Hello Northeast Ohio Counties!

We’re on the downward slope toward the growing season! If you have a pasture or hay field to renovate, now is a perfect time to consider frost seeding in clover. Our frequent freeze/thaw cycles have been just about perfect to get those seeds in the ground.

It looks like we are going to have another great crowd tomorrow at the Agronomy School. We hope to see you there!

Have a productive and safe week!
Prospects for Corn Trade in 2018/19 and Beyond
By Ben Brown, OSU Ag Economics

The agricultural industry is a global economy with buyers (consumers), sellers (producers) and traders. In the United States, producers of corn have a comparative advantage- the ability to produce it cheaper per unit or at higher quality- over most other parts of the world. However, genetics, changes in weather patterns, land limitations, politics and global gross domestic product affect quantities of production and consumption.

Long-term trade projections for U.S. corn published by the Economics Research Service of the USDA look positive due to the expected rise in world GDP and population; however, increases in competition from other exporting countries continue trending toward a decrease in United States' share of world exports. Trade negotiations between the U.S. and China are in the middle of a 90-day trade truce, which ends the beginning of March. It is uncertain what, if any, resolution will surface before or at the deadline. In December 2018, commodity indices declined before the previous trade deadline, but rallied at the announcement of the 90-day extension. Long-term projections include a continuation of current policies, accounting for tariffs from Mexico, the European Union, Mexico and Canada.

The USDA World Production Report, published February 8, 2019, puts the size of the 2018/19 world corn crop at slightly more than 43 billion bushels. With production in the United States estimated at 14.4 billion bushels, any reduction in world supply will come from Brazil's short season corn crop.

Long-term trade estimations for world corn continue to see growth, with corn trade expected close to 163 million metric tons in 2018/19, up from 147 million metric tons in 2017/18. This increase in trade comes from expected strong corn production in Argentina and Brazil after last year’s drought.

![Figure 1: World Corn Exports](image-url)

World Corn Exports- Projected

- United States
- Brazil
- Argentina
- Ukraine
- All other
- Africa
Figure 1 illustrates world corn exports for marketing year 2017/18 through projections for 2028/29. The U.S. remains the largest exporter of corn to the world and increases almost 8 million metric tons or 13% by the end of the projection period. Major changes in corn export absolute values (million metric tons) come from Brazil (20.3), Argentina (8.8), and Ukraine (10.3). Percentage growth shows emerging producers like Europe (234%) increasing their exports from a relative low position. Growth in exports from these countries threaten the share of U.S. global corn trade. Figure 2 shows the growth in U.S. corn exports projected, but also the declining share of global corn trade.

**Figure 2: U.S. Corn Exports**

U.S. corn exports are projected to rise from almost 62 million metric tons (2.4 billion bushels) to almost 70 million metric tons (2.7 billion bushels) and show the continued growth in production and demand for U.S. corn abroad.

Associated with every seller (exporter) there has to be a buyer (importer). With the growth in world exports, there is also a growth in world imports to make the accounts balance. Mexico remains the largest purchaser of corn at 16.2 million metric tons (638 million bushels) with an estimated growth of 7 million metric tons (276 million bushels) by 2028/29. Currently, Mexico represents roughly 11% of the global corn trade. Regarding corn imports, a larger number of countries buy relatively smaller amounts of product compared to the smaller number of exporters who sell larger quantities of product. For exporters, the U.S., Brazil and Argentina represent 73% of the world total. Still the small importing corn countries represent a significant role in world trade. Figure 3 illustrated world share of corn imports and growth through 2028/29.

**Figure 3: World Corn Imports**

- Mexico
- Vietnam
- Iran
- Egypt
- China
- South America

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Growth (million metric tons) in Mexico (7.1) accompanied by Vietnam (6.1), Egypt (5.1), South Africa (5), Iran (3.2), and China (3.2) make up the majority of estimated world import increase through 2028/29.

Looking at U.S. corn exports for the current marketing year, (September 1, 2018 through August 31, 2019), corn exports started strong compared to past marketing years, but have slowed the past few weeks. The government shutdown that started December 22, 2018 and ran through January 25, 2019 has delayed corn export data, but weekly totals through the end of December are available and represented by Figure 4.

Current USDA estimates place U.S. corn exports for marketing year 2018/19 at 2.45 billion bushels up from 2017/18 at 2.438 billion bushels. Through the last week of December, corn exports came in 53% higher than the same week a year earlier. However, the rate of exports slowed in December. To meet the USDA estimate, the export volume for the next 35 weeks would need to average 47 million bushels a week. The weekly average in December came in at 38 million bushels per week. This does not mean the U.S. cannot meet the estimated export volumes, but increases in weekly sales will have to match the increase seen in 2015/16 during the second half of the marketing year.

The potential for increased sales in the second half of the marketing year look limited at the current time. Outstanding sales for the current marking year sit close at just over 512 million bushels. This is 15% below the three-year average, which includes marketing years 2015/16 and 2017/18, noted as having strong exports in the second half of the year. Exports in 2017/18 benefited from a low U.S. corn price, driven down by retaliatory tariffs on U.S. soybeans from China and a 14.4 billion bushel crop.

Figure 4: U.S. Corn Exports

Growth early in the current marketing year occurred thanks to some of the same countries mentioned above as being large key markets for future world trade. U.S. corn exports to Mexico were up 69 million bushels from a three-year historical average. Other areas of strong growth in U.S. corn exports were to Japan (56 million bushels), Korea (43 million bushels), Taiwan (23 million bushels), and Columbia (19 million bushels). Sustained values within these countries and growth from other areas will be needed to meet the USDA estimate.
Due to the lapse in federal funding, weekly trade information provided by the Foreign Agricultural Service of USDA is only current through the last week of December. However, grain inspections through February 7 indicated that corn exports are averaging 37.4 million bushels each week to start 2019. In December, federal inspections were roughly 7.4% below USDA export values weekly. Assuming this margin holds, weekly sales could be equal to 40.1 million bushels, still well below the average needed to hit USDA’s estimate for 2018/19. An export value of 2.425 billion bushels seems more likely at the current time.

The future of U.S. corn exports look strong in future years supported by growth in domestic production and growing desire for corn consumption abroad. Increases in international competitors continue to decrease the U.S. percentage in world corn trade. Corn exports started strong for marketing year 2018/19, but will need to increase pace to meet the current USDA estimate of 2.45 billion bushels.

References:

A very small number of crops are dominating globally:
That's bad news for sustainable agriculture
Source: https://www.sciencedaily.com/releases/2019/02/190206161446.htm

A new U of T study suggests that globally we're growing more of the same kinds of crops, and this presents major challenges for agricultural sustainability on a global scale.

The study, done by an international team of researchers led by U of T assistant professor Adam Martin, used data from the U.N.’s Food and Agricultural Organization (FAO) to look at which crops were grown where on large-scale industrial farmlands from 1961 to 2014.

They found that within regions crop diversity has actually increased -- in North America for example, 93 different crops are now grown compared to 80 back in the 1960s. The problem, Martin says, is that on a global scale we're now seeing more of the same kinds of crops being grown on much larger scales.
In other words, large industrial-sized farms in Asia, Europe, North and South America are beginning to look the same.

"What we're seeing is large monocultures of crops that are commercially valuable being grown in greater numbers around the world," says Martin, who is an ecologist in the Department of Physical and Environmental Sciences at U of T Scarborough.

"So large industrial farms are often growing one crop species, which are usually just a single genotype, across thousands of hectares of land."

Soybeans, wheat, rice and corn are prime examples. These four crops alone occupy just shy of 50 per cent of the world's entire agricultural lands, while the remaining 152 crops cover the rest.

It's widely assumed that the biggest change in global agricultural diversity took part during the so-called Columbia exchange of the 15th and 16th centuries where commercially important plant species were being transported to different parts of the world.

But the authors found that in the 1980s there was a massive increase in global crop diversity as different types of crops were being grown in new places on an industrial scale for the first time. By the 1990s that diversity flattened out, and what's happened since is that diversity across regions began to decline.

The lack of genetic diversity within individual crops is pretty obvious, says Martin. For example, in North America, six individual genotypes comprise about 50 per cent of all maize (corn) crops.

This decline in global crop diversity is an issue for a number of reasons. For one, it affects regional food sovereignty. "If regional crop diversity is threatened, it really cuts into people's ability to eat or afford food that is culturally significant to them," says Martin.

There is also an ecological issue; think potato famine, but on a global scale. Martin says if there's increasing dominance by a few genetic lineages of crops, then the global agricultural system becomes increasingly susceptible to pests or diseases. He points to a deadly fungus that continues to devastate banana plantations around the world as an example.

He hopes to apply the same global-scale analysis to look at national patterns of crop diversity as a next step for the research. Martin adds that there's a policy angle to consider, since government decisions that favour growing certain kinds of crops may contribute to a lack of diversity.
"It will be important to look at what governments are doing to promote more different types of crops being grown, or at a policy-level, are they favouring farms to grow certain types of cash crops," he says.

The study, which is published in the journal PLOS ONE, received funding from the Natural Sciences and Engineering Research Council of Canada (NSERC).

**Michigan food hubs make hospital food and the local food economy healthier**

By Mark Wedel


As Randall Davis points out plump, red tomatoes growing in a heated greenhouse, it sparked to mind a very recent delivered pizza experience.

The added tomatoes, which cost a premium of $1.49, were bland, hard, and barely red. Nothing like the beauties growing at ValleyHUB, a food hub and local grower that is part of the Kalamazoo Valley Community College community.

Outside, it's a bleak November day. Inside, these tomatoes are enjoying a warm, August-like growing season.

ValleyHUB made a large investment in greenhouse heating, grow lights and indoor irrigation systems, which makes their fruits more expensive than the tomato-like objects shipped from California or Mexico.

"We know that there's a market for tomatoes, all year round," says Davis, who is the food hub manager at ValleyHUB. Customers would spend more for a fresh local tomato grown in a greenhouse in winter, than a variety "that's meant to be shelf stable, shipped across the country, picked green, gassed — it's not really a tomato." As food hubs, ValleyHUB and Sprout strengthen the local food economy by increasing access to Michigan foods and supporting local farmers.

Food hubs are a relatively new way to get local food from farmers to consumers. As part of KVCC's Bronson Healthy Living Campus, ValleyHUB takes the concept a step further by studying and experimenting to see if the hub system could be truly sustainable in an urban

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Could a new system get local food to the urban neighborhoods of Kalamazoo, Battle Creek, and elsewhere, where communities are populated by fast-food joints and party stores? Is there any way to bypass the old system to better serve families with low incomes? How can food hubs be fair, yet sustainable, when it comes to the income going to farmers and food workers?

ValleyHub has been working on issues of food growing and delivery for just two years, so they haven't solved all food justice conflicts yet. They are studying, and sometimes running into, systemic barriers of the old system.

First, they have to have to establish a sustainable business model.

ValleyHUB is selling local produce from local farms and their own urban farm to Kalamazoo restaurants and health-focused grocers like PFC and Sawall. In their greenhouse they are growing speciality produce used in Asian cooking for Pacific Rim Foods.

But their biggest customer is institutional — their partner Bronson Healthcare in Kalamazoo.

Near zero waste

Prices tend to be higher for ValleyHUB's products, especially non-seasonal and greenhouse-grown produce. But according to Grant Fletcher, Bronson's system director for healthy living and sustainability, "The notion that the food we're buying from ValleyHUB is more expensive — it's fuzzy."

Fletcher wants to give as many people as possible in the Bronson community access to "the fundamental resources that every human being needs to live the healthiest, happiest lives that they can." This philosophy extends to Bronson Battle Creek, which gets fresh produce from that city's food hub Sprout BC.

There are times offseason when ValleyHUB delivers product that costs more, but that's not the end of the story. "There may be instances when a carrot from them, grown by Crisp Country Acres of Zeeland, is a couple cents more expensive than a monstrous carrot grown in the central valley of California that we purchase from Gordon Food Services or Sysco," Fletcher says.
"We are hyper-aware of the food that we're sourcing, the way that we're managing our inventory, the way that we're treating food as a resource," he says.

And that, ultimately, creates less waste. Fletcher says that "99 percent" of what arrives from ValleyHUB is usable. "If a 25-lb. case of tomatoes arrives from Mexico, and they spent ten days on a truck getting here, that case might be 30 percent waste."

**Links in the value chain**

At ValleyHUB, workers clean, peel, slice, and clean again locally-grown onions, carrots, and turnips. This is called "light processing," and here there is a purpose-built food processing space.

The environment is relaxed, with employees listening to alternative hip-hop. There can be a "toxic work environment" in a lot of kitchens and processing centers, according to Davis. He hopes to show people there is a different way of doing things.

"There's a cultural way that's been accepted for a long time," he says, "and now we're at a place where we can shift."

They employ a diversity of people, some KVCC staff, some staff contracted from MRC Industries. "We're intentionally placing people who may have barriers to employment in our program," Davis says.

Can a food hub system that ValleyHUB is exploring support these workers better than low-wage workers in a large food plant?

"I would love to say yes, but the reality is, no. We're not there yet," Davis admits. "And I can say that across the industry, we know that this type of work is not valued, it's not valued by the customer or the consumer, which is the biggest problem. Because if they're not willing to pay what food costs, then you'll never be able to have an industry that can support the workers with a wage that makes sense."

It is a goal to find ways to pay their workers a bit better. But ValleyHUB also pays local farmers
what they demand, and keeps prices reasonable for their customers.

They're also running a nonprofit within a college, not in the open consumer market, and trying to make enough money so as not to put stress on KVCC.

**A hospital's food customers**

But if good, local food is available, will low-income families be able to buy it?

Fletcher at Bronson says that everyone from patients to employees to the community they serve deserve high-quality local food.

"We want to lift that food up, and in particular we wanted to lift it up in large institutional settings where hundreds if not thousands of people are eating every day, and exposed to that food," he says. "It's one thing for (high-end Kalamazoo restaurants) Rustica or Food Dance to put together a really beautiful plateful of locally sourced food at a price point that a relatively small percent of our population can enjoy on a regular basis."

But Bronson and KVCC are getting that locally-grown, high-quality food to people at a price many can afford. "You could walk into these cafeterias and eat a complete lunch for almost $10."

Fletcher says that institutions like Bronson purchasing from ValleyHUB, "serve to build the capacity of the hub and the farmers and infrastructure required to support that food system," which helps grocery stores to feasibly sell local foods at a price competitive with national distributors.

Fletcher hopes for a day when liquor stores in urban communities could be replaced with food bodegas within walking distance of neighborhoods.

Bronson will be taking a small step toward that in January when they open their own micro grocery store. Year-round, every day, local fresh fruits, vegetables, meats and dairy from local farms will be sold near their hospital gift shop/pharmacy. Cilantro grown at ValleyHUB makes its way to Bronson Healthcare.

He admits that when people think Bronson, they think of a place for surgeries and sickness, not...
for food. "That's not generally the place where anyone hangs out unless you have to. But it's a wonderful environment. Lots of parking, tons of food, a lot of it made to order, coffee shops."

ValleyHUB knows Kalamazoo, Sprout knows Battle Creek

Sprout BC food hub manager Brennan Dougherty laughs a bit as she says, "You can go into a hospital and have a really fantastic local meal, and it's not a big deal!"

She is talking about Bronson Battle Creek, also going into the food business with the same attitude as its Kalamazoo counterpart. The north side of Battle Creek, dotted with fast food chains, now has a hospital where residents often go just to get quality food service, Dougherty says.

Sprout delivers potatoes, onions and other staples to Bronson. "We're trying to normalize local food, instead of making it a high end, farm-to-table thing."

Dougherty hopes that food hubs can make local food a regular part of everyone's diet, and no longer seen as a "kind of a high-end focus, something that's not accessible."

Sprout is looking to do the same with Sprout Box, a delivery service of local produce and products. Battle Creek residents who struggle to find affordable food can use SNAP benefits at their door, since Sprout now has a mobile EBT license.

They're looking to expand to Sprout Box delivery in Kalamazoo, while ValleyHUB is looking to bring more wholesale processed produce into Battle Creek, she says.

Sprout hopes to work with ValleyHUB to find customers in Kalamazoo, and they'll do likewise to help ValleyHUB in Battle Creek.

It's all in the food hub spirit of collaboration. "We're in Battle Creek so we know Battle Creek. I feel like those connections can help ValleyHUB increase its own business here," she says.

"It's good for everyone. We have common farmers who we work with, common businesses that we work with either collaboratively or separately. Our feelings have always been the more local food the better, period."

This story is part of “Michigan Good Food Stories” a series that explores access, equity, and sustainability in Michigan’s thriving food economy. This work is made possible by Michigan Good Food and is supported by the W.K. Kellogg Foundation.
OHIO AGRICULTURAL LAW BLOG – NEW LAKE ERIE LAWSUIT FILED AGAINST U.S. EPA

By: Evin Bachelor
Source: https://farmoffice.osu.edu/blog/wed-02132019-955am/ohio-agricultural-law-blog-%E2%80%93-new-lake-erie-lawsuit-filed-against-us-epa

We can’t say that Lake Erie is back in the news, because lately it hasn’t left the news. However, there is a new lawsuit in federal court that seeks further action from either the U.S. Environmental Protection Agency (“EPA”) or the Ohio EPA regarding Lake Erie water quality. Filed on February 7, 2019 by the Environmental Law & Policy Center (“ELPC”) and the Toledo-based Advocates for a Clean Lake Erie, this new lawsuit alleges that the U.S. EPA improperly signed off on action taken by the Ohio EPA to designate Lake Erie as an impaired water body without implementing a Total Maximum Daily Load (“TMDL”) to restrict discharges such as agricultural runoff. The plaintiffs weren’t necessarily unhappy about the designation, but they were not happy about the lack of a TMDL.

Designating a waterway as impaired indicates low water quality, and triggers requirements to take action to improve water quality. A state must classify its waterways, and that classification guides the selection of which types of regulations to impose and the priority of fixing a waterway. The Ohio EPA’s designation of Lake Erie as impaired under the federal Clean Water Act was motivated by a previous lawsuit brought by the ELPC. In that lawsuit, a federal court ordered the U.S. EPA to review the Ohio EPA’s compliance with the federal Clean Water Act, which is something the plaintiffs in this new case want the court to order again. That case remains pending, and is cited as Environmental Law and Policy Center v. U.S. EPA, Case No. 17-cv-1514 (N.D. Ohio).

The plaintiffs allege that the new designation alone is not enough, and that the Ohio EPA must take more action. The complaint in the new lawsuit alleges that the Ohio EPA must establish a TMDL for western Lake Erie. Under the federal Clean Water Act, TMDLs identify the maximum amounts of a pollutant that a body of water can handle in order to meet water quality standards. The U.S. EPA describes these as a “starting point or planning tool for restoring water quality” that states often use as targets when crafting comprehensive plans to attain water quality. The complaint alleges that the Ohio EPA must prioritize creating a TMDL for western Lake Erie, but the Ohio EPA has said that it hopes to pursue an alternative approach to water quality attainment without the need for a TMDL. The plaintiffs do not believe that this is enough.

But why then is the new lawsuit against the U.S. EPA, and not the Ohio EPA? Congress granted the U.S. EPA oversight over water quality for federally navigable waters, or Waters of the United States, which include Lake Erie. The complaint alleges that by approving Ohio’s designation of Lake Erie without a plan and timeline to reach water quality standards, the U.S.
EPA made an improper and arbitrary decision under the federal Clean Water Act. The plaintiffs want the U.S. EPA to rescind its approval of the Ohio EPA’s action. After this, the U.S. EPA would have to require the Ohio EPA to submit a new binding plan to bring Lake Erie into attainment with water quality standards, or the U.S. EPA can decide that Ohio has refused to submit a plan and exercise its authority to create its own plan for Ohio. The complaint also seeks an award of attorney’s fees and costs to cover the expenses incurred by the plaintiffs in bringing the lawsuit.

Chili Cook-Off & Family Fund Night to be held on March 1st in Jefferson

The Ashtabula County 4-H Camp Counselors will be holding their 5th Annual Chili Cook Off and Family Fun Night on Friday, March 1, 2019 at the Ashtabula County A-Tech Cafeteria – Building B. The event will be held from 5:30 to 7:30 p.m. and your $5 ticket includes chili, cornbread, dessert and beverage and a vote for your favorite chili.

The evening will be full of fun activities for the whole family. There will also be a basket palooza. Pre-sale tickets can be purchase from any Camp Counselor or at the O.S.U Extension Office. Enjoy a variety of chili while helping a group of hard working youth. All proceeds benefit the Ashtabula County 4-H Camp Counselors program. For more information contact the O.S.U. Extension Office, Abbey Averill 440-576-9008 or averill.10@osu.edu

Trumbull County Farmer Lunch Series

OSU Extension Trumbull County, Trumbull County Soil and Water Conservation District, and the NRCS have combined efforts to offer a farmer lunch seminar series that will cover a variety of topics relevant to NE Ohio. Each program will start with lunch at 11:30A.M. sponsored by the Trumbull County Holstein Club followed by a 1-hour presentation. Cost for individual programs is $10/person. If you would like to register for all four programs, the cost is $35/person.

*Wednesday, February 20, 2019 – NE Ohio Agronomy School in Bristolville, OH*

Tuesday, March 5, 2019 – Climate Impacts for Ohio Agriculture
  • Aaron Wilson, OSU Byrd Polar and Climate Research Center
  • Our changing climate has already influenced how Ohio farmers operate. Learn how predicted climate changes will continue to drive changes in Ohio agriculture. CCA credits available.

Tuesday, April 2, 2019 – Tillage Affects on Soil Health
• Steve Culman, Assistant Professor, State Specialist in Soil Fertility
• New tillage technologies are arriving each year, but are they hurting your soil health? Learn how tillage, and other practices can improve or hurt your soils health. CCA credits available.

Lee’s Monthly News Column

Happy Valentine’s Day Trumbull County! I get asked a lot about my job, and exactly what I do, and after I finish explaining that I work with the agricultural industry in the region I will usually get a few questions or comments. The majority of the questions/comments are “That sounds like a great job!”, or “What did you study in college?”. On occasion I will get a few critical questions about farming practices they may have heard in the news. I can lump most of them into two categories – chemicals (pesticides, fertilizer, etc.) and technology (GMOs, tractors, etc.).

For chemicals, there seems to be a general consensus among non-farmers that farmers randomly apply these chemicals with no regard to the environment and public health. I can tell you that local farmers DO care about the environment, public health, and their pocket book. Our county farmers drink from the same water, fish the same streams, and breath the same air as the rest of the county. They also have kids they want to keep safe and healthy. Chemicals are probably the most expensive item that a farmer will purchase each year, and no farmer that I know wants to waste that investment. Routine soil testing is common among most farmers and will tell them exactly how much fertilizer they need to add to grow a successful crop, and sometimes that means adding nothing.

Pesticide applications are sometimes necessary to prevent the loss of a crop. Herbicides are used to keep weeds out of the fields until the crop canopy is closed to ensure that those expensive fertilizers are going to the crop, and not the weed. Insecticide or fungicide applications are based on economic thresholds, or in other words, farmers calculate if the application will cost more than the loss in yield due to the pest or disease. I don’t want it to sound as if I am minimizing the risks and dangers of pesticides to simply economics, because that is not the case. Trust me, any farmer would rather put money into a tractor than chemicals, but they really don’t want to put themselves, their families, or your family at risk. Many farmers don’t want to handle the more toxic chemicals and will look for a less toxic option. Anyone that is applying a restricted use pesticide must first pass an exam, and maintain ongoing education to obtain a Ohio Pesticide Applicator’s license from the Ohio Department of Agriculture.

Technology and farming have a long history, and that is the reason the Land Grant University system was established. It’s no surprise that farmers want to grow crops as efficiently and sustainably as possible. Everyone has heard of genetically modified organisms (GMOs) in one way or another. GMO crops have been around since the early 1990’s and the number of new
crops coming out with GMO tech is only increasing. People have written hundreds of books about this topic, and they will continue to do so for many more years. I will let them hash out all the details, but to keep it short I would encourage all of you to read the 4-page Report in Brief on the use of GMOs in our food supply that was published by the unbiased National Academies of Science. You can find it here: https://nas-sites.org/ge-crops/2016/05/16/report-in-brief/. Highlights include that GMOs do not pose a risk to human health, do not necessarily increase yield, and do not pose a risk to the environment.

From the questions, and the conversation that follows, I think many people have a nostalgic view of farming from the early 20th century. The nostalgic view is not much different from the Old MacDonald nursery rhyme where every farmer has crops, pigs, cows, horses, dogs, and chickens. While there are some farms out there that resemble this, it is the exception and not the rule. You would have to stop at several grain farms in the county before you find any livestock. The truth is, farming has changed. Old MacDonald may have been able to work solely on the farm with a managery of animals and make enough money to support a family in 1900, but that is not possible now. A quick look at the market reports this morning, and a 300lb pig would bring roughly $160. If you deduct the feed, vet bills, and other inputs and it's easy to assume that farmer probably lost money raising that pig.

A local farmer recently shared corn yield data from his farm in 1956. His father had entered a yield contest, and he had won with 103 bushels per acre. The next highest farm was 81 bushels. This was a pretty good crop in 1956 considering that 20 years earlier the average yield was 35 bushels per acre. If we fast forward to 2018, it would not be unusual for a corn farmer in Trumbull County to produce 200+ bushel of corn. We simply can't go back to a nostalgic sense of farming with an increasing world population, and diversification for farms (livestock, alternative crops, etc.) is generally a good idea, but it has to be profitable.

Many families in Ohio are removed from farming by several generations and understandably don't have knowledge of current farming practices. I encourage everyone to talk to a local farmer whenever you can, or you can always call OSU Extension with your questions about farming. Remember, there are no dumb questions, only dumb answers. I’ll try to limit my dumb answers. I promise.

Mark your calendars for February 20, 2019! The Northeast Ohio Agronomy School will be returning with a great lineup of speakers covering soybeas, barley, weeds, and corn. This year we will be at the Bristolville Community Center from 9-3:30. Cost for this program is $15/person and includes refreshments and lunch. Pesticide, fertilizer, and CCA credits will be available. Please call our office to register by Monday February 18 to reserve your spot!

Do you apply fertilizer to more than 50 acres, or receive manure from a permitted farm? If so, you need to have your fertilizer certification from the Ohio Department of Agriculture. OSU
Extension will be offering a certification class on February 23 from 9A.M. to noon that will meet all requirements for the ODA, so when you leave your will have your certification. The cost for this class is $35/person, and pre-registration is requested.

For more information about 4H, FCS, Agriculture, or Master Gardeners pleas 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.

**Upcoming Events**

**Trumbull County Farmer Lunch**  
March 5, 2019 – Climate Impacts for Ohio Agriculture  
April 4, 2019 – Tillage and Soil Health

**Northeast Ohio Agronomy School**  
February 20, 2019 – Bristolville Community Center

**Ashtabula County Dairy Banquet**  
March 23, 2019

**Pesticide Applicator Training Dates**  
Ashtabula County – February 28, 2019

**New Pesticide Applicator Training**  
Trumbull County – March 12, 2019

**New Fertilizer Certification Training**  
Trumbull County – February 23, 2019  9A.M. to 12P.M

**Prune Into March**  
Trumbull County – March 2, 2019

**March In Prune Out**  
Geauga County – March 30, 2019
Did you ever want to learn how to prune your apple, pear, or other fruit tree? Here’s your chance! You even get to practice on someone else’s tree! OSU Extension and Hartford Orchards LLC are teaming up to bring you a morning full of hands-on pruning experience on March 2, 2019. We’ll start the morning off with a quick overview of pruning basics before we head out to the orchard to get first hand experience deciding what to prune, and when to stop cutting.

Dress for the weather, and bring your pruners, loppers, and saws! We will be getting our hands dirty, so bring gloves too! Cost for the class is $15/person and includes refreshments, handouts, and the first 30 registrants get a free pair of hand pruners. To register, or if you have any questions call 330-638-6783.

March Into Pruning
Fruit Tree Pruning Clinic

Hartford Orchard
6953 OH-305
Hartford, OH 44424

March 2, 2019
9:00A.M – 11:00A.M

$15/person

2019 PRUNE INTO MARCH REGISTRATION FORM

Complete the below information and send with payment to OSU Extension Trumbull County, 520 West Main Street, Cortland, OH 44410.

Name: __________________________

Address: __________________________

Phone: __________________________ Email: __________________________

Number Attending: __________________________ X $15/person = __________________________ Enclosed

Please make checks payable to OSU Extension
Are you thinking about getting your pesticide license, but are nervous about the exam? OSU Extension is offering two opportunities to attend a New Applicator Training that will help you prepare for the ODA exams. We will cover CORE, or basic safety material and will discuss individual categories briefly. Pre-Registration is required a week in advance. Cost for this training session is $35/person and includes CORE study materials, and handouts. To register, complete the bottom portion of this flyer and mail with check to the location you plan to attend. Please make checks payable to OSU Extension

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

OSU Extension Geauga County
14269 Claridon Troy Road
Burton, OH 44021

2019 NEW PESTICIDE APPLICATOR TRAINING REGISTRATION FORM

Complete the below information and send with payment to the location you wish to attend the training.

Name: 
Address: 
Phone: Email: 
Number Attending: X $35/person = Enclosed

Please make checks payable to OSU Extension
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.
2019 Fertilizer Applicator Training
Trumbull County

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

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