



# AGRICULTURE



## Spring Is In Sight Morrow County Cattleman's Pavilion Fundraiser

By Carri Jagger, ANR Ext. Ed, Morrow County  
This has been a long, unpredictable, wet winter. Thank goodness spring is in sight, Wednesday, March 20 will be the first day of spring. With this being said, it's time to start thinking about planning vegetable gardens. If starting a new garden, soil testing the site where the garden will go is a good idea. If it is an existing garden and the soil has never been tested, now would be a good time to think about testing it. OSU Extension - Morrow County can help with soil testing.  
We can come out, take the samples, and send them to Spectrum Analytic to have them tested.

The testing costs \$14.00. The fee covers the shipping and soil analysis.  
Another gardening task to be thinking about is seed starting. Growing plants from seed is a lot of fun and now is the time to be doing this. Below is a chart from The Old Farmers Almanac that will help determine when to start seeds indoors, transplant seedlings outdoors, and when to start seeds outdoors.  
You can also call our office if you have questions and Carri Jagger Agriculture and Natural Resources Educator will be happy to help you. 419-947-1070

Morrow County Cattleman's Association, (MCCA) is raising money to continue making improvements to the fairgrounds and pavilion area around the food stand. They will be selling engraved pavers with the proceeds helping to pay for costs and going toward the building fund on the fairgrounds.  
The MCCA will donate 80% of the proceeds towards the pavilion costs until it is paid for. The other 20% of proceeds will go toward the building fund at this time. Once the building is paid for, the MCCA and Building Fund for Senior Fair will split the proceeds 50/50.

MCCA will continue to raise and use the money for various other programs such as the Ambassador and Scholarship programs.  
The pavers cost \$100 each and are a great way to remember loved ones, recognize our youth, or just put your family name in the pavilion area! Pavers will be engraved every year before the fair and placed in the patio area before fair time. Please contact the MCCA for information on how to purchase a paver and help us support our youth! Steve Wilczynski can be reached at 614-400-1182.

Crop	Start Seeds	
	Indoors	Transplant Seedlings
Beans		Start Seeds Outdoors
Beets		May 17 - June 7
Broccoli	March 29 - April 12	April 19 - May 10
Brussel Sprouts	March 29 - April 12	April 12 - May 3
Cabbage	March 15 - 29	April 12 - 26
Cantaloupe	April 12 - 19	May 24 - June 14
Carrots		Start Seeds Outdoors
Cauliflower	March 29 - April 12	April 12 - 26
Collards	March 29 - April 12	April 12 - May 3
Corn		Start Seeds Outdoors
Cucumbers	April 12 - 19	May 24 - June 14
Eggplants	Feb. 28 - March 15	May 24 - June 14
Kale	March 29 - April 12	April 12 - May 3
Lettuce	March 29 - April 12	April 26 - May 24
Onions		Start Seeds Outdoors
Peas		April 12 - May 3
Peppers	Feb. 28 - March 15	May 24 - June 14
Potatoes		Start Seeds Outdoors
Pumpkins	April 12 - 26	May 24 - June 14
Radishes		Start Seeds Outdoors
Spinach		March 29 - April 19
Sweet Potatoes	April 12 - 19	May 24 - June 14
Squash	April 12 - 26	May 24 - June 14
Swiss Chard	March 29 - April 12	April 19 - 26
Tomatoes	March 15 - 29	May 17 - June 7
Turnips		Start Seeds Outdoors
Watermelons	April 12 - 19	May 24 - June 14

## 2019 Sheep Shearing School

By Brady Campbell,  
Program Coordinator, OSU Sheep Team  
Back due to popular demand, the Ohio Sheep Improvement Association will be offering a spring sheep shearing school scheduled for April 12th and 13th from 9:00 am - 4:00 pm at the Dave Cable Farm in Hebron, Ohio.

During this two day schooling event, attendees will be given the opportunity to learn how to properly shear a sheep using the Australian shearing method. Those in attendance will be taught by veteran shearers as they walk through each step and demonstrate how to properly position the sheep and shearing hand piece in the correct location. Attendees will also learn to appreciate fleece quality by ensuring that their work station is clear of debris and how to keep the animals fleece all in one piece. This shearing session is open to any and all sheep producers, regardless of your shearing experience. Even if you are an experienced shearer, you are bound to learn something new or to improve upon from the school! Who knows, maybe it could help you

shear off a couple of seconds on each sheep that you shear.  
Please note that class space is limited and registration is due by Monday, April 8th. The cost to attend is \$50 which includes a boxed lunch for each day. For those interested in participating in this years school, please be sure to fill out and return the registration form (found at <https://cph-us-w2.wp.mucdn.com/u.osu.edu/dist/e/45418/files/2017/08/2019SpringSheepShearingSchoolRegistrationForm-1-1r14uc8.pdf>) to the Ohio Sheep Improvement Association as indicated on the form by April 8th! Additional information regarding this school and other sheep related events can be found on our Events/Programs page at <http://u.osu.edu/sheep/events/programs/>.  
As the sheep industry continues to maintain a strong foothold in the state of Ohio, new sheep shearers will be needed to ensure the longevity of our industries future. It's up to you to help continue this legacy. We look forward to seeing you there! Happy shearing!

## Fruit Tree Pruning Clinic

Join us for an educational afternoon of learning the proper techniques of fruit tree pruning on March 9th starting at 2:00 p.m. We will be talking about how and when to properly prune your fruit trees.  
The clinic will be held outside at Osborne Or-

chard, 6027 US Hwy 42 N, Mt. Gilead, OH 43338 (just south of Williamsport). Please dress accordingly.  
For questions, contact Carri Jagger at 419-947-1070 or email [jagger.6@osu.edu](mailto:jagger.6@osu.edu).

## 2019 OSU Extension Small Farm Conferences

This year OSU Extension will be hosting two Small Farm Conferences in Ohio. If you are interested in attending one of the very educational events please visit <https://u.osu.edu/gofarmohio/> for registration information.  
March 16, 2019: Northwest State Commu-

nity College, 22600 St. Rt. 34, Archbold, OH 43502  
March 29th and 30th: OSU South Centers, Endeavor Center & Research Facility, 1864 Shyville Road, Piketon, Ohio 45661

## Morrow County Master Gardeners 2019 Spring and Summer Garden Series

OSU Extension Morrow County Master Gardener Volunteers would like to invite you to join them for their 2019 Garden Series. They will be offering various garden topics for the community  
Classes are open to anyone who wants to learn!  
The following classes will be held at our office 5362 US Hwy 42, Mt. Gilead second floor conference room. (Unless otherwise noted.)  
March 9th @ 2:00 p.m.: Fruit Tree Pruning at Clinic Osbornes Orchard (Steve Osborne), 6027 US Highway 42 N, Mount Gilead, Ohio 43338  
March 30th @ 10:00 a.m.—1:00 p.m.: Vision Board activity to design and plan your 2019 Garden (Morrow County MGVS) Pre-Register  
April 6th 10:00 a.m.—12:00 p.m.: Vegetative Propagation Class (Merry Tapp MGVS

Franklin County)  
April 23rd @ 6:00 p.m.: Growing and Landscaping with Native Pollinator Plants (Gale Martin and Brandon Parks)  
April 25th 6:30—8:30 p.m.: Hydrangea Informational Class \$30/Person Pre-Register  
May 15th @ 6:00 p.m.: Hypertufa Class Make and Take \$20/Person (MGV Diane Curren) Pre-Register  
May 20th @ 6:00 p.m.: Youth Garden Evening at Headwaters Outdoor Education Center, 151 Home Rd., Mt. Gilead Ohio 43338. Pre-Register  
June 19th @ 6:00 p.m.: How to Enter Flowers in the 'fair (MGV's Erica and Charlotte)  
Contact Information: Carri Jagger, ANR Educator, phone 419-947-1070 or email [jagger.6@osu.edu](mailto:jagger.6@osu.edu).

# AGRICULTURE

## Propagation Class by MGV

Join OSU Extension Morrow County to learn how to vegetatively propagate your favorite plant on April 6th from 10:00 a.m. to noon in the Ag Credit Building, 2nd Floor Conference Room, 5362 US Hwy 42, Mt. Gilead, OH 43338.

Merry Tapp Franklin, County Master Gardener Volunteer, will be teaching how to propagate your favorite plants through vegetative cuttings.

Class participants will get to take cuttings of plants and learn how to start those cutting. They will be taking their work home.

For questions, contact Carri Jagger at 419-947-1070 or email Jagger.6@osu.edu.

## Ohio Farm Business Analysis Program

By Dianne Shoemaker & Haley Shoemaker

How well do you know your farm? Sure, you could probably drive your fields blindfolded and you could name without a doubt the cow that will always come in the parlor last; but what about your farm as a business? If this question made you stop and think, then it's time to become more familiar with your cost of production and other financial measures that make the rest of your farming operation possible.

The Ohio Farm Business Analysis Program is focused on working with farmers across Ohio to better understand the numbers behind their farm business in order to make more informed production, marketing and financial management decisions that will impact the farm's overall profitability.

Efforts to expand the program's reach have included the addition of three Farm Business Analysis Technicians, who are ready to help farmers complete their analysis of the 2018 business year.

Farm business analysis is a tool that can be applied to any farm, regardless of size, crop, or livestock enterprise. Financial management is critical to the success of every farm business, and with analysis, farms are able to better understand the numbers behind their profits or losses.

To complete a farm's analysis, we start with beginning and ending balance sheets from the

## This Winter Has Been Tough on Cows!

By Mark Landefeld, OSU Extension Agriculture Educator, Monroe County

To add on to the great nutrition article in last week's newsletter (<http://u.osu.edu/beef/2019/01/30/winter-feeding-beef-cows/>), I want to mention a resource available for producers to help monitor their cow's body condition score. An Ohio State University Extension Fact Sheet may be found at <https://ohioline.osu.edu/fact-sheet/anr-54>. Dr. Boyles, last week, gave us all the nuts and bolts for providing the necessary energy and protein to fulfill the cow's nutritional needs. However, we should also monitor our livestock's body condition scores to insure the feed being provided coincides with what we see in our livestock's physical appearance.

Timid animals may not always get enough nutrients even though we are providing them. Our calculations could be wrong also. We hear about so many 1000-1200 pound cows, but there are very few of them at my place. Of my mature cows, more will tip the scale over 1200 lbs. than under and my 2nd calf heifers will be the only ones in that 1000-pound plus range. Therefore, unless we have separated everybody into the proper groups and fed accordingly, body condition scores may be changing if we are not very observant.

Stockpiled grass, at my farm, did not last nearly as long as I expected it to this year. Poor hay quality from 2018 has been discussed in about every publication and every loafing spot farmers hang-out at, so I think we should be aware that Dr. Boyles information needs put to use, especially this winter!

The Fact Sheet link listed above gives great detail about understanding Body Condition Scoring and how to use it so I will not go into detail about it here. However I want to use three of the pictures, body condition score number 4, 5 and 6 because I think they are very relevant to many producers across Ohio, maybe the nation, this winter/today.

Normally my cows look like number 6's (some 7's) in January, even into late February, as calving season begins. However, this year is different.

I think the cows were their normal number 6+ in late November/early December, but the cold rains and mud they have dealt with the past two months is taking its toll. Even though my hay test numbers showed adequate nutrients for middle 1/3 and last 1/3 of pregnancy, the girls are not number 6's & 7's today.

I believe they are still body condition 5's & some 6's now, but we have the normally cold and muddy late February and March conditions coming yet. I don't want them slipping to number 4's before starting to supplement, because at that point I believe it may be too late to keep everyone on track to calve normally, provide high quality colostrum, milk routinely and rebreed in a timely manner. So, I'm sure many of you are saying that feeding concentrate feeds are expensive. You don't have to tell me that because I understand completely. My cows have not had grain since they were replacement heifers and I know what feed costs. I also know it is pretty easy to estimate what a missed heat cycle (maybe more than one) cost me once the bull is turned in (see the chart below). What is much harder to calculate is the amount of loss from a distressed calf at calving, loss of pounds gained from poor quality colostrum and milk from momma because she did not have proper nutrition. (See



4. Borderline thin—Fore ribs not visible, but 12th and 13th ribs visible.



5. Moderate—More muscle left. Ribs 12 and 13 not visible to the eye.



6. Good—Smooth appearance; some fat on back and tail. Ribs no longer visible.

chart below.)

So, what body condition are your cows in right now? When is your calving window to start and finish? What quality hay/feed have you been feeding? In addition, maybe more importantly, what quality is the hay you will be feeding 30-90 days after calving when the cow's nutrient requirement will be at its peak demand? Think about this; one cow missing one-heat cycle, at the 2.5 lbs. rate of gain/day in the chart, would pay for about 10 – 50 lbs. bags of concentrate feed. Consider all these things and use tools available like the Body Condition Scoring to keep your livestock on track, have strong healthy calves and be ready to rebreed in that 82-day window to be successful and calve on time next year. Do extra concentrate feeds seem more doable now?

Interval of Heat Missed	Calf @ 2.0# Rate of Gain/Day	Calf @ 2.5# Rate of Gain/Day	Calf @ 3.0# Rate of Gain/Day
1 Cycle (21 days)	-\$ 63.00*	-\$ 78.75*	-\$ 94.50*
2 Cycles (42 days)	-\$ 126.00*	-\$ 157.50*	-\$ 189.00*
3 Cycles (63 days)	-\$ 189.00*	-\$ 236.25*	-\$ 283.50*

**CFAES**  
Your numbers. Understood.

Defiance County: 419.782.4771, Clint Schroeder, [schroeder.307@osu.edu](mailto:schroeder.307@osu.edu)

Mahoning County: 330.533.5538, Cristina Benton, [benton.132@osu.edu](mailto:benton.132@osu.edu)

Miami County: 937.440.3945, Sharon Harris, [harris.2835@osu.edu](mailto:harris.2835@osu.edu)

Pickaway County: 740.474.7534, Trish Levering, [levering.43@osu.edu](mailto:levering.43@osu.edu)

Thanks to the USDA-NIFA Farm Business Analysis grant, the cost for a farm to complete an analysis for the 2018 business year is \$100. To learn more about farm business analysis, contact Dianne Shoemaker or Haley Shoemaker at 330-533-5538 or email at [shoemaker.3@osu.edu](mailto:shoemaker.3@osu.edu) or [shoemaker.306@osu.edu](mailto:shoemaker.306@osu.edu). See past farm business summaries at <http://farmprofitability.osu.edu>.



# AGRICULTURE



## Top Ten Tips for the Spring Seeding of Forages

By Mark Sulc,  
OSU Extension Forage Specialist

Late this month (depending on the weather) and on into April provides one of the two preferred times to seed perennial cool-season forages. The other preferred timing for cool-season grasses and legumes is in late summer, primarily the month of August here in Ohio. The relative success of spring vs. summer seeding of forages is greatly affected by the prevailing weather conditions, and so growers have success and failures with each option.

Probably the two primary difficulties with spring plantings are finding a good window of opportunity when soils are dry enough before it gets too late, and managing weed infestations that are usually more difficult with spring plantings. The following steps will help improve your chances for successful forage establishment in the spring.

**1. Make sure soil pH and fertility are in the recommended ranges.** Follow the Tri-state Soil Fertility Recommendations (<https://forages.osu.edu/forage-management/soil-fertility-forages>). Forages are more productive where soil pH is above 6.0, but for alfalfa it should be 6.5 – 6.8. Soil phosphorus should be at least 15 ppm for grasses and 25 ppm for legumes, while minimum soil potassium in ppm should be 75 plus 2.5 x soil CEC. If seedlings are to include alfalfa, and soil pH is not at least 6.5, it would be best to apply lime now and delay establishing alfalfa until late summer (plant an annual grass forage in the interim).

**2. Plant high quality seed of known varietal**

source adapted to our region. Planting "common" seed (variety not stated) usually proves to be a very poor investment, yielding less even in the first or second year and having shorter stand life.

**3. Plant as soon as it is possible to prepare a good seedbed in April.** Try to finish seeding by late April in southern Ohio and by the first of May in northern Ohio. Timely April planting gives forage seedlings the best opportunity to get a jump on weeds and to be established before summer stress sets in. Weed pressure will be greater with later plantings, and they will not have as strong a root system developed by early summer when conditions often turn dry and hot.

**4. Plant into a good seedbed.** The ideal seedbed for conventional seedings is smooth, firm, and weed-free. Don't overwork the soil. Too much tillage depletes moisture and increases the risk of surface crusting. Firm the seedbed before seeding to ensure good seed-soil contact and reduce the rate of drying in the seed zone. Cultipackers and cultimulchers are excellent implements for firming the soil. If residue cover is more than 35% use a no-till drill. No-till seeding is an excellent choice where soil erosion is a hazard. No-till forage seedings are most successful on silt loam soils with good drainage and are more difficult on clay soils or poorly drained soils.

**5. Plant seed shallow (¼ to ½ inch deep) in good contact with the soil.** Stop and check the actual depth of the seed in the field when you first start planting. This is especially important with no-till drills. In my experience, seeding some seed on the surface indicates most of the

seed is about at the right depth.

**6. When seeding into a tilled seedbed, drills with press wheels are the best choice.** When seeding without press wheels or when broadcasting seed, cultipack before and after dropping the seed, preferably in the same direction the seeder was driven.

**7. In fields with little erosion hazard, direct seedings without a companion crop in the spring allows harvesting two or three crops of high-quality forage in the seeding year, particularly when seeding alfalfa and red clover.**

**8. For conventional seedings on erosion prone fields, a small grain companion crop can reduce the erosion hazard and will also help compete with weeds.** Companion crops usually increase total forage tonnage in the seeding year, but forage quality will be lower than direct seeded legumes. Take the following precautions to avoid excessive competition of the companion crop with forage seedlings: (i) use

early-maturing, short, and stiff-strawed small grain varieties, (ii) plant companion small grains at 1.5-2.0 bu/A, (iii) remove companion crop as early pasture or silage, and (iv) do not apply additional nitrogen to the companion crop.

**9. During the first 6 to 8 weeks after seeding, scout new seedlings weekly for any developing weed or insect problems.** Weed competition during the first six weeks is most damaging to stand establishment. Potato leafhopper damage on legumes in particular can be a concern beginning in late May to early June.

**10. The first harvest of the new seeding should generally be delayed until early flowering of legumes, unless weeds were not controlled adequately and are threatening to smother the stand.** For pure grass seedings, generally harvest after 70 days from planting, unless weeds are encroaching in which case the stand should be clipped earlier to avoid weed seed production.

## Improving Grain Market Plans

Gain knowledge about improving your grain marketing plan from the comfort of your own home with a Webinar on Tuesday, March 12th and 19th, 2019 from 11:00 a.m. – 1:00 p.m.

The webinar topics include:

- Risk Tolerance and Risk Capacity
- Crop Insurance Role in Marketing
- Basis, Hedging, and Cash Contracts

- Futures, Options and Spreads
- Building a Grain Marketing Plan

Cost is \$30.00. Pre-Register online at [go.osu.edu/grainwebinar](http://go.osu.edu/grainwebinar). Registration deadline is March 8, 2019. Participants will be emailed a log-in information the Friday prior to the webinar.

## Seeds & Soils Class to be held March 17

Join us for a fun-filled day of learning about seed starting and soil sampling at the Seeds and Soils Class, sponsored by Morrow Soil and Water Conservation District and OSU Extension Morrow County. The class will be held on March 17 at 2:00 p.m. at the Headwaters Outdoor Education Center, 151 Home Rd., Mt. Gilead, OH 43338.

Participants will learn how and when to start

your vegetable and flower garden seeds. Seed starting supplies and some seeds will be provided. The importance of soil sampling and how to do it will also be discussed.

For questions, contact Carri Jagger at 419-947-1070 or email [Jagger.6@osu.edu](mailto:Jagger.6@osu.edu) OR Matt Stooksbury at 419-946-7923 or email [mocswcd@redbird.net](mailto:mocswcd@redbird.net)

## Ohio Agricultural Law Blog—In the Weeds:

### Taking a Closer Look at the Lake Erie Bill of Rights

By Evin Bachelor, Law Fellow,  
Agricultural and Resource Law Program  
Lake Erie once again made headlines when the Ohio Supreme Court recently decided that a "Lake Erie Bill of Rights" (LEBOR) initiative could be placed on the Toledo ballot on February 26, 2019. The decision raised alarm in Ohio's agricultural community and fears that, if passed, the measure will result in litigation for farmers in the Lake Erie watershed.

The OSU Extension Agricultural and Resource Law Program took a close look at LEBOR. Specifically, we wanted to know:

- What does Toledo's Lake Erie Bill of Rights petition mean?
- What does the petition language say?
- What happened in the legal challenges to

keep the petition off the ballot?

- Have similar efforts been successful, and if not, why not?
- Who has rights in Lake Erie?
- What rights do business entities have?

We examine all of these questions, plus a number of frequently asked questions, in a new format called "In the Weeds." While many of our readers know of our blog posts and law bulletins, explaining this issue required something different. Using "In the Weeds" is a way for us to dig into a current legal issue more in depth.

For answers to the questions above and more, visit <https://farmoffice.osu.edu/blog> to view the new "In the Weeds: The Lake Erie Bill of Rights Ballot Initiative." Or stop by our office and we can print you a copy.

**OSU Extension -  
Morrow County  
Services**

**Did you know we are...**



**4-H Youth Development**

**Community Development**

**Agriculture and Natural Resources**

**Master Gardener Volunteers**



**Family and Consumer Sciences**

**SNAP-Ed Nutrition Education**

**Provided by your levy funds.**

# AGRICULTURE

## Landscaping with Native Perennials

Join the OSU Extension Morrow County Master Gardener Volunteers to learn about Native Perennials and how to landscape with them on April 23rd at 6:00 p.m. at the Ag Credit Building 2nd Floor Conference Room, 5362 US Hwy 42, Mt. Gilead, OH 43338.

Gale Martin, owner of Natives In Harmony Nursery, Marengo, Ohio, and Brandon Parks will be teaching about Natives and how to use them in your landscape.

There will be Native Plants and Seeds available for purchase!

## The LL-GT27 soybean – what’s legal?

We are starting to see the availability of soybean varieties with more than two herbicide resistance traits, which can expand the herbicide options, improve control, and allow multiple site of action tank mixes that reduce the rate of selection for resistance.

One of these is the Enlist soybean, with resistance to glyphosate, glufosinate, and 2,4-D. As of this writing, full approval for the Enlist soybean is still being held up by the Philippines (because they can apparently).

The other is the LL-GT27 soybean, which has resistance to glyphosate, glufosinate, and isoxaflutole (Balance). There is no label for use of isoxaflutole on this soybean yet, but it is legal to apply both glyphosate and glufosinate.

In Ohio, as long as neither label prohibits applying a mixture of two herbicides labeled for a specific use, it’s legal to apply the mixture. So, it’s also legal to apply a mixture of glyphosate and glufosinate to the LL-GT27 soybean. There is no label that actually mentions or provides guidance for this mixture, which does not affect legality, but could affect who assumes liability for the recommendation to apply a mixture if that matters to you.

Some seed companies are making the recommendation for POST application of the mix of glyphosate and glufosinate to the LL-GT27 soybean in printed materials. Our interpretation after discussion with ODA, is that these materials are essentially supplements to labels, and so the seed company would assume some liability for the recommendation.

Our assumption is that for the POST application of this mixture, the glufosinate is carrying most of the load for the control of ragweeds, marehail, and waterhemp, which generally have resistance to glyphosate. Glufosinate could use some help on larger giant foxtail, and definitely helps on several grasses that it’s weak on – barnyardgrass, yellow foxtail, etc.

Many users of LibertyLink soybeans have made it a practice to consistently add a POST grass herbicide such as clethodim. For the LL-GT27 soybean, one would have the choice of going this route or replacing the clethodim with glyphosate to control grasses or perennial weeds. WA couple of other things to keep in mind: we have had a lot of insightful questions from growers about the wisdom of mix-

## Soybean Planting Date, Seeding Rate, and Row Width

Before heading out to the field this spring, download a free pdf of the recently revised Ohio Agronomy Guide available here: <https://stepupsoy.osu.edu/soybean-production/ohio-agronomy-guide-15th-edition> Also, check out other information related to soybean management at <http://stepupsoy.osu.edu>.

**Planting date.** Planting date strongly influences soybean yield. In 2013 and 2014, we conducted a planting date trial at the Western Agricultural Research Station near South Charleston, Ohio. In both years, soybean yield decreased by 0.6 bu/ac per day when planting after mid-May. The greatest benefit of planting May 1 to mid-May is canopy closure which in-

creases light interception, improves weed control by shading out weeds, and helps retain soil moisture.

However, planting too early (before field conditions are adequate) comes with a risk. Factors such as damping-off and pressure from bean leaf beetle are concerns to keep in mind, as well as the possibility of a late spring frost. (Our early May planting date in northeastern Ohio in 2013 was damaged by bean leaf beetle and two frosts that occurred mid-May.)

Before heading to the field, consider the conditions you will be planting into. Soybean germination begins when soil temperatures reach 50°F and moisture is present at the planting depth of 1-1.5 inches. Do not plant early if the soil is excessively cold or wet. Slower germination and compaction can negate the benefits of the earlier planting date. Timely planting is critical for maximizing yield in soybeans, but using good judgment on field conditions plays a role that is equally important to determining yield potential.

**Seeding rate.** When soybeans are planted in May, a final (harvest) population of 100,000 to 120,000 plants per acre is generally adequate for maximum yield. Final soybean population depends on germination, emergence, disease and

insect pressure, competition from other plants, etc. In most situations, 140,000 seeds per acre should result in at least 100,000 plants per acre at harvest.

**Row spacing.** In Ohio, most soybeans are planted in row widths ≤ 15 inches. Soybeans grown in narrow rows (≤ 15 inches) tend to out-yield soybean produced in wide row width (30 inches) due to increased sunlight interception in narrow rows. Row width should be narrow enough for the soybean canopy to completely cover the interrow space by the time the soybeans begin to flower.

In our 2016 row width study, soybeans grown in 7.5 and 15-inch rows yielded similarly while soybeans grown in 30-inch rows yielded on average 15-20% lower. Our trial located at the Western Agricultural Research Station in Clark County was planted the end of May (pictured below). In June, the soybeans planted in 30-inch rows looked better than the soybeans planted in 15 and 7.5-inch row widths. However, the soybeans planted in 30-inch rows did not achieve canopy closure until after July 15. The 30-inch plot pictured below yielded 59 bu/acre while the 15 and 7.5-inch plots pictured below yielded 81 and 85 bu/acre, respectively.

## Morrow County Hydrangea School

The Morrow County Master Gardener Volunteers will host the Morrow County Hydrangea School on Thursday, April 25th from 6:30-8:30 p.m.

**Location:** OSU Extension Morrow County (Ag Credit Building) 5362 US Hwy 42, Mt. Gilead, OH 43338.

**Cost:** \$30.00 per person (includes a plan to take home)

Space is limited so register early!

**REGISTRATION INFORMATION:** Registration includes the program and handouts. Please mail completed registration form to OSU Extension Morrow County, 5362 US HWY 42 Mt. Gilead, Ohio 43338, or drop off the registration to the OSU Extension Office by April 19th, 2019. The program is filled on a first come, first served basis.

## Morrow County 2019 Hydrangea School

Please send completed form by April 19th, 2019 to:  
OSU Extension - Morrow County, 5362 US Hwy 42, Suite 101, Mt. Gilead, OH 43338

Name(s) \_\_\_\_\_  
Address \_\_\_\_\_  
Phone \_\_\_\_\_  
Number Attending: \_\_\_\_\_ x \$30 = \_\_\_\_\_

## Pasture and Forage Management Field Day

A FREE Pasture and Forage Management Clinic will be held Saturday, April 27 from 9:00 a.m. to 3:00 p.m. at C.A.B.B. Farms, 8888 St. Rt. 314, Lexington, OH 44904.

Registration begins at 8:45 a.m. and the class will start promptly at 9:00 a.m. Lunch at noon will be provided by the Morrow County Cattlemen. An afternoon session will be held from 1:00-3:00 p.m.

Topics for the day will include:

- Soils and Fertility
- Seeding: rates, variety, quality, timing
- Poisonous weeds and management
- Hay making
- Alfalfa management
- Fence and Water

Please RSVP to the OSU Extension Office at 419-947-1070 or [Jagger.6@osu.edu](mailto:Jagger.6@osu.edu) by April 19th.

# OSU EXTENSION CALENDAR OF EVENTS

## MARCH 2019

- 3-9 Ohio 4-H Week
- 4 Morrow County Dairy Board, 12 noon, Ag Credit Building Conference Room
- 4 Jr. Fairboard, 7 p.m.
- 5 ServSafe Manager Training, 8:30-3:30 p.m., Ag Credit Building Conference Room
- 6 Morrow County Cattlemen, 6:30 p.m., Ag Credit Building Conference Room
- 9 Ohio 4-H Conference
- 9 Fruit Tree Pruning Clinic, 2 p.m., Osborne Orchard
- 12 New Volunteer Training (See Article)
- 12 ServSafe Manager Training, 8:30-3:30 p.m., Ag Credit Building Conference Room
- 13 Morrow County Pesticide & Fertilizer Recertification, 5:15 p.m.-9:30 p.m., Ag Credit Building Conference Room
- 14 Pesticide Applicator Test - Ag Credit Building Conference Room, 9 a.m. SHARP
- 14 Morrow County Pork Producers, 7 p.m., Ag Credit Building Conference Room
- 15-17 Ohio Beef Expo
- 17 Seeds & Soils Class, 2 p.m., Headwaters Outdoor Education Center
- 19 ServSafe Manager Training, 8:30-3:30 p.m., Ag Credit Building Conference Room
- 20 Ohio Swine Health Symposium, 8:30 a.m., Der Dutchman Restaurant, Plain City, Ohio
- 20 Master Gardener Meeting, 6 p.m., Ag Credit Building Conference Room
- 21 Horse & Pony, 7:30 p.m., Ag Credit Building Conference Room
- 25 Junior Leaders, 7 p.m., Extension Office Conference Room
- 26 CARTEens, 6:30 p.m. to 8:30 p.m., Extension Office Conference Room
- 26 Walk With A DOC, Mt. Gilead Cherry Street Admin. Building, 12-1 p.m.
- 26 Walk With A DOC, 12-1p.m., Mount Gilead Cherry Street Administration Building, 145 N. Cherry Street
- 28 Sr. Fairboard, Fairgrounds
- 30 Master Gardeners "Vision Board Activity", 10-1 p.m., Ag Credit Building Conference Room

## APRIL 2019

- 1 Morrow County Dairy Board, 12 noon, Ag Credit Building Conference Room
- 1 Quality Assurance Test-Out Opportunity, 4:30-6:30 p.m., (See Article) Ag Credit Building Conference Room
- 1 Junior Fairboard, 7 p.m.
- 2 Livestock Quality Assurance General, 6:15 p.m., Ag Credit Building Conference Room, RSVP
- 3 Morrow County Cattlemen, 6:30 p.m., Ag Credit Building Conference Room
- 3 Career Exploration Workshop Registration Due
- 6 Vegetative Propagation Class, 10-12 noon, Ag Credit Building Conference Room
- 6 Propagation Class, 10 a.m., Ag Credit Building Conference Room
- 9 New Volunteer Training (See Article)
- 11 Morrow County Pork Producers, 7 p.m., Ag Credit Building Conference Room
- 13 Career Exploration Workshop, 9-3:30 pm, Tri-Rivers Career Center
- 15 4-H Enrollments Due On Line
- 15 Livestock Sale Committee, 7 p.m., Ag Credit Building Conference Room
- 16 Occasional Quantity Cooks, 6-8:15 p.m., Ag Credit Building, Second Floor Conference Room
- 17 Master Gardener Meeting, 6 p.m., Ag Credit Building Conference Room
- 18 Horse and Pony Committee, 7:30 p.m., Ag Credit Building Conference Room
- 23 Growing & Landscaping with Native Pollinator Plants, 6 p.m., Ag Credit Building Conference Room
- 25 Hydrangea Informational Class, 6:30-8:30 p.m., Ag Credit Building Conference Room
- 25 Sr. Fair Board, Fairgrounds
- 27 Pasture & Forage Management Field Day, 9-3 p.m., C.A.B.B. Farms
- 27 Trash Bash Drop Off At Fairgrounds
- 29 Junior Leaders, 7-8 p.m., Extension Conference Room

- 30 Last Day To Add/Drop Projects
- 30 Livestock Quality Assurance General, 6:15 p.m., Fairgrounds
- 30 Walk With A DOC, 12-1p.m., Mount Gilead Cherry Street Administration Building, 145 N. Cherry Street

## MAY 2019

- 1 Cattlemen's Meeting, 6:30 p.m., Ag Credit Building Conference Room
- 6 Morrow County Dairy Board, 12 p.m., Ag Credit Building Conference Room
- 6 Jr. Fairboard, 7 p.m., Fairgrounds
- 9 Morrow County Pork Producers, 7 p.m., Ag Credit Building Conference Room
- 15 Hyperlufa Class Make & Take, 6 p.m., Ag Credit Building Conference Room
- 16 4-H Horse & Pony Committee, 7:30 p.m., Ag Credit Building Conference Room
- 20 Youth Garden Evening at Headwaters Outdoor Education Center, 6 p.m.
- 21 Walk With A DOC, 12-1p.m., Mount Gilead Cherry Street Administration Building, 145 N. Cherry Street
- 22 Livestock Quality Assurance General, 6:15 p.m., Fairgrounds
- 23 Sr. Fairboard, Fairgrounds
- 27 Memorial Day, Office Closed
- 28 CARTEens, 6:30-8:30 p.m., Ag Credit Building Conference Room
- 29 Horse Projects Only Quality Assurance/Safety Clinic, 6:15 p.m., Fairgrounds

## JUNE 2019

- 1 ALL 4-H/FFA HORSE PROJECT FORMS DUE TO EXTENSION OFFICE (J.D.'s, PAS, Scholarship, King & Queen Apps., Etc.) (NO EXCEPTIONS)
- 1 Livestock Possession Date (Unless noted differently on requirements)
- 1 Mandatory Pre-Fair Weigh-In/Registration For Feeders, Market Goats, & Market Sheep, Fairgrounds - 7-11 a.m.
- 1 Mandatory Breeding Rabbit Registration, Youth Building, Fairgrounds, 7-11 a.m.
- 3 Morrow County Dairy Board, 12 noon, Ag Credit Building Conference Room
- 3 Jr. Fairboard, 7 p.m., Fairgrounds
- 5 Morrow County Cattlemen's, 6:30 p.m., Ag Credit Building Conference Room
- 7 Ambassador Application Due to the Extension Office for Goat, Rabbit, and Poultry
- 7 Jr. Fair Entries Due To Junior Fair Office Only
- 7 BBR Papers Due With Fair Entries
- 7 Jr. Fair King & Queen, Scholarships and Award Applications Due
- 7 Early Judging Registration Due To Extension Office
- 13 Morrow County Pork Producers, 7 p.m., Ag Credit Building Conference Room
- 14 Speaking Contest Registration Due To Extension Office
- 14 4-H Marketing Contest Entries Due To Extension Office
- 17 Livestock Quality Assurance General, 6:15 p.m., Fairgrounds
- 19 How To Enter Flowers In The Fair, 6:00 p.m., Ag Credit Building Conference Room
- 20 Ohio State Fair Entries Due To State Fair Office
- 20 Horse & Pony, Ag Credit Building Conference Room, 8 p.m.
- 24 County 4-H Speaking Contest, 6 p.m., Ag Credit Building Community Room (2nd Floor)
- 24 Dog Poster's Due To Extension Office
- 24 Early Project Judging, 6 p.m., Youth Building
- 27 Sr. Fairboard, Fairgrounds
- 28 Writing Projects Due To Extension Office
- 29 Cloverbud Fun Day, 9 a.m. - 12:30 p.m.
- 30 PAS Horse Show, Morrow County Fairgrounds, Pleasure First, 9 a.m.

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Phone: 419-946-4015 • 800-482-5905 FAX: 419-946-4025