

The FARMACY

2021 Outstanding Volunteer Awards



Campbell County Agriculture would like to congratulate **Kevin Rust** for his volunteer service. He was recognized with the **Outstanding Ag Volunteer Award** at the County Extension Council Meeting.



Pictured with Kevin are his son Nick, is wife Lisa, and Kevin's father Harry. We would also like to thank the **Northern KY Horse Network** members for their volunteer service. They were recognized with the **Outstanding Community Volunteer Award**.

Upcoming Dates:

- Mar 1 - 8:00 p.m.**
Master Finisher - Kenny Burdine
Environmental Education Center
- Mar 3 - 6:00 p.m.**
Farm Preservation Seminar
Environmental Education Center
- Mar 4-5 - schedule on page 17**
KY Farm Bureau Beef Expo
KY Exposition Center - Louisville
- Mar 15 - 8:00 p.m.**
Master Finisher - Morgan Hayes
Environmental Education Center
- Mar 16 - 6:30 p.m.**
Equine Seminar
Highland Hts. Extension Office
- Mar 23 - 10 a.m. or 6 p.m.**
BQCA Training
Environmental Education Center
- Mar 26 - NKY Horse Network**
9:00 a.m. - 12:00 p.m.
Horse Health Day (see pg. 18)
Alexandria Fair Grounds
- Mar 30 - 10 a.m. or 6 p.m.**
Private Applicator Pesticide Training
Environmental Education Center

Looking for a way to keep track of records and farm expense to complete your tax returns?

Campbell County Extension has a ledger book available at the office or you can download an excel sheet available online!



Michelle Simon

Michelle Simon
Campbell County Extension Agent
for Agriculture and
Natural Resources

Recordkeeping is a waste of time, if the data isn't used!

Progressive Cattle: Ryan Rhoades, Beef Extension Specialist, Colorado State University

Have you ever been told you must keep a detailed set of records for the ranch to be successful as a manager? And have you ever considered you might be wasting a great deal of time? Hopefully that's not the case, but it is certainly possible to be 100% efficient but 0% effective.



Records in raw form are just data. Actual decision-making requires information. Some level of analysis is therefore needed to transform raw records or data into information that can be used for decision-making. If records are being kept to simply write data down and then place it on a shelf or in the back of a desk drawer, then precious time is likely being wasted. However, if records are being used to generate metrics that help plan production decisions, then recordkeeping is a valuable exercise.

Good records should provide specific, timely and actionable information for the operation to use. Ask the following questions prior to taking the time to record data: Is this data creating value? How much extra time is required to record the data? Can the data recording be simplified? Since data analysis is key to more effective recordkeeping and decision-making, here are a couple of considerations to help improve your effectiveness.

1. Apply the 80/20 rule to recordkeeping: Meaning 20% of the work usually results in 80% of the results on the ranch. However, the problem with keeping records is usually 80% of our time is spent collecting the data and only 20% analyzing it. Recordkeeping is often a

useful exercise when these percentages are turned around. Making this change would require setting aside time for strategic management or working on the business. Spending the right amount of time analyzing records could help identify those critical areas (i.e., production, financial, grazing, people) where management time should be focused to ultimately improve profits. It's not a new concept but one that deserves more attention. Few ranchers enjoy recordkeeping, but that is likely a result of no perceived benefit in relation to time spent on the task. Regardless, managers need to develop a good system for allocating the appropriate amount of time collecting and then analyzing the data.

2. Make a list of the records that will aid in planning: It is commonly stated that the current financial situation (i.e., costs and cash flow) of the ranch is the greatest barrier to success. Ranch profitability is generally tied to the big buckets of production, financials, grazing and people. Make a list of data currently being recorded on the ranch within each of these buckets. Determine which ones were used last year to help make a decision that impacted profitability. Perhaps, consider simplifying data collection to

only those that were used in decision-making. Once key data have been determined, develop a management plan with set goals for the ranch that can be tracked and evaluated over time. Make sure goals are attainable for a balanced set of key performance measures specific to your ranch. Consider using data analysis, experience and research to

identify goal targets. Then, simply track actuals, compare projections and adjust as the year progresses.

3. Transform the data into useable information for the business: A large percentage of producers (40%-80%, depending on individual performance measures) routinely collect performance and financial data (i.e., percent calf crop, weaning weight, pregnancy rate, feed costs, cow inventory, etc.). However, it has also been estimated that over 75% of producers do not know their breakeven within 10 cents per pound, which suggests there is an opportunity to improve ranch recordkeeping and data management. It's not enough to just collect good data. Data should be transformed into management information or key performance indicators (i.e., return on assets, overhead ratio, grazing days, etc.) that can be used to help make strategic decisions. Once data has been analyzed, consider studying the results often and thinking through ways to better prepare the ranch to adjust or for uncontrollable events (i.e., drought, market volatility, etc.).

The point is to work smarter not harder.

Fri, Apr 01 | University of Kentucky Sheep Sci Unit

Intermediate and Advanced Sheep Shearing School



Time & Location

Apr 01, 8:00 AM – Apr 02, 5:00 PM

University of Kentucky Sheep Sci Unit, 1171 Midway Rd, Versailles, KY 40383, USA

About the event

Sponsored by the *Kentucky Sheep and Wool Producers Association*, the *Kentucky Natural Fiber*

Center and University of Kentucky Sheep Science Unit.

An **Intermediate and Advanced Sheep Shearing School** will be held Friday and Saturday, **April 1 & 2** at the University of Kentucky Sheep Science Unit in Versailles, KY.

The school will be led by Doug Rathke, a professional sheep shearer from Minnesota. As a national and international shearer and shearing event competitor, Doug is an excellent teacher and mentor for shearers who wish to improve their shearing time. For more on Doug check out Lamb Shoppe LLC.

During the 2-Day course shearers will learn to properly position sheep, develop an understanding of the importance of shearer footwork and how to reduce the number of strokes used per animal. Shearers will be shown how to physically prepare for a day of shearing through stretching exercise. In addition, participants will be instructed on best practices for sharpening combs and cutters as well as maintaining machinery. Participants should bring their own shearing equipment (electric corded or shaft driven). For this class shearers must be able to shear sheep without assistance.

The cost to attend the 2-Day course is \$225.00. The fee includes advanced instruction, daily lunches and break refreshments. Participants are responsible for travel, lodging and additional meal expenses. The class will be limited to 10 pre-registered shearers so those attending may get intensive instruction.

For more information please contact Kathy Meyer, 859-749-7594 or tonym243@bellsouth.net

Inflation - "Good" or "Bad" for Agricultural Producers and Consumers?

Author(s): Will Snell - Published: January 28th, 2022

Inflation has been headline news for several months and certainly an issue impacting all businesses, industries, and all of us as consumers.

Economists define inflation as a general rise in prices for a selected market basket of goods and services. The Consumer Price Index (CPI) is regarded as the most quoted and broad measure of inflation. In the United States, the CPI is calculated monthly by the Bureau of Labor Statistics (BLS) based on changes in the prices of thousands of goods and services in major urban areas and retail establishments, ranging from the most reported items such as food and energy, to other more obscure items such as haircuts and funeral expenses. Changes in housing expenses (ranging from buying homes, renting apartments to home improvement expenditures) receive the greatest weight in the U.S. CPI calculation at 42.4%, followed by transportation (15.7%) and food/beverages (15.2%).

I tell my students (generally born around 2000) that they really have never observed much inflation in their lifetimes – until now. From 2000 to 2020, the average annual rate of inflation (seasonally adjusted) was 2.1% which is generally considered by economists and monetary policymakers as a "desirable" level of inflation to help drive consumption and overall economic growth.

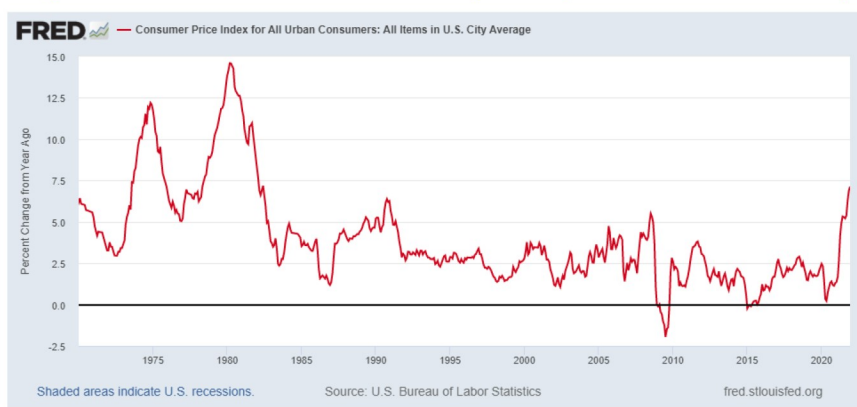
Last year the monthly inflation rate averaged just under 5% and in its latest report (January 12, 2022) the BLS indicated that prices over the past 12 months increased 7% -- the largest December to December

percent change since 1981. In comparison, the last big surge of inflation was back in the 1970s and early 80s when the U.S economy observed several years of double-digit percentage inflation, which eventually contributed to the crash of the U.S. farm economy in the early to mid-1980s. Alternatively, the annual inflation rate turned negative for a few months in 2009 during the dramatic slowing of the U.S. economy in the midst of the Great Recession which economists label as deflation (Figure 1).

push inflation on input costs for businesses that depend a lot on borrowed capital (e.g., agriculture). Higher interest rates can also impact land values, exchange rates, and overall family living expenses – all impacting the overall purchasing power of farm resources.

Figure 2 outlines the relationship of USDA's index for prices received by farmers for a selected representative group of agricultural commodities, a production cost index for prices paid by farmers on a selected representative group of farm input

Figure 1: Annualized Rates of Inflation (Monthly CPI data for 1970-2021)



Source: Federal Reserve Economic Data (FRED)

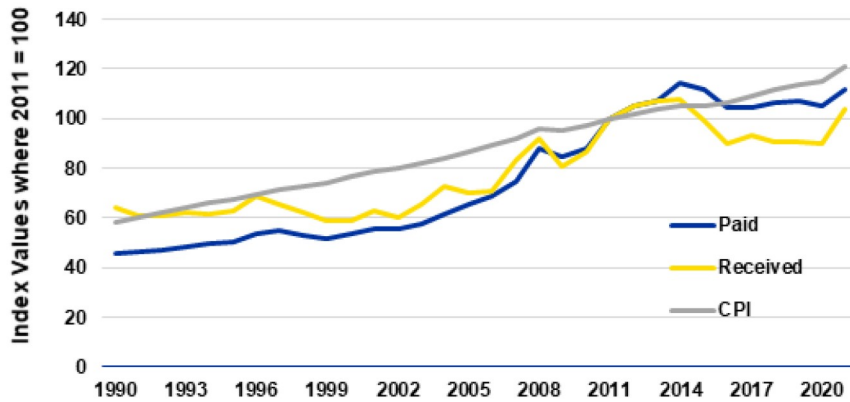
Inflation impacts both producers and consumers. For agriculture, historical data support the hypothesis that commodity prices generally rise during periods of inflation. But so do ag input prices. Higher commodity prices will lead to increased global demand for farm inputs such as seeds, fertilizer, livestock, farm equipment, etc., thus putting upward pressure on input prices, holding all other factors constant. Sustained, "unacceptable" levels of inflation often lead to actions by the Federal Reserve (the central bank of the United States which manages monetary policy) to raise interest rates, resulting in additional cost-

expenses, and the overall change in prices paid by consumers (i.e., the general inflation rate) over the past 30 years. During this time frame, the average rate of inflation (as measured by the CPI) increased 2.4% annually compared to an average increase of 1.8% annually for farm prices received and a 3% annual increase in the farm prices paid. Alternatively speaking, the data over the past three decades show that on average, the prices paid by U.S. farmers for ag inputs tend to increase more than rate of inflation and more than the prices farmers received for their products. The data also reveal ag prices paid and received tend to be significantly

more volatile than the historical change in consumer prices.

check of annual changes in the CPI versus U.S. Net Farm Income from 1990 to 2020 yields virtual no

Figure 2: USDA Index of Farm Prices Paid and Farm Prices Received vs the Consumer Price Index (CPI), 2011=100



Source: NASS/USDA

Economists measure the statistical relationship of two economic variables by calculating correlation coefficients. Correlation coefficients range from 1, indicating a perfect positive correlation of two variables to -1 indicating a perfect negative correlation. A correlation coefficient equal to zero indicates no statistical relationship between the two variables. Economists are quick to point out that correlation does not imply causation, but still provides a very simple measure of the relationship of two variables over a period of time.

The correlation coefficient between the Index of Farm Prices Received and the CPI from 1990 to 2020 was 0.89 indicating a very strong positive relationship. The correlation coefficient between the Index of Farm Prices Paid and the CPI was even stronger (0.96). Thus, this statistical exercise reveals that both farm commodity prices and farm input prices tend to both follow changes in the rate of general inflation in the economy. However, a

statistical relationship (with the correlation coefficient being 0.001) and is a -0.50 for the past fifty years, indicating that farm income during this period tended to fall during bouts of inflation.

Inflation effectively reduces the so-called purchasing power of both producers and consumers, Economists like to present data in "inflation-adjusted" or "real" terms. If one's income increases by 3%, but the cost of goods and services in the economy increase by 5%, the employee has experienced a higher "nominal" income, but their purchasing power due to inflation has been eroded. Within ag, most commodity prices have generally declined over time relative to the rate of inflation. However, in many cases, the advancements in yields for crops and pounds of gain for livestock have helped offset the decline in real or inflation-adjusted prices. Of course there are exceptions such as burley tobacco, where the real price of burley has declined from around \$2.00/lb in

2004 to approximately \$1.40/lb today, while crop yields have trended down. Even with stable yields, burley farmers today would need to receive close to \$3.00/lb in the marketplace compared to the \$2.05 to \$2.10/lb they received on average from the 2021 crop to maintain the same level of purchasing power today compared to prior to the buyout in 2004.

A recent Farmdoc Daily article indicated the strong historic relationship between interest rate movements and inflation – both of which affect farmland values. A simple expression that economists use to provide an estimate of farmland values is: $V = R/I$, where V is the current (or present) value of a unit of land, R is the expected return per unit of land in each future time period and I is the discount (or interest) rate. Thus economists would say that farmland values are directly correlated with anticipated annual returns and inversely correlated with interest rates. In lay terms, the price of a parcel of land tends to increase in value when the market perceives that future net returns will be higher and tends to fall when the cost of capital is higher, holding all other factors constant.

Thus, based on the above discussion, inflation tends to increase both farm returns (positive impact on land values) and interest rates (negative impact on land values). So which one wins out? Since the 1920s, farmland values in Kentucky have increased by an average annual rate of 4.6%, while inflation has increased on average by 2.8% (Figure 3).

(continued on next page)

Inflation - "Good" or "Bad" for Agricultural Producers and Consumers?

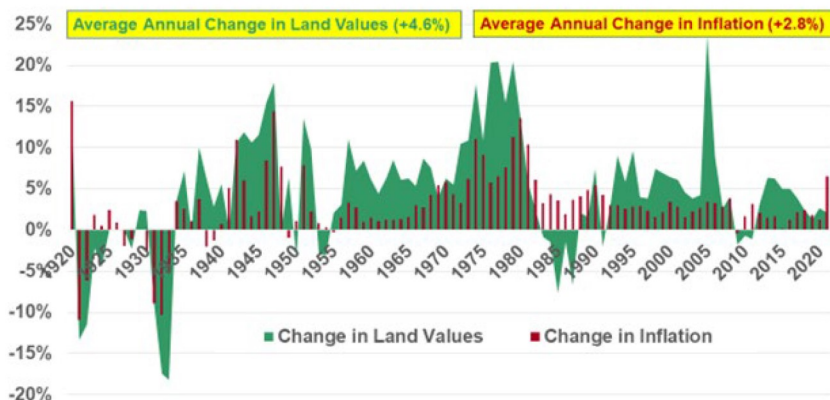
(continued from page 5)

Consequently, the data verify that the real or inflation-adjusted value of land has increased over time indicating that land values have increased at a greater rate than inflation. This observation has led many to claim that investing in farmland is a good hedge against inflation.

Alternatively, sustained periods of a depreciated U.S. dollar (such as during decade of the 1970s and the first decade of the 2000s in Figure 4) illustrate a period of significant growth in the value of U.S. ag exports. Of course, many other factors come into play affecting ag exports such as trade relations,

commodity prices, but higher commodity prices increase the demand for farm inputs, including the cost of borrowed funds. Historical data clearly shows that inflation tends to boost the value of farm assets such as land, but could hurt U.S. ag exports through its impact on the value of the U.S. dollar. A lot of the effects really depend on the severity and length of "excessive" inflation in the economy and the ultimate change in monetary policy. Also, the outcome may vary depending on whether you are a farmland investor, a permanent landowner, or a land renter, plus one's dependence on borrowed funds and/or international markets. While it appears the effects of inflation on agriculture can be debated, it is pretty clear that it is bad for consumers (more on that topic next month) and that deflation is bad for the entire economy, including agriculture.

Figure 3: Annual Percentage Changes in Kentucky Farmland Values vs Inflation

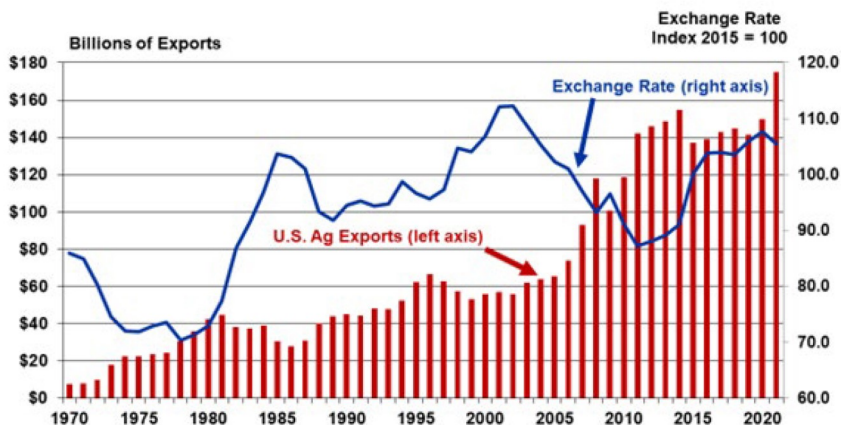


Source: Calculations from ERS/USDA data

Inflation can also have some direct adverse effects on the cost of selling products in international markets via changes in exchange rates. Sustained and "unacceptable" levels of inflation can lead to increases in the demand for U.S. dollar-denominated financial assets assuming U.S. interest rates increase relative to investment returns on foreign financial assets. This event will tend to increase in the value of the U.S. dollar in foreign exchange markets, which results in buyers outside the United States having to increase the amount of foreign currency needed to exchange into U.S. dollars. The appreciation in the U.S. dollar exchange rate will thus have a tendency to reduce U.S. ag exports, holding all other factors constant. (See early 1980s and the 2015-2020 period in Figure 4.)

weather events, and financial investment returns/inflation in competitor nations.

Figure 4: U.S. Ag Exports vs U.S. Trade Weighted Exchange Rate



Source: FAS/USDA

In summary, the discussion above yields a mixed message on the impact of inflation on U.S. farmers. Inflationary pressure in the economy can put upward pressure on farm

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Nutrena
What's inside counts.

EQUINE SEMINAR

"Horse Feed for Every Need"

Join us for a special event.

Wednesday, March 16th 6:30PM

Join us for an exciting equine nutrition seminar, presented by Campbell Southern States, Campbell County Extension Service (Michelle Simon,) and Nutrena. We invite you to attend and have dinner, enter our drawings, and learn about equine nutrition.

Dr. Martin Adams PAS, Phd. will be presenting the following topics:

- Feeding horses for maximum performance
- Feeding recommendations:
 - To prevent Gastric Ulcers
 - Reduce Excitable Behavior
 - Address insulin resistance and Cushing's Disease

Door prizes will include:

Drawing for Southern States Gift Card \$100 Value Four drawings for 5 free bags of Nutrena Triumph Feeds Coupons for "buy 2, get 2 free, for all attendees"

For more information, Contact Sara Carson (859) 635 - 2104

Presented by:

 **SOUTHERN STATES**[®]
A Farmer Owned Cooperative Since 1923.

Where:

Campbell County Extension Service
3500 Alexandria Pike
Highland Heights, KY 41076



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RENEWING FARM TAGS BENEFITS 4-H

4-H has an opportunity to raise funds for Campbell County and statewide 4-H programs again this year, through the Kentucky Ag Tag Donation program.

“Kentucky 4-H has again been given a tremendous opportunity by Commissioner Quarles to raise significant funds to support 4-H,” said Melissa G. Miller, Executive Director of the Kentucky 4-H Foundation. “This funding creates life-changing opportunities for local 4-H’ers and cultivates future leaders – instilling leadership skills, citizenship, and life skills in a learn-by-doing atmosphere.”

Since 2012, Kentucky Farmers have the option to make a \$10.00 voluntary donation when they purchase or renew their license plate. Commissioner of Agriculture, Ryan Quarles, will again equally divide the amount raised among 4-H, FFA and Kentucky Proud.

With more than 184,000 farm plates bought or renewed each year in Kentucky, the Commissioner’s action can generate significant funds to support these three outstanding programs.

In 2021, Kentucky 4-H received \$243,875.89, from the Ag Tag Donations. These funds are split between the county where the funds originated and the Kentucky 4-H Foundation for state level programs. That means half of the Ag Tag donation stay in Campbell County funding programs and activities that teach children and teens about leadership, citizenship, science and technology, communications, public speaking, agriculture, and more.

Over 290,000 youth are involved in Kentucky’s 4-H program. Kentucky ranks in top 10 in several 4-H enrollment categories nationwide. All 120 counties in Kentucky have 4-H programs and all counties will receive a portion of the support from the Ag Tag Donation program.

In 2021 a total of \$3850.00 was donated in Campbell County and this amount was split between 4-H, FFA and KY Proud Programs. If

every Campbell Countain renewing an Ag Tag were to make the voluntary \$10 donation, over \$8555.00 could be raised.

For more information about Campbell County 4-H, visit our Facebook page or visit our Campbell County Cooperative Extension Service website www.campbell.ca.uky.edu.



GROWING TOMORROW'S LEADERS

YOUR DONATION

Give \$10 with each Ag Tag

YOUR COMMUNITY

Half of the funds for 4-H and FFA come back to your local clubs and chapters.

OUR LEADERS

Support statewide programs impacting 274,000 students enrolled in 4-H, FFA and KY Proud members.



By making a \$10 donation with your Ag Tag, you are choosing to invest directly into the future of Kentucky agriculture. Donations are divided equally between FFA, 4-H and Kentucky Proud with half going directly back to your County. Thank you for your support.



EQUINE EQUIPMENT FIELD DAY

WHEN

Saturday, April 2, 2022
10:00 am—1:30 pm

WHERE

Flying Cross Farm

9220 West U.S. Highway 42, Goshen, KY 40026

FEATURING • Tractors & Equipment from local dealers on display

AUDIENCE • Targeted to farms with 25 acres or less

FIELD DAY TALKS

- ⇒ **Selecting a New or Used Tractor - Morgan Hayes, UK Biosystems & Ag Engineering**
- ⇒ **Selecting Equipment - Josh Jackson, UK Biosystems & Ag Engineering**

Registration is needed to reserve lunch by calling Oldham County Extension (502) 222-9453

Cooperative Extension Service
Agriculture and Natural Resources
Family and Consumer Sciences
4-H Youth Development
Community and Economic Development

Educational programs of Kentucky Cooperative Extension serve all people regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identity, gender expression, pregnancy, marital status, genetic information, age, veteran status, or physical or mental disability. University of Kentucky, Kentucky State University, U.S. Department of Agriculture, and Kentucky Counties, Cooperating.
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Disabilities accommodated with prior notification.

 University of
Kentucky

Ag Equine Programs
College of Agriculture, Food and Environment

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Price Risk Management Tools for Cattle Producers

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

The last few years are unlikely to be remembered fondly by many cattle producers. Large cattle supplies, a global pandemic, weather challenges, and a sharp increase in feed prices have all impacted feeder cattle values. However, 2022 has brought optimism for a significantly better cattle market. As I write this on January 21, 2022, there is more than a \$15 per cwt increase in CME® feeder cattle futures from the March contract to the August contract. In fact, every contract for August through November is trading north

of \$180 per cwt. It has been some time since we have seen those types of price levels, so they have certainly caught my attention over the past few weeks. This article will briefly discuss some tools available to cattle producers should they want to protect themselves from downside price in 2022.

First, producers could consider entering a cash forward contract with a buyer looking to place feeders later in the year. The two parties could agree on a price now for cattle

to be delivered at a later date and this expectation of higher prices should be reflected in the contract price. Assuming the contract is binding and enforceable, this strategy eliminates price risk. However, production risk remains a concern if cattle don't perform as expected, fail to reach the agreed upon weight, or if weather conditions necessitate earlier sale of the cattle. While forward contracts are an excellent price risk management tool, they are pretty limited in their use for cattle in Kentucky.

Hedging, through the sale of deferred futures contracts, is another way to capitalize on a strong futures market. As an example, a producer who plans to sell cattle in August, may choose to sell an August CME® Feeder Cattle futures contract now in order to have downside price protection until they sell the cattle. If feeder cattle markets decline between now and August, the producer will gain on their short futures position, which will offset some of the loss in value of the cattle they will sell. Producers who choose to implement this strategy need to be certain they have access to considerable capital for margin calls. If futures prices continue to increase, producers can lose a lot of money on short futures positions before they are able to sell their cattle on the stronger market. For this reason, it is crucial that lenders be fully aware of the plans if this strategy is used. Producers must also consider basis as the value of the cattle they sell will not perfectly match futures prices.

Options on futures contracts provide an opportunity to have some downside protection, but also keep



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

Buffalo Trace Counties
hosting an in person
Dicamba Certification
at the
Lewis County Extension Office
March 22, 2022 @ 6:30 p.m.

TO REGISTER;
USE THE QR CODE OR
CALL YOUR LOCAL
EXTENSION OFFICE AT:
(606)796-2732

REGISTER BY 3/18/22



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Disabilities
accommodated
with prior notification.

the ability to capitalize on rising prices. For example, if the August CME® feeder cattle futures contract were trading at \$180 per cwt, the producer might buy a put option with a strike price of \$174. The put option gives the producer the right to sell August futures at \$174, which means their option will increase in value as the market falls. They will pay a premium for this right, which becomes an additional cost. They must also self-insure the first \$6 per cwt drop in the market (the difference between the futures price and the strike price on the put). If feeder cattle prices continue to rise, the producer can benefit by selling their cattle on the stronger market and the only expense is what was paid in premium. Much like hedging through the sale of a futures contract, basis must also be considered with an option strategy as the strike price is based on the futures market.

An additional limitation of both futures based strategies (sale of futures and purchasing of options) is the 50,000 lb CME® Feeder Cattle contract size. The vast majority of Kentucky cattle producers are not large enough to utilize futures and options.

Fortunately, Livestock Risk Protection (LRP) insurance provides an opportunity to purchase an insurance product very much like a put option, but that can be scaled for smaller operations. Additionally, the subsidy on LRP has been increased

substantially over the last couple of years, which makes it much more attractive from a premium perspective.

LRP is an insurance product that pays an indemnity if the CME® Feeder Cattle Index is below a selected coverage level on the ending date of the insurance policy. The CME® Feeder Cattle Index is used to cash settle open CME® Feeder Cattle contracts at expiration, so this insurance product is very similar to a put option. Consider the option example from before for a producer that planned to sell 800 lb feeder steers in August. Rather than purchasing an August put, that producer could instead purchase LRP insurance with a coverage level of \$174 per cwt and an ending date sometime during the month of August. If the CME® Feeder Cattle Index was below \$174 on the ending date of the policy, they would be indemnified for the difference on every lb they covered. They must still self-insure the decrease until the index reaches \$174 and they must also understand basis – the policy is indemnified based on the CME® Feeder Cattle Index, rather than what they sell their cattle for.

strategy described that do not involve basis risk, as an actual price for the cattle can be agreed upon. Potential margin calls are an important consideration for producers that choose to use short futures positions. Put options and LRP insurance both have the advantage of leaving potential for upside price gains, although the downside protection is not as solid as with forward contracts or short futures. Finally, LRP insurance offers the best opportunity to scale price protection to smaller quantities. While forward contracts could be written in any size, they tend to be more available for larger volumes.

Risk management strategies are very much dependent on the risk preferences and financial situation of the individual. The purpose of this article was largely to point out what is being offered by the market and review some price risk management strategies that are available. While these markets certainly have the potential to go higher, it is very likely that attractive pricing opportunities will be available for producers looking to establish some downside price risk protection this year. Price risk management is not about trying

to cherry-pick market highs as it is sometimes presented. It is about strategically managing downside price risk and should be part of every producer’s marketing plan.

Quick Comparison of Feeder Cattle Price Risk Management Tools

	Subject to Margin Call	Leaves Upside Potential	Subject to Basis Risk	Available in Small Scale
Cash Forward Contract				✓-
Short Futures	✓		✓	
Put Option		✓	✓	
LRP Insurance		✓	✓	✓

The table above provides a quick comparison of some of the key features of the strategies discussed. Forward contracts are the only

of every producer’s marketing plan.

What to do When Calves Are Born Weak

Dr. Michelle Arnold, UK Veterinary Diagnostic Laboratory

“**W**eak Calf Syndrome” is a term applied to a calf born alive but lacks vigor, is slow to stand, and may not attempt to nurse. Affected herds may also see an increase in stillborn calves. The known factors contributing to the development of weak calves include inadequate nutrition for the dam during pregnancy, difficult calving (known as “dystocia”) and infectious diseases, especially BVD virus. With excellent management, some weak calves will survive but most will die shortly after birth. Those that survive are prone to develop scours or pneumonia, grow slowly and have lower weaning weights. Although this situation is difficult to correct during calving season, identification and correction of the underlying problems will help prevent this syndrome down the road.

1. Inadequate Pre-Partum Nutrition

Nutrition for the dam is key to preparing a calf for life outside the cow. Not only does the pregnant cow’s diet need to meet her own maintenance needs but, in the last 50-60 days of gestation, approximately 80% of fetal growth occurs requiring additional nutrients to support this tremendous growth and to develop the fetal brown fat needed to supply energy to the newborn until adequate colostrum is ingested. The two most important cow nutritional requirements are protein and energy, the exact amounts of each depend on stage of production, environment, and mature cow size. Research has shown that calves born to cows on inadequate diets have less vigor, less brown fat stores, less ability to warm themselves, and it takes a much longer time for them to stand after

birth. Heifers and old or thin cows are more likely to have weak calves as they simply cannot compete for hay and feed and should be fed separately to allow them access to the nutrients they need.

Vitamin and trace mineral deficiencies have also been associated with weak calves. If cows are not supplemented with adequate amounts of selenium during gestation, the calf will be born with a severe selenium deficiency. This deficiency results in “white muscle disease”, a condition where calves are born with weak heart and skeletal muscles and frequently die soon after birth. In addition, both vitamins A and E are vital nutrients for cows to pass to the fetus but may not be adequate in poor quality forage. Always keep a good trace mineral mix with vitamins in front of the cows or mix it in supplemental feed to ensure calves are born with sufficient amounts.

2. Dystocia (Difficult Birth)

A calf involved in a difficult birth will have decreased vigor and take longer to stand and nurse. A prolonged labor and difficult calving often results in a newborn calf with a swollen head or tongue, bruising, fractures, and excessive fluid in the trachea or lungs. Low blood oxygen in the calf (“hypoxia”) from prolonged labor will also impair the function of the central nervous system (brain and spinal cord). Additionally, a calf may have broken ribs that affect its ability to breathe. An easily observed sign of a difficult birth is brown or yellow staining of the calf’s hair coat from the meconium.

If a calf does not stand and nurse within one hour of birth, the calf must

be fed colostrum either milked from the dam or use a commercial colostrum replacement. Colostrum should be given as soon after birth as possible, preferably within 1-2 hours, and repeated at no later than 6 hours after birth. Weak calves born during cold, wet weather with little brown fat can quickly develop hypothermia (low body temperature) and are unable to stand or nurse until warmed. A warm water bath, blow dryer, heat lamp or floorboard heat can quickly warm a cold calf. Beware of heating pads as they can cause burns.

3. Infectious Causes-Bovine Viral Diarrhea (BVD) Virus and Leptospirosis

Both the BVD virus and the spirochete *Leptospira interrogans* serovar *Hardjo* infections have been diagnosed in weak calves. If an unvaccinated or poorly vaccinated cow is infected with the BVD virus during gestation, there are no good outcomes. The calf may be born weak or born with congenital defects such as a domed head, cleft palate, cataracts and other eye defects, or the calf may be born as a PI (persistently infected) calf. The other possible infectious cause of weak calf syndrome, Leptospirosis, is not fully understood but studies are on-going to determine its importance.

If pregnant cows in the herd have been losing weight, especially in late gestation, it is best to prepare for the birth of weak calves. Several measures should be instituted immediately to save as many calves as possible:

1. Check heifers and cows in labor frequently (at least 2-3 times daily)
 - Although producers are

accustomed to watching heifers closely for calving difficulty, this recommendation should be extended to all late gestation cows. Once the water bag or hooves appear, the calf should be born within an hour to hour and a half. If the cow is not making progress, call your veterinarian for help. If early signs of labor are observed for several hours but the water bag does not appear, the calf may be breech (tail first) or abnormally positioned. Again, call for help quickly for a better chance to have a live calf.

2. Address nutritional needs and account for increased needs during severe weather. Test your hay then evaluate the protein and energy in the ration and address any deficiencies. Body condition score the cows and heifers due to calve in the next 60 days to evaluate their needs. In addition, remember that lactating cows have the greatest need for energy because they are producing milk. If you observe a young calf frequently attempting to nurse, it is unlikely to be getting enough milk from the dam and may need milk supplementation. If possible, separate cows according to their nutritional needs and feed them accordingly. Creep feeding calves will help the older calves continue to grow and lessen the burden on the lactating dams.
3. Identify the weak calves and institute special care – Normal calves should stand within 30 minutes of delivery and nurse within 30 minutes of standing. If the calf is slow to stand and nurse, intervention is necessary. It is important to dry the calf off, dip or

spray the navel with disinfectant, warm the calf, and feed colostrum with an esophageal feeder to ensure it gets enough. Have a good quality commercial colostrum replacement (NOT supplement) on hand and ready to mix and feed. Do not delay because the longer the interval from birth to feeding, the fewer antibodies absorbed into the blood stream of the calf.

4. Provide shelter during harsh winter weather – Unrolling hay on the ground where there are windbreaks or in wooded areas provides some protection during times of intense rain and cold. A shed or barn can be beneficial but remember organisms that cause calf diarrhea build up very quickly in areas that stay moist and without sunlight. Barns should be clean, dry, and well-bedded if used for calving. If cows were not vaccinated with scours vaccine prior to calving, there are products available to give the calf by mouth at birth to aid in scours prevention.
5. Do your best to feed in different spots to avoid creating areas of deep mud. Calves and weak cows will get stuck in deep mud and die. Mud is very sticky and will trap weaker animals until they die of exhaustion, hypothermia or fall prey to a predator. Fields can be fixed when winter is over.
6. Diagnose the cause of unexpected death in newborn calves. Contact your local veterinarian and submit any calves that die due to unknown causes to the UK Veterinary Diagnostic Lab or Breathitt Laboratory in Hopkinsville.

The best strategies to prevent weak calves next calving season are a solid vaccination and deworming program, proper nutritional management, and avoiding dystocia. Not only will calf survival improve but pregnancy rates will increase as well. Keep the following points in mind:

- Vaccinate open cows at least 4-6 weeks before breeding with a modified live 5-way viral respiratory vaccine (IBR, BVD Types 1 & 2, PI3, BRSV), with Vibriosis and the 5 strains of Leptospirosis. Consult your veterinarian about vaccination protocols in pregnant cattle and testing the herd for persistent infection with BVD virus.
- Test all hay and plan to provide enough protein and energy for cows and heifers with a balanced ration based on the stage of production (lactation, mid- or late gestation). Ensure a clean, uninterrupted water supply 24 hours a day, 7 days a week.
- Maintain a body condition score of 5 for cows (up to a 6 for heifers) to ensure adequate condition at calving.
- Allow cows access to some form of shelter in case of bad weather when calving. However, if unable to keep this area clean, calves are far better off being born outside in a grassy area.
- Have enough help on hand at calving to watch cows, assist with calving and treat weak calves if necessary. A strong relationship with your local veterinarian is exceptionally important for difficult calving situations and the evaluation and treatment of weak calves.

(Even) More Reasons to Love Red Clover

Dr. Jimmy Henning, Extension Professor, Forage Specialist, University of Kentucky

Red clover has been cool in Kentucky for a long time. Clover has long been known to benefit ruminant producers because of its high yields, high yields, biological nitrogen fixation, summer time production and dilution of the negative effects of tall fescue. New research from the USDA-ARS Food Animal Production Research Unit embedded in the UK College of Agriculture Food and Environment is adding even more reasons to love red clover.

Red clover directly counteracts the vasoconstriction caused by the toxic endophyte of tall fescue. The constriction of the exterior blood vessels makes ruminants much less able to regulate their body temperatures, causing heat stress in summer and cold stress in winter. Red clover has been found to contain a natural compound that actually causes these constricted blood vessels to dilate, restoring blood flow and relieving temperature stress. These compounds, called isoflavones, are also present in white clover and alfalfa, but at lower levels than red clover.

Surprisingly small amounts of red clover in the diet have large effects. Research by USDA-ARS group found that pastures overseeded with red clover as well as hay with 15 and 30% red clover improved growth of steers and relaxed the exterior blood vessels of steers grazing toxic tall fescue. Even more significant, other studies have shown toxic fescue symptoms are alleviated by feeding mineral that contains 20% red clover. Could red clover be the 'silver bullet' for toxic fescue that we have been looking for? It sure seems like it to me.



Addition of clover to toxic tall fescue pastures has long been known to improve conception rates of cattle. It is also known that isoflavones are estrogen-like compounds (phytoestrogens) which can suppress reproduction when fed at high levels, especially in sheep. USDA-ARS scientist Dr. Brittany Harlowe has begun to study the effects of high levels of red clover on the reproductive efficiency in cattle. Her preliminary results found reproductive efficiency was not suppressed in heifers fed a mineral that contained 20% red clover compared to a non-red clover control. The heifers receiving the red clover mineral shed their winter hair coat better and experienced less heat stress in hot, humid weather than those fed the non-red clover mineral.

Red clover improves rumen fermentation. Rumen microorganisms do some magical things, like converting forage fiber into steak. One of the things you would change about the rumen if you could is the way that the microorganisms digest forage protein. Some rumen microorganisms will excessively break down forage protein and release ammonia. Red clover suppresses some of the rumen bacteria that are especially active in degrading forage protein. This lets more forage protein flow intact from the rumen, improving animal performance.

Better than alfalfa? Alfalfa has long been known as the queen of forage crops for its ability to produce high yields and high animal performance. Red clover has some qualities that in

some ways make it superior to alfalfa. Before you burn me at the stake for this bit of forage heresy, hear me out. Both of these legumes are highly digestible, but alfalfa as it matures tends to accumulate more lignin associated with plant fiber than red clover. Lignin in mature forages reduce University of Missouri, red clover the digestibility of the fiber. Lower lignin values in red clover give it an energy advantage. Also, when I ran the mobile forage testing lab at the ever always testing lower in fiber than comparable alfalfa bales. Comparing red clover to alfalfa may be like comparing Porsche to Ferrari since both are high performance entities. Just remember that red clover brings a lot of nutrition to the table too.

With red clover you get all of these benefits plus free nitrogen from the rhizobia bacteria embedded in root nodules. Don't forget that red (and white) clover can be readily introduced into tall fescue pastures by overseeding now. This establishment method is commonly known as frost seeding because the freezing and thawing of winter creates enough seed-soil contact that clover will germinate in late spring. For more information on frost seeding clover, type 'frost seeding uky' into your internet browser or go directly to <https://grazer.ca.uky.edu/content/frost-seeding>.

More than ever, red clover needs to be part of your strategy for managing toxic tall fescue.

2022 Kentucky Farm Bureau Beef Expo Schedule March 4th-6th

BREED SHOWS

ANGUS.....	Friday, March 4	10:00 a.m.
CHAROLAIS.....	Saturday, March 5	12:00 p.m.
GELBVIEWH.....	Friday, March 4	1:00 p.m.
HEREFORD	Friday, March 4	1:00 p.m.
RED ANGUS	Friday, March 4	10:00 a.m.
RED POLL.....	Friday, March 4	2:30 p.m.
SHORTHORN	Saturday, March 5	10:00 a.m.
SIMMENTAL.....	Friday, March 4	4:00 p.m.
PEN HEIFER.....	Friday, March 4	2:00 p.m.
BLACK HERFORDS....	Saturday, March 5	2:00 p.m.
LIMOUSIN	Saturday, March 5	10:00 a.m.

BREED SALES

Saturday, March 5	12:00 p.m.
Saturday, March 5	4:00 p.m.
Saturday, March 5	11:30 a.m.
Saturday, March 5	1:00 p.m.
Saturday, March 5	10:00 a.m.
Saturday, March 5	9:30 a.m.
Saturday, March 5	1:00 p.m.
Saturday, March 5	11:00 a.m.
Saturday, March 5	2:00 p.m.
Saturday, March 5	4:00 p.m.
Saturday, March 5	2:30 p.m.

Don't Miss These Other Expo Events!!!

Junior Heifer, Steer, and Market Heifer Jackpot Shows
Additional information: www.kybeefexpo.com

Join us...

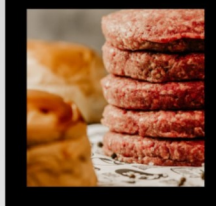
Beef Cattle

Master Finisher Program

COOPERATIVE EXTENSION



A comprehensive webinar series focused on finishing beef cattle for processing.



Programs are held in-person at the Environmental Education Center or via **ZOOM**. They will be recorded for later viewing as well.

Programs start at 8:00 p.m.

1261 Race Track Road, Alexandria, KY 41001

- January 18, 2022 Gregg Rentfrow - Working with processors, what to expect.
- February 1, 2022 Chris Teustch - Forages for pasture-based finishing.
- February 15, 2022 Paul Priyesh Vijayakumar - Food safety considerations for selling beef.
- **March 1, 2022** Kenny Burdine - Marketing considerations for freezer beef.
- March 15, 2022 - Morgan Hayes- Confinement facilities.
- April 5, 2022 **6:30 p.m. at Asa Phillips Farm** - Nutrition and Management Part 1
2225 Hwy 127 N, Glencoe, KY 41046
- April 19, 2022 Steve Higgins - Environmental compliance/waste management.
- May 5, 2022 **6:30 p.m. at Alan Ahnram Farm** - Nutrition and Management Part 2
661 Kenton Station Rd., Alexandria, KY 41001

Registration is required

Call 859-572-2600 or online at <https://campbell.ca.uky.edu>

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Ask questions if buying hay from a distance

By: Mike Rankin, Hay and Forage Grower

Making hay on your own farm or purchasing hay from a trusted neighbor generally means that you can be pretty sure of what you're getting. When hay inventories are stressed in a region such as the Northern Plains in 2021, the situation may require purchasing hay from a distance from someone you've never had previous business dealings with.

"When purchasing feedstuffs, it is important to ask a lot of questions to avoid issues related to poor forage quality, contamination with weeds, and the presence of toxins such as nitrates," says Janna Block, North Dakota State University (NDSU) Extension livestock systems specialist based at the Hettinger Research Extension Center. "Clear and honest communication from both parties can help ensure a successful business transaction."

Block suggests in a recent NDSU news release that the following information be obtained before finalizing any transaction:

- Month and year of harvest
- Packaging and type of wrap (net wrap, twine, or plastic)
- Average bale weight
- Species composition
- Potential for presence of noxious weeds, mold, or other anti-quality factors
- Length and method of storage



The livestock specialist strongly encourages hay buyers to request a forage analysis. "If sellers have not submitted samples for analysis, request them to do so," Block asserts. "Dry matter content, crude protein, and an estimate of energy are necessary for making an informed decision about purchasing a particular type of forage. Be sure to compare the price of feedstuffs on a dry matter basis.

Even if results of laboratory analysis are available, producers are often purchasing hay sight-unseen, which makes it difficult to evaluate physical factors such as leafiness, maturity, color, smell, and bale condition of the bales," she adds.

Block suggests that long-distance buyers request pictures of the bales or, if possible, take the time to inspect them in person prior to purchase.

Species such as sorghum and sudangrass, drought-stressed corn, and annual cereals such as oats, barley, and wheat have the potential for high levels of nitrate. If there is a

nitrate concern, have the forage tested before feeding.

In addition to nitrates, there may be other anti-quality components present in forages that can be difficult to quantify or evaluate. These include structural components of the plant or secondary metabolites that can cause toxicities and nutrient imbalances in livestock.

"Grasses such as tall fescue, perennial ryegrass, and reed canarygrass can produce alkaloids (plant compounds) that associate with a fungus and cause heat intolerance, lameness, reduced feed intake, and other animal performance issues," Block says.

Transportation costs can add significantly to the hay's purchase price. Determine what trucking will entail, or if it's even available, before closing the deal. Trucking charges can be based on loaded miles or roundtrip miles. If the seller is doing the trucking, transportation costs will likely be included in the final hay purchase price. In some regions, hay transportation assistance is available through the local USDA Service Center.

Finally, make sure not to fall prey to a hay-selling scam. Any communication or payment method that seems out of the ordinary is cause for concern.

ALERT!

Avian Influenza in Kentucky

Information for bird owners

Highly Pathogenic Avian Influenza (HPAI) has been found in Kentucky. It is a contagious disease of birds, typically deadly to domesticated poultry.

WHAT KINDS OF BIRDS ARE AT RISK?

HPAI is highly contagious and often fatal for domesticated poultry, including **chickens, turkeys, pheasants, quail, ducks, geese, and guinea fowl**. It can be carried by free flying migratory waterfowl, such as ducks, geese, and shorebirds.

DOES HPAI INFECT PEOPLE?

Properly cooked meat and eggs from birds are safe to eat. Always remember, cooking poultry and eggs to an internal temperature of 165°F kills bacteria and viruses. According to the U.S. Centers for Disease Control and Prevention, these avian influenza detections do not present an immediate public health concern. No human cases of these avian influenza viruses have been detected in the United States.

HOW IS HPAI SPREAD?

The disease is spread by direct contact between birds, by coughing and sneezing, and through droppings. People can spread HPAI by moving infected birds, moving contaminated equipment and feed, and by wearing clothing and shoes that have been in infected areas.

WHAT DOES HPAI LOOK LIKE IN BIRDS?

Some signs of HPAI include sudden death of poultry without clinical signs, respiratory signs (nasal discharge, coughing sneezing), a lack of energy or appetite, decreased water consumption, decreased egg production or soft-shelled or misshapen eggs.



KENTUCKY
DEPARTMENT OF
AGRICULTURE

kyagr.com/hpai

WHAT YOU CAN DO TO HELP

- If you think your birds are sick please immediately call the **Sick Bird Hotline at: 866-536-7593**
- Keep your birds away from other birds.
- If you visit family or friends with birds, shower, wash your clothes, and change your shoes before handling your birds
- Don't visit them without taking these same steps if you have handled your birds.
- Try to keep people who also own birds from visiting your property
- Share information about HPAI with family and friends



SICK BIRD HOTLINE: 866-536-7593

Annual Horse Health Day—March 26, 2022



Location: Alexandria Fairgrounds (100 Fairground Rd; Alexandria, KY 41001)

Saturday, March 26, 2022

9:00 A.M. to 12:00 P.M

(Please arrive no later than 11:30 A.M.)

Following current COVID recommendations

IF YOU FEEL UNWELL/HAVE SYMPTOMS OF COVID 19 PLEASE REFRAIN FROM ATTENDING

This clinic is being provided for horse owners from Campbell County and the surrounding areas to get Coggins, health certificates and other services for your horse such as vaccines, health certifications, bloodwork, fecal and teeth exams.



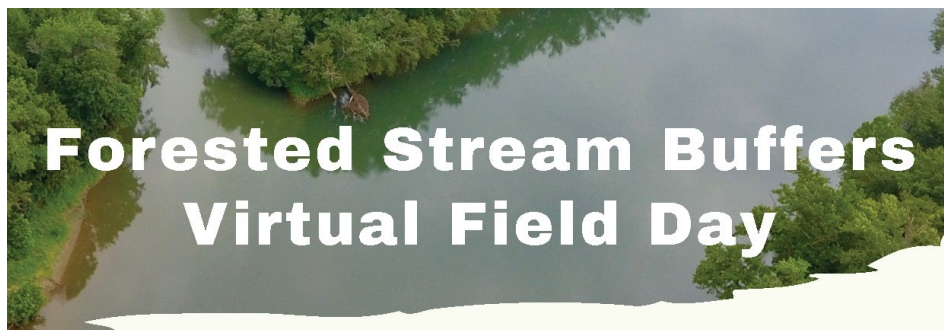
This is also a fundraiser supporting the Campbell County 4-H

Saddle Up Club- \$5 from every Coggins will be donated to the club!

We ask that you bring your previous Coggins to help fill out the new Coggins form when you arrive. Please be prepared to pay by check, cash, or credit card at the clinic.

Call or email to schedule your requested services; with the number of horses and services.

Contact Licking Valley Vet Service at 859-472-4141, or email at Lickingvalleyvet@gmail.com



MARCH 24, 2022

7 PM ET | ZOOM

Learn about the importance of forested stream buffers on the landscape, how to establish and manage them, and how to incorporate them into your land management plans.

Visit <https://forestry.ca.uky.edu/forested-stream-buffers>

OR SCAN TO REGISTER



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



10-Minute Bean Soup

Servings: 4

Serving Size: 1/4 of recipe



Ingredients:

- 1 tablespoon olive oil
- 1 teaspoon minced garlic
- ¼ cup onion, finely chopped
- 2 (15.8 ounce) cans of great northern beans, rinsed and drained
- 1 (14.5 ounce) can diced tomatoes with basil, garlic and oregano
- 1 (14 ounce) can low-sodium vegetable or chicken broth
- 4 cups kale, torn into small pieces
- 1 tablespoon lemon juice
- ½ cup grated Parmesan cheese

Notes: Cooked, dried beans may be substituted for canned beans. Using prepared dry beans in place of canned will reduce sodium in this dish. If you can't find diced tomatoes with basil, garlic and oregano, use regular diced tomatoes and add dried versions of these seasonings.

Directions:

1. In a medium saucepan, heat oil over medium heat and sauté garlic and onion for 3 minutes or until onion is tender.
2. Add beans, tomatoes and broth to saucepan. Stir and simmer for 5 minutes. Add kale and cook until tender, for about 2 minutes.
3. Mix in lemon juice and Parmesan cheese just before serving. Optional, garnish with finely chopped fresh basil or dried basil.

Source: Caroline Durr, Area Nutrition Agent for Kentucky Nutrition Education Program, University of Kentucky Cooperative Extension Service

Nutrition facts per serving:

400 calories; 8g total fat; 2.5g saturated fat; 0g trans fat; 10mg cholesterol; 500mg sodium; 62g carbohydrate; 15g fiber; 4g sugar; 24g protein; 140% Daily Value of vitamin A; 160% Daily Value of vitamin C; 40% Daily Value of calcium; 30% Daily Value of iron.

Farm Preservation Seminar

WHEN: Thursday, March 3, 2022 or
(*weather advisory date*)
Thursday, March 10, 2022

WHERE: Environmental Education Center
1261 Race Track Rd.
Alexandria, KY 41001

TIME: 6:00pm - 8:00pm

RSVP: Call (859) 572-2600
deadline is Friday, February 25
to reserve your dinner from a
local restaurant

Guest Speaker:

- ◆ Clint Quarles
Attorney, Kentucky
Department of
Agriculture

Program:

- ◆ Agricultural
Easements
- ◆ Trusts
- ◆ Other

