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COSHOCTON COUNTY AGRICULTURE & NATURAL RESOURCES

February 1, 2024 (Edition #4)

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Did you know….? The incredible edible egg…

Greetings Coshocton County:

It's time to start thinking about taxes and buying inputs for the new crop year. What do I need to do more of? And what should I do less of this year?

SAVE THE DATES!

National Ag Day Luncheon March 19 @ Lake Park Pavilion. Call for details.

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FARM OFFICE BLOG

The Ag Law Harvest

Tuesday, January 30th, 2024

Written by Jeffrey K. Lewis, Esq., Program Coordinator, OSU Income Tax Schools & ANR Extension

Happy 2024! We hope your new calendar year has gotten off to a delightful start. As we close out the first of twelve months, we bring you another edition of the Ag Law Harvest. In this blog post, we delve into the intricate world of employment contracts and noncompete agreements, classifying workers as independent contractors or employees, Ag-Gag laws, and agricultural policy.

Ohio Man Violates Employer's Noncompete Agreement.
Kevin Ciptak ("Ciptak"), an Ohio landscaping employee, is facing legal trouble for allegedly breaching his employment contract with Yagour Group LLC, operating as Perfection Landscapes ("Perfection"). The contract included a noncompete agreement, which Ciptak is accused of violating by running his own landscaping business on the side while working for Perfection. Perfection eventually discovered the extent of Ciptak's side business, leading to Perfection filing a lawsuit.

During the trial, Ciptak testified that Perfection was "too busy" to take on the jobs he completed. Additionally, Ciptak stated that the profits from his side jobs amounted to over

$60,000. Perfection countered that they would have been able to perform the work and, because of the obvious breach of the noncompete agreement, Perfection lost out on the potential profits. The trial court ruled in favor of Perfection, ordering Ciptak to pay the $60,000 in profits along with attorney's fees and expenses, exceeding $80,000. Ciptak appealed, arguing that, according to Ohio law, Perfection could only recover its own lost profits, not Ciptak's gains from the breach. He also claimed that Perfection was not harmed as they were "too busy," and Perfection failed to provide evidence of lost profits.

The Eighth District Court of Appeals ultimately found in favor of Perfection. The court reasoned that "[t]his case came down to a credibility determination." The court held there was no dispute that Ciptak had violated the noncompete agreement. What was in dispute was whether Perfection could have and would have performed the work. The Eighth District held that the trial court's finding that Perfection could have performed the work was not unreasonable. The Eighth District noted that although Ciptak claimed that Perfection was "too busy" to do any of those jobs, Ciptak "provided no other evidence to support this assertion." The Eighth District ruled that the evidence presented at trial showed that Perfection would have realized approximately the same amount of profit on those jobs as Ciptak did and, therefore, Perfection was damaged as a result of Ciptak's breach of the noncompete agreement.

New Independent Contractor Rule Announced by Department of Labor.
The U.S. Department of Labor ("DOL") has published a final rule to help employers better understand when a worker qualifies as an employee and when they may be considered an independent contractor. The new rule gets rid of and replaces the 2021 rule. As announced by the DOL, the new rule "restores the multifactor analysis used by courts for decades, ensuring that all relevant factors are analyzed to determine whether a worker is an employee or an independent contractor." Thus, the new rule returns to a "totality of the circumstances" approach and analyzes the following six factors: (1) any opportunity for profit or loss a worker might have; (2) the financial stake and nature of any resources a worker has invested in the work; (3) the degree of permanence of the work relationship; (4) the degree of control an employer has over the person's work; (5) whether the work the person does is essential to the employer's business; and (6) the worker's skill and initiative. The new rule goes into effect on March 11, 2024.

Federal Appeals Court Reverses Injunctions on Iowa "Ag-Gag Laws."
On January 8, 2024, the U.S. Court of Appeals for the Eighth Circuit issued two opinions reversing injunctions against two Iowa "ag-gag laws". At trial, the two laws were found to have violated the First Amendment of the United States Constitution. In its first opinion, the Eighth Circuit Court of Appeals analyzed Iowa's "Agricultural Production Facility Trespass" law which makes it illegal to use deceptive practices to obtain access or employment in an "agricultural production facility, with the intent to cause physical or economic harm or other injury to the agricultural production facility's operations . . ." The Eighth Circuit found that the intent element contained within the Iowa law prevents it from violating the First Amendment. The court reasoned that the Iowa law "is not a viewpoint-based restriction on speech, but rather a permissible restriction on intentionally false speech undertaken to accomplish a legally cognizable harm."

In its second opinion, the Eighth Circuit reviewed an Iowa law that penalized anyone who "while trespassing, 'knowingly places or uses a camera or electronic surveillance device that transmits or records images or data while the device is on the trespassed property[.]'" The court found that the Iowa law did not violate the First Amendment because "the [law's] restrictions on the use of a camera only apply to situations when there has first been an unlawful trespass, the [law] does not burden substantially more speech than is necessary to further the State's legitimate interests." The court noted that Iowa has a strong interest in protecting property rights by "penalizing that subset of trespassers who – by using a camera while trespassing – cause further injury to privacy and property rights."

Both cases have been remanded to the trial courts for further proceedings consistent with the forgoing opinions.

USDA Announces New Remote Beef Grading Program.
Earlier this month, the U.S. Department of Agriculture ("USDA") announced a new pilot program to "allow more cattle producers and meat processors to access better markets through the [USDA's] official beef quality grading and certification." The "Remote Grading Pilot for Beef" looks to expand on the USDA's approach to increase competition in agricultural markets for small- and mid-size farmers and ranchers. The pilot program hopes to cut expenses that otherwise deter small, independent meat processors from having a highly trained USDA grader visit their facility.

Under the pilot program, trained plant employees capture specific images of the live animal and the beef carcass. These images are then sent to a USDA grader that will inspect the images and accompanying plant records and product data, who then assigns the USDA Quality Grade and applicable carcass certification programs. The "Remote Grading Pilot for Beef" is only available to domestic beef slaughter facilities operating under federal inspection and producing product that meets USDA grading program eligibility criteria. More information can be found at https://www.ams.usda.gov/services/remote-beef-grading.

USDA Accepting Applications for Value-Added Producer Grants Program.
On January 17, 2024, the U.S. Department of Agriculture ("USDA") announced that it is "accepting applications for grants to help agricultural producers maximize the value of their products and venture into new and better markets." These grants are available through the Value-Added Producer Grants Program. Independent producers, agricultural producer groups, farmer or rancher cooperatives, and majority-controlled producer-based business ventures are all eligible for the grants. The USDA may award up to $75,000 for planning activities or up to $250,000 for working capital expenses related to producing and marketing a value-added agricultural product. For more information, visit the USDA's website or contact your local USDA Rural Development office.

Crop Response to Phosphorus Fertilizer in Ohio

BREADCRUMB MENU

// C.O.R.N. NEWSLETTER // 2024-03 // **CROP RESPONSE TO PHOSPHORUS FERTILIZER IN OHIO**

Phosphorus (P) is an essential plant nutrient and P fertilizers are added to supplement the soil's available P. There are economic and environmental benefits to making informed decisions about P fertilizer use. The under-application of P fertilizer can result in reduced yields, while over-application adds to input costs, with economic losses resulting from both scenarios. From an environmental perspective, excessive P going into streams and lakes can result in toxic algal blooms.

A few frequent questions about P fertilizer use are: Does P fertilizer always result in a positive yield response? How much yield increase is expected with applied P? What is the likelihood of yield penalty if P fertilizer is not applied?

A recently published factsheet, **'Soil Phosphorus and Crop Response to Phosphorus Fertilizer in Ohio'** (https://ohioline.osu.edu/factsheet/anr-0146), provides a general overview of soil P and highlights the findings of Culman et al. (2023) to answer these practical questions (Rakkar and LaBarge, 2024). The study summarized 457 replicated field P trials conducted over the last 45 years across 40 counties in Ohio. The robust dataset evaluated corn, soybean, and wheat response to added P fertilizer in trials conducted on farms and at research stations.

Below are some key takeaways:

Does P fertilizer always result in a positive yield response?

No. Out of the 457 field P trials, a significant increase in crop yield was observed in 107 trials with P application. The crop response to added P also varied among crop types. Corn responded to P application in 29.9% of trials, soybean in 14.2%, and wheat in 36.8% (Fig. 1).

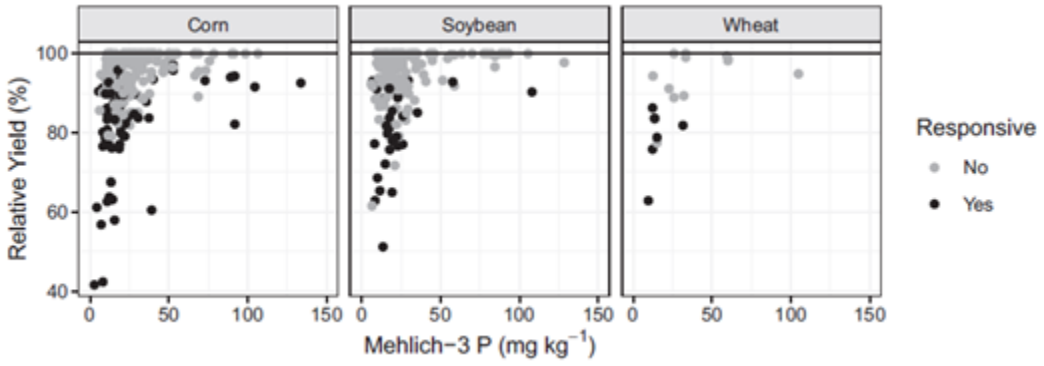

Fig. 1. Relation of relative yield and soil Mehlich-3 P for corn, soybean, and wheat across 457 field trials (Culman et al., 2023).

How much yield increase is expected with applied P?

It depends on the Mehlich-3 soil test P level. The Mehlich-3 soil P measures the readily available soil P for crop uptake. Culman et al. (2023) classified Mehlich-3 soil P levels into five categories: <10, 10–20, 20–30, 30–40, and >40 ppm to evaluate the yield increase for each soil P category.

The crop yields were presented as Relative Yield, which refers to the yield with no P application divided by the maximum yield obtained across all P treatments. In other words, 100% relative yield means no yield increment with added P. The lower the relative yield, the higher the yield increment. Generally, as the soil test P levels decreased, the yield increment increased with P input (Table 1). When the soil test P was less than 10 ppm, the median relative yield was 87%. As the soil test P level increased above the critical level of 20 ppm, the median relative yield ranged from 97% to 99%, signifying minimal yield increment with added P.

Table 1. Summary of crop response to P fertilizer by soil P classification. (adapted from Culman et al., 2023)

Mehlich-3 soil P classification (ppm)	Number of trials	Fertilizer responsive trials (%)	Median Relative Yield (%)
>40	71	14	99
30-40	53	13	98
20-30	121	12	97
10-20	164	34	93
<10	30	67	87

What is the likelihood of yield penalty if P fertilizer is not applied?

We can also determine the likelihood of yield penalty based on Mehlich-3 soil P with the information in Table 1. When the soil P level was less than 10 ppm, 67% of trials showed increased crop yields with applied P. When the P levels were above the critical level of 20 ppm, only 12-14% of trials showed increased crop yields. In other words, the likelihood of yield penalty with no P application decreases as soil P levels go above 20 ppm. If the soil test P level is less than 20 ppm, there is an increased risk of yield penalty with no P application.

For more soil fertility resources, information, and tools, use the link go.osu.edu/fertilityresources.

Reference:

Culman, S., Fulford, A., LaBarge, G., Watters, H., Lindsey, L. E., Dorrance, A., & Deiss, L. (2023). Probability of crop response to phosphorus and potassium fertilizer: Lessons from 45 years of Ohio trials. *Soil Science Society of America Journal*, 87, 1207-1220. https://doi.org/10.1002/saj2.20564

Rakkar, M. & LaBarge, G. 2024. Soil Phosphorus and Crop Response to Phosphorus Fertilizer in Ohio. Ohioline. (https://ohioline.osu.edu/factsheet/anr-0146)

Crop Observation and Recommendation Network

C.O.R.N. Newsletter is a summary of crop observations, related information, and appropriate recommendations for Ohio crop producers and industry. C.O.R.N. Newsletter is produced by the Ohio State University Extension Agronomy Team, state specialists at The Ohio State University and the Ohio Agricultural Research and Development Center (OARDC). C.O.R.N. Newsletter questions are directed to Extension and OARDC state specialists and associates at Ohio State.

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FARM OFFICE BLOG

Is Your Farm Business Ready for Your Death?

Friday, January 26th, 2024

Written by David L. Marrison, Professor & Field Specialist in Farm Management, OSU Extension

“I guess it comes down to a simple choice, really. Get busy living or get busy dying.” This famous line was quoted by Andy Dufresne, played by Tim Robbins, in the iconic movie titled “The Shawshank Redemption” released in 1994.

As we each traverse through our lives, we all are presented with moments that make us pause and reflect on how precious the time is we have been given here on earth. Every time I watch The Shawshank Redemption, I pause and think of the deeper message in this line: that life can be spent going through the motions and waiting around for something to happen or you can make something happen.

As we look at developing a plan for transitioning the farm to the next generation, are we waiting around for something to happen? Or will we work to make something happen? As farmers, we have to contend with and solve the day-to-day problems which arise on the farm.

And there is never a shortage of problems that arise. Because of this, the time for deeper planning functions such as farm transition planning is often pushed down the to-do list. So, what will be the trigger to make something happen with regards to your succession plan?

What will be your trigger?

One of the hypothetical questions we pose in farm succession workshops is, "What knowledge would you need to pass on if you knew you had only two months to live?" This exact scenario happened to our family in 2010 when my father was diagnosed with pancreatic cancer just as we entered into Spring planting season on our dairy farm in northeast Ohio.

My father valiantly battled this disease but passed away seven weeks later. Our family learned a lot and had to scramble to manage the farm in the midst of his illness. I am grateful for the short time we had with my dad to make preparations. But it was not long enough to learn everything we needed to know to run the farm without him.

I challenge you to think how your farm and family would react to the loss of the principal operator. What knowledge and skills need to be transferred to the next generation so they can be successful without you? What can you do today to make something happen?

Who Will Manage the Farm in the Future?

As you develop your succession or transition plan, there are a myriad of decisions to be made. These decisions include identifying the next leader/manager of the farm, how to be fair to off-farm heirs without jeopardizing the future of the on-farm heirs, how to distribute assets through the estate plan, how and when the senior generation will retire, and how the business will deal with unexpected issues such as divorce, disability or paying for nursing home expenses. I would contend that the most crucial planning functions are to identify the next manager of the farm and then strategically plan how to develop them to lead the farm in the future.

The first step is to identify who the next leader or leaders of the farm will be. The next generation could be an immediate family member (son, daughter, grandchild) or extended family member (brother, sister, niece, nephew). With that said, the next leader does not have to be from your family as some farms have transitioned successfully to a non-blood friend or neighbor. The key is to choose a successor who will be the best caretaker of the farm and the land they will be entrusted with.

As you review potential managers and heirs to your farm, it is important to talk with them about their vision for the future and how it aligns with the current farming operation. What are their goals and aspirations for the farm? What concerns do they have about the future of the farm?

Complete a skills assessment with each potential heir/manager to examine their current strengths and which areas they will need to receive training in order for them to be a better leader for the farm in the future. Talk with them to learn more about what they would be

most concerned or scared about if they had to take over the farm today. Are there additional responsibilities they would like to assume and what is their expectation for an appropriate time for management control to be transferred?

The new manager should have experience with how other farms are operated. Having the future manager work on another farm prior to returning to the home farm is a valuable experience. Mentor relationships should also be developed for the new manager to have a trusted team to help them grow.

Putting the Transition into Motion

The transition can be accomplished gradually by turning over more responsibility and authority to the successor. In fact, this process may (and should) take 5-10 years. It is important to develop a timeline for transferring ownership, management responsibilities, and knowledge from one generation to the next.

As the senior generation transitions their role and responsibilities to the next generation, thought should be given to the overall labor hours which will be available. In some cases, the responsibilities of two members of the senior generation will be transitioned to a single successor. Think of husband/wife combination transitioning to one of their children. This could cause a labor shortage. Could some tasks be outsourced to independent contractors (like accountants)? Can some production practices be accomplished through custom hire arrangements (silage harvest or cattle breeding)?

The biggest task in the transition plan is making sure the next generation has a firm foundation of knowledge to manage the operation in the future. This will look different for each farm and for the type of manager that is needed.

Owner-Operator. If the next manager is going to be an owner-operator, then training will need to include how to manage all aspects of the farm. These include production skills to raise livestock and/or crop enterprises and marketing skills to effectively market each commodity produced. The owner-operator will also need financial skills to manage the operation's finances and taxes and human resource skills to manage employees. Additionally, they will need to know how to maintain facilities, tools, and equipment as well as how to manage risk through crop, livestock, and farm insurance.

Owner-Landlord. To the contrary, if the next manager will be more of an owner-landlord, they will need to be trained less on the day-to-day production activities and more on how to manage the farm asset. Some skills which are necessary for landlords would include tenant and farm rental management, farm finance and tax management, farm insurance decision making, and facilities and other farm assets maintenance.

Some of the strategies recommended for farm businesses to utilize in the transition process are:

- Every person who is part of the business (family member and employees) should have a written job description which includes job duties, responsibilities, and expectations.

- Create an organization chart of all employees and how each employee relates to one another.
- Develop a timeline for the successor to work through each job description on the farm. It is good to start the new family member as an employee and not the top manager.
- Provide meaningful opportunities for decision-making as well as accepting responsibility for the future manager.
- Develop a plan on how the future manager can increase their equity in the farm business (through gifting, purchasing or inheritance).
- Develop timeline for retirement and managerial transfer from senior generation to the succeeding generation.
- Utilize family business meetings to discuss the transfer and changing roles within the business.

Some experts advise that the current manager take a number of planned absences before retiring to provide an opportunity for the successor to see what it is like to manage the business alone. This will also allow the current manager to see that the farm does not fall apart without them. So how do you know if the next generation is ready? There are two other approaches which you can use to help prepare the next generation to lead without you.

Opossum Approach. Just as an opossum plays dead, so too should the principal operator. Take an unannounced week away from the farm during one of the busiest times of the year for your farm and allow the junior generation to take over with no communication from the senior generation. I know this sounds crazy but how else will you know what knowledge and skills need to be transferred? It is a lot easier to come back after a short vacation and be able to answer the questions your son or daughter has. You won't have this opportunity when you pass away.

365-Day Challenge. Outside of using the opossum approach, it should be the goal of the senior generation to transfer at least one knowledge point or skill to the next generation each day. So, by the end of the year, your heirs will have 365 new tools in their management toolbox. If you do this over the next five to ten years, you can teach your heirs an incredible amount.

Take Advantage of OSU Extension Workshops

Attend one of our "**Planning for the Future of Your Farm**" workshops this winter to learn about the communication and legal strategies that provide solutions for dealing with farm transition needs and decision making. A webinar version and several in-person options for the workshop are being offered.

Webinar version. You and your family members can attend the workshop individually and online from the comfort of your homes. The four-part webinar series will be February 5, 12, 19, and 26, 2024, from 6:30 to 8:30 p.m. via Zoom. Pre-registration is required so that a packet of program materials can be mailed in advance to participating families. Electronic copies of the course materials will also be available to all participants. The registration fee is $75 per farm family. Register by February 2, 2024 to receive course materials in time. **Register on this page.**

In-person workshops. Our local Extension Educators are hosting in-person workshops at five regional locations across Ohio. Registration costs vary by location due to local sponsorships.

- February 2, 2024 - Tiffin, Ohio - Register through this link.
- April 4, 2024 - Lebanon, Ohio - Register through this link.

More information about our Planning for the Future of Your Farm workshops is available at: go.osu.edu/farmsuccession

Final Thoughts

So, are you ready "to make something happen" to transition your farm to the next generation? Farm managers are encouraged to think about how the next generation can be prepared to lead the farm in the future. And as Andy Dufresne stated in The Shawshank Redemption, "remember, hope is a good thing, maybe the best of things, and no good thing ever dies." Good luck as you plan for the future of your farm!

Bedding Options for Livestock and Equine

January 23 2024

Stephen Herbert, Masoud Hashemi, Carrie Chickering-Sears, and Sarah Weis, University of Massachusetts, Amherst

(Previously published online with the Center for Agriculture, Food, and Environment: UMass Extension Crops, Dairy, Livestock and Equine Program: CDLE Pub. 08-5)

Introduction

In general, bedding for an animal must be comfortable, clean, and absorbent. There are several materials, both organic and inert, that may be used for bedding, and most may be used for all types of livestock. When organic materials are used, ammonia volatilization is reduced, improving the air in the housing facility. Bedding, as with other aspects of livestock management, can be manageable through proper care and attention. In the case of milking, pregnant, nursing, or very young livestock, specific attention to bedding is required. These four categories of animals are the most susceptible to disease. With milking animals, because the udders are in such close

contact with the bedding, environmental pathogens, mainly ones that cause mastitis are of major concern. Comfort is another crucial aspect of bedding because discomfort of an animal leads to sores and other ailments. The breed and age of animal, housing, flooring, and population density will dictate the type and amount of bedding needed. For example the foaling season is especially important with equine.

Considerations in choosing bedding

Labor- How time consuming is the overall management (obtaining the material, dispersing it into areas of use, cleaning, and disposal). Availability- How feasible is it to obtain material? Are there other uses for the bedding material and will that play a factor into the economics of that specific material? Evaluate source of material to ensure cleanliness.

Expense- Buy bedding at the most economical time, in a particular season, at harvest time or,inthecaseofsawdust,duringthemillsbusiestperiod. Purchasingayear'ssupplyof bedding may be economical given a proper storage facility is available.

Manure management system- Does the material chosen fit into your current manure system? If not, can alteration be made to either the system or material chosen? Wood products can create a problem for waste management especially in the case of composting because of their high carbon to nitrogen (C: N) ration.

Type of Use- Consider the situation under which the bedding will be utilized. Is the bedding going to be used for normal day-to-day bedding, bedding for milking or pregnant animals, or for mothers with new born animals?

Five Bedding Characteristics

Know bedding limitations in order to efficiently and effectively manage it.

Comfort- Materials should contribute to the overall comfort of the animal by providing a dry, cushioned place which encourages resting. A well rested animal will increase its overall productivity.

Moisture Content- Organic matter has better moisture absorption capacity than inorganic material. Moisture directly increases the level of microbial activity in the bedding, leading to harmful levels of environmental pathogens. Moist materials also adhere to animals making the cleaning of the animal more difficult, especially in the case of animals with coarse hair. Turning bedding improves ventilation and can reduce moisture.

Cleanliness- Materials should always remain free of any chemicals, sharp objects, molds, dust, and excess moisture. Clean soiled bedding areas at first sign of trouble.

Inert- Ideally, bedding should not sustain bacterial growth, but organic matter such as straw, wood shavings, and paper byproducts do. Materials should not be palatable to animals. Increased changing of bedding is needed if organic materials are incorporated.

Particle Size- Is a much-overlooked aspect of bedding, but probably the most effective if used properly. Organic matter of smaller particle size will encourage bacterial growth, thus shortening the effectiveness of the bedding materials. Comfort becomes a factor when using inorganic substances such as sand. Large sand particles can cause discomfort and sometimes create wounds, though finer sand can be used successfully. Very fine particles such as sawdust will stick to the skin and teat ends exposing them to higher concentrations of bacteria.

Types of Bedding

Straw- This soft, dry by-product of small grains is commonly used. It is easy to handle, carbonaceous for a compost pile, and readily available in most areas. Ensure that the straw is not palatable. Mainly check to see that seed is not available for consumption. It has good absorbency.

Hay- Is cut and dried legumes and/or grasses. Most commonly used for feed, poorer quality may be used for bedding purposes. Ensure that the quality is not palatable so animal(s) will not consume it. Never use old hay, as it may give off dust that could result in respiratory damage. Hay is one of the more expensive beddings. It is quite absorbent and once soiled, begins to decompose quickly producing an odor.

Wood Shavings- Have proven to be satisfactory bedding providing comfort and ample absorbency. Shavings must be purchased, so setting up an account with a reputable lumber yard may prove to be

economical. When dealing with any outfit it is extremely important to specify its use and make sure it is clean. Be cautious as to the type of wood; some woods, like cherry, can be toxic.

Wood chips- This product is a mixture of bark, sawdust, and post peelings. Wood chips may require less repeated additions, and may be cheaper. However, they provide fairly poor comfort and absorbency. Availability may be an issue. Wood chips create a highly damp environment generating mold and mildew, which promote microbial growth. If showing animals, using wood chips is not advised because when moist, color is emitted and may stain the coat of the animals.

Sawdust- Employment is dependent on availability. As new technologies arise, wood byproducts like sawdust are being utilized for other products such as pellets for stoves. It is recommended that the sawdust be kiln- dried to ensure cleanliness and absorbability. Cleaning is fairly easy with this highly absorbent material because soiled spots tend to clump making the disposal easier. When working with sawdust, more attention must be given to the health aspect. Particularly in the case of dairying livestock, the small particles of sawdust tend stick with great ease to udders, encouraging the growth of mastitis causing bacteria.

Sand- This inert material harbors less microbial growth than most organic materials. Sand probably would get a golden star for comfort. Due to its nature, an animal's body is able to conform directly to the material, allowing for an excellent place to rest. Be cautious of the particle size as large particles may cause bruising and abrasions on animals. Although sand is comfortable, it does not absorb well, causing problems of excrement build up on the floor. The disposal of soiled sand has proven to be a great task.

Newspaper- Is abundantly available in some areas, is cost competitive with traditional bedding materials, suitable for all livestock, highly absorbent, long lasting, sterile, dust and weed-free, rapidly decomposes in soil, and is easily incorporated into a manure management system. On an environmental level, utilizing newspaper allows for reduction of landfill space and farm land that would have been used to grow a crop for bedding. Obtaining newspaper may be done by purchasing it ready-made or from a source, such as a recycling center, where the farmer would then need to process it themselves. According to several University of Wisconsin studies, chopped newspaper contains the same, if not slightly less, populations of environmental pathogens, compared to other organic materials. It is recommended that the back third of the stall be cleaned thoroughly every 24 hours, if not more frequently, depending on overall stall conditions. There is no real risk of toxic contamination from the newspaper to animal. The use of heavy contaminants, such as lead, has been significantly reduced since 1985. There have been no known cases of milk or meat contamination from newspaper, although additional research could be required to address this issue. With that said, inquire from the source in which the newspaper is obtained about the type of ink used.

Other- Because bedding is usually a byproduct of a particular industry, check with local industries to see if their byproduct is a safe alternative to the current bedding used. You may want to consult both a veterinarian and livestock professional prior to implementation. Examples of alternative sources include but are not limited to: corn stubble, cardboard, peanut hulls, and tobacco stems.

Manage Bedding

Storage

In order to gain the most out of bedding, store it in a dry place, preferably above ground level. This will also help to ensure that your bedding is free of mold, dust, and excess moisture.

Applying and Grooming

Change bedding frequently to decrease bacteria levels. The most heavily contaminated areas are located at the front of the stalls, where the teats most often come in contact. These areas should receive the most attention when cleaning and changing bedding. Although frequent changing of bedding may seem costly, in the long run it will greatly help to decrease bacterial growth.

Alley Cleaning

Concerning lowering bacterial counts, proper care of alley ways is very important. Alley way bacterial counts are attributed to contaminated bedding and therefore care should be given to changing bedding.

Keep bedding away from potential messy areas, such as feeding and watering. Keep a manure pile outside of the housing facility, as such piles harbor parasites and flies.

Concentration of Animals

The greater the number of animals you have in a given space, the greater the traffic in and out of stalls, and the more quickly bedding is contaminated with manure, moisture, and bacteria.

Bacteria Levels

Ventilation, barn design, frequent bedding changing/cleaning, proper stall management, as well as weather, influence bacteria levels and the prevalence of environmental mastitis and other illnesses. Bedding materials, especially those that are organic materials, are hosts for environmental pathogens. Because they are in close proximity to udders, bedding materials are considered a substantial source of teat-end exposure to such pathogens. Any bedding material, even sand, if it's not properly managed, can support the growth of harmful microorganisms. Liming may help to increase the pH, killing off acid loving bacteria. Applying dolomitic or pulverized, not agricultural lime which can be harmful to the animals, after a stall has been completely cleaned, will help control bacteria.

Equipment

The processing of bedding materials can be done on the farm using equipment which the farmer already uses, for example, forage harvesters, bale choppers, and tub grinders. Alterations may be needed based on the material and volume needed. Some other common machines, like a wood chipper, can be less expensive and generate more volume in a short period of time, proving more appropriate for smaller farm operations.

<u>Specific Requirements for Livestock</u>

Goats and Sheep

Sheep and goats do not respond well to treatment, if they become ill, they usually have a very difficult time recovering and often expire. (Gillespie p 541) Therefore, keep your goats and sheep as clean as possible. Specific bedding is dependent on the flooring type. Concrete floors must have ample bedding to supply a comfortable, non-slip resting place. Other floorings, such as wood, require use of highly absorbent materials like wood shaving to prevent urine soaking into the wood. Most types of bedding are appropriate for both sheep and goats. In the concern of coat cleanliness, particularly for sheep, small particle bedding, such as sawdust, is not recommended.

Pigs

These meat producing animals do not require much bedding. Their housing is simple, either indoors or outdoors. With indoor facilities, slatted floors are often used to allow manure to fall through into a catchment, where the manure is then handled as a liquid. This type of system allows for minimal introduction of parasites via manure. Some bedding is used in indoor pens, especially with farrowing pigs. No bedding is required in confinement housing if slotted floors are used.

Pigs emit a lot of moisture, to help expel this, allow for good ventilation and frequent changing of bedding. If kept during the winter, allow for ample comfortable and warming bedding, for pigs do not tolerate cold temperatures well.

Beef Cows

Comfort is a crucial aspect when providing bedding for cows. Because these animals are so large, a soft cushioned material is needed to provide easing of the impact of dropping to the ground. Cow discomfort can lead to ailments such as sore feet, rubbed necks, and swollen hocks. Straw has traditionally been the most commonly used form of bedding for cows. But, with an every growing market of materials, newspaper and sand seem to be the most popular. Two main factors will affect bedding choice. First, the facility in which the cows are housed will influence the type and longevity of bedding and second, the current manure handling system.

Poultry
Materials such as ground corn cobs, chopped straw, wood shavings, sawdust, or other previously mentioned bedding types may be used. A deep litter system is commonly exercised; four to eight inches. Stir and add litter as needed to prevent compaction and increase ventilation, although your poultry may already take care of this if you feed scratch on top of the litter pile to allow aeration.
Nesting- nesting materials should be observed on a daily basis. Never allow bedding to become caked over or saturated.
TIP: To avoid unnecessary build up of manure, place either a platform or boxed-in pit underneath the roosting area. Remove as needed.
Horses
Horses may not always lie down to sleep, but that does not mean that bedding requirements are treated differently. With horses, many of the previously mentioned materials may be used, although some are more applicable than others. Sawdust, for example, tends to clog in the hooves, causing irritation or removal of moisture. The most commonly used bedding is wood shavings. Pay attention to the area underneath the feet of horses. These large animals need a cushioned surface to alleviate the stress on their joints. If solid floors are used in areas where horses stand the most, then ample bedding or a rubber mat should be provided to supply the horses with a soft and durable surface. The amount of bedding needed is contingent upon the weight of the horse, type of material, and time of year, and floor surface. The average 12 X 12 stall will require two to four bales of clean fresh bedding per week.
Mucking Out- Begin by scraping the top of the bedding for soiled areas. Place all soiled bedding in a designated pile. Continue to sieve through the bedding because heavier wet bedding will fall to the bottom. It is recommended that after the initial soiled bedding is removed; the top unsoiled layer of bedding is pushed to one side, allowing all bedding underneath to be exposed. Scoop up all remaining bedding that is wet, usually all, and place in a muck pile. Continue this process until the whole area is clean. At this point, the entire bottom layer of bedding should be removed and lime may be applied, just as you would for livestock. Cover with original top layer of bedding and apply new bedding as needed.
CAUTION: If using bedding derived from wood, make sure it does not contain either oak, which causes hooves to heat up or walnut, which contains toxins that cause allergic reactions in horses.
A Few Tips

- If using an organic material, especially those derived from wood, kiln dried is preferred over green.
- Never exchange bedding between pens of a newly introduced group of animals and animals already on the farm. -Facilities that are used for gestating animals should be fully cleaned and new bedding replaced often.
- If using a heat source, be very careful not to allow heat to get too close to bedding, since some bedding such as straw, can be highly flammable.

Editors Note: Please visit the original text here for additional resources.

DATE:
February 8, 2024

TIME:
7:00 p.m.

LOCATION:
Christ Methodist Church
River of Life Center
648 Oak St.
Newcomerstown 43832

THE OHIO STATE UNIVERSITY
EXTENSION

OSU EXTENSION – TUSCARAWAS COUNTY

Managing Asian Longhorned Ticks & Theileria in Beef Cattle

Theileria is a disease that affects beef cattle and can be fatal. It is transmitted in various ways, but the primary vector is Asian Longhorned ticks (ALHT). To date, ALHT has been confirmed in 11 Ohio counties, and Theileria in 9 Ohio counties.

The following experts will discuss this disease and pest:
Kevin Lahmers, DVM, Virginia Tech
Tim McDermott, DVM, OSU Extension

Please RSVP to 330-339-2337 no later than Feb. 5, 2024

For more information, visit Tuscarawas.osu.edu

EVENT SPONSORS: OSU EXTENSION, TUSCARAWAS COUNTY CATTLE ASSOCIATION, and TUSCARAWAS COUNTY FARM BUREAU

Did you know?? The incredible, edible egg…

Ohio ranks Number 2 in the nation in egg production. Ohio produced 11.7 Billion (with a B) chicken eggs in 2022. We boast an annual average inventory of over 37.5 million layers. That's alot of omelets!