

The FARMACY

Upcoming Dates:

Dec. 26–Jan. 2, 2023

Extension Office Closed

January 4-6, 2023

**Kentucky Cattleman's
Association Convention**

Agenda on page 19
Lexington, KY

January 9, 2023

Ag Issues Dinner & Discussion

Environmental Education Center

January 9, 2023

Cow-Calf School

x10D Record Keeping

Kenton County Extension Office

January 16, 2023

Martin Luther King, Jr. Day

Extension Closed

January 29, 2023

NKHN Annual Meeting

Boone County Enrichment Center

March 15-16-17, 2023

A.I. School

Artificial Insemination for Cattle
Bluegrass Stockyards—Lexington

**2023 CAIP
Cost Share
Information
Coming Soon!**

Michelle Simon

Michelle Simon
Campbell County Extension Agent
for Agriculture and
Natural Resources



Thank you to Daniel Carpenter, Larue County Ag Agent, for coming to Campbell County to share his knowledge and experience with using solar powered systems! If you'd like to learn more about building your own, check out the "how to" publication AEN-166 available at the Extension Office.

Don't Restrict Energy This Winter

Garth Ruff, Beef Cattle Field Specialist, OSU Extension

Are you having trouble keeping body condition on grazing livestock? Do you have heifers or ewe lambs that struggle getting rebred? If so, there is a good chance that a lack on available energy in your pasture or ration may be the culprit.



effective in provided supplemental energy to grazing livestock. Also, not all tubs are created equal. To a degree you get what you pay for.

Grain – Pound for pound supplementing grain, typically whole shelled corn is a cost effective and efficient way to supplement

I have these types of discussions with producers fairly often, and usually (not always) supplementing additional energy into the diet seems to aid in rectifying the situation.

As managers we must remember that livestock utilize nutrients in waste not, want not hierarchy. Think of an order of operations where Maintenance > Development > Growth > Lactation > Reproduction > Fattening.

Therefore, an animal that is not maintaining body condition is less likely to reproduce. That first calf heifer that is thin at weaning, still has a requirement for growth and development before we ever think about getting her to a point where she will breed back in a timely fashion.

How do we address this lack of energy in a pasture-based system? Supplementation in some form or fashion is the most likely response, but I've many supplement strategies that vary greatly in effectiveness and cost.

Additional forage, AKA Hay – This strategy can work depending on the class of animal and quality of the hay. A high quality, 2nd or 3rd cutting, well-kept round bale of hay can often meet the needs of mature animals of the herd. In the case of the thin, first calf heifer, unless the hay is of exceptional quality it might keep her belly full but is unlikely to get her to a desired body condition.

Don't guess. Forage test! Hay quality varies tremendously from farm to farm. Consider dry matter losses when buying hay. That year old bale that has sat uncovered in a fence row somewhere, no matter the cost is still over priced when you consider dry matter lost.

Tubs – Too often in these instances I've seen tubs relied on as a cure all. Look at the analysis of a tub and the ingredients and then compare the cost. Tubs may have a place in stocker situations providing weaned calves with some protein, but considering the cost and energy provided, they are likely not cost

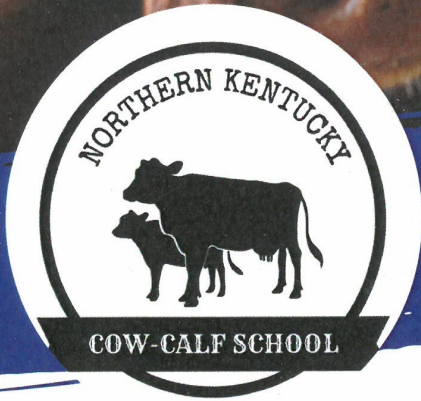
effective in a grazing operation. Once we know the energy requirement of our livestock, we can calculate pounds of corn per head per day. In most instances it doesn't take much corn to supplement the needed balance of energy.

Research conducted here at Ohio State looking at the supplemental energy requirements of third trimester bred heifers in muddy conditions vs those in dry conditions demonstrated that only 2.5 pounds of corn was needed to maintain body conditions. At \$7/bushel corn that is a cost of \$.25 cents per head per day, still very cost effective when compared to longer breeding intervals and open cows.

Bottom line – Supplemental energy is often needed to maintain grazing livestock through a typical Ohio winter. Consider cost and energy density of feedstuffs when making the decision to supplement animals on pasture.



University of Kentucky
College of Agriculture,
Food and Environment
Cooperative Extension Service



REFRESH YOUR MANAGEMENT, GROW THE HERD

All classes start at 6:30 pm with dinner and program immediately follows at 7:00 pm. To register call your local Cooperative Extension Service



The Bull

Mon, Nov 28 | Kenton CES



The Cow

Weds, Nov 30 | Grant CES



Managing Forages

Mon, Dec 5 | Kenton CES



The Calf

Weds, Dec 7 | Grant CES



The Heifer

Weds, Dec 14 | Kenton CES



x10D Record Keeping

Mon, Jan 9 | Kenton CES



CALL YOUR LOCAL EXTENSION TO REGISTER OR FOR MORE INFORMATION

Boone CES
859.586.6101

Campbell CES
859.572.2600

Carroll CES
502.732.7030

Gallatin CES
859.567.5481

Grant CES
859.824.3355

Kenton CES
859.356.3155

Owen CES
502.484.5703

Pendleton CES
859.654.3395

Barn Cat Program



The Campbell County Animal Shelter is starting a brand new Barn Cat Program. This program will decrease euthanasia in the shelter by offering cats that are not suitable for adoption due to litter box issues or other undesirable behaviors another option. Most of the kittens that come in to our facility come from outdoor sources such as barns. We know that farms in our community WANT barn cats on their property. These cats perform a job on their farm. We know that if they don't get one from us they will get one somewhere. More than likely the cat won't be altered and will reproduce which will create more problems for us in the long run. We would like to provide our farm community with spayed/neutered, Feline Leukemia and FIV tested, vaccinated and wormed cats, free of charge. This program will decrease our annual kitten intake which will also reduce euthanasia in the shelter and give adoptable cats more time and space to find a home. Adopters of our barn cats are required to sign a contract agreeing to transition their cats to

their barns using a 2-3 weeks confinement period. We believe that confining the cat(s) to the area where you would like it to stay and caring for it daily will encourage the cat to stay once the confinement period is over. During the confinement period the cat(s) is contained to a large crate/cage in a safe area, protected from the elements and predators. Inside the cage the cat will need to have a litterbox, fresh food and water and a cat carrier to hide in or perch on top of. If you are interested in our barn cat program please contact Lisa Krummen at the Campbell County Animal Shelter at (859) 635-2819 or lkrummen@campbellcountyky.org



Recently, Kentucky passed House Bill 8, changing the state's tax code. Under this new law, some utility accounts that were previously tax-exempt will now be taxed, including Residential accounts that are not the account holder's place of domicile.* If an account does represent your domicile or the domicile of a tenant, you may be able to maintain your tax-exempt status visit the website of your energy provider.

DUKE ENERGY Kentucky House Bill 8

Meeting the Needs of Kentucky

Recently, Kentucky passed... Under this new law, some utility accounts that were previously tax-exempt will now be taxed, including Residential accounts that are not the account holder's place of domicile.* If an account does represent your domicile or the domicile of a tenant, you may be able to maintain your tax-exempt status visit the website of your energy provider.

<https://www.duke-energy.com/customer-landlords>

Landlords or Multi-Unit Owners

Business Customers and Builders

OWEN Electric

My Co-op Member Central Energy Provider

PRIMARY RESIDENCE

In light of recent changes to Kentucky's sales tax laws, only a member's domicile is eligible for the residential energy bill sales tax exemption. Owen Electric is one of 26 electric cooperatives in Kentucky that have worked to ensure that the sales tax exemption remains in place for electric bills. To make sure the sales tax is not mistakenly applied to the electric bill of their primary residence, members need to declare which meter or meters are associated with their primary residence. Available below, Kentucky Department of Revenue form 53A380 allows utility companies to identify multiple tenants at a single-metered property. Failure to provide the names of all meters in their name. For more information, visit Kentucky.gov's FAQ site. Please send your complete form to owenbill@owenelectric.com, or mail to Owen Electric, 1000 Owen Electric Drive, Owensboro, KY 40301.

<https://owenelectric.com/primary-residence-e>

Form 53A380: Landlord of Metered Property



TaxAnswers
from the Kentucky Department of Revenue

Income Taxes ▾ Sales and Excise Taxes ▾ Contact Us

<https://taxanswers.ky.gov/Sales-and-Excise-Taxes/Pages/Residential-Exemption-Changes.aspx>

Residential Utility Exemption Changes

Home / Sales and Excise Taxes / Residential Exemption Changes

Implementation of Change to KRS 139.470(7), effective 01/01/2023

The basis of the residential exemption is the location of the services that the services are used at the location.

51A380 (1-23)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

DECLARATION OF DOMICILE FOR PURCHASE OF RESIDENTIAL UTILITIES

(LANDLORDS OR OTHER ACCOUNTHOLDERS OF MULTI-UNIT DWELLINGS SERVED BY A SINGLE METER (MASTER METER) USE THE MULTI-UNIT DECLARATION OF DOMICILE)

In accordance with the provisions of KRS 139.470(7) this declaration may only be executed for the purchase of sewer services, water, and fuel by Kentucky residents for use in heating, water heating, cooking, lighting, and other residential uses. "Fuel" shall include but not be limited to natural gas, electricity, fuel oil, bottled gas, coal, coke, and wood.

_____ is the accountholder for _____
Name of Accountholder Service Address

_____, am the resident or
Name of Individual Signing the Declaration (cannot be landlord)

Relationship of the undersigned to the resident

I declare that the address listed is my place of domicile* or the place of domicile* of _____
Name of Resident

and the purchase of residential utilities for use at this address meets the qualifications for exemption from Kentucky sales and use tax under KRS 139.470(7).

Accordingly, I represent the accountholder that the information on this declaration is true and correct as to every material and use declarati

Under penalties of perjury, I swear or affirm that the information on this declaration is true and correct as to every material matter.

Signature of resident or representative

Date

* KRS 139.470(7) describes a place of domicile as "the place where an individual has his or her legal, true, fixed and permanent home and principal establishment, and to which, whenever the individual is absent, the individual has the intention of returning."

<https://kyelectric.coop/wp-content/uploads/2022/11/51A380-Form.pdf>

Meeting the requirements of Kentucky's new tax law.

House Bill 8, changing the state's tax code.

utility accounts that were previously tax-exempt. Residential accounts that are not the account holder's place of domicile.*

at your domicile or the domicile of a tenant, you may lose your tax-exempt status by following these steps.

[Linking-pages/kentucky-hb8](#)

RESIDENTIAL EXEMPTION INFORMATION

* "or primary residence, will be exempt from sales tax on utility services, including electric bills. These efforts have helped protect the long-standing sales tax exemption for residential energy bills. Though this sales tax exemption remains in place for electric use at a primary residence, Kentucky will begin imposing a sales tax on other properties as of January 1, 2023. If you have a primary residence, some Owen Electric members need to take action. Members who have multiple meters in their name must declare whether the address listed on their electric bill is their primary residence. A second form, 51A381, must be completed. Failure to provide a completed declaration form may result in the loss of a sales tax exemption for members who have multiple meters in their name.

[Exemption-information](#)

- Apply for Service
- Payment Options
- Payment Assistance
- Member Bill of Rights
- Rates
- FAQs
- Primary Residence Sales Tax Exemption Form

Member Services >

Primary Residence Sales Tax Exemption Form

In the 2022 legislative session, Kentucky lawmakers enacted a change to sales tax laws. Beginning January 1, 2023, only a person's "domicile" (primary residence) will be exempt from sales tax on utility services, including electric bills.

Your co-op is one of 26 electric cooperatives in Kentucky who work together to advocate for electric consumers. These efforts have helped protect the long-standing sales tax exemption for residential energy bills. Though this sales tax exemption remains in place for electric use at a primary residence, Kentucky will begin imposing a sales tax on other properties as of January 1, 2023.

To make sure the sales tax is not mistakenly applied to the electric bill of your primary residence, co-op members need to take action. Members need to declare which meter or meters(s) is/are associated with their primary residence.

Available at your local co-op or at the links below, a Kentucky Department of Revenue form allows utility customers to declare whether the address listed on their electric bill is their primary residence. Failure to provide a completed declaration form may result in the loss of a sales tax exemption for members who have multiple meters in their name.

For more information, consumer-members are encouraged to contact their local co-op, visit kyelectric.coop/taxanswers, or access the form using the button below.

[Primary Residence Exemption Form \(51A380\)](#)

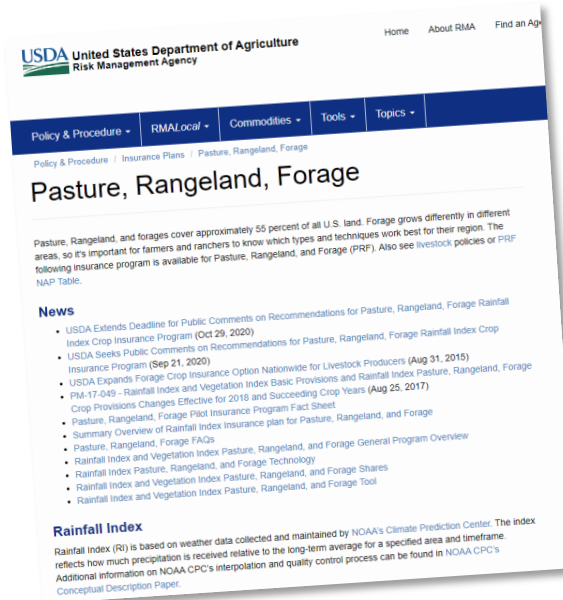
Consider Pasture, Rangeland, and Forage Insurance as a Risk Management Tool

Dr. Kenny Burdine, Extension Professor, Livestock Marketing, University of Kentucky

The most recent drought monitor, released on October 27th, shows the majority of the United States dealing with drought, or abnormally dry, conditions. While I sincerely hope some of those regions received some much needed rain recently, I do think this provides an opportunity to discuss Pasture, Rangeland, and Forage (PRF) Insurance. PRF insurance provides an opportunity for producers to purchase rainfall coverage for perennial forages used for pasture and / or hay production. Producers have until December 1st to enroll for 2023, so I thought I would focus this discussion on three reminders for producers as they consider PRF insurance for the upcoming year.

PRF is a Single-Peril Index Insurance Product

Producers first need to understand that indemnities from PRF are not based on rainfall at their farm, but rather on actual and historical rainfall for a 0.25 degree latitude by 0.25 degree longitude grid, where their farm is located. Daily rainfall for each grid is collected through NOAA weather stations and used by the program. Certainly, there should be a correlation between rainfall amounts for a given grid and the farms within it, but variability will exist. This variability creates a type of "basis" risk that isn't that different than an insurance product like Livestock Risk Protection Insurance, which pays based on changes in the CME® Feeder Cattle Index, rather than local prices. It is also important to understand that PRF insurance does not protect against extremely high rainfall levels, or any other challenge that might impact forage



production. It simply provides coverage for less than normal rainfall levels over 2 month periods during the year.

The Premium Subsidy for PRF is Significant

The premium subsidy levels for PRF depend on the level of coverage that is selected, but exceed 50% in all cases. The USDA Risk Management Agency (USDA-RMA) has intended for this to be relatively affordable so that farmers will be more likely to utilize it. While indemnities may not be received in a given year, the subsidy levels suggest that indemnities should exceed premium levels over a large number of years. Given this, producers may want to consider scaling the coverage upward to increase the base value per acre they are insuring. Base values per acre can be increased by up to 150% by increasing the productivity factor.

Multiple Approaches are Possible for Covered Months

Finally, I think it is important that producers give some thought to the months they want to cover.

Producers must select coverage in a minimum of two, two-month periods and can place no more than 60% of their coverage value in any single two-month interval. A month also may not be double-covered. For example, one cannot cover the June-July interval and the July-August interval, because July is double-covered. However, one could put 60% of the value in a two month interval that included July.

A logical approach would be to cover months in which rainfall and forage productivity are of the most concern. For example, someone may choose to cover June-July and August-September, if they are concerned about the summer months. A producer who is more dependent on fall pasture growth to stockpile forage may choose to stretch coverage into the fall months. Producers should also discuss this with their insurance agent as they are likely to have valuable insights as well. Most importantly, producers should give this some thought and be deliberate about this decision.

While no insurance product is perfect, PRF insurance does provide producers with a relatively inexpensive opportunity to get some protection against less than normal rainfall levels. Producers have until December 1st to sign up for coverage for the 2023 calendar year, so the time is right to be thinking about it. In addition to talking with your insurance agent, a great deal of information can be found on the PRF page of the USDA-RMA website at <https://www.rma.usda.gov/en/Policy-and-Procedure/Insurance-Plans/Pasture-Rangeland-Forage>.

Census of Agriculture—Please be on the lookout for your survey code.

Please complete the by February 6, 2023



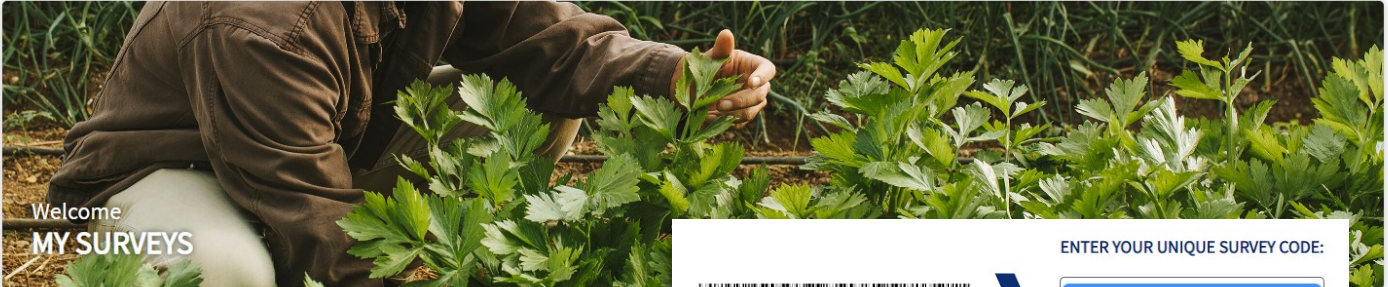
Home

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Resources

Reports

Sign In | Sign Up



Welcome
MY SURVEYS

ENTER YOUR UNIQUE SURVEY CODE:



SURVEY CODE

XXXXXXXXXX 01 03 2223 12288888 11 130000
123
LOUISIA France
12345 12345678 09 307 359
909876543 21 12345-6788

Submit & Get Survey(s)

General Announcement

PLEASE NOTE: With the recent large mailing of the Census of Agriculture, we are experiencing some issues with volume. In the meantime, if you get an error, please try again or try later. We appreciate your patience.

CENSUS OF AGRICULTURE
National Agricultural Statistics Service
National Operations Center
9700 Page Avenue Suite 400
St. Louis, MO. 63132-1547
OFFICIAL BUSINESS
Penalty for Private Use \$300

FORWARDING SERVICE REQUESTED

Please Respond By February 6, 2023

OMB No. 0535-0226; Approval Expires 09/30/2024

Dear Producer,

The United States Department of Agriculture (USDA) is conducting the 2022 Census of Agriculture to provide a complete picture of all U.S. farms and ranches and the people who operate them. Collected once every five years, census data inform decisions that affect you, your community, and industry. Everyone who receives a census is **required by law** to respond (Title 7 USC 2204(g) Public Law 105-113). Whether you are engaged in agricultural activity or not, please reply promptly so we can update our records.

Using this URL and survey code, please complete the Census of Agriculture by February 6:
www.agcounts.usda.gov
Survey Code: <<survey code>>

Some questions may already be pre-filled with information from previous USDA surveys, making online reporting faster and more convenient. You will also receive a paper questionnaire in a few weeks. You do not have to fill out the paper version if you respond online. All information you provide is confidential and protected by federal law. If you need assistance completing the census, call toll-free 888-424-7828. For more information, visit nass.usda.gov/AgCensus. The 2022 Census of Agriculture is Your Voice, Your Future, Your Opportunity. Thank you.

Sincerely,

Hubert Hamer
Administrator, National Agricultural Statistics Service
United States Department of Agriculture

To respond, follow these steps:

1. Go to www.agcounts.usda.gov
2. Enter your survey code: <<survey code>>
3. Select **Submit & Get Survey(s)**.
4. Find the United States 2022 Census of Agriculture and select **Start Survey**.
5. Follow the survey prompts.
6. Complete the survey through the conclusion section and select **Submit Survey**.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB number is 0535-0226. The time required to complete this information collection is estimated to average 50 minutes, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The United States Department of Agriculture (USDA) is conducting the 2022 Census of Agriculture to provide a complete picture of all U.S. farms and ranches and the people who operate them. Collected once every five years, census data inform decisions that affect you, your community, and industry. Everyone who receives a census is required by law to respond (Title 7 USC 2204(g) Public Law 105-113). Whether you are engaged in agricultural activity or not, please reply promptly so we can update our records.

Transform a poor pasture into a good one

By Mike Rankin Hay and forage grower



It's not an unusual situation for people to suddenly find themselves as the not-so-proud owner or long-term renter of a previously abused or neglected pasture. In such situations, questions often arise as to what the best plan of action is to bring an abused pasture back to full productivity.

According to Chris Teutsch, a forage extension specialist at the University of Kentucky, there are a number of reasons why formerly good pastures can turn bad. These include too much or too little water; poor fertility or low soil pH; poor grazing or, in the case of a hayfield, mowing management; a poor choice of forage species; and an influx of weeds likely caused by one of the previously mentioned factors. Often, a poor pasture is the result of a combination of several negative stresses.

"Pasture renovation does not always mean having to reseed," Teutsch said at last fall's Kentucky Grazing School. "In fact, spraying out an old pasture and then reseeding should be considered a last-resort option. We can often renovate a pasture without reseeding it."



Fix the soil

The first step for improved pasture productivity is to look below ground level. Teutsch defined soil as a dynamic natural body composed of mineral and organic solids, gases, liquids, and living organisms, which

can serve as a medium for plant growth.

"Below ground, in a healthy pasture, scientists have determined that we should have about a ton of bacteria, a ton of actinomycetes, 3 tons of fungi, and over 600 pounds of earthworms per acre," Teutsch said. "When we manage the above ground with good grazing techniques, we are also enhancing the below ground ecosystem, and that's really important to keep in mind."

From a soil fertility standpoint, Teutsch reminded attendees of Liebig's Law of the Minimum, which states, "The level of plant production can be no greater than that allowed by the most limiting of essential plant growth factors."

"It's going to take a holistic approach to rejuvenate pastures,"

Teutsch said. "Often, fixing only one limiting factor won't be enough."

A big advantage of well-managed pasture systems is that 80% to 90% of the nutrients applied through fertilizer, manure, legumes, and feed are cycled back to the pasture in dung and urine. "This is a big advantage compared to hay and other cropping systems," Teutsch noted.

The forage specialist cautioned that it is up to the grazing manager to ensure that nutrients are evenly distributed across the pasture to keep fertility levels from rising excessively in some areas while declining in others. This is where rotational grazing systems with multiple sites for water and shade are important to keep animals from congregating in the same area.

Where hay is removed from fields or pastures, Teutsch noted that potassium levels can be drawn down quickly unless fertilizer is applied or the hay is fed back on the same field. Many common hay species remove nearly 60 pounds per ton of potassium as K₂O. "This might be a positive situation in the case where hay is being purchased and brought on to the farm," he said. "Every ton of hay is going to have about \$78 worth of nutrients at today's fertilizer prices, but it's important to feed the hay where the nutrients are needed most."

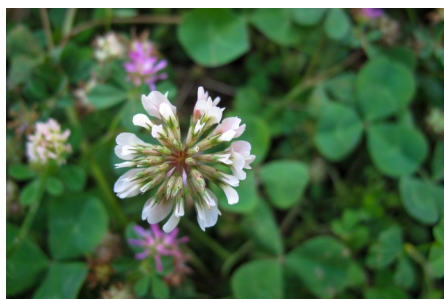
Soil testing is going to be critical for confirming what nutrients are needed or not needed. This is especially true when fertilizer prices are high, Teutsch asserted.

Aside from documenting fertility status, soil testing is important to assess soil pH. "Improper pH is a



major limiting factor in forage production because it reduces nutrient availability and nitrogen fixation by legumes," Teutsch said. "Liming pastures will both neutralize soil acidity and supply calcium and magnesium."

The extension specialist recommends a minimum soil pH level of 5.8 to 6 for pure grass stands, 6 to 6.4 for grass-clover stands, and 6.5 to 6.8 for grass-alfalfa stands. "Right now, if you need lime, it may be your best buy because it will make existing soil nutrients more available to the plant without purchasing fertilizer," Teutsch said.



The power of legumes

"Nitrogen fixation is the second most important biological process on earth; it's only behind photosynthesis," Teutsch noted. "For this reason, legumes offer

substantial benefits in grazing systems by providing nitrogen, which enhances grass yields, forage quality, summer growth, and animal performance. Legumes also help mitigate the effects of toxic tall fescue," he added.

Most of the transfer of nitrogen between legume and grass occurs through the animal by the deposition of manure and urine. It can also occur when the legume plant tissues and roots die and decompose. A strong nitrogen cycle in a pasture takes several years to develop and maintain.

Teutsch suggested that legumes should make up 20% to 30% of the pasture sward. He said to add lime and fertilize according to the needs of the legumes, which can be overseeded in late winter. Frost seeding red clover and white clover generally results in the greatest success. For pastures lacking in fertility, Teutsch suggested using annual lespedeza, which is more forgiving of a low soil nutrient status.

"How a pasture is grazed can impact the botanical composition," the forage specialist noted. "If you leave too much residual, it will tend to favor the grass. It's also important to use rotational stocking, which makes it much easier to manage through a drought and maintain desirable forage species."

Pasture renovation doesn't have to involve a complete kill and reseeding. With corrections in soil fertility, the development of perpetual nutrient cycles, the establishment of legumes, and flexible, rotational grazing, poor pastures can be transformed into highly productive ones.

Enterprise Budgeting Southern AG Today

Brian E. Mills, Assistant Professor & Extension Economist

College of Agriculture, Food and Environment

myUK Search our college

AGRICULTURAL ECONOMICS

Students Extension Research Alumni People Related Programs/Units Give to AEC

Home » Budgets and Decision Tools

Budgets and Decision Tools

Extension Resources

- Extension Faculty and Staff
- Budgets and Decision Tools
- Extension Publications
- Economic and Policy Update Newsletter

Select a Specialty Area

Grain Crops | Livestock/Forages | Tobacco | Specialty Crops

Enterprise budgets are a helpful tool for organizing and understanding what production costs are for the coming year. Producers can use enterprise budgets to examine their farm by crop, variety, irrigation, tillage, or any other production practice. The more specific the enterprise budget, the more a producer can determine where their farm is profitable and where it can be improved. Enterprise budgets are typically developed in the late fall or winter as producers plan their next year's crop decisions.

Table 1 is an example of a corn enterprise budget developed at Mississippi State. The budget title should describe what is being

examined in as much detail as possible. The income section should be a projection of the prices and yield expected for that enterprise. The costs can be broken down into direct and fixed expenses. Direct expenses are any costs needed in the production of the given crop, such as costs of fertilizers, herbicides, insecticides, seed, labor, etc. Fixed expenses are any costs that would be paid regardless of the production. In the example budget, this would be fixed expenses related to equipment, such as depreciation and interest. Returns above total expenses or break-even prices can then be calculated based on the expenses.

Mississippi State creates yearly enterprise budgets across various crops, like the one presented in Table 1. Costs are obtained from companies across Mississippi, and a multidisciplinary team puts together example enterprise budgets based on the latest trends/recommendations. Since every producer will have different costs and revenues, it is important for each producer to determine their own enterprise budgets that match their farm's situation. Over 80 example budgets are available to help with this process at: <https://www.agecon.msstate.edu/whatwedo/budgets.php>. In addition, each state in the Southern Region

will have their own version of enterprise budgets, so contact your local Agricultural Economics department for more information (links on the right). In times where input costs are especially high, developing an enterprise budget can help in managing those costs and in determining which crop is going to be the most profitable.

Alabama: <https://www.aces.edu/blog/tag/profiles-and-budgets/?c=farm-management&orderby=title>

Arkansas: <https://www.uaex.uada.edu/farm-ranch/economics-marketing/farm-planning/budgets/crop-budgets.aspx>

Florida: <https://fred.ifas.ufl.edu/extension/commodityenterprise-budgets/>

Georgia: <https://agecon.uga.edu/extension/budgets.html>

Kentucky: <https://agecon.ca.uky.edu/budgets>

Louisiana: https://www.lsuagcenter.com/portals/our_offices/departments/ag-economics-agribusiness/extension_outreach/budgets

North Carolina: <https://cals.ncsu.edu/are-extension/business-planning-and-operations/enterprise-budgets/>

Oklahoma: <http://www.agecon.okstate.edu/budgets/>

South Carolina: <https://www.clemson.edu/extension/agribusiness/enterprise-budget/index.html>

Texas: <https://agecoext.tamu.edu/resources/crop-livestock-budgets/>

Tennessee: <https://arec.tennessee.edu/extension/budgets/>

Table 1. Estimated costs and returns per acre, Corn, stale seedbed, BtRR, 12-row 38", 220 bu yield goal, Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2023

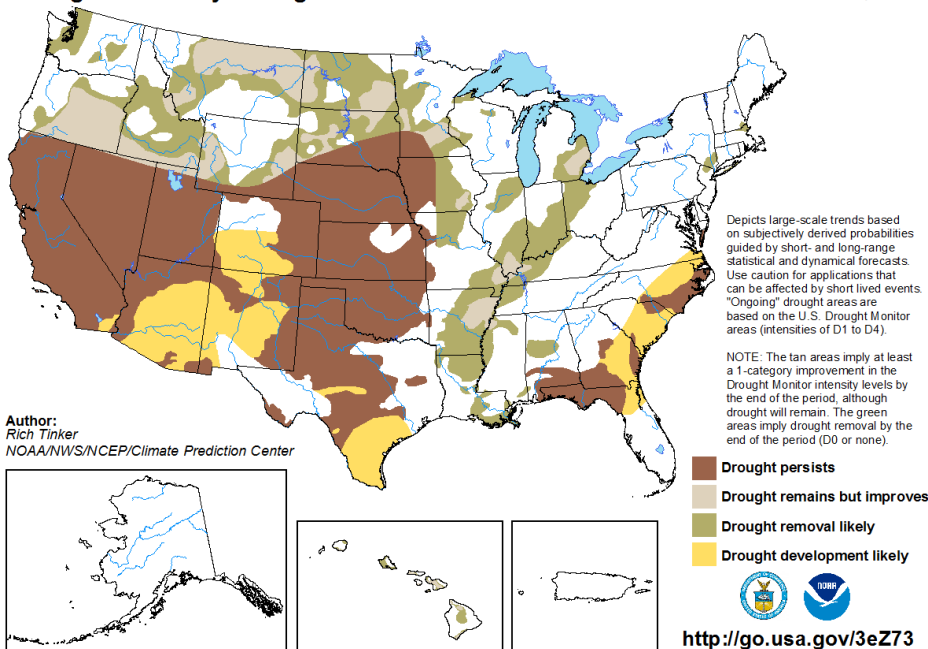
ITEM	UNIT	PRICE	QUANTITY
INCOME			
Corn	bu	\$6.15	220
TOTAL INCOME			
DIRECT EXPENSES			
<i>CUSTOM SPRAY</i>			
App by Air (5 gal)	appl	\$7.60	1
App by Air (3 gal)	appl	\$6.40	0.2
<i>FERTILIZERS</i>			
Phosphorus(46% P2O5)	cwt	\$50.00	1.957
Potash (60% K2O)	cwt	\$46.60	1.5
Fert 10-34-0	gal	\$5.36	4
Zinc Plus	pt	\$3.68	2
UAN + Sulfur (28%)	gal	\$4.41	32.1712
UAN (32%)	gal	\$4.30	39.557
<i>HERBICIDES</i>			
Glyphosate 3lbs a.e	oz	\$0.34	32
Clarity	pt	\$14.30	0.5
Select Max	pt	\$13.86	1
Atrazine 4L	pt	\$3.00	4
Halex GT	pt	\$10.50	3.6
<i>INSECTICIDES</i>			
Bifenthrin	oz	\$1.13	1.28
<i>IRRIGATION SUPPLIES</i>			
Roll-Out Pipe	ft	\$0.24	33
<i>SEED/PLANTS</i>			
Corn Seed BtRR	thous	\$3.75	34
<i>CUSTOM FERTILIZER</i>			
Custom Apply Fert	acre	\$7.50	1
<i>HAULING</i>			
Haul Corn	bu	\$0.23	220
<i>CUSTOM LIME</i>			
Lime (Spread)	ton	\$58.00	0.666
<i>CROP CONSULTANT</i>			
Corn Consultant	acre	\$6.00	1
<i>SOIL TEST</i>			
Soil Test	acre	\$10.00	0.333
<i>OPERATOR LABOR</i>			
Tractors	hour	\$16.54	0.4243
Harvesters	hour	\$16.54	0.101
<i>IRRIGATE LABOR</i>			
Special Labor	hour	\$9.06	0.325
Implements	hour	\$9.06	0.0625
<i>HAND LABOR</i>			
Implements	hour	\$9.06	0.1355
<i>UNALLOCATED LABOR</i>			
	hour	\$16.57	0.402
<i>DIESEL FUEL</i>			
Tractors	gal	\$4.48	4.7303
Harvesters	gal	\$4.48	1.6891
Roll-Out Pipe Irr.	gal	\$4.48	10.5902
<i>REPAIR & MAINTENANCE</i>			
Implements	acre	\$9.82	1
Tractors	acre	\$3.47	1
Harvesters	acre	\$4.92	1
Roll-Out Pipe Irr.	acre	\$7.16	1
INTEREST ON OP. CAP.			
	acre	\$35.29	1
TOTAL DIRECT EXPENSES			
RETURNS ABOVE DIRECT EXPENSES			
FIXED EXPENSES			
Implements	acre	\$17.97	1
Tractors	acre	\$24.56	1
Harvesters	acre	\$21.65	1
Roll-Out Pipe Irr.	acre	\$65.01	1
TOTAL FIXED EXPENSES			
TOTAL SPECIFIED EXPENSES			
RETURNS ABOVE TOTAL SPECIFIED EXPENSES			

Drought Impacts and Outlook

By: Josh Maples, Mississippi State University, Extension

U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for December 15, 2022 - March 31, 2023
Released December 15, 2022



areas. The Climate Prediction Center within the National Weather Service releases a U.S. Seasonal Drought Outlook and the figure above comes from this outlook. I pulled the excerpt below from their latest outlook that focuses on the Southeast:

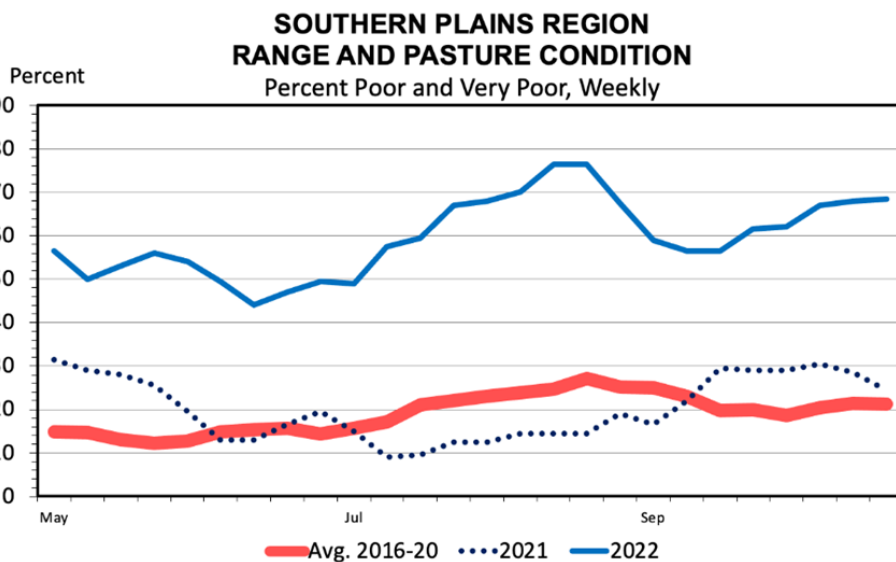
“Significant differences exist between the December monthly drought outlook and the December-February seasonal drought outlook across the Southeast, where recent storminess will likely result in substantial short term drought improvements. The reduced impacts of drought and abnormal dryness resulting from this precipitation are likely to be felt throughout the month of December; therefore, improvement was indicated on the monthly drought outlook. However, La Niña conditions are strongly favored to persist through the end of the seasonal period, and therefore an overall drier and warmer than normal pattern remains favored for the Southeast. Based on this strong

Drought conditions have wrecked havoc on cattle producers in varying locations and times over the past 2 years. The current drought conditions are some of the most widespread that we’ve seen over this period with about 80 percent of the continental U.S. experiencing at least the lowest level of drought (D0). As shown in the chart below, nearly 70 percent of the Southern Plains pasture is in poor or very poor condition. While there is already much optimism for stronger cattle prices in 2023, drought conditions will be an important influence in the timing of market reactions.

In 2022, expanding drought (combined with higher input prices) has driven substantial liquidation of beef cows and heifers. The calf crop in 2023 will be smaller and there will be tighter supplies of cattle and beef

for the next few years. Markets and prices will react, leading to recovery/expansion at some point - but persistent drought is a major headwind.

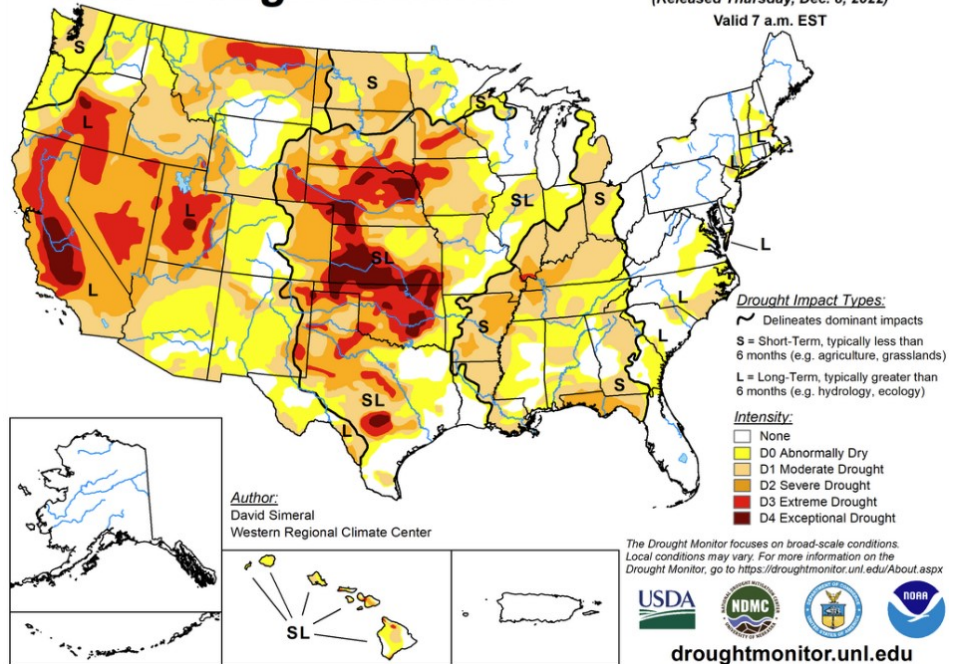
The drought outlook for winter is for drought conditions to continue in many currently impacted cattle



Data Source: USDA-NASS, Compiled & Analysis by LMIC

U.S. Drought Monitor

December 6, 2022
(Released Thursday, Dec. 8, 2022)
Valid 7 a.m. EST



signal at the seasonal time scale, the short term improvements indicated on the monthly drought outlook will likely erode later in the winter season, and drought development by the end of February is still favored to occur across the Southeast.”

Cattle markets are poised to be stronger into 2023-2024 as we react to tighter supplies. Hopefully drought conditions will abate sooner rather than later, despite the forecasted conditions. In any case, drought timing will be a key factor in how cattle markets, and cattle producers, respond in 2023.

Cattle Market Report		For Weeks Ending On			% Chg	% Chg	
Prices \$/cwt. Sources: USDA, IMIC, and CME		12/9/22	12/2/22	12/10/21	Prev. Week	Prev. Year	Chg Prev. Week
500-600 lb. Feeder Steers	Mississippi M/L #1-2	\$160.63	\$161.63	\$143.51	-1%	12%	(\$1.01)
	Arkansas M/L #1	\$179.84	\$181.47	\$166.17	-1%	8%	(\$1.64)
	Kentucky M/L #1-2	\$172.65	\$172.24	\$155.56	0%	11%	\$0.41
	Oklahoma City M/L #1-2	\$183.67	\$185.70	\$166.96	-1%	10%	(\$2.03)
	Alabama M/L #1	\$176.09	\$169.43	\$159.37	4%	10%	\$6.66
	Tennessee M/L #1-2	\$168.58	\$164.69	\$157.42	2%	7%	\$3.89
700-800 lb. Feeder Steers	Mississippi M/L #1-2	\$135.89	\$141.53	\$128.49	-4%	6%	(\$5.64)
	Arkansas M/L #1	\$159.88	\$160.75	\$141.81	-1%	13%	(\$0.88)
	Kentucky M/L #1-2	\$158.71	\$160.33	\$146.49	-1%	8%	(\$1.63)
	Oklahoma City M/L #1-2	\$166.81	\$171.35	\$156.62	-3%	7%	(\$4.54)
	Alabama M/L #1	\$157.48	\$159.35	\$136.49	-1%	15%	(\$1.87)
	Tennessee M/L #1-2	\$152.17	\$145.66	\$135.53	4%	12%	\$6.51
Negotiated Fed Steers	Live Price	\$155.79	\$156.42	\$139.69	0%	12%	(\$0.63)
	Dressed Price	\$246.82	\$248.55	\$219.71	-1%	12%	(\$1.73)
Boxed Beef Cutout	Choice Value, 600-900 lb.	\$246.23	\$253.53	\$266.75	-3%	-8%	(\$7.30)
	Select Value, 600-900 lb.	\$220.37	\$225.78	\$254.11	-2%	-13%	(\$5.42)



College of Agriculture, Food and Environment
Agricultural Economics



Dale Bumpers College of Agricultural, Food & Life Sciences
Agricultural Economics & Analytics



DEPARTMENT OF AGRICULTURAL ECONOMICS

Futures Prices		12/9/22	12/2/22
Live Cattle	December	\$153.68	\$153.35
	February	\$155.55	\$155.88
	April	\$159.35	\$159.57
Feeder Cattle	January	\$183.93	\$182.45
	March	\$185.10	\$185.27
	April	\$188.60	\$188.63
Corn	December	\$6.35	\$6.35
	March	\$6.44	\$6.46

Source: CME Group



4 steps to safer winter cattle handling

Liane Carter, Content Specialist / Arrowquip

Winter can be a tough season to navigate, but planning ahead, preparing cattle and facilities, providing the right nutrition and taking safety precautions can make it easier.

Each new season brings change, and some are easier to embrace than others. It can be hard to get excited about winter, especially on a cattle operation. The shorter days, colder temperatures and inclement weather can bring extra work and challenges. Following these four steps for safer winter cattle handling can help take the sting out of winter weather.

Step 1: Plan ahead

That old saying, "An ounce of prevention is worth a pound of cure," makes sense when it comes to winter cattle handling. There are several steps you can take ahead of the winter months to make things easier for both cattle and handlers.

- **Winterizing facilities** is an important part of planning ahead and should ideally be done in the fall before the weather starts turning cold. However, it is never too late to make some changes ahead of snowstorms and bone-chilling temperatures.
- **Installing windbreaks** is the single-biggest addition that will help cattle through the cold winter months. Feed areas and cattle equipment should also be placed behind windbreaks to help cattle stay warm, and handlers also



Move feeders to higher ground in preparation for feeding in winter weather. *Photo courtesy of Arrowquip.*

appreciate windbreaks when it comes to checking on cattle. Avoid placing windbreaks in areas where the snow drifts, as this can create hazardous situations.

- **Taking steps to reduce mud and manure buildup** at gates, water tanks and around cattle equipment and bale feeders is important. These high-traffic areas are prone to becoming muddy, which can quickly become a bad situation and lead to herd health concerns such as hoof rot or equipment issues like getting a tractor stuck when trying to feed bales.
- **Adding extra drainage and moving feeders** to higher ground with a downward slope, or switching up their locations periodically, drastically reduces the amount of mud and manure in one area. This improves herd health and lowers stress levels for all.

Step 2: Prepare cattle

Cattle that are prepared for winter will manage better in colder weather.

- **Assess the body condition score (BCS) of every animal.**

Ideally, they should all be at a 5 prior to the winter months. One easy way to check the BCS is to work each animal through your cattle handling system and individually assess them. Separate thin cows into a different group as they leave the chute so you can increase their feed ahead of winter.

- **Ensure cattle have all their necessary vaccines** while assessing their BCS. Have anything you may need ready ahead of time and administer as needed while the cattle are being worked through your handling system.
- **Any spring or summer calves should be weaned** well before the winter months. Calves and cows should be allowed enough time to acclimate to that stressor before the added stress of winter weather.

Step 3: Consider diet and nutrition

Every drop in temperature must be accompanied by increased feed intake for cattle to successfully navigate the winter weather. This is even more important for those cattle with a lower BCS, any pregnant cows and heifers.

- **Water access remains essential.** Cattle will still drink about 11 gallons of water daily, even in the colder months. Using stock tank

heaters and automatic heated watering systems ensures cattle have access to fresh, clean water during the winter.

- **Eating and digestion help cattle stay warm;** hay and other roughages play a big role in the winter months. Investing in a bale feeder that is specifically designed to minimize bale waste by suspending them off the ground helps keep hay clean and makes your bales go even further by controlling cattle intake.
- **Consider speaking with a nutritionist or veterinarian** about any vitamin and mineral supplements your cattle may need. Phosphorus is commonly added to cattle diets in the winter to meet their nutritional needs.

Step 4: Emphasize low-stress handling

It is always important to keep cattle stress levels low, which can be done by using low-stress handling techniques. It is critical in bad weather, when conditions may be more slippery, everyone is colder and you want to conserve energy.

- **Approach cattle handling in cold weather the same as in extreme heat.** Take it slowly so neither cattle nor handlers get hot and sweaty, as this can make you colder in the end. Using low-stress handling principles will also minimize slips, falls and costly injuries. When it comes to working cattle with your equipment in the winter, the same ideas apply. Your cattle equipment should work with animal science and allow you to practice those principles.

- **Watch the weather.** It is easier to handle winter weather, and keep stress levels low, when you can be proactive rather than reactive. Try to plan around the weather whenever possible.
- **Complete chores and basic upkeep on warmer days** and when it is less windy. This makes tasks such as bedding up cattle with fresh straw and ensuring they have plenty of feed before a blizzard comes or temperatures

drop much more pleasant. This also makes your chore list a little shorter on colder days and leaves room for any unexpected challenges.

Winter weather is a fact of life for many of us. Instead of dreading the season, preparing ahead and practicing safe winter cattle handling can help us embrace the cold temperatures and adverse conditions. This in turn will help you be ready for spring.



University of Kentucky
College of Agriculture,
Food and Environment
Cooperative Extension Service

Mason Bee Masonry

Learn about mason bees and build a mason bee house!

February 14 at 10:00am –OR– March 9 at 1:00pm

Only register for ONE event

Campbell County Extension Office: 3500 Alexandria Pike
Highland Heights, KY 41076

Registration Required: visit <https://campbell.ca.uky.edu> or call 859-572-2600

Only ONE bee house per family



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Reproductive Failure in Cattle-Frequently Asked Questions about Leptospirosis

Dr. Michelle Arnold, UK Veterinary Diagnostic Laboratory

“Reproductive failure” is an all-encompassing term if a cow loses a calf during pregnancy or if she fails to get pregnant. Causes of reproductive failure are often divided into infectious and non-infectious categories. Examples of “non-infectious” include poor cow nutrition (lack of energy and micronutrients such as selenium/Vitamin E); bull infertility, disease, and injury; breeding season management (shortened breeding season, insufficient bull-to-cow ratios); genetic and some congenital abnormalities that result in fetal death; and toxic agents such as nitrates, phytoestrogens, and drugs including steroids and prostaglandins. “Infectious” causes are bacteria, viruses, protozoal and fungal agents that directly or indirectly damage the placenta and/or the fetus. Examples include the BVD virus, IBR virus, the protozoan *Neospora caninum* and many species of the bacterium *Leptospira*, among many others. This series of articles will explore the most common infectious causes of abortion and reproductive failure in cattle and available options for control and prevention.

What is Leptospirosis or “Lepto”? Leptospirosis is a complicated bacterial disease commonly associated with abortions, stillbirths, premature births, and infertility in cattle. However, this bacterium also causes sickness and death in cattle, dogs, sheep, and horses worldwide and is an important zoonotic disease affecting an estimated 1 million humans annually. Farmers, veterinarians, and those working in meat processing facilities are at highest risk to contract the disease.

What causes leptospirosis? The disease is caused by a unique, highly coiled, Gram-negative bacterium known as a “spirochete” belonging to the genus *Leptospira*. These “leptospires” are highly motile due to their spiral shape and, once inside a host animal, they enter the bloodstream and replicate in many different organs including the liver, kidney, spleen, reproductive tract, eyes and central nervous system. The immune system will produce antibodies that usually clear the organism from the blood and tissues rather quickly except from the kidney. Leptospires take up residence primarily in the kidney and are excreted in the urine for months to even years after infection, depending on the species of *Leptospira* and the animal infected. Less frequently, leptospires persist in the male and female genital tract and mammary gland of females and may be excreted in semen, uterine discharges, and milk.

How do cattle become infected with leptospires? Transmission of the organism is most often through direct contact with infected urine, placental fluids, semen, or milk. However, transmission may also occur by coming in contact with areas contaminated with infected urine, such as stagnant ponds or swampy areas with standing water. The leptospires survive in the environment for long periods of time (approximately 6 months in the right conditions) in stagnant water as well as in warm and moist soils but die quickly when dry or in cold temperatures. Entry into the animal may be through penetration of intact mucous membranes such as through the mouth and the conjunctiva of the

eye, or through damaged or water-softened skin. The organism may also be transferred during breeding and also during pregnancy from dam to fetus.

Which animals carry (“host”) this organism and are responsible for spread of disease? This is where the complicated life cycle of this organism must be explained to understand the wide range of disease symptoms that may be observed in cattle. To begin, it is important to distinguish two different types of “hosts”: 1) maintenance or reservoir hosts and 2) incidental or accidental hosts. A “maintenance host” is an animal that can carry and spread the leptospirosis organism but not experience any obvious sickness from it. These are also known as “reservoir hosts” because this animal’s immune system allows the leptospires to survive and duplicate themselves then be excreted in urine and spread to other animals. Maintenance hosts for leptospires are often wildlife species including skunks, rats, raccoons, and opossums but can be domestic animals (dogs) or livestock (pigs, cattle), depending on which type of leptospire (known as a “serovar”) is involved (**Table 1**). For example, cattle serve as the maintenance host for the *Leptospira* serovar called “Hardjo type hardjovovis”, often abbreviated as “Hardjo”. Transmission from one infected cow to another healthy cow with serovar Hardjo is efficient, and the infection rate can be very high in an unvaccinated herd. When a cow is initially infected with serovar Hardjo, she may exhibit a few mild signs such as low fever but there will be very little antibody production by the

Table 1: Common Leptospira Isolates in Ruminants

Species	Serovar	Maintenance Host	Incidental Hosts
<i>L. borgpetersenii</i>	Hardjo (type hardjo-bovis)	Cattle (repro failure)	Sheep, goats
<i>L. kirschneri</i>	Grippotyphosa	Raccoons, muskrats, squirrels	Cattle, sheep, horses, dogs
<i>L. interrogans</i>	Pomona	Swine, opossums, skunks, raccoons	Horses, cattle, sheep, goats, dogs
<i>L. interrogans</i>	Canicola	Dogs	Cattle
<i>L. interrogans</i>	Icterohaemorrhagiae	Rats	Dogs, cattle, swine
<i>L. interrogans</i>	Bratislava	Pigs, mice, horses	Dogs, cattle, horses
<i>L. interrogans</i>	Hardjo (type hardjoprajitno)	Cattle-Europe only (milk drop)	Sheep, goats

immune system and the leptospires will stay primarily in the kidney and be persistently shed in her urine for a prolonged period of time (months to years). In addition, the organism can also localize in male and female reproductive tracts and be shed in semen and uterine discharges.

An “incidental host” or “accidental host” is an animal that gets infected with a *Leptospira* serovar not normally found in that animal (infected “by accident”) which results in clinical disease that may be severe. Incidental hosts are not reservoirs of infection and transmission of the organism is uncommon within a herd. Infection of an incidental host usually occurs in areas contaminated with urine from maintenance hosts. For example, cattle are incidental hosts for the *Leptospira* serovar “Pomona” which is carried by feral swine, opossums, skunks, and raccoons (the maintenance hosts) and transmitted to cattle from water or feed contaminated with their urine. Once infected, cattle (especially calves) with Pomona often show significant signs of disease, the immune system rapidly produces antibodies and there is a short carrier state in the kidney when cattle shed the organism in urine.

What are the symptoms of leptospirosis? Clinical signs or

symptoms of disease in cattle depend on which *Leptospira* serovar is involved and if cattle serve as a maintenance host or incidental host for this specific type. There are over 250 serovars of *Leptospira* but the two most important serovars affecting cattle in North America are Hardjo and Pomona, with Grippotyphosa, Canicola and Icterohaemorrhagiae much less frequently diagnosed. Most bovine leptospirosis is caused by the serovar Hardjo, which causes infertility and reproductive failure. Cows with Hardjo are twice as likely to fail to conceive and experience a significantly longer time interval from calving to conception.

Infection in pregnant cows with non-Hardjo strains, mostly Pomona and Grippotyphosa, results in abortion (usually late term), stillbirth, or birth of premature and weak infected calves. Retention of fetal membranes may follow abortion. Lactating dairy cows may exhibit “milk drop syndrome”, characterized as a drop in milk production for 2-10 days where the milk has the consistency of colostrum, thick clots, yellowish color, and high somatic cell count, but the udder remains soft. In calves, a severe, rapidly progressing disease may occur when infected with incidental serovars, especially

Pomona. Symptoms of high fever, extreme weakness, red urine, rapid breathing due to anemia and death are all possible. Cows may experience a loss of milk production with very prolonged recovery.

How is leptospirosis diagnosed and treated? Diagnosis of this disease is not necessarily a simple task. Traditionally, two blood samples (in red top blood tubes) drawn at least 1 week apart after an abortion are submitted to measure antibodies against the most common serovars. Incidental infections (for example, Pomona) will show a rapid rise in antibody numbers (called “titers”) over time that are diagnostic. However, since cattle are the maintenance host of serovar Hardjo, the antibody numbers may remain low if reproductive failure is due to Hardjo. Vaccination also confuses the interpretation of results because blood tests do not differentiate antibodies due to infection or antibodies due to vaccine. Therefore, multiple types of tests may be required to rule this disease in or out. Currently, urine is the preferred sample as it can be tested for leptospires through a variety of assays, especially PCR, to identify the organism. Animals diagnosed with

(continued on page ??)

Reproductive Failure in Cattle-Frequently Asked Questions about Leptospirosis

Dr. Michelle Arnold, UK Veterinary Diagnostic Laboratory

(continued from page 17)

leptospirosis can be treated with injectable long-acting oxytetracycline to remove the organism from the kidney. Research is ongoing if additional treatment is needed to clear infections within the genital tract. Consult your veterinarian for detailed advice regarding diagnosis and treatment options.

What methods are used to control and prevent leptospirosis in cattle? New infections are best prevented through early vaccination with products containing the most common serovars affecting cattle. The leptospirosis fraction of most

reproductive vaccines is often denoted as "L 5" in the vaccine name, representing Hardjo, Pomona, Grippotyphosa, Canicola and Icterohaemorrhagiae. In addition, several vaccine manufacturers have added extra protection against serovar Hardjo type hardjo-bovis and this is denoted with "HB" in the vaccine name. Spirovac® (Zoetis) is a vaccine for Leptospirosis only, specifically for the prevention of infection by *Leptospira borgpetersenii* serovar Hardjo type hardjo-bovis, including reproductive and renal tract colonization, and urinary shedding for up to 12 months. It is worth mentioning that

cattle already infected with leptospirosis must be treated with antibiotics first to remove the organism before vaccination is effective.

Control is accomplished by prevention of exposure, annual vaccination and treatment if needed. Reduction of cattle exposure to infected urine, especially fencing off stagnant ponds and swampy areas, and preventing urine contamination of feedstuffs will significantly reduce transmission of the organism. Personal protective equipment should be used when working with cattle suspected to be infected to prevent human disease.



Roast Venison

UK College of Agriculture, Food and Environment

Servings: 12 **Serving Size: 5 ounces**

Using a slow cooker brings out intense flavors and makes cooking a roast super easy.



Ingredients:

- 4 pounds venison roast
- 1 teaspoon salt
- 2 tablespoons flour
- 2 tablespoons oil
- ¼ teaspoon garlic powder
- 1 onion, sliced
- 2 tablespoons brown sugar
- ¼ cup lemon juice
- 4 cups low-sodium canned tomatoes
- ¼ teaspoon browning sauce, if desired

Directions:

Season roast with salt and roll in flour. Brown on all sides in hot oil in a heavy skillet. Place in a slow cooker and add remaining ingredients. Cook on low for 10 hours or on high for 6 hours.

Nutrition facts per serving:

250 calories; 6g total fat; 2g saturated fat; 0g trans fat; 130mg cholesterol; 330mg sodium; 10g carbohydrate; 2g fiber; 0g sugars; 21g protein; 0% Daily Value of Vitamin D; 0% Daily Value of Calcium; 5% Daily Value of Iron; 10% Daily Value of Potassium

Tips:

Leftovers ideas: cold sandwiches, heated in barbecue sauce for hot sandwiches, or diced into soup or stew.

Source: Adapted from Venison Recipe Collection, Compiled by Becky Nash, Extension Agent for Family and Consumer Sciences

2023 KCA Convention & Trade Show Agenda (Tentative—Updated 10/14/2022)
Visit website for more information or to register: <https://kycattle.org/convention>

Wednesday, January 4		
10:00 - 5:00	Trade Show Move-In	Exhibition Hall A&B
Thursday, January 5		
7:00 - 6:00	Registration Hours	Exhibition Hall A&B
7:00 - 10:00	Trade Show Move-In	Exhibition Hall A&B
9:00 - 11:30	Beef Efficiency Conference	Meeting Room 7-8
	John Maddux, Maddux Cattle Company	
	Jared Decker, University of Missouri	
	Troy Rowan, University of Tennessee	
10:00	Trade Show Opens	Exhibition Hall A&B
11:30	Welcome Lunch	Exhibition Hall A&B
1:30 - 3:30	Opening General Business Session	Meeting Room 7-8
	Welcome 2023 Kentucky Cattlemen's Association Convention - Cary King, 2022 KCA President	
	Danielle Beck, Invariant	
	KBC Annual Report	
	Beef Solutions Annual Report	
	KBN Annual Report	
4:00	A Taste of Lexington Restaurant Sampling	Exhibition Hall A&B
6:00	Trade Show Closes	Exhibition Hall A&B
Friday, January 6		
6:30 - 5:00	Registration Hours	Registration Booth
7:00 - 9:00	County President Breakfast <i>(Invitation Only)</i>	Regency Ballroom-Hyatt*
8:00	Trade Show Opens Trade Show Opens	Exhibition Hall A&B
10:00 - 11:00	Regional Meetings	
	Region 1	Meeting Room 6
	Region 2	Meeting Room 5
	Region 3	Meeting Room 4
	Region 4	Meeting Room 3
	Region 5	Meeting Room 2
11:00	KLMA Annual Meeting	Meeting Room 1
12:30 - 2:00	Closing Business Session	Meeting Room 7 & 8
	2022 Financial Review - Ken Adams, KCA Treasurer	
	2022 Communications Review and Outlook	
	A Year in Review and 2023 Outlook - Dave Maples, Executive Vice President	
2:15	Commissioner of Agriculture Candidates Forum	Meeting Room 7 & 8
2:00	Trade Show Closes	Exhibition Hall A & B
2:30 - 4:30	Ladies Program	Meeting Room 5
3:00 - 4:30	Forages at KCA	Meeting Room 6
3:00	KJCA Officer Elections <i>(Current KJCA Board Members Only)</i>	Meeting Room 1
3:15	KJCA Annual Membership Meeting & KJCA Board of Director Elections	Meeting Room 1
4:00	KJCA Reception	Meeting Room 1
5:00 - 6:00	KCA Leadership Alumni & Past President's Reception <i>(Invitation Only)</i>	Ballroom Pre-function
6:00	Evening Banquet	Ballroom 1
	KCA & KBC Awards	
	2023 KCA Hall of Fame Inductions	
	Foundation Auction	

*Events located in Hyatt Hotel



2023 A.I. School

Artificial Insemination for Cattle

Instructors: Select Sires MidAmerica

This three-day training will be beneficial to individuals interested in increasing the efficiency and profitability of their cattle through AI.



Class Dates and Schedule

- March 15 9:00 a.m. — 4:00 p.m.
- March 16 9:00 a.m. — 4:00 p.m.
- March 17 9:00 a.m. — 12:00 p.m.

Location: Bluegrass Stockyards

4561 Iron Works Pike 100 | Lexington, KY 40511

(844) 336-3795

Registration required: If you are interested in learning more, and to register, contact the Campbell County Cooperative Extension Service.

859-572-2600

