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COSHOCTON COUNTY AGRICULTURE & NATURAL RESOURCES









January 13, 2021 Issue (Edition #77)

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Keep Your Bales Dry to Conserve Value Preparing Your Cows for A Successful Breeding Season

2021 Small Ruminant Webinar Series

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Hello Coshocton County! As I wished in last week's newsletter, the ultimate in craziness happened with the Browns winning a playoff game over the Steelers! Unfortunately, our Buckeyes fell to an incredible Alabama team.

The coronavirus pandemic continues to create challenges for offering 'live' and in-person programming. Because of this much of OSU Extension's traditional winter programming remains 'virtual' into the foreseeable future. I do recognize that holding programs virtually is tough for many here in Coshocton County due to the lack of connectivity. But rest assured some programs, especially pesticide & fertilizer re-certification will be offered in-person later this winter.

In the meantime, OSU Extension has planned a ton of virtual programs for our farmers to attend from the comfort of the home. Two great ones are slated for today (Farm Bill and Farm Office Live), hope to see you on these webinars.

Lots of other great articles in this week's newsletter including a warning for an upcoming cold spell. You might want to have a heavier jacket handy. Stay safe and be well!

Sincerely,

David L. Marrison

Coshocton County OSU Extension ANR Educator



CFAES provides research and related educational programs to clientele on a nondiscriminatory basis. For more information visit: go.osu.edu/cfaesdiversitv.

Consolidated Appropriations Act of 2021- Highlights of Tax Issues Impacting Farm Businesses

By: Barry Ward, Leader, Production Business Management/Director, OSU Income Tax Schools Source: https://u.osu.edu/ohioagmanager/2021/01/12/consolidated-appropriations-act-2021-highlights-of-tax-issues-impacting-farm-businesses/

Congress passed the Consolidated Appropriations Act (CAA), 2021 on Monday, December 21, 2020 which was signed by the President on December 27th. The CAA funds the government through September 30, 2021, implements COVID-19 relief provisions, and extends a number of expiring tax provisions. The \$2.3 trillion bill provides \$900 billion in COVID-19 relief. This article highlights key provisions for farm related issues from several Acts within the CAA's 5,593 pages.

"Economic Impact Payments"

The Act provides for "additional 2020 recovery rebates for individuals." The additional recovery rebate credit is \$600 for "eligible individuals" or \$1,200 for "eligible individuals" filing a joint return. "Eligible individuals" are entitled to a \$600 credit for each "qualifying child". (Generally includes dependent children under the age of 17.) Phaseouts apply for higher income taxpayers.

Paycheck Protection Program Loans - Covered Expenses Now Deductible

Previously, the IRS and Treasury indicated that the expenses covered by PPP loans that were forgiven (or would be forgiven) would not be deductible. This new legislation now allows for these expenses to be deducted. This provision overrides IRS Notice 2020-32 and Rev. Rul. 2020-27. The CARES Act indicated that the loan proceeds from PPP loans are not to be included as taxable income. This tax treatment would apply to original PPP loans, as well as any subsequent loans made possible by the Act.

Paycheck Protection Program - Other New Guidelines

Qualified self-employed farmers who did not have employees and had less than \$100,000 of net income in 2019 were not originally eligible for the maximum forgivable PPP loan. The new legislation now allows for the PPP loan forgiveness based on gross income rather than net income. Farmers are now able to receive a PPP loan of up to \$20,833 (reduced by any loan already received) based on gross receipts of at least \$100,000. The legislation amends the Paycheck Protection Program (PPP) to extend the covered period from December 31, 2020, through March 31, 2021. An allocation of \$284 billion is included to provide first and second PPP loans to small businesses. Details of the expanded program will not be known until SBA releases required guidance.

The PPP allows borrowers to spend proceeds on payroll costs and non-payroll costs of business mortgage interest, business rent payments, and business utility payments. This new legislation expands the allowable use of PPP loan proceeds.

The legislation allows borrowers to choose a covered period anywhere between an eight-week and 24-week covered period for purposes of loan forgiveness. The covered period must begin on the date the proceeds are disbursed.

The legislation provides a simplified forgiveness procedure for PPP loans up to \$150,000. The new procedure provides that such loans "shall be forgiven" if the borrower signs a certification that shall not be more than one page in length and shall require minimal supporting information.

The legislation repeals the provision in the CARES Act requiring the SBA to reduce a borrower's PPP forgiveness by the amount of an EIDL advance.

PPP Second Draw Loans

The new legislation establishes a PPP Second Draw Loan program that generally applies to businesses with 300 or fewer employees if the business had gross receipts during any quarter in 2020 that were reduced by at least 25 percent from the gross receipts of the business during the same quarter in 2019.

To be eligible for a second draw loan, the borrower must have received a PPP loan in 2020 and used all of the proceeds of that loan for permitted purposes.

The Act allows borrowers who have not yet received forgiveness to request an increase in their loan amount if they returned all or part of a PPP loan or did not take the full amount of a PPP loan to which they were entitled. This provision allows borrowers who received loans before more favorable regulations were enacted to take advantage of those new provisions.

Employee Retention Credit (ERC)

The legislation extends and expands the employee retention credit, allowing employers to remain eligible up until July 1, 2021. Previously, employers who received a PPP loan were ineligible to claim the ERC. The new legislation retroactively allows employers who receive PPP loans to claim the ERC and to treat payroll costs paid during the loan-covered period as qualified wages to the extent the wages are not paid for with forgiven PPP loan proceeds.

For the period from January 1, 2021 and prior to July 1, 2021 the ERC percentage increases from 50 percent of qualified wages to 70 percent. Employers can count qualified wages up to \$10,000 per employee per quarter (instead of for all quarters) in calculating the credit. Employers qualify for the credit if their gross receipts for a calendar quarter are less than 80 percent of the gross receipts of the corresponding calendar quarter in calendar year 2019.

Economic Injury Disaster Assistance (EIDL) Loans and Advances

The Act allows Economic Injury Disaster Assistance (EIDL) Advances provided as emergency grants under the CARES Act to be excluded from gross income while the corresponding expenses would remain deductible. Additionally, loan forgiveness granted to an EIDL loan recipient under discretionary powers provided by the CARES Act does not result in gross income or a denial of deductions for allocable expenses.

New Net Operating Loss (NOL) Options

The new legislation provides farmers new net operating loss options not otherwise available in the wake of the CARES Act. Farmers have the option to temporarily carry back Net Operating Losses 2 or 5 years with some caveats.

Extension of Credits for Paid Sick and Family Leave

The Act extends the tax credits made available to employers by the Families First Coronavirus Response Act through March 31, 2021 (They were set to expire on December 31, 2020). This includes the sick and family leave credits for self-employed individuals. The new legislation does not provide additional credits for employees but allows for a larger window to utilize them if the employer chooses.

Emergency EIDL Grants

The Act appropriates an additional \$20 billion for emergency EIDL grants. The Act extends the covered period for this program through December 31, 2021, and extends the period to approve the applications from three days to 21 days.

Temporary Allowance of 100% Deduction for Business Meals

The new legislation allows for a 100 percent deduction for business meals where food or beverages is provided by a restaurant, for the 2021 and 2022 tax years.

Charitable Contributions Deduction by Non-Itemizers

For tax years beginning in 2021, the Act extends and increases the above-the-line deduction for cash contributions by non-itemizers to \$300 for individuals and \$600 for married filers.

Extension of Deferred Employee Portion of Payroll Taxes

The Act delays the repayment requirement for the employee portion of the payroll taxes that were deferred in response to the President's August 8 Memorandum on Deferring Payroll Tax Obligations in Light of the

Ongoing COVID-19 Disaster. Instead of requiring full repayment of these deferred taxes by April 30, 2021, the new legislation delays this deadline to December 31, 2021.

References:

- o Tidgren, Kristine A. "What COVID Relief Provisions are in the Spending Bill?" Ag Docket Perspective on Agricultural Law & Taxation, Center for Agricultural Law and Taxation, December 23, 2020
- Neiffer, Paul "Deeper Dive into PPP" Agribusiness Blog Farm CPA Today, CliftonLarsenAllen Wealth Advisors, December 22, 2020
- H.R. 133 Consolidated Appropriations Act, 2021 https://www.congress.gov/116/bills/hr133/BILLS-116hr133enr.pdf December 27, 2020
- Ernst & Young LLP, Consolidated Appropriations Act, 2021 extends many credits and other COVID-19 relief, Tax News Update, December 23, 2020

Planning for the Future of Your Farm Workshop

By David Marrison, Peggy Hall & Jeffrey Lewis

Source: https://u.osu.edu/ohioagmanager/2021/01/11/osu-extension-to-host-planning-for-the-future-your-farm-workshop/

OSU Extension will host a virtual three part "Planning for the Future of Your Farm" workshop on February 15, 22 and March 1, 2021 from 6:30 to 8:30 p.m. via Zoom. This workshop will challenge farm families to actively plan for the future of the farm business. This workshop is designed to help farm families learn strategies and tools to successfully create a succession and estate plan that helps you transfer your farm's ownership, management, and assets to the next generation. Learn how to have the crucial conversations about the future of your farm.

Topics discussed during this series include: Developing Goals for Estate and Succession; Planning for the Transition of Control; Planning for the Unexpected; Communication and Conflict Management during Farm Transfer; Legal Tools & Strategies; Developing Your Team; Getting Affairs in Order; and Selecting an Attorney



This workshop will be taught by members of the OSU Farm Office Team featuring Peggy Hall & Jeffrey Lewis, Attorneys

from OSU Agricultural & Resource Law Program and David Marrison, Extension Educator for Coshocton County.

Because of its virtual nature, you can invite your parents, children, and/or grandchildren (regardless of where they live in Ohio or across the United States) to join you as you develop a plan for the future of your family farm.

Pre-registration is required as one packet of program materials will be mailed to participating families. Electronic copies of the course materials will also be available to all participants. The registration fee is \$40 per farm family. The registration deadline is February 10, 2021. More information and on-line registration can be obtained at qo.osu.edu/farmsuccession For more information about this webinar contact David Marrison at the Coshocton County Extension office at 740-622-2265 or by email at marrison.2@osu.edu.

East Ohio Women in Agriculture 2021 Program Series

This year the East Ohio Women in Agriculture Conference has been deconstructed into 10 free webinars and 3 in-person field days beginning January 14 through May 27. Learn about a wide variety of financial, production, and home-related topics to help you as a woman in agriculture. Women involved in agriculture in any location are encouraged to attend one or all programs in the series!

Webinar Registration is available at go.osu.edu/eowiaseries2021 (Webinars will be recorded for later viewing.)

Field Day Registration is available at go.osu.edu/eowiafielddays2021

The complete webinar flyer can be found at the end of this newsletter.

Farm Office Live Webinar on Jan 13 & 15

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

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

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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.

The OSU Extension

FARM OFFICE LIVE

IS BACK

The January session will includ<mark>e updates on</mark> the

Consolidated Appropriations Act/COVID relief bill, PPP, CFAP-3 1099-NEC, 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

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
- Farm succession & estate planning updates
- 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

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://agnr.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



Beef Cattle Webinars

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/ Join us for one or all of a series of a Monday evenings as we address the following:

Making Hay for Beef Cattle 1/18/2020: Getting Started Reviewing Forage Fertility – Hartsuch New Seeding Species Selection – Gelley

1/25/2020: Addressing Hay Shortfalls Annual Forage Options – Gahler Baleage Do's and Don'ts – Hartschuh

2/01/2020: Hay! Now What? Forage Analysis – Wiseman Forage Storage 101 – Ruff

Cow-Calf Management 2/08/2020: Breeding Season

Considerations

Managing the Breeding Season – Alvaro Guerra-Garcia EPD Update: Breeding for Cow Longevity – John Grimes

2/15/2020Managing Reproduction Semen Handling – Dean Kreager Preg Checking – Allen Gahler

2/22/2002: Improving Profits

Making Cow Culling Decisions – Dean Kreager

Maximizing Feeder Calf Value - Garth Ruff

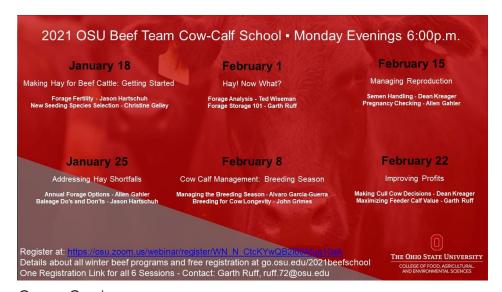
Polar Vortex Could Be on the Way

By: Alayna DeMartini & Aaron Wilson Source:

If you were thinking this winter has been fairly mild so far, it has been, but gear up. Frigid temperatures could be gripping Ohio, the Midwest, and the Northeast around the last week of January. The polar vortex, a wide area of swirling cold air near the North Pole, has weakened and split in two, which happens from time to time when air in the stratosphere above it warms. With the split, forecasts indicate one of the portions of the vortex may drift south toward Canada and the northern United States.

These weakened polar vortex conditions often drop temperatures well below normal (think single digits and sub-zero) and may lead to more snow, said Aaron Wilson, climate specialist with The Ohio State University College of Food, Agricultural, and Environmental Sciences (CFAES).

"We're watching this evolve," Wilson said. "It's eye-catching from a meteorologist's standpoint. It can obviously cause some storms and lead to very cold conditions." And it's possible snow could come with those cold temperatures if the conditions are right, he said. That's because this winter's weather is also being influenced by La Niña, meaning the temperature of the Pacific Ocean off the coast of Central and South America is colder



than average. Those conditions can influence weather around the world.

For Ohio, a La Niña year typically means a wetter and warmer-than-average winter and spring. Whether that additional precipitation will mean more snow or more rain, is uncertain, Wilson said. "We've experienced La Niña years where we got a lot of snow and some in which we didn't." But the trend has been for a bit more snowfall than average during La Niña conditions.

"We're not talking about a lot more snow—more like 1 to 3 inches above average for the season," he said. Central Ohio typically gets 25–30 inches of snow, on average, a year, with southern Ohio getting less and northern Ohio much more, with about 60–70 inches of snow near Lake Erie.

The typically coldest seven-day period of winter in Ohio has yet to come: Jan. 18–25.

Colostrum & Passive Immunity are Critical to the Health of a New Born Calf

By: Francis Fluharty

Source: https://u.osu.edu/beef/2021/01/06/colostrum-and-passive-immunity-critical-to-the-health-of-a-new-born-calf-2/

We know that calves aren't born with immunoglobulins, which are critical for their health. Immunoglobulins are

supplied by the cow via colostrum, or first milk, and timing is critical as the new born calf has less than a 24 hour window to ingest these molecules through the lining of their gut before that window closes. The amount of colostrum intake is also critical for the passive immunity and long term health and productivity of a new born calf.

During his presentation at the 2020 Ohio Beef Cow/Calf Workshop and excerpted in the 2 minute video below, Dr. Francis Fluharty further explains why a calf <u>must</u> receive adequate colostrum within the first 24 hours of life. The video can be accessed at: https://youtu.be/qCD9Q1FL-aA



Keep Your Bales Dry to Conserve Value

By Sara Bauder, Tracey Erickson, Kevin J. Shinners, Matthew Digman

Bauder and Erickson are extension field specialists with South Dakota State University. Shinners is a professor of agricultural engineering with the University of Wisconsin-Madison. Digman is an assistant professor and agricultural engineer with the University of Wisconsin-Madison.

Previously Published in Hay & Forage Grower: March 30, 2020

Source: https://hayandforage.com/article-2937-Keep-your-bales-dry-to-conserve-value.html

The next time you drop a round bale into the ring feeder, think about the investment that you've made in that bale. You'll probably consider the costs of land, stand establishment, fertilizer, machinery, and handling. However, we often overlook "shrinkage" and quality losses that occur during outdoor storage.

These losses occur for a simple reason — water has entered the bale and wasn't able to leave through evaporation, resulting in spoilage. The deeper water penetrates the bale, and the longer that water stays in the bale, the greater the expected losses. Fortunately, round bales have characteristics that limit storage losses.

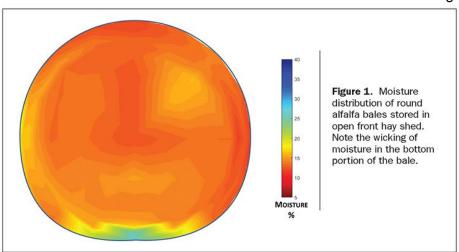


The round shape of a dense, well-made bale with a good outer thatch will help shed precipitation and limit spoilage inside the bale. Grasses with broad, flat leaves form a very good thatch, which help these bales shed water better than alfalfa bales. Modern balers are all capable of making great bales that can conserve value if good outdoor storage practices are followed.

Understanding the impact that bale storage practices have on water infiltration into bales was the subject of a 2019 study conducted in southeastern South Dakota. Specifically, the work considered alfalfa bales that were stored indoors or directly on the ground. The bales experienced 20 inches of precipitation from February 1 to July 31, but there was just a 0.06 inch of rain the week before bales were sampled. At removal, an electronic moisture probe was used to estimate the moisture at 50 locations throughout the bale. Data was collected at a depth of about 8 inches from both vertical faces of the bale. This data was used to generate spatial maps of moisture within the bale, and these have been included in this summary.

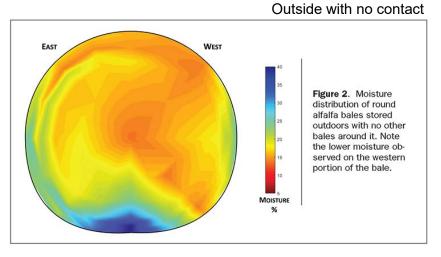
Indoor storage

The areas shaded light blue to dark blue indicate regions of higher moisture, where spoilage will be likely. Light-green regions represent moisture levels where spoilage may occur if the moisture cannot soon leave the bale by evaporation. Yellow or red represent areas where spoilage is not likely to occur. These images represent a "snapshot" of moisture at one point in time. Bale moisture will change with time as storage and weather conditions change, either allowing moisture to leave the bale by evaporation or subjecting the bale to additional precipitation.



Although bales stored indoors can also be subject to losses if the environment isn't managed, these bales generally conserve their value very well. Figure 1 represents moisture distribution within a bale stored in an open front hay shed. Although the bottom of these bales wicked moisture from the dirt floor, the vast majority (98%) of the sampling area in the bale was less than 20% moisture.

Indoor storage isn't the only place that the bale environment can be managed. In Figure 2, spoilage might be relatively limited when bales were stored outside with no other bales directly in contact with each other. This might be similar to rowed bales with a large gap between the bales in the row and between the rows. Since air movement was not restricted by any neighboring bales, these bales could dry out after precipitation. Consequently, only about 15% of the sampled area was above 22% moisture.



Butted end-to-end

It is common for producers to row bales with the bales butted tightly together. No matter how tightly these bales are pushed together, it is still possible for water to drain between the vertical faces of the bales. Additionally, this practice limits air movement and sunlight on these surfaces. Consequently, it is more difficult

for these bales to dry after rainfall.

In Figure 3, we see that about 66% of the sampling area of these bales was above 22% moisture. This result might show the value of leaving a space between bales, although in regions with high snowfall, this practice can lead to snowpack between bales. Note that the moisture is less on the west side of the bale because the higher afternoon temperature promotes drying of that side.

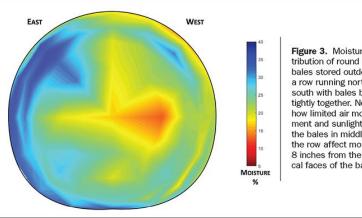


Figure 3. Moisture distribution of round alfalfa bales stored outdoors in a row running north to south with bales butted tightly together. Note how limited air movement and sunlight on the bales in middle of the row affect moisture 8 inches from the vertical faces of the bale.

Butted side-to-side

When rowing bales, the common recommendation is to leave a space of 3 to 4 feet between rows to allow the bottom quarter of the bales to dry. If this space is not left between the rows, water runs down into the "gutter" formed by the touching bales.

Figure 4 shows that moisture can be very high where the bales touch. Note how the top left-hand quarters of both bales are relatively dry because the afternoon sun dries these areas. The sun cannot dry the bottom guarter of these bales, so more than 20% of the sampled area of the right-hand bale was greater than 30% moisture, raising concerns about spoilage in this area.

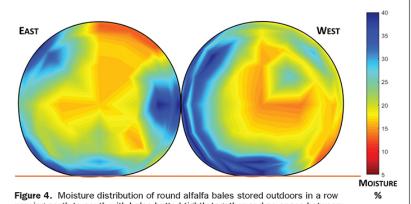
Mushroom stack

Producers often like to stack bales because it reduces storage space. Unless these bales are also covered, this practice may lead to

bottom bale placed on end and then a bale stacked on top in its normal orientation. The top bale was open to the atmosphere on all sides, so it was very dry throughout — about

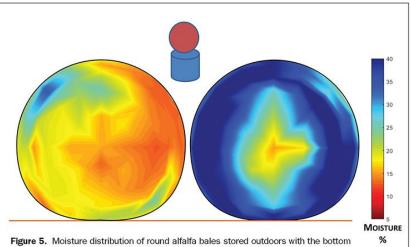
90% was less than 22% moisture.

Unfortunately, the water shed from the top bale drained down to the bottom bale. Rain and snow can also collect on the exposed flat top surface. Since this bale was placed on end, water could easily flow down between its layers, and in this case, over 45% of this bale was greater than 35% moisture. As a result, there was extensive spoilage and mold observed in these bottom bales when measurements were taken. Outdoor storage of bales placed on end negates all the storage advantages of making a round bale.



running north to south with bales butted tightly together and no space between the rows. Note how water ran into the "gutter" formed by the touching bales, resulting in very high moisture where the bales touched.

poorly conserved hay. Figure 5 shows a common practice of stacking bales in a "mushroom" manner — the



bale (right) stacked on end and the top bale (left) stacked on top in its normal orientation. Note that water shed from the top bale drained down to the bottom bale where water easily flowed between its layers.

Pyramid stack

Another common space-saving practice is to build a "pyramid" of bales. Figure 6 shows that although this storage method is very space efficient, water shed from the upper bales flows down to the bales below. Since the lower bales will have limited air movement and exposure to the sun, water drained from bales above cannot readily be evaporated.

Over 35% of the sampled area was above 30% moisture on the two bales on the east side of the pyramid. In any storage scheme where bales are stacked, the lower bales will lose integrity as they spoil.

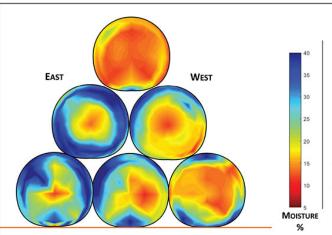


Figure 6. Moisture distribution of round alfalfa bales stored outdoors in a pyramid fashion. Note that water shed from the upper bales flows down to the bales below and limited air movement and exposure to the sun makes it difficult for this water to be removed by evaporation.

These softer bales will then squat so that the bottom bales have more contact with the soil and the bales above, which often leads to even greater spoilage.

A lot of time and treasure is invested in every round bale you make. Make an effort to conserve this feed resource by following recommendations in the accompanying text box.

Best Round Bale Storage Practices:

- Use net wrap. It helps to promote a good leaf thatch and sheds water better than twine-wrapped bales.
- Place bales in rows that run north-to-south so that the sun can dry both sides of the bales.
- Place bales on a gentle south-facing slope on a well-drained soil.
- Place bales where they are not shaded by buildings or trees.
- Leave at least 3 feet between rows to allow the lower quarter of the bale to dry after precipitation.
- Placing bales on a rock pad helps water drain away from the bottom of the bale and reduces water wicking into the bale.
- Cover bales if they are stacked in any manner to reduce storage space.

This article appeared in the March 2020 issue of Hay & Forage Grower on pages 6 to 8.

Preparing Your Cows for a Successful Breeding Season

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

Source: https://u.osu.edu/beef/2021/01/13/preparing-your-cows-for-a-successful-breeding-season-2/

A successful breeding season begins with management decisions made prior to calving. As we move into the winter-feeding period for spring-calving cows, cattlemen need to review their management plan to ensure optimal rebreeding and success. Rebreeding efficiency can be optimized by focusing on body condition score (BCS), early assistance during calving difficulty, scheduling a breeding soundness exam for the herd sires, planning their herd reproductive health program, and developing a plan to regulate estrus in their first-calf heifers and late-calving cows.

Reproductive management begins with evaluation and management of BCS. Body condition score is a numerical estimation of the amount of fat on the cow's body. Body condition score ranges from 1-9; 1 is emaciated while 9 is extremely obese. A change in a single BCS (i.e. 4-5) is usually associated with about a 75- pound change in body weight. Evaluation of BCS prior to calving and from calving to breeding is important to ensure reproductive success.

Rebreeding performance of cows is greatly influenced by BCS at calving. Cows that are thin (BCS < 5) at calving take longer to resume estrous cycles and therefore are delayed in their ability to rebreed. Research has clearly demonstrated that as precalving BCS decreases, the number of days from one calving to the next 10

(calving interval) increases in beef cows. Females with a precalving BCS of less than 5 tend to have production cycles greater than 1 year. For example, cows with a precalving BCS of 3 would be expected to have a calving

interval of approximately 400 days, while a cow with a precalving BCS of 6 would have a calving interval of approximately 360 days. South Dakota research illustrates the influence of precalving BCS on the percentage of cows that initiated estrous cycles after calving. This experiment demonstrated that the percentage of thin cows that were cycling in the first month of the breeding season (June) was considerably lower than for cows that were in more moderate body condition. During the second month of the breeding season, 55% of the cows with a BCS of 4 had still not initiated estrous cycles, while more than 90% of the cows in more moderate condition had begun to cycle. Thin cows need a longer breeding season, which results in more open cows in the



fall. They may also result in lighter calves to sell the next year because the calves from these thin cows will be born later in the calving season.

Management of BCS after calving also impacts rebreeding efficiency. Maintenance requirements for energy and protein increase 25-30% for most beef cows after calving. Producers need to plan their supplementation to match or exceed this increased nutrient requirement. Rebreeding efficiency is enhanced in cows that calved thin if their energy intake is increased (Rutter and Randle, 1984). Although the best management plan is to calve cows in a BCS of 5+, increasing the energy to cows that are thin at calving can boost reproductive performance.

Dystocia (calving problems) can severely delay the onset of estrus after calving. Research shows that for every hour a female is in stage 2 active labor there is a four-day delay in the resumption of estrous cycles after calving. Early intervention helps; 16% more cows conceived when cows were assisted within 90 minutes of the start of calving. The best method is to reduce the incidence of dystocia via selection, but early calving assistance will increase the opportunity of cows to rebreed.

One overlooked management tool that can improve reproductive performance is breeding soundness exams in bulls. Think of breeding soundness exams as breeding season insurance. These exams are a low-cost method of insuring that your bull is capable of breeding. Examine bulls for breeding soundness about 30 days before they are turned out.

I have worked in reproductive management for over 25 years and it amazes me how many cattlemen still do not vaccinate their cow herd against reproductive diseases. Several diseases are associated with reproductive loss (lepto, BVD, vibrio, trich, etc). The main problem is that most reproductive loss due to disease is subtle and producers don't notice the loss unless they have a massive failure. Most cattlemen are not aware of their losses due to abortion until the cow(s) simply fails to calve. Work with your local veterinarian to develop an annual vaccination plan to enhance reproductive success.

Lastly, develop a plan to enhance the rebreeding potential of their first-calf heifers and late-calving cows. Young cows and late-calving cows have one characteristic in common that will greatly impact their reproductive success; anestrus. After each calving, cows undergo a period of time when they do not come into estrus. This anestrus period can be as short as 17 days but can also last as long as 150 days depending upon a number of factors. Typically, mature cows in good BCS will be anestrus for 45-90 days (avg about 60 days) while first-calf heifers will be in anestrus for 75-120 days. Research has shown that only 64% of mature cows have initiated estrous cycles about 70 day after calving while on 50% of first calf heifers have initiated estrous cycles at nearly 90 day after calving. Let's consider the impact of anestrus and calving date for a herd that calves from March 1 until May 10. Bull turnout is May 20 and the length of anestrus for mature cows is 60 days and for young cows is 90 days. A mature cow that calves on March 1 will begin to cycle on May 1 and is highly likely to conceive early. However, the mature cow that calves on April 20 won't cycle until June 20 and her

opportunity to conceive early is very limited. A first-calf heifer that calves on April 20 won't begin to cycle until July 20 and will have limited opportunities to conceive. Cattlemen can reduce the anestrous period by fenceline exposure to a mature bull or by treating the cows with progesterone for 7 days prior to bull exposure. Sources of progesterone include the feed additive melengestrol acetate (MGA) or an EAZI-Breed CIDR® insert (Zoetis Animal Health). Both sources induce estrus in anestrous cows and exposure of anestrous cows to progesterone for 7 days before bull exposure will not reduce fertility. Pregnancy rates increase in these females because inducing estrus will increase the number of opportunities these cows have to conceive in the breeding season.

Managing for reproductive success begins at calving. Cows need to calve with a minimum BCS of 5 and with little assistance. Implement an effective vaccination program and create a plan to minimize the length of the anestrous period in cows that are likely to be problem breeders. Planning now will help increase the probability of a successful breeding season.

2021 Small Ruminant Webinar Series

Ohio State Extension invites you to the 2021 Small Ruminant Webinar Series. The information provided will be applicable to both sheep and goat producers large and small. Register online for no cost at: https://go.osu.edu/smallruminantwebinars2021

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.

We 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. We 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.

"Instead of hating, I have chosen to forgive and spend all of my positive energy on changing the world."

By: Camryn Manheim



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



The Ohio State University

– We Sustain Life

East Ohio Women in Agriculture

2021
Program
Series



Who should attend:

Women and young women (high school age) who are interested, involved, or want to become involved in food, agriculture, natural resources, or small business.

These webinars are a great place to learn, share and network. Be surrounded by other women who are facing the same day-to-day ups, downs, adventures and dilemmas as you.

- ◆ 10 free webinars 2nd and 4th Thursdays January-May 12:00 to 1:00 PM
- ◆ 3 free in-person field days 1st Tuesdays March-May 5:30 to 8:30 PM (Dinner available for \$15)

Webinar Registration go.osu.edu/ eowiaseries2021

Field Day Registration go.osu.edu/eowiafielddays2021

Webinars and Field Days

Date & Time	Title & Description	Event Type
Thursday, January 14, 2021 12:00-1:00PM	Farm Income Tax Update - Barry Ward, OSU Extension This update will arm farm taxpayers with tax information on current critical issues including insight into new COVID related legislation.	Webinar
Thursday, January 28, 2021 12:00-1:00PM	Cooking with Cast Iron – Christine Kendle, OSU Extension Are you not sure what pan to use? How to season it? How you should care for your cast iron cookware? This class is for you!	Webinar
Thursday, February 11, 2021 12:00-1:00PM	QPR (Question, Persuade, Refer) Suicide Prevention – Panel QPR includes how to "ask a question to save a life," recognizing warning signs, and referring for help.	Webinar
Thursday, February 25, 2021 12:00-1:00PM	Insurance - Get Covered! – Kim Davis, Kim Davis Insurance Agency, LLC Just because you pay an insurance premium doesn't mean you're covered for everything! Don't miss this fun, interactive session discussing all types of insurance.	Webinar
Tuesday, March 2, 2021 5:30-8:30PM	Hands-On Tractor Operation Skill-Builder – Dee Jepsen, Ohio State University Examining the utility of the compact tractor – safety, parts, color coding, hand signals and operation will be discussed in this interactive audience driven session. (May be outdoors weather permitting)	Field Day
Thursday, March 11, 2021 12:00-1:00PM	LOL – Lots of Loans! – Panel Hear from our panel to find the right fit for your needs. Including lines of credit, ag real estate, equipment & building loans/leases, home loans, home equity loans, youth loans, etc.	Webinar
Thursday, March 25, 2021 12:00-1:00PM	The Mystery of Fruit Tree Pruning – Paul Snyder, OARDC Secrest Arboretum This session covers the basics of how and when to prune fruit trees, highlighting the most common backyard fruit tree, the apple tree.	Webinar
Tuesday, April 6, 2021 5:30-8:30PM	Soils and Sustainable Agriculture—Erika Lyon and Heather Neikirk, OSU Extension and Clint Finney, NRCS Jefferson/Harrison What is sustainable for you? Dig into improving the health of your soils and the basics of soil testing services and kits. Explore sustainability and stewardship practices and opportunities for utilization in small farm animal and plant-based enterprises.	Field Day
Thursday, April 8, 2021 12:00-1:00PM	Bury Seeds, Not Stress—Sarah Noggle and Bridget Britton, OSU Extension When you live where you work, there are stressors that can go unacknowledged. Agriculture life brings unique challenges to us personally and professionally. Join us as we identify what makes us unique and talk about coping strategies.	Webinar
Thursday, April 22, 2021 12:00-1:00PM	Reaching Your Educational Goals – Dennis DeCamp, OSU Extension Regardless of age, educational opportunities are always available. Explore options for obtaining and funding education to meet your goals while maintaining a balanced life.	Webinar
Tuesday, May 4, 2021 5:30-8:30PM	Raising Livestock on 5 Acres or Less – Sandy Smith, OSU Extension So you have some land and you want some extra income or a supply of food for your family. This session will investigate all of your options and possibilities.	Field Day
Thursday, May 13, 2021 12:00-1:00PM	Veterinarians: Building a Relationship & Knowing When to Call - TBA A working relationship with your veterinarian can teach you when it's appropriate to try something at home vs. having them out on a call to improve your farm's husbandry & production.	Webinar
Thursday, May 27, 2021 12:00-1:00PM	He Said, She Said: – Emily Marrison, OSU Extension Women in agriculture often work with men in agriculture. Explore ways to improve interpersonal communication for more productive work settings and peaceful home environments.	Webinar

Cancellation Policy: In-person sessions may be cancelled due to university, state or local guidelines on group events. The event will not be rescheduled. No registration fees will be refunded.



OSU Extension

February 15, 22 & March 1, 2021 6:30 to 8:30 p.m. via Zoom

OSU Extension will host a virtual three part "Planning for the Future of Your Farm" webinar series on February 15, 22 and March 1, 2021 from 6:30 to 8:30 p.m. This workshop is designed to help farm families learn strategies and tools to successfully create a succession and estate plan that helps you transfer your farm's ownership, management, and assets to the next generation.

Topics discussed during this series include: Developing Goals for Estate and Succession; Planning for the Transition of Control; Planning for the Unexpected; Communication and Conflict Management during Farm Transfer; Legal Tools and Strategies; Developing Your Team; Getting Your Affairs in Order; and Selecting an Attorney.

This workshop will be taught by members of the OSU Farm Office Team featuring Peggy Hall & Jeffrey Lewis, Attorneys from the OSU Agricultural & Resource Law Program and David Marrison, Extension Educator for Coshocton County.

Because of its virtual nature, you can invite your parents, children, and/or grandchildren (regardless of where they live in Ohio or across the United States) to join you as you develop a plan for the future of your family farm.

Pre-registration is required as one packet of program materials will be mailed to participating families. Electronic copies of the course materials will also be available to all participants. **The registration fee is \$40 per farm family.** The registration deadline is February 10, 2021. More information and on-line registration can be obtained at go.osu.edu/farmsuccession

Contact information: David Marrison, 740-622-2265 or marrison.2@osu.edu

farmoffice.osu.edu

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