

COSHOCTON COUNTY AGRICULTURE & NATURAL RESOURCES**August 12, 2020 Issue**

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The Annual Pumpkin Field Day Goes
Virtual!

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Hello, Coshocton County! While the calendar, heat, and humidity still say we are in summer, I am starting to see signs that FALL is right around the corner. The days are getting shorter, the dew is still on the grass at noon and the sun getting lower in the sky.

A lot of nice hay is being made, in fact, I saw fields of 1st, 2nd, 3rd and even 4th cutting made this week. A reminder that I am looking for a few more farms to take part of a Coshocton Hay survey. I had 10 free forage tests for this year and only have a few more spots left. Just drop me a line at marrison.2@osu.edu if you are interested.

This is the time of year where we start to look at estimating our corn yields. Included in this week's edition is a nice article on estimating corn yields.

Hope you each have a great week. Stay well!

Sincerely,

David Marrison

Coshocton County OSU Extension ANR Educator



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AND ENVIRONMENTAL SCIENCES

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Pasture Walk Slated for August 25

Area beef producers are invited to join the Coshocton Soil & Water Conservation District, Natural Resource Conservation Service and OSU Extension at a **Summer Pasture Walk** on Tuesday, August 25 at the Todd Endsley Farm located 27613 State Route 83 north of Coshocton, Ohio.

During the walk, we will tour the Endsley cattle operation and their pasture management system. Christine Gelley, OSU Extension from Noble County, will be sharing information on using warm season grasses in pasture systems.

This event will begin at 6:30 p.m. There is no cost to attend and light refreshments will be available. Reservations are not required but appreciated. Participants are reminded to follow social distancing requirements at this outdoor event. Call the Coshocton SWCD at 740-622- 8087, Ext 4 or email samanthadaugherty@coshoctoncounty.net for more details or to RSVP.



Updated Tri-State Fertilizer Recommendation Available

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-26/updated-tri-state-fertilizer-recommendations-available>

The Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat, and Alfalfa was first published in 1995 and has served as a cornerstone in nutrient management in field crops for Indiana, Michigan, and Ohio. As crop production practices in this region changed over the past 25 years, many questioned if these nutrient management guidelines were still relevant today.

In 2014, work began to revise and update the nutrient management recommendations in corn, soybeans and wheat. Over 300 on-farm trials were conducted across 34 Ohio counties, including trials evaluating crop response to N, P, K, and S. It was a tremendous collective effort with the ultimate goal of providing objective information to farmers to manage nutrients as judiciously and profitably as possible.

The recommendations have been comprehensively revised and updated. A summarized version can be found online: go.osu.edu/fert-recs. There is a menu at the bottom of this webpage that will allow users to view the topics of interest, including an executive summary that provides the highlights. The full version of the recommendations is being finalized at OSU Extension Publishing and a downloadable pdf and printed bulletin will be available soon.

The authors of the Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat, and Alfalfa include Steve Culman, Anthony Fulford, James Camberato, Kurt Steinke, Laura Lindsey, Greg LaBarge, Harold Watters, Ed Lentz, Ryan Haden, Eric Richer, Bethany Herman, Nicole Hoekstra, Peter Thomison, Rich Minyo, Anne Dorrance, Jeff Rutan, Darryl Warncke, Cassandra Brown

Estimating Corn Yields

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2015-25/estimating-corn-yields>

Reprinted from 2015

This is the time during the growing season when crop tours and seed companies start posting yield predictions for corn. Most of the corn crop in Ohio is probably at the dough stage (R4). Given the tremendous variability in crop quality across the state and between and within fields, it will be particularly interesting this year to see how close yield estimates come to matching what's harvested this fall. Moreover, although there may be little or no yield from many fields damaged by excessive rainfall and saturated soil conditions (and related problems, e.g. N deficiency, poorly developed root systems), the fate of other corn fields has yet to be determined. Other

factors could cut yields further. Many fields that were excessively wet several weeks ago could now benefit from rain. Shallow, limited root systems attributable to excessive soil moisture may predispose corn to late season soil moisture deficits. Several foliar diseases, esp. northern corn leaf blight and gray leaf spot, are widespread. Not surprisingly, the predictions I've received thus far indicate a wide range in corn yields.

Two procedures that are widely used for estimating corn grain yields prior to harvest are the YIELD COMPONENT METHOD (also referred to as the "slide rule" or corn yield calculator) and the EAR WEIGHT METHOD. Each method will often produce yield estimates that are within 20 bu/ac of actual yield. Such estimates can be helpful for general planning purposes.

THE YIELD COMPONENT METHOD was developed by the Agricultural Engineering Department at the University of Illinois. The principle advantage to this method is that it can be used as early as the milk stage of kernel development, a stage many Ohio corn fields have probably achieved. The yield component method involves use of a numerical constant for kernel weight which is figured into an equation in order to calculate grain yield. This numerical constant is sometimes referred to as a "fudge-factor" since it is based on a predetermined average kernel weight. Since weight per kernel will vary depending on hybrid and environment, the yield component method should be used only to estimate relative grain yields, i.e. "ballpark" grain yields. When below normal rainfall occurs during grain fill (resulting in low kernel weights), the yield component method will OVERESTIMATE yields. In a year with good grain fill conditions (resulting in high kernel weights) the method will underestimate grain yields.



In the past, the YIELD COMPONENT METHOD equation used a "fudge factor" of 90 (as the average value for kernel weight, expressed as 90,000 kernels per 56 lb bushel), but kernel size has increased as hybrids have improved over the years. Dr. Bob Nielsen at Purdue University suggests that a "fudge factor" of 80 to 85 (85,000 kernels per 56 lb bushel) is a more realistic value to use in the yield estimation equation today. For more on this check <http://www.agry.purdue.edu/ext/corn/news/timeless/YldEstMethod.html>.

- Step 1. Count the number of harvestable ears in a length of row equivalent to 1/1000th acre. For 30-inch rows, this would be 17 ft. 5 in.
- Step 2. On every fifth ear, count the number of kernel rows per ear and determine the average.
- Step 3. On each of these ears count the number of kernels per row and determine the average. (Do not count kernels on either the butt or tip of the ear that are less than half the size of normal size kernels.)
- Step 4. Yield (bushels per acre) equals (ear #) x (avg. row #) x (avg. kernel #) divided by 85.
- Step 5. Repeat the procedure for at least four additional sites across the field. Keep in mind that uniformity of plant development affects the accuracy of the estimation technique.

The more variable crop development is across a field, the greater the number of samples that should be taken to estimate yield for the field.

Example: You are evaluating a field with 30-inch rows. You counted 29 ears (per 17' 5" = row section). Sampling every fifth ear resulted in an average row number of 16 and an average number of kernels per row of 33. The estimated yield for that site in the field would be (29 x 16 x 33) divided by 85, which equals 180 bu/acre.

THE EAR WEIGHT METHOD can only be used after the grain is physiologically mature (black layer), which occurs at about 30-35% grain moisture. Since this method is based on actual ear weight, it should be somewhat more accurate than the yield component method above. However, there still is a fudge factor in the formula to account for average shellout percentage.

Sample several sites in the field. At each site, measure off a length of row equal to 1/1000th acre. Count the number of harvestable ears in the 1/1000th acre. Weigh every fifth ear and calculate the average ear weight (pounds) for the site. Hand shell the same ears, mix the grain well, and determine an average percent grain moisture with a portable moisture tester.

Calculate estimated grain yield as follows:

- Step A) Multiply ear number by average ear weight.
- Step B) Multiply average grain moisture by 1.411.
- Step C) Add 46.2 to the result from step B.
- Step D) Divide the result from step A by the result from step C.
- Step E) Multiply the result from step D by 1,000.

Example: You are evaluating a field with 30-inch rows. You counted 24 ears (per 17 ft. 5 in. section). Sampling every fifth ear resulted in an average ear weight of 1/2 pound. The average grain moisture was 30 percent. Estimated yield would be $[(24 \times 0.5) / ((1.411 \times 30) + 46.2)] \times 1,000$, which equals 135 bu/acre.

Because it can be used at a relatively early stage of kernel development, the Yield Component Method may be of greater assistance to farmers trying to make a decision about whether to harvest their corn for grain or silage. This will be an important consideration this year given the limited ear development present in many fields exhibiting highly variable plant growth.

Reference: Nielsen, RL. 2014. Estimating Corn Grain Yield Prior to Harvest. Corny News Network, Purdue University. <http://www.agry.purdue.edu/ext/corn/news/timeless/YldEstMethod.html>. (URL checked Aug 2015).

Adapt and Change

By: Dr. Les Anderson, Extension Beef Specialist, University of Kentucky

Source: <https://u.osu.edu/beef/2020/08/12/adapt-and-change/#more-9209>

Well, the last few months sure have been interesting! COVID. Social distancing. Life this spring reminded me of the summers of my youth. I grew up on a cattle and grain farm in northeast Missouri and social distancing was our way of life. My grandparents lived about a mile down the road but everyone else was quite a bit further. We didn't go out to eat, didn't go to the movies, we went to the store maybe every couple of weeks, and we stayed home and worked. We raised our own beef, bought pigs and chickens from our neighbors, had a huge garden, and canned. The biggest difference between then and our situation this spring was we had a "party line" so kids didn't use phones hardly at all and our social event was every Sunday. We went to church and then my entire extended family (about 60-70 people) went to our local park for a carry-in dinner and to catch up. It was a great way to grow up.



Dr. Les Anderson, "Adapt and change. It's the story of life and it's how we evolve."

I have often thought of how much I miss those days but, after this spring I'm not so sure! I enjoy my social interactions; I missed my kids, mom, friends, working on farms, going to meetings. As the restrictions are lifted, our methods of interactions are changing; masks, six feet separation, no big crowds, no handshakes, no hugs, etc. Whether we want to or not, some of these changes will be around for a while and we will adapt, and the world will change.

The COVID pandemic created quite an issue in the beef industry. This spring, we should have seen feeder cattle prices rise and the return of some profitability to cow-calf operations. Our industry was at the bottom of the cattle cycle and feeder cattle prices should have begun their cyclical climb. But, brother COVID created supply chain issues and the most unusual situation we have observed in the beef industry. Feeder cattle prices remained low despite a 13% increase in retail meats. This discrepancy could be explained because the packers had to shut down, the feedlots couldn't market their cattle, and the backlog of fat cattle created reduced demand for feeders and a reduced supply of beef because they could not get processed so a "meat shortage" resulted. Beef rushed off the shelves and beef prices at the retailer increased. This incredibly unusual situation created a platform for the industry to reexamine the supply chain. Four major packers control the harvest and distribution of beef putting the rest of the industry in a perilous situation. Congress is investigating so perhaps its possible the industry will see real change.

I have seen already some change in beef production and marketing in Kentucky. Responding to an increased demand from the market, customers have been requesting locally produced beef and more producers are selling freezer beef than ever. But, again, we are having issues with supply chain because we just don't have enough small, local meat processors to handle the sharp increases in demand. I can't help but think how much stronger our industry would be if we had more marketing options that included locally sourced, locally produced, locally processed food including beef. Our stockyards and feedlots do a super job of price discovery, but the entire industry is subject to a few large beef processors and retailers. Perhaps a little diversification would give us more options and get us out from under the thumb of the large meat processors. Perhaps more marketing options could help producers generate more income. Adapt and change. It's the story of life and it's how we evolve.

Poultry Litter Application

By: Glen Arnold

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-26/poultry-litter-application>

Stockpiles of poultry litter can be seen in farm fields across Ohio. While common each year in wheat stubble fields, there also many stockpiles in soybean fields. Poultry litter is an excellent source of plant nutrients and readily available in most parts of the state.

Poultry litter can be from laying hens, pullets, broilers, finished turkeys, turkey hens, or poults. Most of the poultry litter in the state comes from laying hens and turkey finishers. Typical nutrient ranges in poultry litter can be from 45 to 57 pounds of nitrogen, 45 to 70 pounds of P₂O₅, and 45 to 55 pounds of K₂O per ton. The typical application rate is two tons per acre which fits nicely with the P₂O₅ needs of a two-year corn/soybean rotation.



Like all manure sources, the moisture content of the poultry litter greatly influences the amount of nutrients per ton. Handlers of poultry litter have manure analysis sheets indicating the nutrient content. They are also required to inspect stockpiles and address any insect issues that may develop from the time stockpiles are created to the time the manure is field applied.

Poultry manure for permitted operations needs to follow the Natural Resource Conservation Service 590 standards when being stockpiled prior to spreading. These include:

- 500 feet from neighbors
- 300 feet from streams, grassed waterways, wells, ponds, or tile inlets
- not on occasionally or frequently flooded soils
- stored for not more than eight months
- not located on slopes greater than six percent
- located on soils that are deep to bedrock (greater than 40 inches to bedrock)

Farmers who want to apply the poultry litter delivered to their fields are required by Ohio law to have a fertilizer license, Certified Livestock Manager certificate, or be a Certified Crop Advisor. Check with your local Soil and Water Conservation District for proper setbacks from streams, ditches and wells when applying poultry litter.

Custom Cattle Feeding: a Retained Ownership Option

By: [Stephen Boyles](#), Ohio State University Extension Beef Specialist

Source: <https://u.osu.edu/beef/2020/08/12/custom-cattle-feeding-a-retained-ownership-option/#more-8542>

Custom feeding is paying someone else to feed your calves because you, the cattle owner, do not have the facilities, time, or expertise to feed cattle. Custom feeding allows the feedlot operator to use feed, facilities, and labor without large investments in cattle. Cattle owners can take advantage of favorable market situations or improved genetics they have developed in their cow-calf operation.

Custom feeding is not currently practiced in Ohio to the degree it is practiced in the high plains. Much of today's cattle feeding is located on the high plains. Custom feeding may allow existing feeders to expand without encountering as much financial risk. Financial institutions, livestock marketing associations, packing plants and feed companies may need to offer shared financial opportunities to increase the profits of their cow-calf operators and cattle feeders.

Increased opportunities for marketing or at least processing/fabrication of finished cattle are needed. However, we also need to provide the business atmosphere to supply any increased demand for finished cattle. Custom feeding may allow spreading the financial risk among more individuals. This will also increase the knowledge base of all individuals involved with Ohio beef production.

In general, there are two situations where custom feeding or retained ownership may be considered:

1. Background or stocker calves to heavier weight (650-800 lbs).
2. Feed calves or yearlings to market weights (1000-1300 lbs).



The custom feeder takes the cattle and feeds them and bills the cattle owner for the cost of feeding the cattle. Each custom feeder will handle the charges for feeding a little differently. Some programs are based on a "cost per pound of gain." Cost of gain programs are better suited to grass feeding where weighing feed is impossible. It is probably safer in the long run for feedlots (drylot feeding) and cattle owners for costs to be based on actual feed costs and yardage fees. This requires a set of scales to weigh feed going into the pens.

Considerations for Custom Feeding

Cost of feed: Feed may be marked up a few dollars a ton to cover cost. The cost of the ration the cattle feeder quotes to the cattle owner will include this markup. There are some differences in how feedlots charge for their services. Some markup the feed a little more and do not charge "yardage." Others may charge a little more for yardage and not markup the feed as much.

Yardage fee: The yardage fee will vary from lot to lot. Some have a yardage fee and some don't. The important thing is to ask. Yardage fees may include free-choice mineral, medication, etc. The yardage fee may vary from no fee to \$.30 per head per day, depending on what is included in the yardage fees.

Ration composition: The ration composition should include not only the list and amounts of feedstuffs but also a report on energy, protein and major vitamins and minerals. A list of feed additives should also be included. It might also be helpful to know who are the feed suppliers.

Cost of receiving procedures: Cost of arrival treatments usually includes cost of vaccination, dewormer, implant, etc. plus a labor cost for working the cattle. This will vary but the total cost will run from \$5 to \$15 per head.

Receiving management practices: Actual receiving management practices may include a vaccination with 7-way, IBR, and Lepto. Other practices will be implants, deworming, pour-ons or tagging the cattle. (A separate charge may be needed if the cattle are reimplanted during the feeding period.)

Cost of treating sick cattle: Cattle moved to a sick pen will have additional costs of medication while the cattle are in the sick pen. In some lots, the yardage fee may cover these costs.

Typical death losses: Death losses will usually be borne by the owner of the cattle.

Selling method: Ask the feedlot operator how the cattle are to be sold and if there will be any marketing costs. The cattle owner and cattle feeder work together to determine when the cattle are ready for marketing. Transportation costs should be considered.

Method of billing costs: Billing is usually done every two weeks or monthly. The feedlot operator should send a complete record of the delivered feed and its cost. Billings should reflect changes in ration ingredient costs if feed is continually purchased from another source during the feeding period. You want to see as much detail on the bill as possible. It, at least, ought to tell you how much feed the cattle ate, at what cost and then an itemization of any other costs billed to the cattle owner.

The first bill should tell how much it will cost to process the cattle on arrival. The cost of the feed will be on an as-fed basis.

If the feed is financed through the feedlot, look for a statement of interest on the bill. It is a good idea to ask when interest charges go on the feed.

Written contract: It is a good idea to have some form of written agreement even with very reputable feeders. It allows each party to know their respective responsibilities.

Partnerships or Joint Venture: Another option to custom feeding is a partnership or a joint venture. This offers opportunities for cow-calf producers, stockers and feeders to take advantage of favorable market situations, and yet, spread risk among more individuals. Some feed companies also have shared ownership programs. It is a possible opportunity for other ag businesses to increase their customer base. It is also a viable alternative where lending institutions are not familiar with cattle feeding or are hesitant about being the sole institution involved. A joint venture is an association of two or more persons to carry out a business enterprise. A joint venture may occur when the producer

wants to retain part ownership in the cattle and obtains the management and marketing expertise of the feedlot operator as the other partner. A successful joint venture would include:

1. Terms of ownership
2. Management control
3. Guidelines for responding to market changes
4. Adequate capital
5. An analysis of tax consequences for all parties

Evaluating a Custom Feeder or Potential Partner: It is important to know exactly when, what and how the feeder is billing you. It is also important to work with a reputable feeder. Visit with neighbors, feed suppliers and the local sale barn about the cattle feeder. Check out the financial condition of the feeder. You can't afford to have them go broke with your cattle on the operation. Liens against the feeding operation may tie the cattle owner up in court. You might have your banker talk to the cattle feeder's banker. Ask what kind of cattle they handle best. Some feedlots handle mostly yearlings, others specialize in weaned calves and still others are set up to care for long-hauled, weaned cattle. It is also a good idea to visit several operations instead of just one.

Visiting a Feedlot: It is a good idea to visit a lot while cattle are being fed. It is also not a bad idea to visit during or after bad weather to see how they handle the situation. The lots should be fairly clean and well drained. Ask how often the pens are cleaned. The water and feed should be clean, fresh and available at all times. There should be adequate shelter and bunk space for all cattle in the pen. It is a good idea to at least put locks on gates and loading chutes when you are feeding cattle for other people. A large flock of birds or spilled grain can increase feed costs. Cattle from different owners should be kept separate for accurate billing sheets. The sick pen should be kept dry and well ventilated.

How to Choose a Feedlot: Cattle producers are by and large a reputable group with well managed operations. The question may be, "How do I choose among them?" Since you are concerned about how much it will cost, a good place to start is to compare expected costs of gain.

When you talk about cost of gain, it is important to know how it is calculated. To start with, you need to know if it is figured on payweights or in-weights. The payweight is how much the cattle weighed when they got on the truck for the trip to the feeder. An inweight is what the animals weigh when they arrive at the feedlot. Since cattle shrink due to transport, in-weight is less than the payweight. By the end of the feeding period, cost of gain based on in-weights usually looks more favorable than those based on the payweight. In-weights are often used because a feedlot won't usually know what the payweights are.

Feed efficiency is another factor that affects the cost of gain. Feed efficiency is the amount of feed it takes to get a pound of gain. Knowing the cost per ton of the complete ration is only a starting point. A higher priced per ton ration may provide better gain and cheaper costs of gain. Therefore, cost of gain is a more important question to ask than just cost of a ton of feed. Comparing ration costs can be done three ways:

1. Expected cost of gain (including all costs)
2. On a dry matter basis
3. On a net energy basis

For evaluating just the diets of different feeders, comparing diets on a dry matter basis or on a cost-per pound of net-energy basis are probably the best. In either method, you have to have the ration ingredients and the percent moisture of the ration. Ration costs and cost of gain may vary with feed price changes during the feeding period.

Selling the Cattle: At the start of the feeding period, an estimated market date should be projected. It is important for the cattle owner to be involved in marketing decisions. Allowing the feeder to make all the decisions regarding marketing may classify you as a passive investor for tax reasons.

Cattle may remain in the yard for approximately seven days after they are sold. The buyer of your cattle can pick them up any time during those seven days. The cattle remain your responsibility and not the buyer's until they leave the yard. Therefore, you will pay for the feed and incur any losses due to weight loss or death until that time. Pencil shrink on delivery date will be approximately 4 percent.

Payment: Payment can come in different ways. If you financed everything through a bank, the packer's check can go there, and the bank pays you the balance after the loan is repaid.

The packer may write two checks, one to the feedlot for their feed and service and the second check to the cattle owner. If the cattle owner has been paying a feedlot bill, the check comes directly to the cattle owner.

At the end of the feeding period when the cattle are sold, you get a final "close-out" from the feedlot. It serves as a bill plus a summary of itemized costs and performance.

Loan Requirements for Retained Ownership: The search for loan money is not the sole responsibility of the cattle owner. The custom feeder should be able to direct the cattle owner to financial institutions that are familiar with cattle feeding. Loan policies can vary.

Some financial institutions will loan up to 70 percent of the appraised value for the cattle and 75 percent of the feed bill. Cattle may be appraised when they arrive at the feedlot. A large line of credit will call for a current financial statement. The financial institution may require some sort of price protection such as hedging or an option contract. If this is the first time you have custom fed cattle, the financial institution may want to send someone to visit the operation during the feeding period. The feedlot may send all bills directly to the financial institution for payment. The owner will receive a copy of the bill payment. A computer generated economic and animal performance predictor model can be used to illustrate how the cattle should perform during the feeding period.

Summary

There are many hurdles (opportunities) for increasing beef production in Ohio. We need to continue to improve our production and management practices. However, we need to investigate alternative business programs for owning and financing cattle operations. Custom feeding and joint venture projects are viable tools that should be considered.

The presentation below offers additional insight into the decision for retaining ownership of calves beyond weaning and into the feedlot.

Evaluation Ohio Yield Possibilities for 2019 ARC-County Payment Rates

By Ben Brown, Department of Agricultural, Environmental and Development Economics

The Ohio State University- August 10, 2020

Source: <https://u.osu.edu/ohioagmanager/2020/08/10/evaluating-ohio-yield-possibilities-for-2019-agricultural-risk-coverage-county-level-payment-rates/>

The Agricultural Adjustment Act of 2018 (2018 Farm Bill) made minor structural changes to both the Agricultural Risk Coverage (ARC) and Price Loss Coverage (PLC) programs in relation to the Agricultural Adjustment Act of 2014 (2014 Farm Bill). However, one of the nonstructural changes made in the 2018 Farm Bill adjusts the primary yield sources in creating Farm Service Agency (FSA) yields for the ARC-County program. Starting with the 2019 program year, which runs from September 1, 2019- August 31, 2020 for corn and soybeans and June 1, 2019- May 31, 2020 for wheat, Risk Management Agency (RMA) yield data is the preferred data source in a cascading formula for FSA county yields, whereas National Agricultural Statistics Service (NASS) data previously served as the primary source. Realizing FSA reserves the right to adjust county yields, area-based RMA yields can only estimate, not predict, final FSA county yields. This article reviews RMA area-based reported yields for the 2019 crop year in Ohio and compares them to county-based NASS survey yields released February 21, 2020.

Cascading Yield Preference

Considerable debate during the passage of the 2018 Farm Bill related to accuracy of county-based yields and yield differences between county yields for the ARC-County commodity program. FSA is authorized to make commodity program payments, but uses external agency yield data to create ARC-County yields. While both RMA and NASS report county-based yields, NASS yields are based on voluntary farmer-reported survey results, whereas, RMA county yields are based on farmer certified yields as completion of crop insurance contracts. Fraudulent crop insurance reporting is subject to criminal liability. Legislators perceive RMA data to be more accurate even though there is no statistical difference between the two data sets. After years of using NASS yields as a primary data source for FSA yields, Congress mandated FSA to use RMA yields. FSA holds the right to adjust RMA yields before setting 2019 ARC-County yields.

Two scenarios where FSA may adjust RMA yields before certifying county yields:

- there is a low number of insured acres in a county for the respective crop overweighting county yields on few acres and
- counties where RMA insured yields are significantly different than NASS reported survey yields.

Table 1. Cascading Method for Certified FSA Yields.

2014 Farm Bill	2018 Farm Bill
1. National Agricultural Statistics Service	1. Risk Management Agency
2. Risk Management Agency	2. National Agricultural Statistics Service
3. State Farm Service Agency Committee	3. State Farm Service Agency Committee

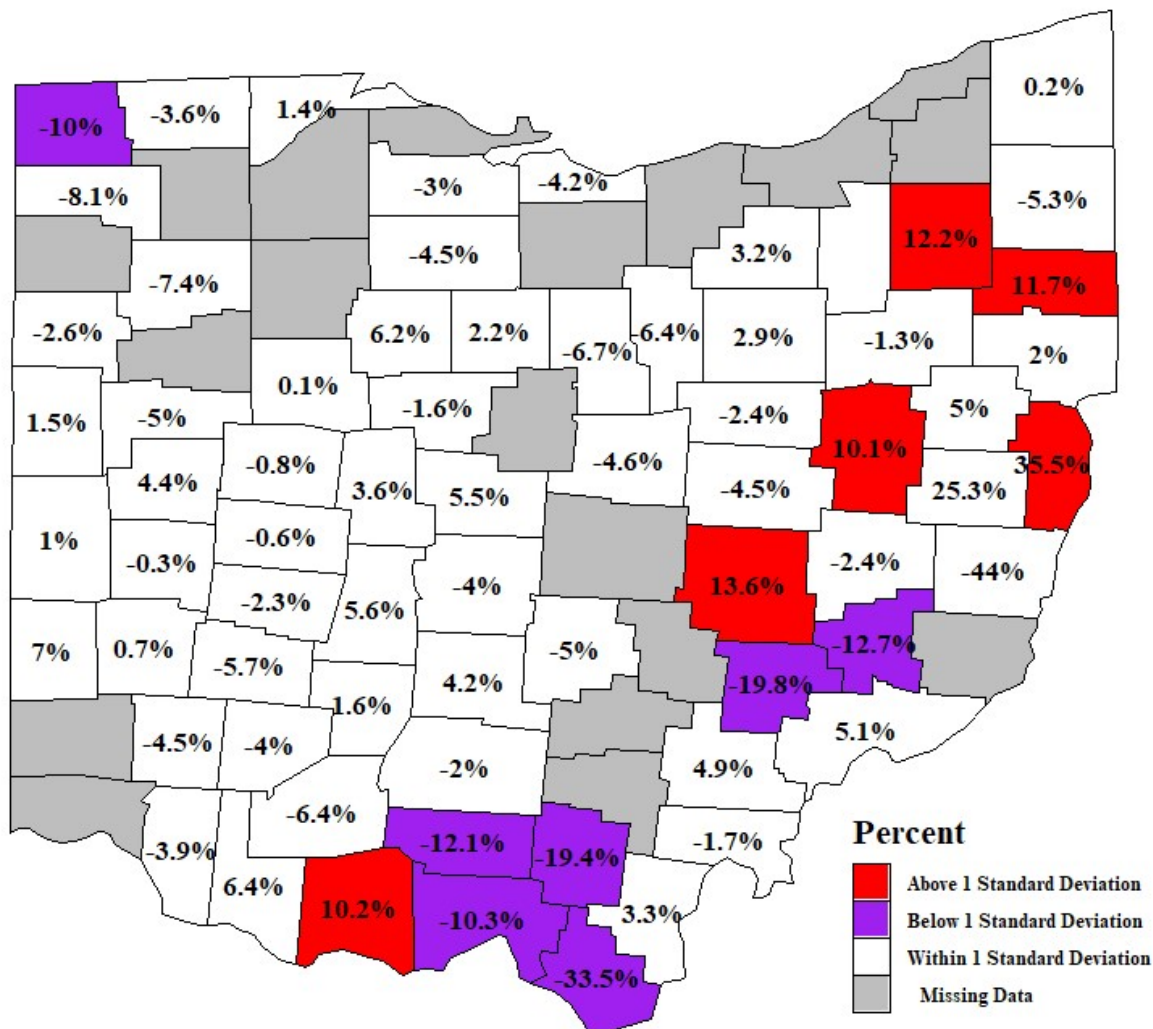
RMA and NASS yield data comprises approximately 90% of the historical base acres enrolled in ARC-County. The State FSA Committee uses any available data for the remaining 10%.

Area RMA Yields and Blended Irrigated and Non-irrigated Yields

Not all insured acres in a county for a specific crop are used to calculate county yields, as not all

between irrigated and non-irrigated yields in any of the four counties.

Figure 2. Ohio 2019 Corn Yields By County
NASS Survey Yield Deviation From RMA Reported Yields



Author calculation using data from RMA SCO area yields and NASS survey yields. Interpretation: positive values= NASS higher than RMA

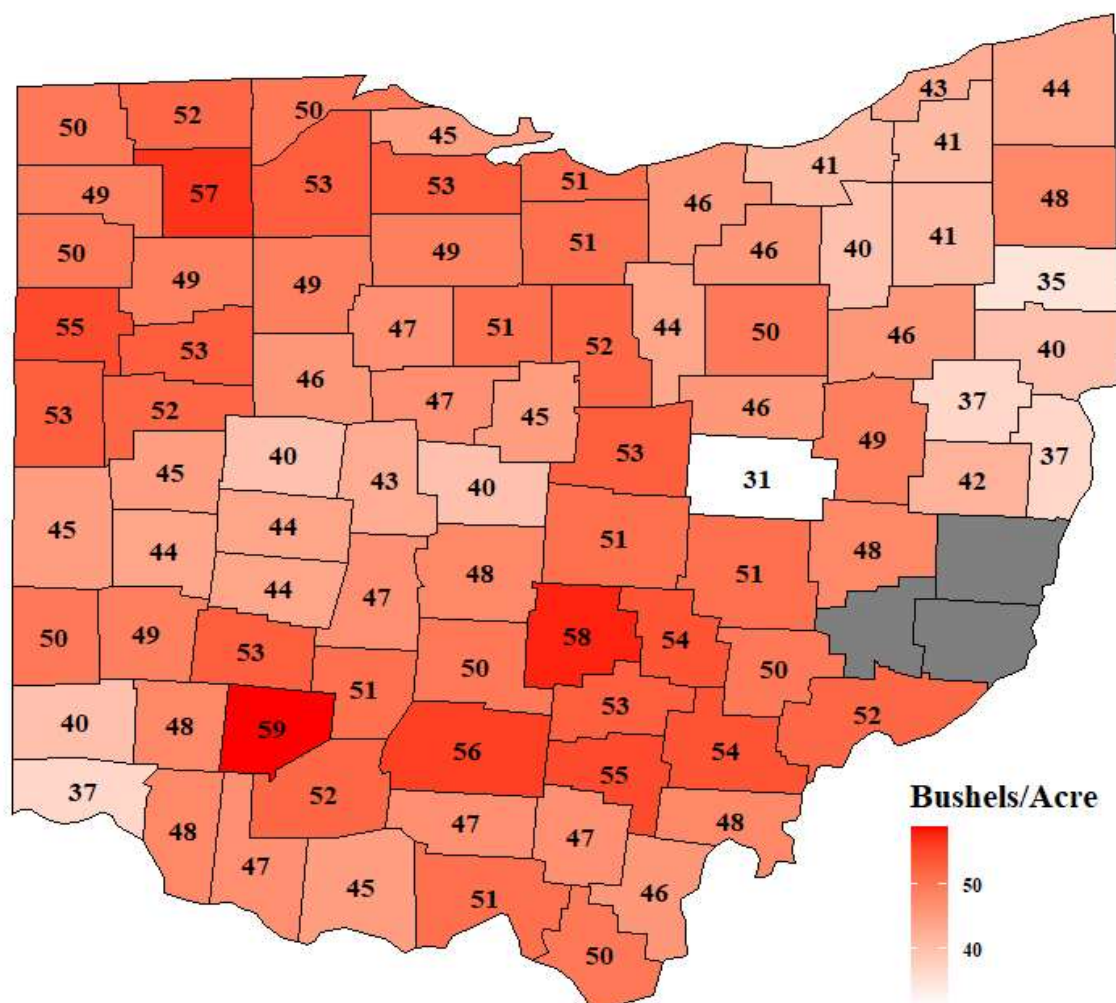
Figure 2. illustrates percent change of NASS survey yields from RMA reported yields. Thirteen out of sixty-eight counties were greater than one standard deviation. Red and purple shaded counties are where RMA and NASS were noticeably different in yield reports. These thirteen counties have the greatest likelihood of being adjusted before FSA certifies the county yield.

For soybeans, there were three counties where RMA did not have either insured soybean acres or enough data points to protect producer identification: Belmont, Monroe, and Noble. Clinton County had the highest soybean yield at 59 bushels/acre, where Coshocton had the lowest at 31 bushel/acre. Eleven Ohio counties receive sepearte ARC-County payment rates by practice- Allen, Auglaize, Champaign, Hardin, Putnam, Seneca, Shelby, Union, Van Wert, Williams, and Wyandott. Only four had different irrigated and non-irrigated yields as represented by Table 2.

Table 2. Irrigated and Non-irrigated Soybean Yields (bushels per acre).

Practice	Champaign	Union	Williams	Wyandot
Irrigated	53	49	56	49
Non-irrigated	44	43	50	47

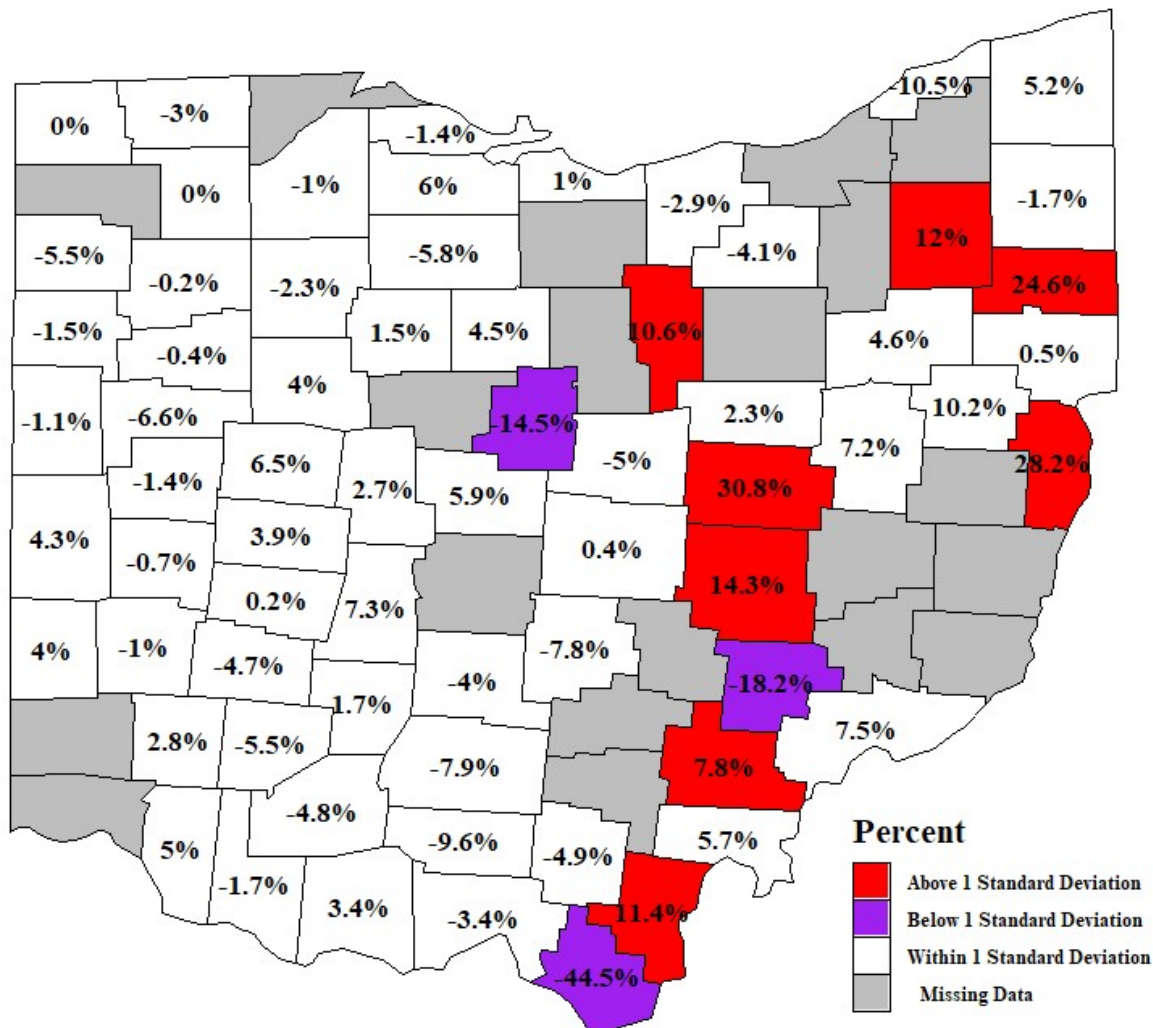
Figure 3. Ohio 2019 RMA Soybean Yields By County
Weighted By Share Of County Irrigated And Nonirrigated Acres



Author calculation using data from RMA SCO area yields and RMA insured acres by practice.

Figure 4. illustrates percent change of NASS survey yields from RMA reported yields. Grey shaded counties are counties where either NASS or RMA data was missing. Since, NASS yields are derived from a voluntary producer survey, a certain number of responses are required to generate an appropriate sample size. Frequent rains during the spring of 2019 delayed planting in parts of Ohio and some counties that normally have NASS soybean yields did not have enough observations to calculate a NASS yield, represented in Figure 4 by grey shading. Eleven Ohio counties had a NASS value that was greater than one standard deviation from the corresponding RMA yield. Most notable were Lawrence where the reported SCO RMA yield was 50 bu./acre and a NASS survey yield of 35 bu./acre for a deviation of almost 45%. Conversely, Coshocton County had an RMA yield of 31 bu./acre, but a NASS yield of 45 bu./acre and a nearly a 31% deviation.

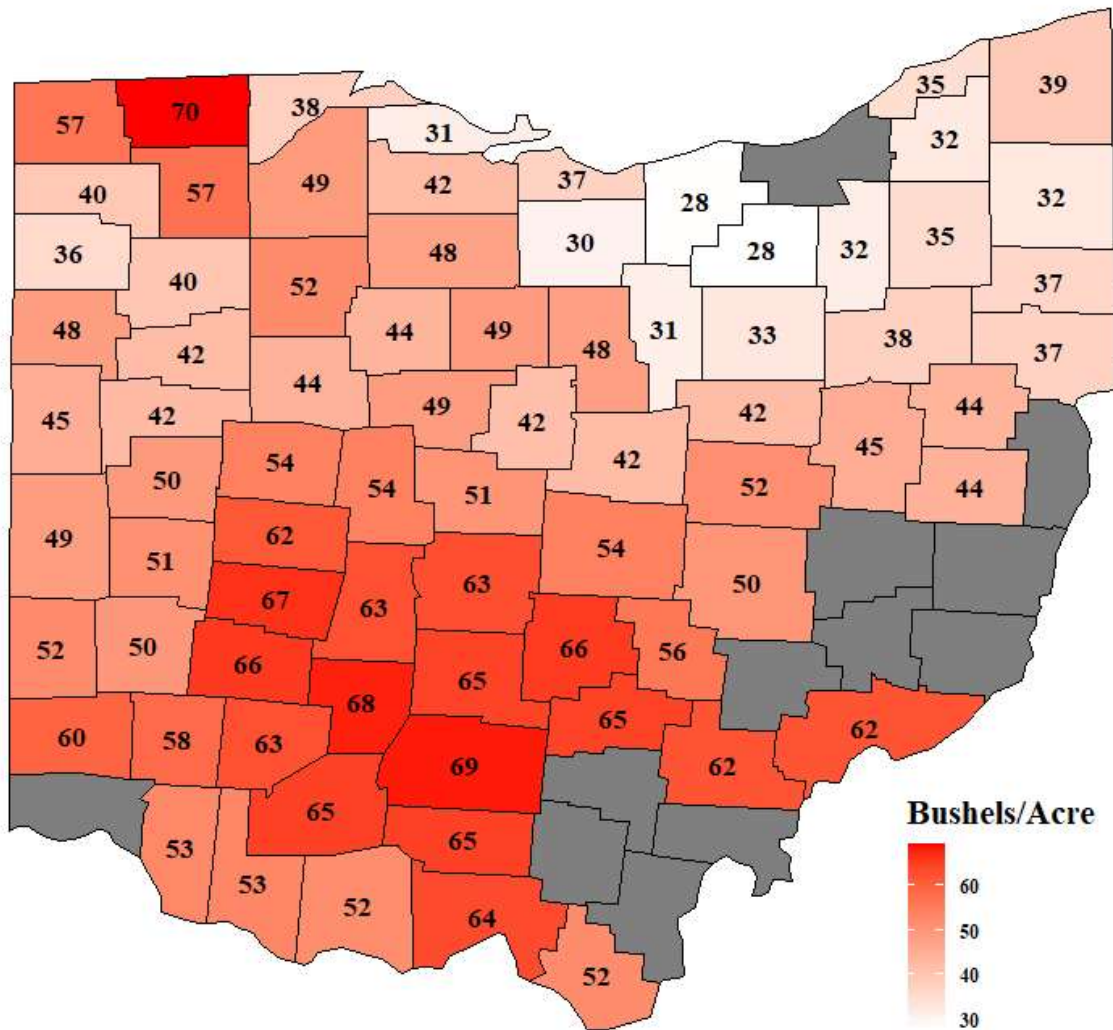
Figure 4. Ohio 2019 Soybean Yields By County
NASS Survey Yield Deviation From RMA Reported Yields



Author calculation using data from RMA SCO area yields and NASS survey yields. Interpretation: positive values= NASS higher than RMA

Seventy-six Ohio counties had a reported RMA wheat yield in comparison to fifty-eight with NASS survey yields. Wheat yields were highest in Southwest and South Central Ohio and weakest in Northeast Ohio. Although, Fulton County in Northwest Ohio had the stronger wheat yield at nearly 70 bu./acre. Medina County had the smaller wheat yield at almost 28 bu./acre. Ohio does not have any counties with both an irrigated and non-irrigated wheat ARC-County payment.

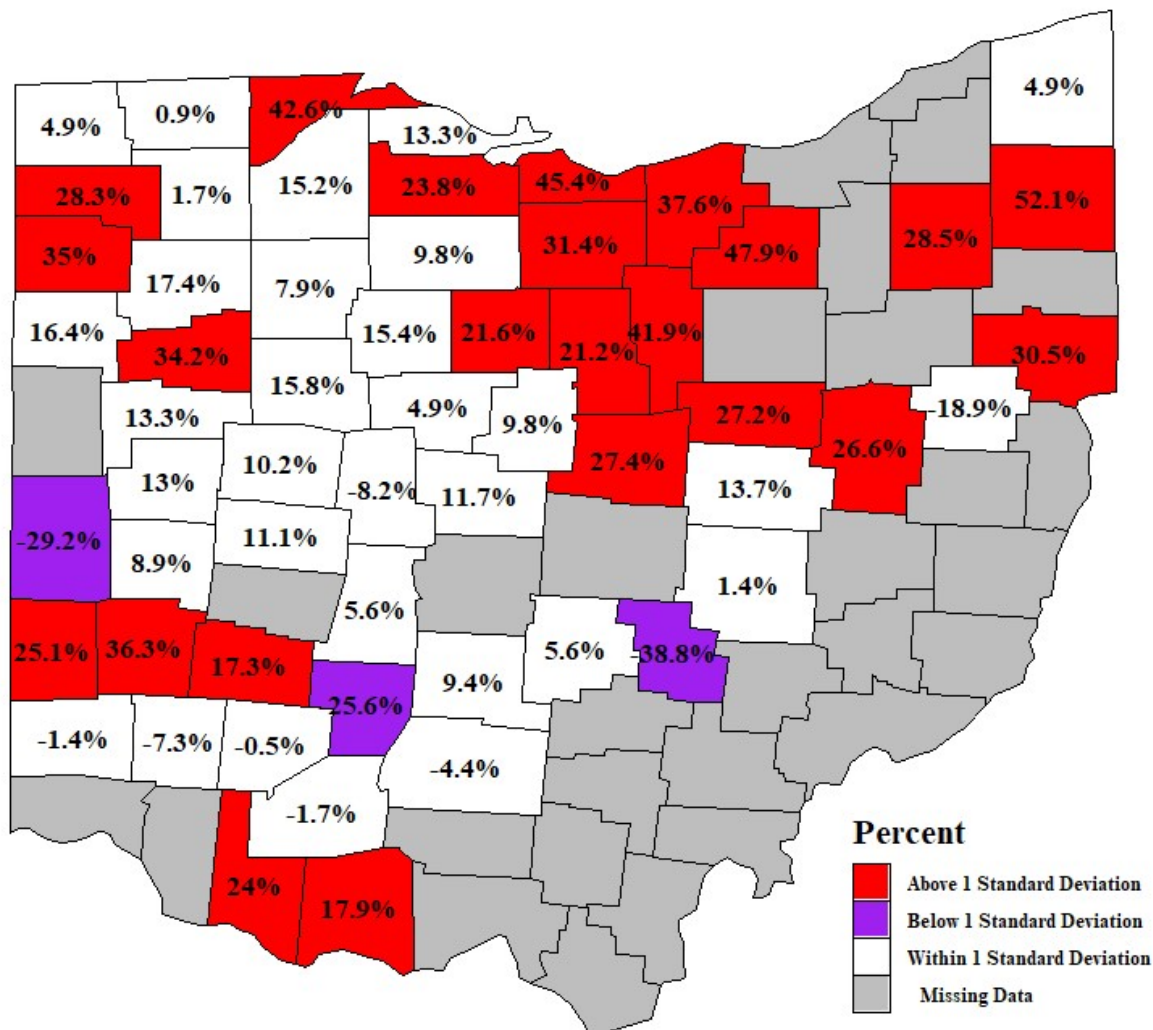
Figure 5. Ohio 2019 RMA Wheat Yields By County
Weighted By Share Of County Irrigated And Nonirrigated Acres



Author calculation using data from RMA SCO area yields and RMA insured acres by practice.

In comparison to corn and soybeans, wheat had the largest amount of Ohio counties where the NASS survey yield was outside one standard deviation at twenty-six counties and the largest percent deviations (Figure 6). It is likely the largest number of county adjustments to certified FSA yields will be for wheat. The majority of counties indicate NASS wheat yields are higher compared to RMA reported yields, foreshadowing a greater change of triggering ARC-county payments.

Figure 6. Ohio 2019 Wheat Yields By County
NASS Survey Yield Deviation From RMA Reported Yields



Author calculation using data from RMA SCO area yields and NASS survey yields. Interpretation: positive values= NASS higher than RMA

Conclusion

Final FSA yields and corresponding ARC-County payment rates will not be released to the public for several more weeks. However, the cascading yield discovery method established in the 2018 Farm Bill identifies RMA reported area yields as the first source for FSA county data. Using SCO area yields and weighting by share of irrigated and non-irrigated acres should be a good indication of FSA certified yields expected to be released in October. FSA does hold the right to adjust yields using other available data. Counties with a deviation greater than one standard deviation in NASS survey yields and RMA reported yields will be the most likely candidates for adjustments. County wheat yields are more likely to be adjusted than corn and soybeans.

The Annual Pumpkin Field Day Goes virtual

By: Jim Jasinski

Source: <https://u.osu.edu/vegnetnews/2020/08/11/the-annual-pumpkin-field-day-goes-virtual/>

For over 20 years the pumpkin field day held at the Western Ag Research Station in South Charleston has hosted growers from around the state giving them a wide array of production and pest management research, demonstration, tips and tricks. Instead of driving over to the research station, participate virtually from your home, business or favorite coffee house / brewery!

Because of the Covid-19 pandemic, we won't be able to hold a field day in person this year, but we are working hard to bring you the results of several demonstration and research projects via a pre-recorded video stream that will air on the OSU IPM YouTube channel on August 27 at 6 PM.

Registration for the virtual event will be necessary so we can send out the viewing links between August 26-27 for the roughly hour long field day. Please register at the link below by the deadline of August 25 at 8PM.

<https://www.surveymonkey.com/r/vpumpkin2020>

Presentations will include a late season weed screen including an update on the new Reflex herbicide label from Tony Dobbels; Celeste Welty will talk about managing key pumpkin pests; and Jim Jasinski will give updates on powdery mildew fungicides and on the mustard cover crop biofumigation project.

We are also preparing a video to highlight all of the pumpkin and squash hybrids in the variety trial. As a special encore, will be releasing a 3D field scale model of the pumpkin hybrid trial to allow participants to “walk” around in the field virtually, looking at the foliage and fruit of each hybrid in the trial. Here is a small sample of the 3D environment:

<https://mpembed.com/show/?m=h5pvoP8inMs&mpu=454>

3D field scale model of pumpkin hybrid trial – doll house view.

Brooke Beam will help manage the process by stitching together the short video presentations into one coherent movie which will be approximately 60 minutes long. Contact Jim Jasinski (jasinski.4@osu.edu) for more information or details. Hope to see you on August 27!





Virtual Pumpkin Field Day

Thursday, August 27, 6-7 PM

Beginner, experienced & curious growers welcome.

- Insect Management Tips
- Powdery Mildew Management Update
- Mustard Cover Crop / Biofumigation Update
- Hybrid Pumpkin/Squash Trial (Video & 3D model)
- Herbicide Weed Screen and Reflex Label Update

Resource people include Celeste Welty (Entomology), Tony Dobbels (Weed Science) and Jim Jasinski & Brooke Beam (Extension).

Pre-Registration Required by August 25

<https://www.surveymonkey.com/r/vpumpkin2020>

**A PARTNERSHIP BETWEEN THE
DEPARTMENTS OF EXTENSION,
ENTOMOLOGY, HCS AND IPM PROGRAM**

Location: It's Virtual! Your house, business or fave coffee shop!

What to expect: After registering, we will send the link to view the virtual field day video and 3D field model.

Event Details: Premieres at 6:00 PM on OSU IPM YouTube channel August 27th, (CC provided)

3D Model of Hybrid Trial Unveiling –
Experience walking through the hybrid trial, looking at foliage and fruit, without ever stepping onto the soil!

Contact information: Jim Jasinski,
jasinski.4@osu.edu, 937-484-1537

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