Fall 2025

Agriculture and Natural Resources Newsletter

Martin-Gatton College of Agriculture, Food and Environment
University of Kentucky

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Fall Beef Forage Tour– September 16th

CAIP Qualifying Meeting

The Trigg County Cooperative Extension Service will be hosting a Pasture Walk and Cover Crop Meeting on Tuesday, **September 16th, 2025** at Ramon Oliver's cabin. 3154 Kings Chapel Road.

We are excited to welcome Dr. Chris Teutsch, UK Forage Specialist, as our guest speaker. Dr. Teutsch will share timely information on managing pastures and incorporating cover crops to improve soil health, extend grazing seasons, and increase profitability for livestock operations.

The pasture walk will begin at 6:00 p.m., with a meal provided following the program.

There is no cost to attend, but we ask that you call the Extension Office at 270-522-3269 to reserve your meal by 9-12-25

We hope you'll join us for an evening of learning, fellowship, and good food as we explore ways to make our forages more productive and sustainable.

KATS Soil Pit
EKU Richmond, KY
9-10-25

KY Commodity Conference
Bowling Green,KY
1-15-26

Winter Wheat Meeting
TBA
2-3-26

Kentucky Crop Health Conference
Bowling Green, KY
2-5-26

UK Wheat Field Day
Princeton, KY
5-12-26

UK Corn, Soybean & Tobacco Field Day
Princeton, KY
7-21-26

Attention Trigg County Country Ham Producers!

You are invited to participate in the Trigg County Country Ham Show Saturday, October 11, 2025.

This year, participants must be 18 years or older to enter
** please note this new rule**

Hams will be accepted at the Trigg County Extension Office on October 8, 9, or 10, or beginning at 7:15 a.m. – 8:15 am on Saturday, October 11.

All entries should be picked up at 2:30 p.m. on October 11, 2025.

We look forward to showcasing the hard work and tradition of our local ham producers. Don't miss this opportunity to be part of a time-honored Trigg County event!

David Fourqurean, Vicki Shadwick
and Jay Stone have joined up to bring you
Kentucky Ag Matters Podcast
Listen to hear timely topics and issues related to Agriculture while providing educational information to Farmers, Ranchers, and Consumers.
Podcast Link:
https://feed.podbean.com/jstonet/feed.xml

Scan to Listen

Well-Filled Ears and High Corn Yields

Dr. Dennis B. Egli, Professor Emeritus

We've all seen advertisements for corn hybrids that show a row of corn with an ear on every plant that is filled to the tip. The implication is that well-filled ears are an indication of high yield. This makes sense because ears that are filled to the tip are an indication of good growing conditions during pollination and kernel set. Good growing conditions mean high yields.
Much of the variation in corn yield is related to kernels pr acre. Many kernels usually means high yields. The number of kernels is, in turn, related to the productivity of the crop during pollination and kernel set (around growth stages VT/R1). Any stress, such as high temperatures or a lack of water or both, during this critical period will interfere with pollination or cause abortion of immature kernels reducing kernel number and yield potential. Well-filled ears may be an indication of a lack of stress during this critical period and potentially high yields. Are well-filled ears always an indicator of high yields? Unfortunately not! Well-filled ears can also be an indication that the population was too low, and yield was left in the field. How can that be?

A basic problem with corn is that over the years it lost its flexibility – it lost much of its ability to adjust the number of kernels per plant in response to changes in productivity of the environment. Most modern corn hybrids produce only a single ear even though the wild species (Teosinte) that gave rise to modern corn produced ear-bearing tillers and multiple ears per plant – it was very flexible. Over the years corn breeders got rid of this flexibility and limited the ability of the plant to increase kernel numbers in response to increases in plant productivity. Producers have to supply flexibility by adjusting population.

In comparison, soybean is a very flexible plant, that can easily adjust the number of seeds to match changes in productivity. Soybean plants branch and increase flowers per node to produce more seeds. The size of the ear (florets per ear) and ears per plant sets the maximum number of kernels the corn plant can produce. If the productivity of the environment exceeds that capacity, the number of kernels will limit yield. The plant had enough photosynthesis to produce more kernels but there weren't enough florets, in other words, the plant was limited by the number of kernels and yield was left in the field. This situation can be avoided by increasing population which increases the number of florets and the number of potential kernels per acre and yield will no longer be limited by kernel number.

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This relationship explains why corn populations increased from roughly 8000 plants per acre when producers were growing open-pollinated varieties in the 1930's to 30,000 plants per acre or more today. As breeders developed higher-yielding hybrids, they did not necessarily increase ear size. So, populations had to increase to provide enough florets to match the increase in productivity and prevent the number of kernels from limiting yield. In contrast, soybean populations remained the same or decreased as yield increased. The difference is just a matter of flexibility.

If the population in a particular field is too low relative to productivity, all the ears will be filled to the tip and the number of kernels will limit yield. These well-filled ears are not an indication of high yield, instead they signify unrealized yield. There weren't enough florets to translate all the productivity of the plant into yield. Increasing population would have increased yield. Well-filled ears can be an indication that yield has been left in the field because the population was too low or an indication of no stress during tasseling and silking which sets the potential for high yields. One indicator but two outcomes – now isn't that a kick in the head.

How should we respond to this dilemma? If last year's population resulted in a field of well-filled ears, instead of celebrating high yields, the prudent approach may be to increase population to capture lost yield by avoiding a limitation by the number of kernels per plant. On the other hand, a field of unfilled ears may be a cause for rejoicing; we got the population right and maximized yield. Of course, it may also be an indication of stress during pollination and seed set that reduced yield. All that can be done then is to hope for better weather next year. Unfortunately, ears don't tell the whole story. As Abraham Lincoln (1809 – 1865, 16th President of the U.S.) once said "We can complain because rose bushes have thorns, or we can rejoice because thorn bushes have roses".

Adapted from Egli, D.B. 2021. Applied Crop Physiology. Understanding the Fundamentals of Grain Crop Management, pp. 103-111. CABI.
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Local Producers Hosting Hay Auction

Farmers and livestock producers will soon have the opportunity to stock up on quality hay through an online-only hay auction, hosted by Hoover's Auctions & Real Estate. Bidding for this auction opens September 22, 2025 and will close with a soft closing starting at 5:00 p.m. on October 6, 2025.

This year's sale features a large selection of hay, including:

- 1,091 rolls of grass mix hay (4x6')
- 500 small bales of fescue/orchard grass mix
- 300 small bales of alfalfa

Interested bidders can view lots and auction terms/conditions by visiting bid.hooversauctions.com. Pickup is by appointment only, and all hay must be collected within 14 days of the auction close.

For those who may be unable to bid online, arrangements can be made by calling (270) 305-2807.

With the convenience of online bidding and the wide variety of hay offered, this auction provides a great opportunity for area producers to secure their forage needs heading into the fall and winter seasons.

For more information, contact Hoover's Auctions & Real Estate at (270) 305-2807 or visit www.hooversauctions.com.

Cowherd Expansion is Not the Only Way to Capitalize on a Strong Calf Market

Dr. Kenny Burdine, University of Kentucky

Much has been written recently about the strength of the current cattle market. With beef cow inventory at a 60+ year low and demand being very strong, cow-calf operations are clearly in the driver's seat. Calf values are more than double what they were three years ago, which speaks to considerable opportunity for cow-calf operators to invest in their cowherds. Expansion is often the first opportunity that comes to mind in a strong calf market and there is likely merit in expansion, if doing so is consistent with the goals of the operation. However, some producers may not be interested in growing the size of their cowherds due to land and / or management constraints or other reasons. This article will briefly walk through other opportunities that are worth consideration.

Genetics – Some producers may choose to use the current increase in cow-calf revenues to improve the genetics of their herds. Investment in genetics often has long-run implications, resulting in more valuable calves to sell over multiple years. Sires certainly come to mind, but the current calf market combined with the strong cull cow prices may provide an opportunity to cull a bit harder and also purchase some higher quality females.

Facilities – Working facilities are crucial resources for cow-calf operations for numerous reasons. Value-added opportunities such as health protocols, post-weaning programs, castration, implants, etc. are made much easier with quality working facilities. The same is true for receiving, sorting and loading of cattle. If facilities have historically been a constraint, the current market may be providing an opportunity to make improvements and position the operation to sell higher value calves in the future.

Grazing systems – Winter feeding days are typically the most expensive days for cow-calf operations as stored feed (hay) is being fed. Improved grazing systems (interior fencing, additional water sources, portable mineral feeders, etc.) allow for more efficient use of existing forage during the grazing season. This has the potential to increase the number of grazing days and reduce the number of hay feeding days. In most cases, this results in lower costs per cow per year and puts an operation in a better position when calf prices fall.

Debt service / financial management – Strong markets also provide an opportunity to make financial moves that set an operation up for the long run. Increased revenues may allow an operation to pay down some debt and thereby lower their cost structure going forward. Similarly, it may provide an opportunity to build some working capital and lower dependence on operating loans. In both cases, future interest expenses are reduced, which has implications for profitability.

To be clear, the purpose of this article was not to discourage expansion. There are likely operations that need to do just that. But I also live in an area where land constraints are real and know that expansion is not always feasible. Plus, I have seen situations where operations expanded during strong markets and wished they had not done so a few years later. The main point is that the current calf market provides a significant opportunity for a cow-calf operation to position itself for the long-run, and that will look different for each one of them.

Managing the Details – Getting the Little Things Right

Kevin Laurent, Extension Specialist, Department of Animal and Food Sciences, University of Kentucky

Back in the 1980's one of the stockyards in Baton Rouge where we sold our hogs had a statement on their check stubs that read "A man with a paid off cow herd is never really broke." That simple statement always intrigued me. Given the current market, it seems like a huge understatement, but I think the wisdom of that simple statement can be applied no matter what stage of the cattle cycle we are in. These historical prices provide an incredible opportunity to pay down debt, improve infrastructure or maybe even expand. Regardless of how we choose to use this added revenue we need to be cautious about becoming complacent in our day-to-day management. Good managers pay attention to detail, and an excellent example can be found in data gathered from the Advanced Post Weaning Value-Added Program (PVAP).

The Advanced PVAP program targets producers who have routinely weaned and preconditioned their calves prior to marketing with the objective of not only evaluating the economics of preconditioning but also identifying the best management practices of these experienced producers.

The chart provided is a summary of 52 closeouts from 42 producers that have participated in the Advanced PVAP program to date. As you can see the 1645 calves in this summary were fed an average of 79 days postweaning, gained an additional 182 pounds, sold for $7.91 per cwt. over the state average, and netted $221.10 per head over selling at weaning. This type of on farm data is invaluable not only for producers but also aids extension educators for more effective program planning and recommendations.

To gain even more insight into actual management practices, a survey of the PVAP participants was conducted. Of the 42 producers represented in this database, 41 responded to the survey. Some of the interesting highlights of this survey are as follows:

- 61% used fence line weaning
- 73% introduced concentrate feed prior to weaning either by creep feeding or limited hand feeding
- 78% castrated calves prior to 3 months of age
- 71% implanted their steers
- 78% sold their calves in some type of special preconditioned sale
- 53% fed an ionophore such as Rumensin or Bovatec in either the mineral or feed
- 49% plan to review their management practices based on closeout results

Summary Data - Advanced Post Weaning Value Added Program (PVAP) July 2023 - June 2025

Closeout Summary

No. Close-outs	Total Head	Avg Head/ Close-out	Wean Wt (lbs)	Wean Value ($/cwt)	Sale Wt (lbs)	Sale Value ($/cwt)	Gain (lbs)	Days on Feed	Avg Daily Gain (lbs)
52	1,645	32	524	262.67	706	252.01	182	79	2.33

Feed & Cost Breakdown

Feed (lbs)	Protein (%)	Feed Cost ($/ton)	Feed Cost ($/head)	Forage (lbs)	Forage Cost ($/head)	Mineral Cost ($/head)	Total Feed Cost ($/head)	Health Cost ($/head)	Interest Cost ($/head, 6%)
11.1	14.4	253	111.62	8	27.39	4.33	143.34	14.85	17.06

Financial Summary

Total Cost ($/head)	Total Cost ($/cwt)	Price vs State Avg ($/cwt)	Net Added Value ($/head)
175.25	0.96	$7.91	$221.10

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A deeper dive into the database yielded more information on two of the practices highlighted. The first of these showed that how producers marketed their calves affected price received relative to the state average price. Calves selling in special preconditioned sales averaged $9.46 per cwt over the state average. Calves selling in non-preconditioned sales and/or private treaty averaged $3.25 per cwt over the state average. A difference of $6.21 per cwt.

Another interesting find was the effect that time of castration had on steer average daily gain during the postweaning period. Steers castrated at or near weaning had average daily gains of only .08 pounds more than their heifer mates (2.23 vs. 2.15), whereas steers castrated prior to 3 months of age gained .39 pounds more than their heifer mates (2.49 vs. 2.10). Although not a controlled study, I think we can safely say that the early castrated calves had a weight gain advantage due to less stress at weaning. A conservative assumption of an added .30 pound per day in this example could possibly result in an extra 20-25 pounds per head which in today's market could be an additional $70-90 per head.

An additional indicator of the level of management by the 41 producers in the survey was the morbidity and mortality rate among the 1645 calves. Sickness was reported in only 32 calves (1.95% morbidity). Of these 32 calves, 28 were on the same farm that must comingle calves into one central weaning facility from several different herds. Death loss for the 1645 calves totaled 4 head for a mortality rate of 0.24%. It should be noted that 2 of these calves were from operations that castrate at weaning. The extremely low rate of mortality and morbidity among these 52 different groups of calves further reinforces the argument that the best place for a calf to be castrated and weaned is on the farm where it was born.

Although all the practices highlighted by the survey cannot be necessarily quantified in dollars and cents given the lack of controlled comparisons in this dataset, most of these areas of management have sound economic justification. Most participants in the Advanced PVAP program are embracing these practices to ensure that the calves are ready to transition and thrive at weaning thereby minimizing production risks. But what about market risk? Maybe the next detail our PVAP producers should consider is purchasing Livestock Risk Protection (LRP), especially as we go forward in this extremely high and volatile market.

This is just one example of how managing the details can pay dividends when preconditioning and marketing our calves. I think we would all agree that paying attention to detail and getting the little things right can apply to all areas of management and position our operations for the future. Maybe we can edit that old stockyard check stub to read "A person who manages the details and has a paid off cow herd will be ready to ride the next turn of the cattle cycle."