climate.”

Lost and Found

Millet is just one of several crops that fall under the label “ancient grains.” While there is no official definition, essentially they are grains and pseudocereals that have been relatively unchanged over the course of their cultivation. For example, while the roots of wheat can be traced back to some of our early attempts at agriculture, the wheat we currently grow for flour has been modified so much through selective breeding that it is considered thoroughly modern. In contrast, grains like millet, teff, sorghum, farro, quinoa, and buckwheat can all claim the “ancient” label. Their genotype more closely resembles that of their ancient forebears.

This lineage can be beneficial, says ASA and CSSA member Abdullah Jaradat, an agronomist based in Minnesota with the USDA-ARS North Central Soil Conservation Research Lab. For example, hulled wheats, or farro, “have what I call a ten-thousand year genetic memory,” he says. “They have seen it all—cold, drought, low temperature, high temperatures, salinity—you name it.”

This “genetic memory” affords breeders more flexibility in adapting to various conditions and allows farmers to grow the grains in climates and soils ill-suited for the usual cash crops. For example, Jaradat is currently involved in a project helping North Dakota wheat farmers find older varieties of the plant that can withstand their saline soil conditions.

If you’re looking to re-establish a long-lost crop, says Jaradat, ancient grains have proven to be resilient in that capacity, too. Some have even come back from near agronomic extinction. In the early days of human agriculture, about 10,000 years ago, a grass called einkorn was domesticated in the Fertile Crescent. Einkorn only produced a single grain per flower, but it eventually hybridized with another wild grass, giving rise to emmer, which produced two grains per flower, essentially doubling yield. Emmer became a crucial crop for early civilizations and helped enable human expansion beyond the Fertile Crescent.

Ancient Egyptians grew emmer as a staple for thousands of years. And, after Rome’s occupation of Egypt in the first century AD, Julius Caesar brought the grains back home, where
they would sustain an empire and eventually become collectively known as “farro.”

At some point, another hybridization took place, bringing us the line of wheat that would go on to become the gluten-rich kind most commonly used today. With the rise of “bread wheat,” Jaradat says, einkorn and emmer began to lose popularity. So much so that, eventually, most farmers stopped growing it at all. This “modern” wheat pushed einkorn and emmer to the very margins of agriculture for a thousand years.

Then, in the 1930s, “some Italian farmers realized that ancient wheat varieties had value and … began growing them again and investigating their properties,” Jaradat says. “They established the first scientific research on identifying the genetic diversity of farro, especially emmer, which is what the Italians were most interested in.”

Today, farro is commonly grown and eaten in Italy. The process of making an ancient grain “new” again took 20 to 25 years of research, refining agricultural practices, and creating consumer demand.

By comparison, America’s own recent foray into these grains is just getting off the ground. Still, Jaradat says, every movement starts somewhere. Right now, ancient grains are mostly sought by affluent consumers in urban areas. But that is often how demand grows. “The interest, even by word of mouth, can move from one community to the next. The demand is on the rise even here in a small town like Morris [Minnesota],” he says. In fact, his wife reports that the number of people asking for farro at the local food co-op where she volunteers has increased 5- to 10-fold in recent years.

What’s Old Is New Again

“Someone somewhere realized [that] there was value in the phrase ‘ancient grains,’ not unlike ‘artisan’ or ‘craft’ or ‘small batch,’” observes Jonathan Walters, director of sales and marketing at Nu-World Foods, Inc. And as Jaradat suggests, those early adopters are driving a pretty rapid acceptance of ancient grains in many markets.

For starters, Walters says, more than 50% of Millennials currently incorporate ancient grains into their diet, and other generations are following suit. According to a recent market study, one in five American adults had purchased ancient grains in some form within the last 30 days. These relics of early human agriculture even have food trendsetters taking notice, says Walters, noting that ancient grains were named a top food trend in the National Restaurant Association’s 2016 Culinary Forecast.

Head down a grocery isle these days, and you’ll find ancient grain Cheerios, small kernels of millet studded throughout loaves of seven-grain bread, and snack bars boasting “maple quinoa granola clusters.”
Many such products get their grains from suppliers like Nu-World Foods, Inc., which has been in the business of providing them to companies for 35 years. Originally the company focused almost exclusively on amaranth, a quick-growing ancient grain that can produce millions of tiny seeds. But, in the last five or so years, says Walters, the company has responded to market demand and brought other grains like quinoa, teff, and millet into the mix.

Currently, Nu-Worlds Foods gets most of its grain from farmers in India and South America, but Walters would love to see domestic availability. “I think it’s important for growers to have the opportunity to diversify and not be beholden to a single crop,” he says. “There are opportunities for domestic growth [in ancient grain cultivation], and we’d love to see that, especially in areas plagued by drought.”

**Putting Down Roots**

In other words, Walters would love to see more farmers like Jean Hediger. Hediger is an organic dryland farmer in eastern Colorado. For her, proso millet is a crucial rotational crop, both for how it helps suppress weed growth and control erosion and for its value as a human food product. Hediger grows 2,000 ac of proso millet on her family farm, Golden Prairie, Inc., and heads up a group of other local organic farmers with, all told, 30,000 ac in the ground. The group sells their product to United Natural Foods Incorporated, one of the main suppliers of stores like Whole Foods.

Those 30,000 ac accounts for a sizable chunk of the total acreage of proso millet grown in the entire U.S. According to a report from the USDA’s National Agricultural Statistics Service, just under 500,000 ac of proso millet were planted across three states (Colorado, Nebraska, and South Dakota) in 2015 compared with the nearly 90 million ac of corn grown during that same time. While it is the leading ancient grain in production in the U.S., millet remains very much a niche product.

“We’re trying to do some millet marketing,” Hediger says, “but it’s really difficult. The wheat growers have a wheat board. The corn growers have a corn board. But the millet farmers, we just don’t grow a lot of acres nationally, and so it’s hard to get an organization going to help push this.”
Hediger is also competing with demand for other ancient grains. Quinoa, for example, is a far more valuable crop right now, and the high prices it commands exasperates Hediger. Proso millet, she says, has a similar nutritional profile and many of the same attributes, like drought and salinity tolerance. And it’s a local, or at least national, food source. Unlike quinoa, which is being transported from the South American Andes, American-grown millet is readily available with a smaller carbon footprint. Yet quinoa farmers can currently get about $4 a pound for their crop where a millet farmer is lucky to get $0.70.

“The truth of the matter is millet should be, should be, a huge seller, but the marketplace latched on to quinoa,” she says.

Building a Better Grain
For U.S. farmers, says ASA, CSSA, and SSSA member Kevin Murphy, an assistant professor of barley and alternative crop breeding at Washington State University, the arguments to start growing quinoa make sense. Prices are generally high, he says, and “[growing] it would increase landscape biodiversity, crop rotation, and marketing options.” And there’s been some precedent set with successful quinoa cultivation in Canada.

But demand and benefits aren’t enough to drive domestic production of a grain. Even as quinoa enjoys its time as the “star” of the ancient grain movement, so little of it is grown in the U.S. that it doesn’t show up on most commodity reports. The same is true of farro grains like emmer, einkorn, and spelt. In fact, millet is one of the only ancient grains grown on any sizeable acreage, thanks to its utility as a rotational crop. Even then, it’s still an ancient grain, and ancient grains seem stuck in small-market scenarios with numerous obstacles to larger growth.

For example, most varieties of quinoa contain saponins, Murphy says, which are chemical compounds that must be removed from the seed coat prior to harvest. This requires an extra processing step, and “regional processing facilities are not available in the U.S.” except for a lone facility that opened just last year in California, he says. In addition to this, quinoa seed is currently not readily available domestically on a large scale, and quinoa is susceptible to high heat during flowering, which can dramatically reduce yield.

Proso millet has its own set of problems when applied to modern agriculture. The flower head “shatters,” or loses its seeds easily in high winds. While some farmers leave millet standing to dry and then harvest with a stripper header, which is often used to harvest wheat, the trade-off is a higher risk of losing a lot of grain. Alternately, others cut millet when it’s still green and lay it in swales to dry. This may reduce shattering, but adds a costly extra step to harvesting.
Additional processing steps and plant characteristics like these can be roadblocks to getting a crop affordably to market, Murphy says.

For the bigger cash crops like corn, soybean, and wheat, a team of scientists would get to work designing plants with more desirable traits, breeding for traits that farmers found easier to work with and increased yield.

Ideally, scientists would be doing the same thing for ancient grains, but as one example, the last new strain of millet was produced back in 2002.

“In America, there hasn’t been a lot of research in how to use millet in our current food culture, and there has not been a lot of science on developing a product that is acceptable for market,” Santra says.

There are, of course, huge genomic resources for modern crops, he says, noting that genetic maps for corn and soybean were developed decades ago as large industries funded research on industrial agriculture’s prized plants. But, until Santra published the first genetic map for proso millet in Molecular Breeding last year, there had been no other millet maps or markers available.

In other words, says Santra, making genetic improvement of millet strains faster and more efficient, has already encountered another barrier. “I don’t know where I can [now] sequence my millet genome,” Santra says. “Who would give me that kind of money?”

Dig Deeper

Slides, audio, and video from a symposium on this topic at last year’s ASA, CSSA, and SSSA Annual Meeting are available in the ACSESS Digital Library at https://dl.sciencesocieties.org/publications/meetings/2016am/15752.

The answer to that question isn’t readily apparent. It’s hard to tell if the National Geographic article from 2014 was truly identifying a new trend or just wishful thinking.

Just a year before Santra stumbled upon “Make Way for Millet,” National Geographic ran an article entitled “Amaranth: Another Ancient Wonder Food, but Who Will Eat It?” That same year, National Public Radio listeners were treated to the news story “Farro: an Ancient and Complicated Grain Worth Figuring Out.” All the way back in 1977, an article touting the “comeback” of amaranth graced the pages of Science magazine.

So, are these predictions ever going to come to pass? There’s no denying that ancient grains are re-establishing their relevance and making their presence known in places they’ve never been before, but as ASA, CSSA, and SSSA member Drew Lyon, Endowed Chair of Small Grain Extension and Research at Washington State University puts it, “In between the small, niche
market and the large national market is a no man’s land where there is no market and no way for growers to sell what they produce."

The ancient grain revolution, if it comes, will take time. And it will likely arrive as a series of small steps leading to bigger things.

**Portage County Pasture Walk**

Portage County NRCS, SWCD, and OSU Extension will be offering a pasture walk at the Goodell Family Farm in Mantua, OH on May 9th from 6-8:30pm. The Goodell Family Farm is an organic grazing dairy farm with an extensive pasture system. Come join us for an evening of learning about effective pasture management with Rory Lewandowski from OSU Extension in Wayne County. Rory has extensive experience with forages and grazing management and is considered an expert in the state of Ohio. A Q&A session will follow the pasture walk with refreshments provided by Organic Valley.

The event is free to all participants, but we request that you pre-register by calling Kara MacDowell by calling 330-297-7633 or emailing kara.macdowell@oh.usda.gov.

**Applications Being Accepted for Summer Master Gardener Training Program**

The Ashtabula County Extension office is taking applications from Ashtabula County residents for the 2017 Summer Ashtabula & Lake County Master Gardener training program. If you have a strong interest in gardening and enjoy helping others, you are invited to apply to become an Ohio State University Extension Master Gardener volunteer for Ashtabula County.

To become an OSU Extension Master Garden volunteer, you must attend 11 training sessions held from June through August 2017 and volunteer 50 hours of horticultural service to the community through Extension educational programming after the training. Such service could include teaching adults and youth about gardening, planting and maintaining Extension demonstration gardens, answering gardening questions from the public, judging flower and vegetable projects at local fairs, or assisting community garden participants.

As a benefit of becoming a Master Gardener, you will increase your knowledge and understanding of such varied horticultural topics as best cultural practices for growing flowers and vegetables, house plant care, plant disease, lawn care, and insect pest identification and control and much, much more. Course topics include: history of OSU Extension, plant physiology, soils, composting, fertilizers, herbs, houseplants, plant propagation, plant pathology, diagnostics, entomology, integrated pest management, vegetables, lawns, woody ornamentals, fruits, landscape maintenance, and making effective presentations.

An information meeting will be held **Monday, May 1, 2017 from 5:00 to 5:45 p.m.** in the downstairs meeting room of the OSU Extension office at 39 Wall Street in Jefferson. Specifics with regards to the application process, training schedule, course fee, and fingerprinting
requirements will be shared at this meeting. It is not mandatory to attend this session if you are applying.

The dates for this year’s training program are: June 7, 15, 21 & 28; July 12, 19, & 26, and August 2, 9 & 30. This program is taught in conjunction with the Lake County Master Gardener program. Five of the sessions will be taught at the Ashtabula County Extension Office in Jefferson and five will be taught in Lake County. All courses will be taught from 9:00 a.m. – 4:00 p.m. There is a $210 course fee that covers course materials, refreshments, and speaker travel costs. Registration is limited and all applications are due by May 10, 2017. Interviews for the class will be held on May 15, 2017. Please call the Ashtabula County Extension Office at 440-576-9008 for more information or for a complete application packet.

Ashtabula County Agricultural Scholarship Applications Being Taken

OSU Extension and the Ashtabula County Agricultural Scholarship Committee are pleased to announce the scholarship committee will be presenting a minimum of fourteen scholarships for the 2017-2018 school year to Ashtabula County students enrolled in either an accredited full four year college or an accredited two year technical institute. Scholarships awarded this year will include:

- Up to $5,000 will be awarded from the Ashtabula County Agricultural Scholarship Fund to Ashtabula County students enrolled in agriculture, natural resources, family & consumer sciences, or environmental sciences.
- Two $1,000 Ashtabula County Holstein Club Scholarships shall be awarded to deserving Ashtabula County students from a commercial dairy farm family enrolled in two year technical institute or full four year college. Or this scholarship may be awarded to a student studying animal science.
- The $1,000 Allan C. Jerome Memorial Scholarship shall be awarded to an Ashtabula County student enrolled in agriculture, natural resources, family & consumer sciences, or environmental sciences. It is the wish of the donors that first preference be given to graduates of the Pymatuning Valley School District.
- The $1,000 Kellogg Memorial Scholarship shall be awarded to a student who has at least completed their freshmen year of a two year technical or four year undergraduate college program in the study of production agriculture, dairy science, or farm management. This scholarship is given in the memory of W.H., David W., and Pauline Kellogg.
- The $1,000 Lester C. Marrison Memorial Scholarship shall be awarded to a deserving Ashtabula County student enrolled in agriculture, natural resources, or family & consumer sciences. Secondary preference will be given to a student pursuing a degree in education.
- At least one $1,000 Service-Jerome Scholarship shall be awarded to a student studying agriculture, natural resources, family & consumer sciences, or environmental sciences at The Ohio State University or the Agricultural Technical Institute. It is the wish of the donors that applicants from the Pymatuning Valley School system be given 1st choice; Grand Valley Local Schools, 2nd choice; Jefferson Area Schools, 3rd choice; and all other districts, 4th choice.
- The $1,000 Harold and Dick Springer Memorial Scholarship shall be awarded to a
deserving Ashtabula County student enrolled in agriculture, natural resources, family & consumer sciences, or environmental sciences. Secondary preference will be given to a student pursuing a degree in education.

- Two $1,000 Centerra Co-op Scholarships shall be awarded to an Ashtabula County student enrolled in either a four year college or an accredited two year technical institute. The family must derive a portion of their income from farming.
- The $1,000 Christopher L. Zaebst Memorial Scholarship shall be awarded to an Ashtabula County Student enrolled in an Associate's degree, Bachelor's degree OR accredited technical school studying an area of their choice. Preference is to a family who derives a portion of their income from dairy, or another source of production ag (crops or livestock). A student who successfully completed a 4-H or FFA livestock project for 3 or more consecutive years is also eligible. If the student maintains a 3.0 grade average (by proof of transcript) during the award year, an additional $500.00 scholarship will be awarded to the student.
- The $1,000 Prochko Family Memorial Scholarship shall be awarded to an Ashtabula County student enrolled in agriculture, veterinarian sciences, or environmental sciences. It is the wish of the donors that first preference be given to graduates of the Jefferson Area School District or for a student whose family derives their income from a dairy farm.
- The $500 Lautanen Family 4-H Scholarship shall be awarded to a student who is or was an Ashtabula County 4-H club member for a minimum of five years. The student must demonstrate outstanding achievement in 4-H project work, outstanding leadership qualities, above average scholastic record, and a record of community service.
- The $500 Jim Baird Memorial Scholarship shall be awarded to deserving Ashtabula County student from a commercial dairy farm family enrolled in two year technical institute or full four year college. Or this scholarship may be awarded to a student studying animal science.

Both graduate and undergraduate students who are studying agriculture, natural resources, home economics, and environmental sciences are strongly encouraged to apply. The scholarships are for a one year period. A student may apply and be awarded a scholarship in three years from the scholarship fund. This is a new change to the scholarship rules. Previously a student could only apply and win in 2 funding cycles.

Application forms with complete instructions for applying are now available and can be received by stopping in at the Extension Office or by calling 440-576-9008. Applications can be accessed at: http://go.osu.edu/agscholarship. The application deadline is May 1 and no late applications will be considered. More information can be obtained about these scholarships by contacting the OSU Extension-Ashtabula County office at 440-576-9008 or emailing ashtabulacountyagscholarship@gmail.com

**2017-2018 Ashtabula County Beef Scholarships Applications Available**

OSU Extension and the Ashtabula County Cattlemen's Association are pleased to announce they will be awarding two youth beef scholarships for the 2017-2018 school year. One $1,000 scholarship will be awarded to a deserving 2017 High School Senior who will be attending an
Northeast Ohio Agriculture 16 OHIO STATE UNIVERSITY EXTENSION
Ashtabula and Trumbull Counties

An accredited full four year college or an accredited two year technical institute in 2017-2018. In addition, one $500 scholarship will be awarded to a current College Student who is currently attending an accredited full four year college or an accredited two year technical institute.

Applicants must be resident of Ashtabula County. The first preference by the Ashtabula County Cattlemen’s Association is the scholarships be awarded to deserving students who have been involved in the beef industry as a youth. Examples of this could include: working on a family beef operation; involved with a beef project through 4-H or FFA; or works on a local beef farm. The second preference for the scholarship recipients would be awarded to students who are currently or will be studying a beef related field in accredited full four year college or an accredited two year technical institute.  Previous winners of the $1,000 High School Senior Scholarship are eligible to apply for the $500 College Scholarship. However, the $500 college scholarship can only be received once by a student during their college career.

Applications must be received by the Ashtabula County Cattlemen’s Association by May 1, 2017 by 4:30 p.m. for consideration for the scholarship. No late applications will be considered. The application can be obtained at: http://go.osu.edu/ne-events Additional information can be obtained by calling the Ashtabula County Extension office at 440-576-9008.

**Tri-County Grape Growers 2017 Steak Dinner to be held on Thursday, May 4**
The Tri-County Grape Growers Association is pleased to announce they will be hosting their third annual **Steak Dinner** on Thursday, May 4 from 6:00 – 8:30 p.m. at the Harpersfield Community Center. Pre-sale tickets are required with each ticket costing $30.00 per person. The ticket price includes a one-year membership in Tri-County Grape Growers. Please RSVP by April 28 to guarantee seating. All are welcome to attend. Tickets may be purchased from the OSU Extension Office in Jefferson, Ohio (440-576-9008), John Linehan (440-466-3207) or from any active Tri-County Grape Grower Member.

**David’s Weekly News Column**
Hello Ashtabula County! On Saturday, April 22, the Ashtabula County Cattlemen’s Association held the 20th Annual Joe Bodnar Memorial Northern Classic Steer & Heifer Show at the Ashtabula County Fairgrounds. This show was started in 1998 to give youth under the age of 21 to practice showing their beef heifers and steers which they will ultimately show at the county fair later in the summer.

Every year, we hear positive comments about the quality of show which our Ashtabula County Cattlemen’s Association conducts and this year was no exception. We had 36 youngsters from 3 states show 41 animals at this day long show. We had 21 youth from Ohio, 9 from Pennsylvania, and 6 from New York. From Ohio, we had youth from Ashtabula, Geauga, Lake, Mahoning, Trumbull, and Ottawa counties who participated. Jared Bates from Chandlersville, Ohio served as this year’s judge.

Luke Culp from Vienna, Ohio showed the Grand Champion Heifer and Hannah Lucic from Charon, Ohio took home Reserve Champion Honors. Lily Berghorn from Akron, New York
showed the Grand Champion Steer and Addie Shaffer from Painesville, Ohio showed the Reserve Champion Steer. We had a really nice class of Ashtabula County youth showing their steers. Congratulations to Alaina Neczeporenko from Pierpont whose steer won the County Class.

The youth were also able to practice their showmanship skills with Hannah Lucic from Chardon, Ohio winning the 17-21 year old division and Addie Shaffer from Painesville, Ohio winning the 13-16 year old class. However, the showmanship class which spectators enjoy the most is the 12 and younger showmanship class. Congratulations to Karly Goetz from Oak Harbor, Ohio for winning this class. The hearts of the spectators were stolen however by the showing of Lilly Raber from Beloit, Ohio. Lilly who is only 5 years old exhibited a heifer and did an excellent job!

This show would not be possible if it was not for the support of local businesses in Northeast, Ohio. The Champion and Reserve Champion Awards were sponsored by Clemson Towing, Country Creek Cattle, Roll’n B Cowboy Café LLC, Countryside Vet Clinic, Ferguson Show Cattle, and Bortnick Tractor Sales. Additional sponsors of the event included: Andrews Auctioneering, Andover Bank, Ashtabula County Ag Society, Ashtabula County Farm Bureau, Cherry Valley Processing, Creek Side Farms, Easton Culligan Water Conditioning, Highland Livestock Supply, Lenox Farm Equipment, North Coast Animal Bedding, Linde’s Livestock Photos LLC, Northwind Farm, Attorney Katherine Riedel, Rome Feed, Ruck Cattle Company, Valley Feed Mill and Westford Milling Company. Thanks to each of our sponsors for their support of this event.

I would like to thank the Cattlemen Directors, Bart Kanicki, David Nye, Dr. Bryan Elliott, Zach Ward, and Tyler Brown for all their hard work in putting on this show. There is a lot of behind the scene work with has to be accomplished to make the show run smoothly. I would also like to thank Bob & Kristen Brown, Mindy Brown, and Sara Ward for their help with the event.

To close, I would like to share a quote from Joseph Addison who stated, “If you wish to succeed in life, make perseverance your bosom friend, experience your wise counselor, caution your elder brother, and hope your guardian genius.” Have a good and safe day.

**Upcoming 2017 Spring Extension Program Dates**
The following programs have been scheduled for Northeast Ohio farmers this upcoming winter. Complete registration flyers can be found at: [http://ashtabula.osu.edu/program-areas/agriculture-and-natural-resources/upcoming-educational-programs-deadlines](http://ashtabula.osu.edu/program-areas/agriculture-and-natural-resources/upcoming-educational-programs-deadlines)

**Hydrangea School**
Wednesday, May 3 at the Ashtabula County Extension office

**Portage County Pasture Walk**
Tuesday, May 9th at Goodell Farms

**Ashtabula County Ag Day**
Friday, May 12 at the Ashtabula County Fairgrounds
Trumbull County Master Gardeners Plant Sale  
Saturday, May 20\textsuperscript{th} at the Trumbull Ag Center in Cortland

I Can Grow That Workshop  
Saturday, May 22 at the Ashtabula County Extension office

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EVENING PASTURE WALK
MAY 9TH, 2017

Goodell Family Farm
An organic grazing dairy
10220 Peck Rd
Mantua, Oh 44255

Register by May 5th - call 330-297-7633 or email: kara.macdowell@oh.usda.gov

Rain or shine!

6:00 – 6:10pm ......................... Introductions

6:10 – 6:30pm ......................... Overview & Goals of Farm

6:30 – 8:00pm ....................... Pasture Management Training
Walk pastures with Rory Lewandowski — Wayne County OSU Extension Educator

8:00 – 8:30pm ...................... Question & Answers

Refreshments provided by Organic Valley

For Questions or Special Accommodations
Call the Portage NRCS/SWCD office
330-297-7633 x3

Sponsored by:

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

USDA is an Equal Opportunity Employer, Provider, and Lender
Join us on Thursday, April 27th at the Dickey Community Garden in Warren, OH to learn about soil fertility to promote healthy plants without over applying soil amendments. We will discuss soil pH, NPK analysis, types of fertilizer to use, how to interpret a soil test report, and much more. Gardeners of all skills levels will benefit from attending this workshop sponsored by Trumbull Neighborhood Partnership and OSU Extension Trumbull County.

This event is free to everyone, and registration is not required. Please bring your lawn chair as seating is limited. Please call OSU Extension (330-638-6783) or Trumbull Neighborhood Partnership (330-774-8896) for more information.