

COSHOCTON COUNTY AGRICULTURE & NATURAL RESOURCES



The OSU Extension FARM OFFICE IS LIVE

The January session will include updates on the COVID relief bill, CFAP (3), crop enterprise budgets, and other emerging legal, tax, and economic issues.

Join us and share your questions, concerns, and topics of interest. Each office hour will include a short update and lead into a question and answer time on additional topics of interest.

Your farm's ag law and farm management resource center: <https://farmoffice.osu.edu>

OSU Extension's Farm Office Team
 Peggy Hall
 David Marrison
 Dianne Shoemaker
 Julie Strawser
 Barry Ward

January 13, 2021
 7:00-8:30 p.m.
 or
January 15, 2021
 10:00-11:30 a.m.

go.osu.edu/farmofficelive

CFAES

January 6, 2021 Issue (Edition #76)

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 Preventing Calf Disease Starts with the Pregnant Cow
 Plan Ahead Before Siting a Hay Barn

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Happy New Year Coshocton County! I think many of us are thankful for a new year and a fresh start. And a fresh start it has been with both our beloved Buckeyes and Browns putting a smile on our faces with their victories over the past week. As crazy as 2020 was, could the ultimate in craziness happen with the Browns winning a playoff game and the Buckeyes winning the national championship?

As we roll into 2021, there still is a lot of uncertainty for our traditional Extension activities. Many of our Ag Workshops will continue to be virtual. Included today are details on a whole host of programs.

I am working on the details for pesticide & fertilizer applicators who need their licenses renewed in 2021. If your re-certification is up this year, be watching your mailbox for more details. We will be flexible as we continue to adapt our in-person programming to meet health & safety guidelines.

Happy New Year! It is good to turn the page to 2021. Stay safe and be well!

Sincerely,

David L. Marrison

Coshocton County OSU Extension ANR Educator



THE OHIO STATE UNIVERSITY
 COLLEGE OF FOOD, AGRICULTURAL,
 AND ENVIRONMENTAL SCIENCES

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go.osu.edu/cfaesdiversity

Winter into Spring Weather Outlook

By: Jim Noel

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2021-01/winter-spring-outlook>

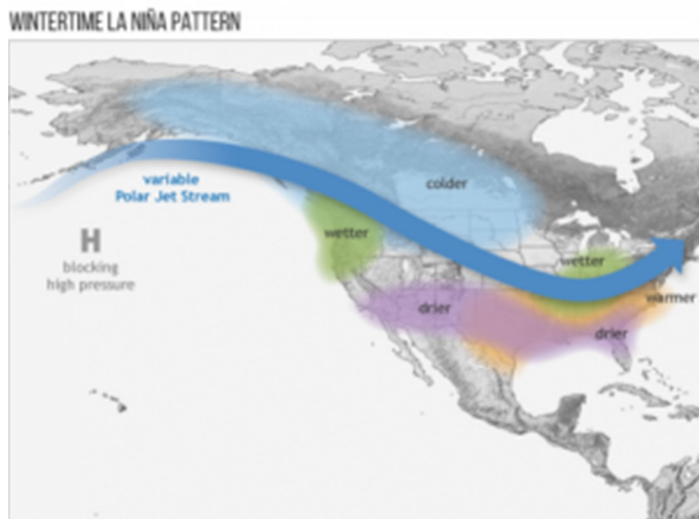
La Nina remains in full swing, the cooling of the eastern equatorial Pacific Ocean. Typically the impacts kick in for Ohio by late December or January. You can see the typical wet signal for the Ohio Valley and Ohio in the attached La Nina graphic courtesy of NOAA.

You can keep up on La Nina and ENSO at the links below:

<https://www.climate.gov/enso>

<https://mrcc.illinois.edu/pubs/pubsElNino.jsp>

Therefore, the climate pattern supports big swings for temperatures for the rest of winter through early spring with the tendency toward above normal temperatures. This will also support snow that comes and goes for most of Ohio. This can expose winter wheat to temperature changes with limited snowpack.



As for rainfall and precipitation, expect above normal conditions to ramp back up for later January into February and March. Northwest Ohio subsoils remain drier than normal but the expectation is for wetting up to continue late winter into early spring.

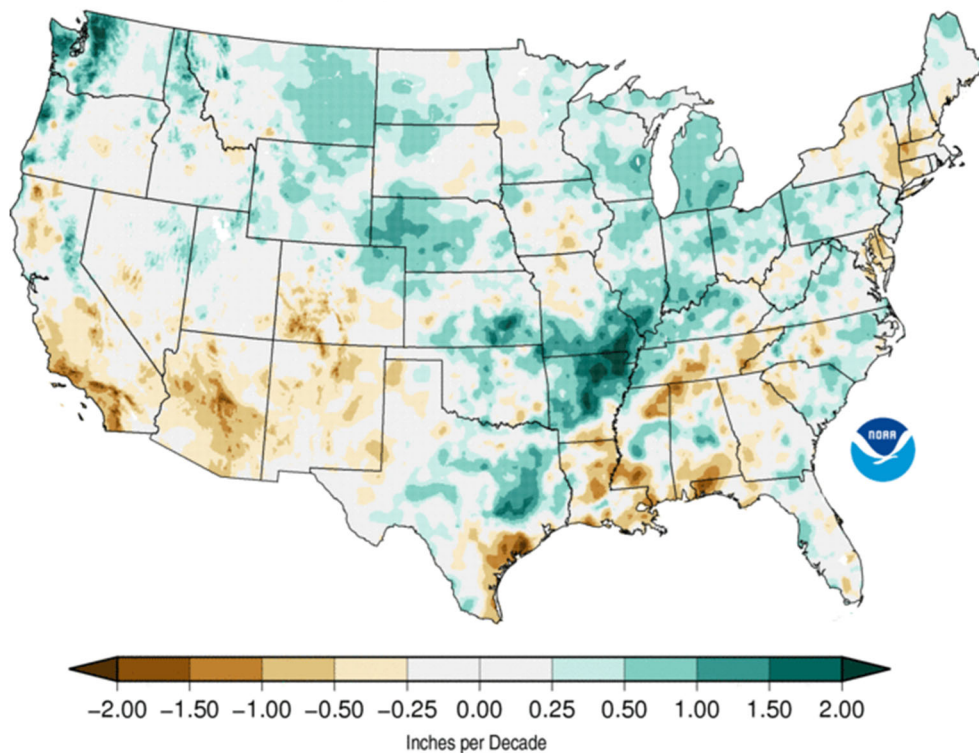
Going forward through spring, the wetter conditions typically shutdown at some point and that varies for each La Nina event but often it is by May or June.

We will have to watch an expansive drought area in parts of the central and western U.S. to see if that shifts east for summer. That can happen during La Nina events where we go from wet in winter and spring to dry in summer.

For winter into spring expect wetter in the eastern corn and soybean area while drier in western areas. By late spring and summer that dryness can shift east.

Finally, attached is an image of the last 30-years of rainfall trends for spring provided by NOAA. You will see the wetting up in the Ohio Valley and Great Lakes including Ohio.

Precipitation Trends
Spring 1990–2019 (30 years)



Data Source: 5km Gridded Dataset (nClimGrid)

National Centers for
Environmental Information

Register Now for Upcoming Virtual Agronomy Team Programs

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2021-01/register-now-upcoming-virtual-agronomy-team-programs>

This winter OSU Extension's Agronomy Team is offering a variety of educational programs online, beginning this week. CCA CEUs will be offered at each session. There is no cost to attend these programs, but registration is required. Programs for January 4th – January 15th include:

- **Jan. 5, 10:00-11:00am - Gambling with Planting Decisions**, Aaron Wilson (Ohio State University Extension) and Bob Nielson (Purdue University). 1.0 CM CCA CEUs.
Register: <http://go.osu.edu/PrecisionU>
- **Jan. 12, 10:00-11:00am - Improving Fertilizer Efficiency with the Planter Pass**, Matt Bennett (Precision Planting Technology) and John Fulton (Ohio State University). 1.0 PAg CCA CEUs.
Register: <http://go.osu.edu/PrecisionU>
- **Jan. 14, 8:00-8:30am - Does It Pay to Improve Soil Health on Your Farm?** Nathan Brown, Matt Falb, and Les Seiler. 0.5 NM CCA CEUs. Register: <http://go.osu.edu/soilhealth2021>
- **Jan. 14, 9:00-10:30am – Specialty Small Grains**, Winter Malting Barley (Greg McGlinch), White Wheat (Dennis Pennington), Wet Wrapped Oats (Al Gahler), Triticale (Jason Hartschuh). 1.5 CM CCA CEUs. Register: <http://go.osu.edu/cropdiversity>

To register and view details on programs coming up later in the month and into March, visit: <https://agcrops.osu.edu/events>. All programs will be recorded, and recordings will be available to view on our [website](#) and [YouTube channel](#). CCA CEUs are only available to participants attending live sessions (we cannot give CCA credit for watching the recordings).

Be one of the first 300 people from Ohio to sign-up and attend one of these programs, and you will receive a set of giveaways shipped to your door including a copy of the Corn, Soybean, Wheat, and Forages Field Guide, a 2020 eFields Report, digital soil thermometer, and a 2021 Agronomic Crops Team Calendar (with important marketing, crop insurance and USDA report dates identified). These items were generously funded by the Ohio Soybean Council and the USDA NIFA Integrated Pest Management program.

Let the 2020 eFields Report Help You Reach Your Farm's New Year's Resolutions

By: Elizabeth Hawkins

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2021-01/let-2020-efields-report-help-you-reach-your-farm%E2%80%99s-new-year%E2%80%99s-resolutions>

High quality, relevant information is key to making the right management decisions for your farm. The eFields program at The Ohio State University was created to provide local information about critical issues for Ohio agriculture. The 2020 eFields Research Report highlights 218 on-farm, field scale trials conducted in 39 Ohio counties. Research topics included nutrient management, precision crop management, cover crops, and forages. Other information about crop production budgets, planting progress, and farm business analysis was also included. New in 2020 was the addition of soil health and water quality trials.

The 2020 report is now available in both a print and e-version. To receive a printed copy, contact your local OSU Extension office or email digitalag@osu.edu. The e-version can be viewed and downloaded at go.osu.edu/eFields with the online version readable using a smartphone or tablet device.



The eFields team has planned weekly webinars every Tuesday at 10AM EST in January and February. The events in January are replacing the annual Precision U event. This year's theme focuses on "Tackling Spring Operations with Reduced Working Days." For more information, visit go.osu.edu/PrecisionU. The events in February are focused on eFields research projects and will provide the opportunity to discuss results and gather information about research interests for 2021. More details are available at go.osu.edu/AgTechTues. There is no cost to attend any of the webinars so please plan to join us for one or all!

- January 5th, 10AM – Precision U – Gambling with Planting Decisions
- January 12th, 10AM – Precision U - Improving Fertilizer Efficiency with the Planter Pass
- January 19th, 10AM – Precision U - Pre-season Crop Protection Decisions
- January 26th, 10AM – Sprayer Technology to Improve Field Performance
- February 2nd, 10AM – eFields Corn Production Results
- February 9th, 10AM – eFields Soybean Production Results
- February 16th, 10AM – eFields Small Grains, Forages, Soil Health, and Water Quality Results
- February 23rd, 10AM – eFields Technology Results

We would like to sincerely thank all our 2020 collaborating farms and industry partners. The eFields team enjoys working with each of you and we are looking forward to continuing to learn together in 2021.

Follow our social media using @OhioStatePA on Facebook, Twitter, and Instagram or subscribe to our quarterly newsletter, Digital Ag Download (go.osu.edu/DigitalAgDownload), to keep up with the eFields program throughout the year. For more information on how to get involved in eFields in 2021, contact Elizabeth Hawkins at hawkins.301@osu.edu.

Farm Office Live- Winter Editions

by: Barry Ward, David Marrison, Peggy Hall, Dianne Shoemaker – Ohio State University Extension

Source: <https://u.osu.edu/ohioagmanager/2020/12/28/farm-office-live-winter-edition/>

"Farm Office Live" returns virtually this winter as an opportunity for you to get the latest outlook and updates on ag law, farm management, ag economics, farm business analysis and other related issues from faculty and educators with the College of Food, Agriculture and Environmental Sciences at The Ohio State University.

Each Farm Office Live will start off with presentations on select ag law and farm management topics from our experts and then we'll open it up for questions from attendees on other topics of interest. Viewers can attend "Farm Office Live" online each month on Wednesday evening or Friday morning, or can catch a recording of each program.

The full slate of offerings for this winter:

- January 13th 7:00 – 8:30 pm
- January 15th 10:00 – 11:30 am
- February 10th 7:00 – 8:30 pm
- February 12th 10:00 – 11:30 am
- March 10th 7:00 – 8:30 pm
- March 12th 10:00 – 11:30 am
- April 7th 7:00 – 8:30 pm
- April 9th 10:00 – 11:30 am

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CFAES

Topics to be addressed this winter include:

- Outlook on Crop Input Costs and Profit Margins
- Outlook on Cropland Values and Cash Rents
- Outlook on Interest Rates
- Tax Issues That May Impact Farm Businesses
- Legal trends for 2021
- Legislative updates
- Farm business management and analysis updates
- Farm succession & estate planning updates

Who's on the Farm Office Team? Our team features OSU experts ready to help you manage your farm office:

- Peggy Kirk Hall — agricultural law
- Dianne Shoemaker — farm business analysis and dairy production
- David Marrison — farm management
- Barry Ward — agricultural economics and tax

Register at <https://go.osu.edu/farmofficelive> We look forward to you joining us this winter!

Visit our “One-Stop Shop” to View Ag & Natural Resources Programs

As the pandemic continues to create challenges for meeting and/or offering ‘live’ and in-person programming, much of OSU Extension’s traditional winter programming remains ‘virtual’ into the foreseeable future. In response, check out this one-stop shop to view upcoming regional and statewide agriculture and natural resources programs at: <https://agmr.osu.edu/programming>. Once there, simply click the topic you are interested in to view 2020-21 events, including agronomy, beef, forage and farm management programs. If you have any questions, please contact us at the Coshocton County Extension office at 740-622-2265 or email marrison.2@osu.edu



Upcoming Beef & Forage Programming Moves On-line This Winter

Source: <https://u.osu.edu/beef/2021/01/06/upcoming-beef-and-forage-programming-moves-to-on-line-this-winter/>

This winter the OSU Beef Team is offering a variety of educational programs online, beginning with Making Hay for Beef Cattle on January 18. In total, nine programs are presently scheduled focusing on everything from feed and forage management to managing the breeding season. These sessions are each being offered free of charge, but pre-registration is required. Find all the details linked here: <https://u.osu.edu/beefteam/2021-beef-school/>

Also, the OSU Extension Forage Team is offering a ‘virtual’ edition of Pastures for Profit. This program launches next week on the 13th and will feature one live webinar offered monthly in January, February and March along with “work at your own pace” videos and exercises that accompany each webinar. Find details including registration information here: <https://u.osu.edu/beef/2020/12/23/pasture-for-profit-school-goes-virtual-this-winter/> Find a comprehensive listing of currently planned beef and forage related meetings and programs posted on the OSU Extension Beef Team [Events/Programs](#) page at: <https://u.osu.edu/beefteam/events-programs/>

Lamb & Goat Webinars

The OSU Sheep Team will construct and host three webinars offered via Zoom in 2021. The information provided will be applicable to both sheep and goat producers large and small. These webinars will be offered during the third week of the month.

Webinar One- Lambing and Kidding: 90 minutes | Tuesday, January 19th | 7 p.m.

Members of the OSU Sheep Team will cover preparing for lambing/kidding season, ewe/doe and lamb/kid care before, during, after birth, managing dystocia, troubleshooting and addressing health concerns, colostrum, bottle feeding, creep feeding, castrating, tail docking, vaccinations, and allow time for Q&A.

Webinar Two- Small Ruminant Nutrition: 90 minutes | Tuesday, February 16th | 7 p.m.

Members of the OSU Sheep Team will address the importance of providing adequate protein, carbohydrates, and minerals in the forms of processed grains, hay, grazed pasture, minerals, and supplements to your flock/herd. Q&A included.



Webinar Three- Weaning, Sorting, and Selling- Lambs, Kids, and Spent Breeding Stock: 90 minutes | Tuesday, March 16th | 7 p.m.

Members of the OSU Sheep Team will offer strategies for weaning lambs/kids and preparing them for joining the breeding flock or entering the meat processing chain. Also included will be examples of marketing strategies and determining what to do with ewes/does and rams/bucks that are no longer meeting breeding needs of the flock/herd.

Registration information will be available soon at <https://sheep.osu.edu>

Being Intentional in 2021

By: David L. Marrison, Coshocton County Ag & NR Extension Educator

Written for Dairy Excel- Farm & Dairy Newspaper. Published January 7, 2021

Happy New Year! We have closed the book on 2020 and as we move into the new year, hindsight will literally be 2020. I think many of us are thankful for a fresh start and here is hoping the new year brings us more blessings than cancellations.

Looking back on 2020, it was a year that began with such promise. The economy was rolling along and then all of our lives were altered by the coronavirus pandemic. Then for good measure, throw-in social protests, the presidential election, and continued weather extremes, and we have a year which can be encapsulated in one word- unprecedented.

While the word **unprecedented** takes the word of the year honors, I think there are many additional words and phrases that will forever be tied to 2020. Some of these include: quarantine, flatten the curve, resilience, face masks, gaiters, Wuhan, Black Lives Matter, virtual, Karen, shaming, essential workers, social distancing, pivot, we are all in this together, stay-at-home, tele-work, new normal, cancel culture, murder hornets, and last but surely not least ZOOM!

We can't control the word or words which will be used to describe a year in retrospect. However, is there merit in being intentional about the words we individually focus on as we start a new year? A few years ago, I followed the advice of a friend (who now happens to be my wife) to concentrate on ONE word for the year instead of making a long laundry list of New Year's Resolutions. Simple enough, right? Just one word.

So, if you can only choose one word on which to focus on in 2021, what will it be? Some of the words which I have chosen over the past few years included organize, transition, patience, and declutter. I am still a work in progress on each of these words. However, I have made great strides in organizing my personal and farm stuff and am being more patient in all aspects of life.

So, what is my word for 2021? A lot of words bubbled up as I did my self-reflection. Even harder yet is choosing a word which will stand firm even in the midst of a lingering pandemic. After much thought, I settled on the word **intentional**.

Being intentional about getting my estate plan updated. Being judicious with life/work balance. Focusing on spiritual growth. Being mindful of time squandered by social media. Knowing when to leave the Zoom meeting room. Making time for the crucial conversations that need to happen. Being intentional in determining what battles to fight and which to walk away. Making room for and relishing in the divine appointments of life. Knowing that saying yes to something means saying no to another.

So, in picking one word for your farm business in 2021, what will it be? What word will help drive your focus, energy, and work into a very uncertain new year? I encourage you to ask this question to yourself, family members, employees, and neighbors. When you choose your word or words, make sure to post them on the bulletin board in the milk house, in the farm shop or in your farm office as reminder of where to keep your focus.

Final thoughts- I know there is a lot we will take away from 2020. It is my hope that we are able to focus on the positive adaptations we have made in both our personal and business lives as we move into a "different" normal. Remember to focus on the blessings not the cancellations.

As we begin the year of 2021, I would like to offer the following quote from John C. Maxwell which states "Personal growth doesn't just happen on its own. Personal growth requires intentionality; it requires a plan and it takes work." Seize your WORD and have a good and safe new year!

Preventing Calf Disease Starts with the Pregnant Cow

By: Dr. Michelle Arnold, UK Veterinary Diagnostic Laboratory

Source: <https://u.osu.edu/beef/2021/01/06/preventing-calf-disease-starts-with-the-pregnant-cow/#more-10065>

Every year, the UKVDL receives calves that died suddenly in the first week of life, usually with few or no symptoms. Often the owner will describe the situation this way: "calves will nurse, be 2-3 days old and found dead" or "calf was 3-5 days old, lying around more than normal and nursing very little, found dead the next day". At necropsy (an animal "autopsy"), the pathologist will find no milk within the calf's digestive tract. Further laboratory testing will find bacteria can be grown (cultured) from several organs such as liver, kidney and lung. These deaths are diagnosed as "septicemia" which means the calf died from an infection in the blood (usually a Gram negative bacteria such as E. coli along



with the “toxins” or poisons the bacteria produce) that damages all the major organs of a calf, resulting in death. Affected calves respond poorly to antibiotic treatment and those that survive often develop one or more swollen joints. These calves are also at greater risk for diseases such as diarrhea, pneumonia, and meningitis in the coming months. Most grow poorly and die prior to or at weaning. The question is often asked “what should I have treated this calf with to save it” but the real question that needs to be addressed is “why did this happen in the first place and how can I prevent it?”

Preventing septicemia and other neonatal calf diseases like scours begins long before birth of the calf. Excellent cow nutrition during and after gestation, a quick calving process, and biosecurity management factors to decrease environmental contamination all contribute to a successful start. The following list of management practices are crucial to calf health.

1. Don't allow pregnant cows to lose weight during gestation. The dams' diet must provide adequate energy, protein and trace minerals to meet her needs during gestation and lactation, especially during cold or wet winter weather. Remember up to 80% of fetal growth occurs in the last 50 days of gestation and cows are also producing colostrum during the final 4-6 weeks of pregnancy. New research has identified the role of “fetal programming of the immune system” during pregnancy as a major factor affecting calf vitality after birth. In fact, the latest research has proven there is no safe time during gestation to “short” a cow of her nutrient needs (including trace minerals) that will not impact the health of her unborn calf. A nutritionally deprived cow will produce poor quality and quantity of colostrum, have less energy to deliver her calf quickly, and she can lose a substantial amount of weight during her lactation so she will be slow to rebreed. Calves born to energy deficient dams will have less of the brown fat needed for energy to stand and nurse.
2. Don't wait to assist a cow or heifer having difficulty in labor. If a cow or heifer is in active labor for 1-1.5 hours and making no progress, calving intervention is indicated. Assist with calving as early as possible, especially with heifers. Don't hesitate to call for help if you don't know what the problem is, if you know what the problem is and what the solution is but you can't do it, or if you have been trying to correct the problem for 30 minutes but have not made progress. **EARLY INTERVENTION IS KEY** to saving a calf and the dam.
3. Colostrum is key to calf survival. Make sure calves start nursing after calving, keeping in mind that calves should stand within 30 minutes of delivery and nurse within 30 minutes of standing. If in doubt that the calf will be able to stand and nurse within an hour, the producer must take over to ensure the calf is warm and then use a good quality colostrum replacer (not a colostrum supplement) or milk the dam and feed the calf at least 2 quarts during the first 6 hours of life. Most septicemic calves had inadequate colostrum intake, either because the dam did not produce enough good quality colostrum, or the calf was unable to suckle enough to provide good protective immunity. In either case, this situation is called “failure of passive transfer of antibodies” or “FPT”. The calf may be born weak and does not get up quickly or nurse aggressively, however, FPT may also be due to bad teat conformation (shape) and the calf simply could not latch on or reach them. Other factors that impair calf immunity include lack of calories (dam provides little or no milk), selenium and copper deficiencies present at birth, and lack of protection from harsh weather.
4. Don't calve out cows in a mudhole. Poor sanitation, cold, wet weather and overcrowding in calving areas also contribute to a higher risk of disease. Septicemia in calves is most often the result of a bacterial infection acquired around the time of birth. The bacteria may enter the newborn through several routes including the navel (umbilical stump), through the mouth or nose, or through an open wound. Calves born in dirty, muddy, manure-covered areas such as around hay rings or in a run-in shed have a wet, exposed navel cord lying in contact with massive numbers of bacteria as soon as they hit the ground. Once the calf gets up, mud or manure-covered teats provide the next opportunity for bacteria to enter the neonatal calf. Even with adequate colostrum, the immune system can be overwhelmed by the sheer numbers of bacteria, viruses and parasites in the environment. Newborns produce little gastric acid during the first week of life which makes them especially vulnerable to infections that enter through the digestive system. If cows are dragging their udders through mud to reach feeding areas, move to a new area with good drainage to feed. If clean pasture is available, pregnant cows close to calving should be rotated there while cow-calf pairs remain on the current

pasture. If calving in a barn or shed, the calving pen should be kept clean and dry with frequent changes of bedding to remove the build-up of organisms. Make every effort to get the cow and newborn calf out of the barn quickly to lessen the chances of infection.

5. Don't bring in a new disease. Purchasing animals, cows or calves, and bringing them home to the farm is likely the single most dangerous time for introduction of new diseases into a herd. Purchasing a calf to put on a cow that lost her calf is an excellent way to start a scours outbreak among newborn calves. Newly purchased animals should not be mixed into a group of calving cows. Any newly purchased animals should be isolated either off the farm or in a well-segregated area for at least 2 weeks (3-4 weeks is better) and observed for any signs of illness. During the period of isolation, a veterinarian should be consulted to appropriately test and vaccinate new arrivals. The best practice is to purchase animals from herds of known health status that will provide a vaccination history. Even show animals returning to the farm from events should be isolated for 2-3 weeks to prevent introduction of disease when they re-enter the herd. Introduction of an animal with a disease such as Johne's or a BVD persistently infected (PI) animal could have devastating, long-term effects on the health of the cow herd.

There will always be exposure to infectious agents, despite the best farm biosecurity measures. The immune system of cattle is well-designed to intercept infectious agents and neutralize their effects as long as immune cells are functioning correctly and the number of infectious organisms does not become overwhelming in the environment. With newborn calves, survival depends on colostrum intake, but it is also the development of the immune system during gestation or "fetal programming" that plays an important role in overall calf vitality. In short, prevention of disease is far more than vaccine and deworming protocols; it is largely the result of day-to-day management practices instituted on the farm to keep adult cows healthy, well-fed, and clean.

Plan Ahead Before Siting a Hay Barn

By [Morgan Hayes](#), Extension Biosystems Engineering Assistant Professor, University of Kentucky

Source: <https://hayandforage.com/article-2762-Plan-ahead-before-siting-a-hay-barn.html>

Published: This article appeared in the November 2019 issue of Hay & Forage Grower on page 18.

Choosing the correct location for a hay barn can be a challenge. You might choose different locations depending on where you bale hay, how the farm is laid out, and whether you plan to sell your hay or feed your own animals. Other considerations with a hay barn site can include accessibility, drainage, and vicinity to other hay barns or livestock. Also, how the barn is oriented will influence air movement through the barn, which can influence hay quality. Ultimately choosing the right location will impact how well the barn functions.

Hay sale operations typically require a more centralized storage location for coordination of sales and loading for multiple customers. A centralized location allows one to better sort for forage quality and for customers to select the specific hay they wish to purchase.

With larger cash hay operations, a centralized storage will typically reduce the amount of equipment needed like tractors, as one tractor can service multiple barns without hauling or driving the tractors between locations. Also, one location makes it more cost effective to put in the infrastructure (utilities, drives, gates, and parking areas) for large vehicle access, and it is easier to direct customers to the location.



One challenge with centralized storage is the risk of fire spreading throughout the entire hay supply. If the hay operation includes multiple barns, it might be good to have a source of water nearby like a pond or hydrant. In addition, including a 75-foot buffer between barns will reduce the likelihood of fire jumping from one to another.

Make it convenient

When the goal of the hay operation is feeding animals, focus on getting hay as close to the winter-feeding area as possible. Typically, winter hay movement is more challenging than hay movement during the summer months, particularly if there are not good drives and access where hay is baled and stored. Inclement weather, like ice storms or extremely wet and muddy conditions, can exacerbate challenges with hauling hay in the wintertime.

The closer the hay barn is to the winter-feeding location, the better the chance that hay will be fed routinely. Moving all hay to winter-feeding areas typically provides better inventory control as well. If all the hay is accounted for near the feeding area, it is much easier to identify shortages and make adjustments earlier in the feeding season. Further, a farmer can control hay deterioration since the hay does not need to be left outside and can be more easily fed regularly in smaller quantities, which reduces waste.

In the case of feeding livestock, the focus is still on one centralized storage facility, unless the farmer has multiple winter-feeding sites. In most cases, when a hay barn is chosen for storage, a centralized storage location is the preference.

Multiple sites

If you're baling hay on several farms and there is significant distance between the operations, consider satellite storage sites as opposed to a centralized storage. This would be very similar to grain operations that choose to have storage on multiple farms to reduce transport time during harvest.

One benefit of satellite sites is that it makes baling and hauling hay more efficient; however, the challenge is that the satellite sites may not be as secure, will be less likely to have utilities, will make coordinating hay sales more challenging, might not be in the correct location for winter feeding, and will require more infrastructure like driveways.



Without utilities present, there will not be the option of installing lights in the barn or security lights outside. This means there is more risk for someone to steal hay or equipment. On the flip side, a benefit of multiple sites is that there is some risk aversion in the case of a fire.

The proper location for a hay barn will depend on your operation and should match your objectives. Once the proper location has been selected for your operation, the next step is to decide what site makes the most sense for building the hay barn, how to build the infrastructure around the barn, and how to orient the barn for proper ventilation.

Keep water away

Since the enemy of hay is moisture, one of the biggest priorities when building a hay barn is choosing a location where water movement can be controlled. Choosing a location in a swampy area or at the bottom of a large hill will require more costly drainage infrastructure and will still be at higher risk for flooding and hay loss on the bottom hay layers. Adding gutters or rocked ditches close to barn sidewalls should be included in planning costs.

Allowing water to pool beside a barn can damage the structure as well as infiltrate into the barn and damage the hay. In addition to the outside drainage, build the barn floor at least 6 to 8 inches higher than ground level

to further encourage drainage of any water that enters the barn.

Accessibility is also a priority in the planning stages. If possible, it is ideal to locate hay barns along an established drive. This reduces infrastructure costs. If you are starting with no infrastructure, budget enough to develop gravel access for tractors and other equipment to enter the barn. These gravel areas should be a few feet wider than any doors or opening on the walls of the barn and 20 to 25 feet long. Access drives are critical because the goal is to reduce mud from entering the barn. Particularly for barns with gravel bases, mud can quickly reduce the drainage capacity of the flooring and reduce the stability of the floor as well. It would be ideal to also budget for driveways and parking or turning areas. Putting down filter fabric and gravel on drives not only improves access, but it also reduces mud tracking into barns on tires and gravel loss.

Ventilation is a problem in barns that are completely enclosed. In such cases, eave openings and a capped ridge vent are recommended.

Consider air movement

A barn needs proper ventilation to expel the moisture from hay respiration. Since hay barns are typically dependent on natural ventilation to get air exchange, proper orientation can be critical. Typically, a barn should be oriented so that the sidewall, or length of the barn, is perpendicular to the predominant wind direction. For barns with enclosed sidewalls, like pole barns, eave openings and a capped ridge vent are critical design elements to allow for passive ventilation. Air enters through the eaves and exits through the ridge vent with excess moisture from the hay. Orienting the barn so the end wall doesn't receive the majority of weather events can also protect hay bales closest to the end wall from wind-driven precipitation.

If the barn is built as a shed style, face the open sidewall away from prevailing winds, but the side receiving the prevailing wind will still need eave openings to allow air to enter. Set up hoop barns similar to a pole barn; however, with open end walls these barns can be more forgiving to having the prevailing wind directed at the end wall.

Ultimately, a hay barn's location is very situation specific and needs to match a farm's operational strategies and geography. Choosing either centralized or satellite storage is a good first step in planning for permanent hay storage. Once that has been determined, the next step is selecting a specific location based on topography and accessibility. Finally, orient the barn to improve ventilation. Following these barn siting guidelines will reduce future problems and result in a faster return on your hay barn investment.

“Personal growth doesn’t just happen on its own. Personal growth requires intentionality; it requires a plan and it takes work.”

By: John C Maxwell

Ohio Cow-Calf Outlook Webinar



TUESDAY January, 26, 6:30 – 8:00 P.M.

FREE REGISTRATION at go.osu.edu/2021beefschool

**Presenter: Dr. Kenny Burdine, Livestock Marketing Specialist
University of Kentucky Extension**

Must Pre-Register online to receive Zoom webinar link.



Join the OSU Extension Beef Team as we kick off 2021 with our Ohio Cow-Calf Outlook meeting. This program will take a look at the cattle markets and how management decisions influence marketing outcomes, including calf value in the marketplace.

Contact information: Garth Ruff, ruff.72@osu.edu

beef.osu.edu



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2021 Ohio Cattle Feeding School



WEDNESDAY FEBRUARY 24, 6:00 – 8:00 P.M.

FREE REGISTRATION at go.osu.edu/2021beefschool

With the recent volatility in the fed cattle markets, risk management for livestock producers is of increasing importance, as is providing an environment where cattle efficiency and performance can be maximized. Join us as we address these topics at our virtual Cattle Feeding School in 2021.

Presentations: Risk Management Livestock Risk Protection and Livestock Gross Margin Insurance – Justin White, Hudson Insurance

Feedlot Ventilation Requirements – Jason Hartschuh, OSU Extension Crawford County

Must Pre-Register online to receive Zoom webinar link.

Contact information: Garth Ruff, ruff.72@osu.edu

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Agronomy Team Programs

January 4 – January 15, 2021

Join OSU Extension for a variety of online programs this winter. There is no cost to attend, but registration is required. Programs for Jan. 4 – Jan. 15 include:

Jan. 5, 10:00-11:00am - *Gambling with Planting Decisions*, Aaron Wilson (Ohio State University Extension) and Bob Nielson (Purdue University). 1.0 CM CCA CEUs.

Register: go.osu.edu/PrecisionU

Jan. 12, 10:00-11:00am - *Improving Fertilizer Efficiency with the Planter Pass*, Matt Bennett (Precision Planting Technology) and John Fulton (Ohio State University). 1.0 PAg CCA CEUs.

Register: go.osu.edu/PrecisionU

Jan. 14, 8:00-8:30am - *Does It Pay to Improve Soil Health on Your Farm?* Nathan Brown, Matt Falb, and Les Seiler. 0.5 NM CCA CEUs.

Register: go.osu.edu/soilhealth2021

Jan. 14, 9:00-10:30am – *Specialty Small Grains*, Winter Malting Barley (Greg McGlinch), White Wheat (Dennis Pennington), Wet Wrapped Oats (Al Gahler), Triticale (Jason Hartschuh). 1.5 CM CCA CEUs.

Register: go.osu.edu/cropdiversity

For more information visit:
agcrops.osu.edu



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CFAES

ARC/PLC for the 2021 Program Year

January 13, 1:00-3:00pm
February 25, 9:00-11:00am

Location: Zoom Webinar **Cost:** Free
Register: go.osu.edu/arcplc2021

Join OSU Extension for a webinar on the ARC/PLC decision for the 2021 program year including updates on current market outlook and decision-tool calculators available to evaluate options. There is no cost to attend these meetings, but registration is required.

Register: go.osu.edu/arcplc2021

For more information contact: Mary Griffith, Griffith.483@osu.edu or 740-852-0975

Photo Credit: Elizabeth Hawkins



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PRECISION UNIVERSITY

Tech | Data | Insights | Action

TACKLING SPRING OPERATIONS WITH REDUCED WORKING DAYS

WHEN

Tuesday, January 5, 12, 19 and 26
10-11 AM

WHERE

Virtual Zoom Webinars

HOW

Registration Cost: **FREE**
RSVP at go.osu.edu/precisionu

CONTACT

Amanda Douridas
douridas.9@osu.edu
937-484-1526

Changing weather patterns have led to fewer days available in the spring to complete planting, spraying, and fertilizing. University and industry experts will share research results and technology available to help you work smarter and more efficiently.

January 5th – Gambling with Planting Decisions
Drs. Aaron Wilson and Bob Nielsen

January 12th – Planter Placed Fertilizer
Matt Bennett and Dr. John Fulton

January 19th – Pre-season Crop Protection Decisions
Drs. Mark Loux and Scott Shearer

January 26th – Sprayer Technology to Improve Field Performance
Dr. Joe Luck



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The Dirt on Soil Health: Investing Below the Surface

Join OSU Extension online this winter for a Thursday morning series about soil health. Starting on January 14, we will dig below the surface to investigate new developments in soil health and soil management. All sessions are 8:00-8:30 a.m. and feature a variety of speakers from Ohio and beyond. The series is free, but participants must register at go.osu.edu/soilhealth2021.

- 1/14 **Does It Pay to Improve Soil Health on Your Farm?** 0.5 NM CCA CEUs
Farmer Panel: Nathan Brown, Matt Falb, Les Seiler
- 1/21 **What Can Soil Health Tests Tell You?** 0.5 NM CCA CEUs
Steve Culman, Ohio State School of Environment and Natural Resources
- 1/28 **Can Improving Soil Health Improve Yield?** 0.5 CM CCA CEUs
Jordon Wade, University of Illinois at Urbana-Champaign
- 2/4 **Cover Crop Management for Soil Health** 0.5 SW CCA CEUs
Hans Kok, Indiana Conservation Cropping Systems
- 2/11 No session – Corn College
- 2/18 **Compaction Solutions** 0.5 SW CCA CEUs
Scott Shearer, Ohio State Food, Agricultural and Biological Engineering
- 2/25 **Using Ohio Data and Research to Improve Soil Health** 0.5 NM CCA CEUs
Steve Culman and Elizabeth Hawkins, Ohio State Extension
- 3/4 **What's the Return on Investing in Soil Health?** 0.5 SW CCA CEUs
Rick Clark, Green America
- 3/11 No session – CTC
- 3/18 **Programs and Funding to Support Soil Health** 0.5 NM CCA CEUs
Panel presentation – speakers TBA

CCA CEU credit available for all sessions.

More 2021 events at agmr.osu.edu/programming



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