

BEEF LINE

OCTOBER 2021



Purdue University Extension Service-Fulton County
1009 W 3rd Street, Rochester, IN 46975

BEEF QUALITY ASSURANCE TRAININGS SET TO HELP PRODUCERS RENEW OR EARN CERTIFICATION

For Immediate Release, October 15, 2021

A series of Beef Quality Assurance (BQA) training sessions will take place throughout Indiana to help producers either renew or earn a certification, good for three years, which has become a requirement among major industry buyers.

The two and a half hour training and certification sessions are free. Only one person from each operation is required to be certified to ensure the entire operation follows BQA standards. However, everyone who handles and manages fed cattle is encouraged to become BQA certified.

Those unable to attend a session can also earn the certification online at www.BQA.org.

Please call the numbers below to register for classes. Producers only need to attend one meeting to become certified. Dates, local times, locations and contacts for the 2021 upcoming training and certification sessions are as follows:

- Nov. 2 (6:30-9:00 p.m.) and Nov. 9 (6:30-9:00 p.m.). Fulton County Extension Office, 1009 W. Third St., Rochester. Mark Kepler (Purdue Extension–Fulton County, 574-223-3397).
- Nov. 16 (6:30-9:00 p.m.). Creighton Hall – Purdue Campus, Dept. of AnSc, Rm 1042, 270 S Russell St, West Lafayette, IN 47907. Ron Lemenager (Purdue Extension, 765-427-5972).

BQA is a nationally coordinated, state-implemented program that provides information to beef producers and consumers on how common sense husbandry techniques can be paired with scientific knowledge to raise cattle. Its programs include best practices around ensuring end-product safety and wholesomeness, protecting herd health and animal well-being, and good recordkeeping.

Full flyer enclosed on page 2.

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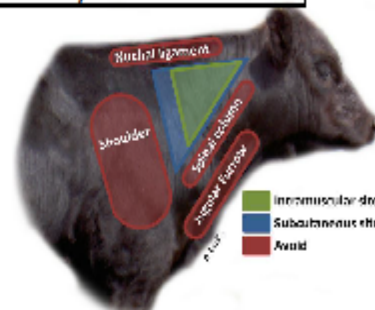


PURDUE UNIVERSITY

2021 Beef Quality Assurance Trainings

WHY: Beef Quality Assurance (BQA) training and certification is now required for beef producers selling “fed cattle” (finished beef steers and heifers coming out of a feedlot) that ultimately are processed by many of today’s major packers. BQA certification is good for 3 years and the program is free to producers either in the face-to-face or on-line formats.

Location	Date/Time	RSVP & Contacts for Questions
Southern Indiana Purdue Agricultural Center (SIPAC) Conference Room, 11371 E. Purdue Farm Road, Dubois, IN 47527	Mon., Nov. 1, 6:30-9:00 p.m.	Kenny Eck (Purdue Extension, 812-482-1782) and Jason Tower (SIPAC, 812-678-4427), Nick Minton (Purdue Extension, 812-279-4330)
	Mon., Nov. 29, 6:30-9:00 p.m.	
Fulton County Extension Office 1009 W. Third St., Rochester, IN 46975-7119	Tues., Nov. 2 6:30-9:00 p.m.	Ron Lemenager (Purdue Extension, 765-427-5972), Mark Kepler (Purdue Extension, 574-223-3397)
	Tues., Nov. 9 6:30-9:00 p.m.	
Southern Hills Church 1645 S St Rd Hwy 135 Salem, IN 47167	Thurs., Nov. 4, 6:30-9:00 p.m.	Purdue Extension (Danielle Walker, 812-883-4601 and Ophelia Davis, 812-275-4623), Nick Minton (Purdue Extension, 812-279-4330)
	Thurs., Dec. 2, 6:30-9:00 p.m.	
Southeast Purdue Ag Center 4425 County Rd 350 N, Butler, IN 47223	Thurs., Nov. 11, 6:30-9:00 p.m.	Jill Andrew-Richards (Purdue Extension, 812-438-3656), Nick Minton (Purdue Extension, 812-279-4330)
Creighton Hall – Purdue Dept. of AnSc, Rm 1042. 270 S Russell St, West Lafayette, IN 47907	Tues., Nov. 16, 6:30-9:00 p.m.	Ron Lemenager (Purdue Extension, 765-427-5972)
Stewart Seeds 2230 E. County Road 300 North, Greensburg, IN 47240	Thurs., Dec. 9, 6:30-9:00 p.m.	Jill Andrew-Richards (Purdue Extension, 812-438-3656), Nick Minton (Purdue Extension, 812-279-4330)



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DEVELOPING A WINTER FEEDING PROGRAM

-STEVE BOYLES, OSU EXTENSION BEEF SPECIALIST

Winter feed costs are the largest single expense in most livestock grazing production systems. Extending the grazing to reduce the cost of feeding stored feed will greatly increase profits. Labor can be reduced 25% or more. Rotational grazing takes about three hours per acre per year as opposed to hay production, which takes seven hours per acre per year. The cost for grazing a cow per day is \$.25 compared to \$1.00 per day to feed hay to a cow.

The first step is to evaluate the potential, available, existing feed. Crop residue can be an abundant winter feed. Corn stalks can maintain a spring calving cow in good body condition for about 60 days after corn harvest. The feed value will decline quickly after the 60-day period. Cattle will select and eat grain, then husks and leaves, and last cobs and stalks. Strip grazing increases utilization, rations the feed, and reduces the need for supplementation. The crop fields should be grazed so that adequate residue remains soil erosion control.

Stockpiled perennial grasses can be grazed in the late fall/early winter. The general recommendation is to clip or make hay in the field during the end of July and apply 30 to 50 pounds of nitrogen per acre. High-producing, clean, well-drained fescue and orchard grass meadows would be a good choice. Let the forage grow until you need it. Strip grazing will increase utilization.

Winter annual forage crops can be used to provide grazing. Brassicas are easy to establish, fast-growing, high-yielding, and high-quality and can withstand cold temperatures. Turnips can reach maximum quality in as little as 60 days. The tops can tolerate temperatures down to 20 degrees and the bulbs down to 10 degrees. Cows and sheep will eat both the tops and bulbs.

Grazing and presetting round bales prior to feeding can reduce trampling and extend the grazing season. Setting rounds 20 feet on center in the fall when the weather is fit and moving a temporary electric fence to feed them reduces winter feeding time. Hay should be fed away from drainage ways and near livestock watering sources. Feeding hay in low fertility areas will improve the fertility and future pasture quality.

Livestock heavy use areas or pads should be located outside the flood plains. If the pad is located close to a watercourse, run off and manure from the pad should be managed to protect the stream from pollution. These areas should be located at least 300 feet away from neighboring residences and away from wells. A manure management system should be designed to handle any accumulated manure on the pad.

A Somewhat Smaller than Expected Cattle Herd

Jason Franken
School of Agriculture, Western Illinois University

July 26, 2021

The U.S. cattle herd appears to continue its second consecutive year of decline within its typically decade long period of expansion and contraction. Currently, there are about 5.5% more beef cows in the U.S. than during the last low point in 2014. The first signs that the beef herd was leveling off came about a year and half ago, and recent reports indicate continuation of that trend, reflecting economics and drought in parts of cattle country.

The USDA's Cattle Inventory report has the total number of cattle and calves on July 1 at 101 million head or 1.3% under last July's inventory of 102 million head, compared to the average pre-report estimate of 0.5% lower, and also below the anticipated range. Most of the report's numbers on beef cattle fall near the bottom end of pre-report estimates. All cows and heifers that have calved total 40.9 million head, also 1% below last July, which is driven by 2% fewer beef cows at 31.4 million head, as milk cows at 9.5 million head are 1.6% higher than last July. Beef replacement heifers, at 4.3 million head, are down about 2% from a year ago, compared to average expectations of 1% lower, while milk replacement heifers, at 4.1 million head, are 2.5% higher. The category of other heifers weighing over 500 pounds is down 2.6%. For the same weight category, steers are 1.4% lower and bulls are even with last July. The number of calves under 500 pounds, at 27.4 million head, is also down 1.4%. That's still 2 million more than when the cattle herd was around its last low point in July 2014, so a return to similar feeder cattle prices in excess of \$2 per pound seems unlikely at this time. The 2021 calf crop, estimated at 35.1 million head, is down slightly from last year, which may help hold down the number of animals on feed and beef production for the remainder of 2021 and into 2022.

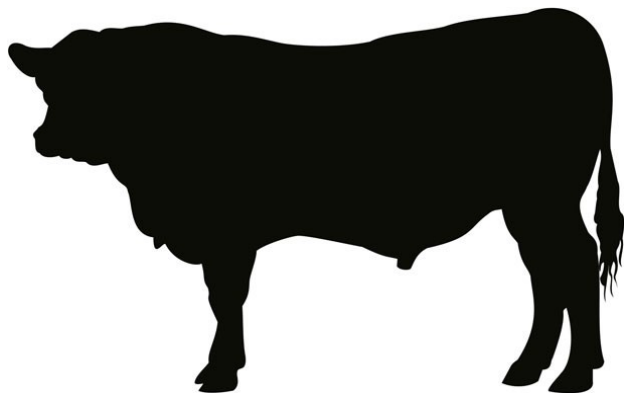
The USDA's July Cattle-on-Feed report, indicates 11.4 million head on-feed or just 1.3% less than July 2020, consistent with expectations of a bit more than 1% lower. In June, feedlots placed 7% fewer cattle than a year ago and marketed 3% more animals. Each of those numbers was within the expected ranges but somewhat off from the ranges' midpoints (5.8% lower and 2.3% higher, respectively). The slightly lower number of cattle-on-feed reflects 2% fewer heifers and 0.8% fewer steers than a year ago. Even so, heifers still comprise over 38% of the cattle currently in feedlots, as compared to only 31%-33% during much of the last expansion. This is again evidence that the breeding herd is leveling off or at least not expanding overall.

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Given the inventory and cattle-on-feed numbers, beef production is anticipated to be no more than 1% higher in 2021 than last year and then drop 1.4% next year. Recent slaughter numbers indicate lighter weight cattle and hogs on average, and cold storage reports continue to show lower than normal frozen stocks of red meat. In terms of domestic demand, per capita beef consumption is expected to remain at about 58 pounds per person in 2021 and drop to 56.6 pounds per person in 2022. After taking a hit last year from intermittent packer closures due to Covid-19 cases among employees, exports are expected to rebound this year up to 16% higher, and then decline from that level by about 3% in 2022.

Taking all of this into account, slaughter steer prices are forecast to average, respectively, about \$117.73/cwt and \$121.93/cwt for the last two quarters of 2021, and \$129.07/cwt and \$132.27/cwt for the first two quarters of 2022. For 600-to-700-pound feeder steers, prices are forecast to average about \$158.96/cwt and \$156.87/cwt for the last two quarters of this year and \$161.03/cwt and \$163.55/cwt in the first two quarters of next year. A number of factors could yield notably different prices, including the extent to which drought continues to spur further liquidation of the cattle herd and resulting in subsequently higher prices and the possibility that another strain of the coronavirus arises, thereby constraining demand and lowering prices.

This article is from July and in general it is somewhat positive for cattle prices. Since its writing I think the outlook is even more positive but you never know what event may turn everything around. - Mark Kepler



Thoughts On Grazing Cattle **- Mark Kepler, CED, AG/ANR**

October 08,2021

During my mid-September trip to western South Dakota, I captured the accompanying photo from my brother-in-law's ranch. There are several things to learn from this picture.

Tree beauty is the most striking part of the picture. As expected, at a more northern latitude, the colors of fall are appearing sooner.

The other apparent problem is the shortness of the pasture. This area is listed as being in a severe drought, the second level on the National Drought Monitor. Some areas nearby are on the third level of extreme drought. This pasture has received more rain than other areas where the family grows cattle so they have shipped more here to take advantage of what little growth they have had. Normally this time of year I would see pastures at about a foot of height. As in any limited pasture situation not only is there growth loss this year but next year's development will also be hurt.

What is noticeable to me is the direction most of the cattle are facing. Cattle graze into the wind. At the time this picture was taken in the very late afternoon, the wind was from the east which is the left side of the photo. Eight of the 11 cattle are generally lined up facing that direction. Only one is facing slightly to the west. These black hided animals need as much cooling as possible. Grazing into the wind allows air to circulate around the muzzle and along their sides for the greatest cooling effect. The opposite is true in the winter when their butts are to the wind.

In these large pastures, cattle tend to more heavily graze the south end as the prevailing winds are from the south and west. Trying to get cattle to stop overgrazing areas was always a source of consternation for my late, lifelong ranching father-in-law. One of the tools in this battle was to put the mineral in an area that needs to be grazed. This would attract them to the area but they rarely stayed. An old Oklahoma study showed that a cow, on the range, will spend 6-10 hours grazing and travel 2-5 miles.

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Another tool is moving the water source. That is not an option on these cattle ranches as most watering is done from a dam due to a lack of groundwater. Consequently, there is heavy repeated grazing around dam locations.

Another noted item is the time of day. Cattle will graze from sunrise to mid-morning and then again from late afternoon to sunset. This photo was taken at 5:54 pm and they are all intent on getting as much forage as they can. They will also graze longer hours on a cooler day.

These are very smart cattle as they have obviously read the book on proper cattle behavior and are sticking to the rules. Then again, I cannot brag on them. One of the reasons we were looking at them is because they have been breaking down the fence and getting with the neighbors' cattle to the west. The week before, just a little further to the west, my sister in law was climbing a steep hill only to have the 4-wheeler flip over backward on her, fracturing her neck, put a 19-staple gash in her head, and making her face look like the loser in a prize-fight. It is hard to look at that and say she was lucky, but it could have had more dire consequences.

Cattle prefer to graze flat land and not those hills. But if there is good grass to be found, they will be there. Their 4-hoof drive is a lot more effective than our 4-wheel type.



Flies

Mark Kepler, CED, AG/NR

August 17th, 2021

I have a new friend. It really tries to stay close to me, but it seems to be a little too feely-touchy. As I sit down to eat, it takes friendship to another level as it is insistent on me sharing my meal. Its attachment to me seems to be very one-sided, it is all take and no give. Life is all about them. By the way, it's a fly.

With the onset of summer, there are numerous insects; ticks, mosquitos, and various flies that think you are the greatest thing in the world. Even better is your blood. We have plenty of it, so sharing with these wanton creatures seems ideal, at least to them.

There are many species of flies with their unique idiosyncrasies. Around the house, the aptly named house fly only wants me for my food. They feed also on fecal matter, discharges from wounds and sores, and all sorts of moist decaying matter such as spoiled fish, eggs, and meat. They are suspected of transmitting at least 65 diseases to humans, including typhoid fever, dysentery, and cholera. I guess you could say they are givers of things we do not want. Their favorite place to lay eggs is in horse manure.

Animals and flies go hand in hand. House flies are just a nuisance, like my kitchen friend, they love to land on animals. Farm animals have to deal with multiple species of flies. Face flies and house flies congregate around the eyes and nostrils of cattle. Face flies feed on eye secretions and their raspy mouthparts can irritate the eye and spread pinkeye disease that can cause blindness.

Horn flies are small and gray-black in color. Horn flies congregate along the back and sides of cattle and not so much around the horns. The number of these biting flies can become incredible with several hundred on one animal. Research has shown that horn flies can also reduce milk production in dairy cows by up to 20 percent by biting and drawing blood as well as just irritating the animal.

Another type is the heal flies. Females will lay their eggs on the lower legs of cattle. The hatching larvae will pierce the skin and then begin a 9-month migration through layers of muscles and connective tissue during which they spend the winter in the submucosa of the esophagus. They eventually migrate to areas near the spinal cord, cut a breathing hole in the skin, and remain there until they are almost one inch long, work their way out and fall to the ground, and pupate. This seems like a great plotline from some type of alien invasion movie, but it's true.

Farmers have a variety of ways to control flies including insecticide-impregnated ear tags and back rubbers, a chemical you can feed the animals that kills the hatching eggs in the manure, fly baits sprinkled on the floor around livestock premises, sprays applied to animals, and sticky tape. What comes to mind are those yellow spiral sticky tapes sold for homes. The livestock producers utilize a narrow tape that comes in 1000-foot rolls that are partially strung out in livestock areas and rolled up to expose unused tapes. These will collect hundreds of flies a day. It is amazing to see how much satisfaction farmers get from using these.

In the spring each year when the temperature heats up and flies begin to accumulate in sunny locations around my house. I spray insecticides to control these flies. I can only think of the often-quoted researcher from 1911 that said "a pair of mating flies in April who had all their young and subsequent generations survive, that by August the flies would cover the earth 47 feet deep."

I just swatted my new friend and, in the process, saved the world. Could I get a medal for that?



Thoughts While Digging Postholes

By Mark Kepler, CED, Ag/NR

I was digging a fence post hole to replace one that had recently broken off. I was using the standard post hole digger that been around for generations. This digger is the type that has wooden handles and pivots where the steel blades slice through the ground.

Digging post holes in August can be quite a job, the heat and humidity are at their highest, the mosquitos are at their peak, and the ground can be very dry and hard. Hard enough, that in some years, I would start a hole, pour some water into it to soften it up and comeback in a few days and finish the job. The disadvantage to this technique is that the mud will stick to my diggers and be hard to knock out. This year the ground moisture is better than the typical August, so the water was not needed.

When you first start on a hole, the digging is easy because you are in top soil. This soil has come from thousands of years of trees growing and dying, taking the carbon dioxide out of the air and putting it into tissue (roots, leaves, trunks and branches) that eventually rot away in the soil. There it is called organic matter.

When the Indiana pioneers first came into this forested area and started to till the ground about 5% of it was organic matter. When they first plowed the soil it was fluffy, workable, and easy to accomplish. It had tilth. This organic matter held nutrients, water and air. The horse pulling the plow would have found it easy to turnover this soil. It would break into aggregates and peds or as they would have termed them; clods. These clods would have then broken easily into smaller sizes.

The clodhoppers continued to plow the soil and in the process releasing the trapped carbon back into the atmosphere. The clods consequently became harder and harder. In the 160 years since the pioneers came here, the soil organic matter has dropped to around 2% (a 60% decrease) and the foot deep tree formed top soil has eroded away.

About 5 inches into my post hole, the easier digging stops and the hard clay subsoil begins, which will last for the next two feet to the bottom of the hole. Very few of the historical tree roots were found in this area so the organic levels are very slight. On most of my farm this subsoil is clay, on another it could be sand or gravel. If we lived on an Indiana prairie soil where some of the grass roots went down over 10 feet and left their organic matter, it could have been easier digging.

I am digging this hole but as usual my mind wonders and I go back to an article by Cornell University that said “Livestock provides nutrient cycling in pastures, contributing to soil organic matter, and the grazing action on forage plants encourages root growth and root exudation of plant sugars that feed soil microorganisms.

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For livestock producers, this boils down to a combination of perennial pasture, cover crops in rotation, and good grazing management. Perennial pastures, because of the lack of soil disturbance and permanent cover, are higher in carbon and organic matter than tilled crop fields. This biological system has a stable habitat to conduct business, and the nutrient cycles can sustain themselves. However, by adding livestock, we get a multiplier effect on soil health, even in systems that are cropped with a cash crop as part of the rotation.

Grazing is known to increase soil carbon and nitrogen in the soil. As an animal grazes, it sends a signal to the plant to pump out sugars through its roots into the surrounding soil. These root exudates, sugars developed by the plant through photosynthesis, are food sources for the microorganisms in the soil. The action of grazing jump-starts the soil food web and increases nutrient cycling, making nutrients available to plants.”

I have also excavated hard digging, hand blistering, post holes in the dryer climate of western South Dakota where the prairie grasses are few and far between. The clay there is referred to as gumbo. Organic matter improves most any soil, some just need more of it.

For organic matter, do all you can to hold on to what you have and work to get more. It sounds like a financial statement, and in a roundabout way, it is. Just don't get blisters digging holes in the process.



These vultures have also found a good use for a fence post.

