Hello Northeast Ohio Counties!

Happy Thanksgiving! As our harvest season draws to a close on quite possibly the most memorable year we will experience, there is still a lot to be thankful for. Soybean yields were slightly above average, and the corn is pretty good considering the dry summer we had.

I hope you can slow down this week and enjoy time with your friends and family, even if it is by phone or ZOOM. PS – take that turkey out of the fridge!

Stay safe, healthy, and have a great week!

Lee Beers  Andrew Holden  Angie Arnold
Trumbull County  Ashtabula County  Portage County
Extension Educator  Extension Educator  Extension Educator
The American Bankers Association is a membership association comprised of small, regional, and large banks that account for nearly $11 trillion in loans and $17 trillion dollars in deposits. Member banks working with Farmer Mac provide the agricultural industry with low-cost financing and risk management tools. Farmer Mac has been delivering capital to rural America for over 30 years. The American Bankers Association and Farmer Mac have collaborated on a national survey of ag lenders since 2016 to gauge lender sentiment of the farm economy, expectations of land values and an outlook for the agricultural economy for the coming year.

Nearly 500 loan officers responded to a survey via email between August and September each year. Responses represent lending institutions that range in assets of less than $50 million to large institutions with assets in excess of $5 billion. There is also a wide geographic distribution of respondents. The Farm Credit System is not a member of and were not participants in the survey.

Key Takeaways taken verbatim from the report were:

**Profitability expectations** – The agricultural economy and farm income remain stressed in 2020. The majority of agricultural lenders surveyed noted compression in farm profitability (79.2%).

**Top concerns for producers** – Lenders continue to be most concerned about the liquidity, income and leverage of producers. Uncertainty regarding tariffs and trade, the weather and the impacts of the COVID-19 pandemic and resulting economic downturn are close behind.

**Top concerns for lenders** – Lenders across all regions and sizes remained concerned with credit quality and competition for loans in 2020. Concern regarding weak loan demand was the third highest ranked concern reflected across most regions except in the West.
Sector concerns – Respondents expressed the most concern for the grain, dairy and cattle sectors. Concerns declined for vegetables, poultry, and fruits and nuts. Lenders reported sustained interest from borrowers in hemp and alternative energy financing.

COVID-19 Economic Downturn – While concern about the pandemic was lower than that for borrower financials, 87.4% of respondents noted that ag borrowers’ reliance on government payments in 2020 increased. More than half inquired about government programs like the CFAP/MFP (68%) and PPP (58%). Lenders said that loss of these payments would negatively impact ag borrower profitability.

Land value and cash rent expectations – Seven-in-ten lenders say that land values held steady through 2020, but more than a third expect land values to decline in 2021, including 41% in the Cornbelt and 39% in Plains states. One fifth of lenders reported cash rental rate declines on average quality farmland in 2020 (22%), a smaller decline than was observed in 2019. Lenders still believe that average quality farmland and cash rents are overvalued (40% and 30% respectively), with higher shares in the Cornbelt and Plains states.

Loan Demand – While over half of lenders reported that demand for ag production and ag real estate loans were flat over the last 6 months, a significant share reported increased demand (26.7% and 33.3% respectively) and 82.2% said that overall farm debt increased over the past year. Similar expectations were reported for loan demand next year.

Credit quality – Survey respondents generally expect higher ag loan delinquency rates heading into 2021 for both production (59.9%) and ag real estate (46.7%), though, a majority expect loan charge-off rates to stay about the same (61.5% and 70.4%, respectively). About one out of five ag borrowers (18.1%) requested a loan modification in 2020 as a result of the pandemic and resulting economic downturn.

Approval rate – In spite of the credit quality concerns, lenders remain positive about approvals. Lenders reported an average agricultural loan application approval rate for new loans of 72.3% in the 12 months leading up to August 2020, and expect the approval rate for renewal requests to be close to 90% in the following 12 months.

For a full detailed report visit the American Bankers Association website at:


Summary
We encourage farmers to spend time evaluating the financial standing of their business as they wrap up 2020 and begin planning for 2021. Ohio State University Extension has a number of resources that may be of interest and use in planning, including:

- Ohio Farm Business and Analysis Benchmarking Program (https://farmprofitability.osu.edu/)
- Ohio Ag Manager Newsletter (https://u.osu.edu/ohioagmanager/)
- Ohio State University Commodity Budgets (https://farmoffice.osu.edu/farm-mgt-tools/farm-budgets)
- Ohio State University Extension Farm Office (https://farmoffice.osu.edu/)
- The Basics of a Farm Balance Sheet, Ohio State University Extension. Available at: https://ohioline.osu.edu/factsheet/anr-64

**Fall Grazing Thoughts**

By: Chris Penrose  
Source: https://u.osu.edu/beef/2020/11/18/fall-grazing-thoughts/

Well, the growing season may be over but the grazing season may not. My whole career I have heard many talking about how long the grazing rotation should be: maybe 14 days in the spring or 60 in late summer during dry weather. I have also heard the discussion over which is more of a management challenge. Over 30 years ago I heard someone say that the greatest challenge is the 150 plus day rotation during the winter months. That one took me a while to process but once I did, it made a lot of sense. Few have accomplished it and many have made it a long way. I really don’t think of it as whether you succeed at it but if you can get better at it. The greatest cost of keeping grazing livestock is stored feed, and if we can reduce how many days we feed, we will be better off. You may not make the rotation last 150 days, but can you make it last longer, say 90 days? Every day I am not feeding hay means a day I am not spending as much money or time feeding livestock. This is a good time to try to plan ways to reduce the days you feed hay next year or even this year. Is there a hay field you can still graze without causing damage to it? Is there a harvested corn field you could graze? Little things could save.

During the summer, did you have any issues you could address to reduce issues next year? I noticed a lot more cocklebur in the pastures this year and mowing simply will not
eliminate this weed. I have seen two inch high cocklebur with seeds on it. Spraying next year seems to be my best option.

Water drawn from 18 inches below a float can be gravity fed to buried, non-electric, insulated tank like seen above.

It was very dry later in the summer. Was water an issue? If so, now is the time to plan. My neighbor had issues and he rebuilt his pond, then put a barrel sized insulated tank buried about 80% in the ground with a float and valve on it that is gravity fed from the pond and requires no electric. It looks impressive and is unlikely to freeze. If it gets very cold this winter, do you have a plan to provide water? Over the years there have been several times I had to break ice when it remained below zero for extended periods of time.

If there is a dry day or two in the next few weeks, can you move out some round bales of hay to feed later in the season before it gets too muddy? Do you have enough feed for the winter? Hay is likely less expensive now than it will be in late February. Keep in mind that a portion of a hay diet can be replaced with corn. A pound of corn typically provides the energy of two pounds of hay. Shelled corn with the kernel cracked into three to four pieces maximizes utilization, but I get better intake using whole kernels when I feed it directly on the ground.

On, at best, a loosely related note but I consider a very important one, we worked all of the cattle the first of November. About half of my paddocks are on one side of the farm and about half are on the other. When we finally put in working facilities several years ago, we placed gates on each end of the holding pen and when I move cattle, I put them in the pen, close one gate, walk down and open the other, and out they go. When I need to work cattle, I set it up the pasture rotation so the cattle think it is time to be moved and it is a one person operation. I can then sort them into a sub-pen, then into the tub, down the alleyway and to the chute. It is so much safer and the cattle stay completely calm. The facilities are probably the best money I ever spent on the farm and I can now A.I. cows and treat animals when needed and most importantly, stay safe.
I’m making a turkey for the first time because, this year, we’re staying home for Thanksgiving and avoiding our traditional large holiday gathering due to the pandemic. However, as a novice, I’m not sure how to thaw the turkey. What do I do?

Good question!

It’s very important that you thaw and cook your turkey safely to help avoid developing foodborne illnesses. Thawing a frozen turkey correctly helps minimize the growth of bacteria, which can cause foodborne illnesses. While frozen, a turkey is safe indefinitely. However, as soon as it begins to thaw, any bacteria that might have been present before freezing can begin to grow again, according to the U.S. Department of Agriculture Food Safety and Inspection Service.

There are three safe ways to thaw a frozen turkey: in the refrigerator, in a container of cold water, or in a microwave.

The USDA recommends thawing it in the refrigerator because doing so allows the turkey to thaw in a controlled environment out of the temperature “danger zone”—between 40 and 140 degrees Fahrenheit—where bacteria can multiply rapidly.

A turkey thawed in the refrigerator takes one day for each 4–5 pounds of weight. So, for example, if your turkey weighs 12 pounds, it can take three days to thaw. But, once thawed, you should cook the turkey within two days to ensure safety, said Sanja Illic, food safety state specialist with Ohio State University Extension. OSU Extension is the outreach arm of The Ohio State University College of Food, Agricultural, and Environmental Sciences (CFAES).

“If you find yourself needing to thaw the turkey using a faster method, you can place it in a container or sink and submerge it in cold water,” she said. “It’s important that the turkey stays cold, so you need to ensure that the turkey is completely submerged in cold water by replacing the water with fresh, cold water every 30 minutes.

“Turkeys thawed using this method will need 30 minutes of defrosting time per pound.”

Also, keep the turkey in its original wrapping while it is being thawed, the USDA advises, and consider a secondary container to catch juices and condensation as the bird defrosts.

If you want to thaw your turkey in the microwave, you will need to take it out of its packaging and place it on a microwave-safe dish. Use the defrost function based on the
turkey’s weight, the USDA says. Generally, allow six minutes per pound to thaw. Once
the turkey has thawed, you should cook it immediately.

Here are some other safe turkey tips from the USDA:

- Don’t wash your turkey! Why? Because bacterial pathogens, which can be
  present both on the inside and outside of a raw turkey, cannot be washed off.
The only way to destroy this potentially dangerous bacteria is to cook the turkey
to an internal temperature of 165 degrees Fahrenheit. Washing your turkey or
other raw poultry will increase the chance that you spray pathogens over other
parts of your kitchen, potentially contaminating your cooking area and sink.

- Use a meat thermometer to check that the temperature of your cooked turkey
  reaches 165 degrees Fahrenheit. You should insert the thermometer into three
  areas of the turkey to measure its internal temperature: in the thickest part of the
turkey breast, in the innermost part of the wing, and in the innermost part of the
turkey thigh.

- Refrigerate your Thanksgiving leftovers within one hour of eating to prevent any
  pathogens that can cause foodborne illnesses from growing.

Chow Line is a service of The Ohio State University College of Food, Agricultural, and
Environmental Sciences and its outreach and research arms, Ohio State University
Extension and the Ohio Agricultural Research and Development Center. Send
questions to Chow Line writer Tracy Turner, 364 W. Lane Ave., Suite B120, Columbus,
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**TACKLING FOOD ALLERGIES AT THE SOURCE**

By Eric Hamilton


Food allergies are a big problem. About 7% of children and 2% of adults in the U.S.
suffer from some kind of food allergy. These allergies cost a whopping $25 billion in
health care each year. Then there’s the time lost at school or work. And there’s the risk
of serious complications, even death.

It’s critical to find ways to reduce the suffering caused by food allergies. Food
processing already spend a lot of effort to label products so people can avoid items
they’re allergic to. But what if we could do better? What if we could enjoy the foods we
like without worrying they might trigger a health crisis?
That’s the focus of Eliot Herman’s work. Herman has spent his career studying why plants trigger allergic reactions and how to reduce the chance of them being triggered. Herman is a member of the Crop Science Society of America and recently presented his work at the virtual 2020 ASA-CSSA-SSSA Annual Meeting.

“Food allergies are an important societal issue. By altering food and by treating sensitive individuals, this can be mitigated, improving their lives and impacting the total medical expenditure in the U.S.,” says Herman.

Herman focuses particularly on soybeans. Soybean allergies especially affect children and infants. And because soybean products like oil and protein are used in countless food products, it’s hard to avoid.

Earlier in his career, Herman found the protein made by soybeans that is responsible for most soybean allergies. Now, he has dedicated his work to understanding why this protein is so aggravating and how we can reduce it in the crop.

To do so, he’s turning to animal models. Pigs sometimes have a soybean allergy very similar to that of humans. Herman worked with a research team that bred pigs that are extra sensitive to soybeans. Testing new crops on allergic children wouldn’t be possible. But these pigs can be used to see how well plant breeders have done at removing allergenic proteins from soybean seeds.
That’s a feat that Herman has done not once, but twice. Previously, Herman partnered with the company DuPont to produce a line of soybeans that couldn’t make the most allergenic protein.

They made this soybean line using genetic engineering. This new soybean was a genetically modified organism (GMO), and there was also demand for a non-GMO soybean without the allergenic protein.

So Herman went back to the drawing board. He worked with his colleagues to find a line from the United States Department of Agriculture’s (USDA) national soybean collection that naturally didn’t make the allergenic protein. That means no genetic engineering would be necessary. They then crossed that line of soybeans with a more commonly grown soybeans to create a new, productive soybean with reduced allergic sensitivity.

“This new soybean is intended to be a low-allergen prototype to be tested as a conventional, non-GMO line to mitigate the allergic response for consumers,” says Herman. The hypersensitive pigs can now be used to test if these low-allergen soybeans are safe enough for allergic individuals.
That wouldn't only be good for allergic people who want to safely eat more items from the grocery store. It would also be good news for animals.

Since pigs are often fed soybeans, a low-allergen soybean could reduce their own allergic response. Dogs also have a high prevalence of allergic reactions to soybean, which is used in some dog foods. So reducing the crop’s allergenicity would be good for man’s best friend, too.

“Food has been recognized as medicine since ancient times. By reducing soybean’s allergens, we hope to produce positive a medical outcome for humans and animals,” says Herman.

Eliot Herman is a professor of plant sciences and Bio5 Institute at the University of Arizona. This work was funded by United Soybean Board and the United States Department of Agriculture National Institute of Food and Agriculture.

**Keeping a lid on Ohio’s newest pest: the spotted lanternfly**

By: Alayna DeMartini


*Photo: Getty Images*

COLUMBUS, Ohio—A group of spotted lanternflies, which feed on grapevines, hops, and fruit trees, was recently discovered in Ohio, triggering concerns the pest could become established and spread quickly.

In October, adult lanternflies were found outside a business in Jefferson County, adjacent to the Pennsylvania border.

Adult lanternflies won’t be seen during the winter months because they die off as temperatures drop below freezing. But before dying, the females typically lay 30–50 eggs, and come spring, their offspring could begin feeding.

“If there’s anything I’m personally losing sleep over, it’s this insect,” said Maria Smith, outreach specialist in grape production at The Ohio State University College of Food, Agricultural, and Environmental Sciences (CFAES).

Native to Asia, spotted lanternflies were first found in the United States in 2014 in Pennsylvania.
“It's a ticking time bomb,” Smith said. “They're taking out acres of grapevines in Pennsylvania. That's why we're so concerned about this insect.”

Over the winter, it’s important to look out for the lanternfly egg masses, which are grayish mounds that can be attached to any surface, she said.

After they hatch, the developing nymphs are black with white spots, and when they become adults, the undersides of their wings turn red, which can make them easier to see.

“Right now, the most important thing is to get more eyes out looking for the pest. The populations can grow rather quickly. Producers and people in general in eastern Pennsylvania have found that out,” said Amy Stone, an Ohio State University Extension educator in Lucas County.

“We need to know where this insect is so that we can react.”

OSU Extension is CFAES’ outreach arm.

Spotted lanternflies suck sap from fruit crops and trees, which can weaken the plants and contribute to their death. As adults, one of their favorite feeding spots is another invasive species, the tree of heaven.

“I was kind of surprised when I saw a live lanternfly. They're larger than I thought they'd be, for a planthopper,” said Erika Lyon, an OSU Extension educator in Jefferson and Harrison counties.

Lanternflies typically only travel within a radius of about 30 feet, but they can hitchhike into an area, riding on trains, cars, or trucks. People driving out of state should inspect their vehicles and their belongings when they return to ensure they didn’t pick up any six-legged travelers, Lyon said.

“They don’t go very far on their own,” she said. “It’s people that are their main route of transportation.”

*If you see a spotted lanternfly or an egg mass, contact the Ohio Department of Agriculture’s Plant Pest Control section at 614-728-6400 or plantpest@agri.ohio.gov, your county OSU Extension office, or submit your findings using the Great Lakes Early Detection Network.*
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