

Ag and Natural Resources News

June 2023

Cooperative Extension Service
Boone County
6028 Camp Ernst Rd.
P.O. Box 876
Burlington, KY 41005-0876
(859) 586-6101
Fax: (859) 586-6107
boone.ca.uky.edu



Mark your calendars now!

► Learn About Small Ruminants

June 27, 2023 · 6:00pm

Boone County Extension Office

► Pest Management Field Day

June 29, 2023 · 8:30am

UKREC Farm, 1205 Hopkinsville St., Princeton, KY 42445

► Boone County Fair

August 7-12, 2023

- Pre-Fair Free Day, August 5
- Open Entries, Sunday, August 6
- 4-H Entries, Monday, August 7

BCES Upcoming Office Closures:

► **Monday, June 19** in observance of Juneteenth

► **Tuesday, July 4** in observance of Independence Day



Help Livestock Thrive in Summer Weather

Summer is here. We've already experienced a little bit of heat and humidity, just a taste of what's to come. People aren't the only ones who suffer when the temperatures rise. Farm animals feel it too. You can recognize when livestock may be in danger from the heat and what you can do to increase their comfort.

Livestock become uncomfortable when the heat index reaches about 90 degrees. The heat index is a combination of air temperature and humidity and is used to describe how it feels outside.

The University of Kentucky Agricultural Weather Center regularly monitors heat indices across the state and provides an index of its own – the Livestock Heat Stress Index – to help producers know when heat stress could create a problem for their animals. The county-by-county index indicates three levels of heat stress: no stress, danger stress and emergency stress.

Periods of heat stress call for livestock producers to be vigilant in making sure their animals are adequately prepared. One of the most important things you can do is provide cool, clean drinking water. Providing an adequate source of drinking water helps keep animals' internal body temperatures within normal limits. You should shade above-ground water lines so they do not act as solar water heaters and make the water too hot to drink.



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It is also important for animals to have shade and for buildings to be as open as much as possible for adequate ventilation. Sprinkler systems that periodically spray a cool mist on the animals can also be beneficial.

It is best to avoid working your animals during periods of heat stress. You should also avoid transporting livestock during those times. When you must transport livestock, haul fewer animals per load. Plan trips so you can load animals immediately before leaving and quickly unload upon arrival to help minimize the risk.

To keep up-to-date with the livestock heat stress index, access the Agricultural Weather Center's website <http://www.agwx.ca.uky.edu> or go to the Boone Cooperative Extension Service's website boone.ca.uky.edu and click on the weather link.

Sources: Tom Priddy and Matthew Dixon, UK agricultural meteorologists

The Best Breed of Cattle

When asked about the best breed of cattle, it becomes apparent that the answer depends on various factors. The world is home to numerous breeds, each with its unique set of characteristics and suitability for specific purposes. Evaluating the "best" breed requires considering factors such as climate, intended use, market demands, and individual preferences. Rather than seeking a definitive answer, it is essential to appreciate the diversity of cattle breeds and understand how they contribute to the agricultural landscape.



Cattle breeds have evolved over centuries through careful selection and adaptation to different environments. The Holstein, Angus, Hereford, Charolais, and Brahman are some of the well-known breeds. Each breed exhibits distinct characteristics that make them suitable for specific purposes. Holsteins, known for their high milk production, dominate the dairy industry, while Angus and Hereford excel in beef production due to their marbling, tenderness, and flavor. The muscular Charolais breed is favored for meat production, while Brahman, with its heat tolerance and disease resistance, thrives in tropical climates. This diversity allows farmers

to select the breed that best suits their particular needs and geographical conditions.

One of the crucial considerations when determining the best breed of cattle is the local climate and environment. Different breeds have varying abilities to withstand extreme temperatures, humidity levels, or harsh landscapes. For instance, in colder regions, Scottish Highland cattle, with their thick double coats, are better adapted to withstand low temperatures. In contrast, in arid or drought-prone areas, breeds like the Texas Longhorn or the African Ankole can endure harsh conditions and forage on less fertile pastures. By matching cattle breeds to their respective climates, farmers can optimize productivity and reduce the risk of health issues.

The purpose for which cattle are raised significantly impacts breed selection. For milk production, Holsteins and Jerseys are highly regarded due to their milk yield and butterfat content. Beef production, on the other hand, relies on breeds such as Angus, Hereford, or Wagyu, known for their well-marbled meat. Dual-purpose breeds like Shorthorn and Simmental offer a balance between milk and meat production. Other specialized breeds cater to specific niches, such as the Piedmontese, prized for its lean meat, or the Belted Galloway, sought after for its unique appearance. The best breed, therefore, depends on the intended use and the market demand for the end product.

Beyond climate and purpose, personal preferences and farm management practices also influence breed selection. Some farmers may prioritize docile and easy-to-handle breeds, while others may focus on specific genetic traits or historical ties to a particular breed. Additionally, the size and infrastructure of a

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farm may influence the suitability of certain breeds. Large-scale operations may benefit from highly productive breeds, while smaller farms might prioritize hardiness and adaptability. It is crucial to acknowledge that what works best for one farmer may not be the ideal choice for another, as individual circumstances play a significant role.

In the realm of cattle breeding, there is no universal answer to the question of the best breed. The diversity of cattle breeds allows farmers to choose animals that are well-suited to their specific needs, climate, environment, and management practices. The Holstein might be the best breed for a dairy farmer, while the Angus could be the top choice for a beef producer. It is essential to appreciate the unique qualities and contributions of each breed rather than seeking a single, definitive answer. Embracing diversity in cattle breeds ensures the resilience and adaptability of the livestock industry and ultimately contributes to a sustainable and prosperous agricultural landscape.

Controlling Diseases in Your Backyard Chicken Flock

Raising chickens in your backyard can be a rewarding experience, providing fresh eggs, organic pest control, and a connection to nature. However, ensuring the health and well-being of your flock is of utmost importance. Disease prevention and control are essential for maintaining a thriving backyard chicken flock. In this article, we will discuss effective strategies to control diseases and promote the overall health of your feathered friends.



Implementing proper biosecurity measures is crucial in preventing the introduction and spread of diseases. Start by maintaining a clean and hygienic environment in your coop. Regularly clean and disinfect the coop and equipment, paying special attention to waterers and feeders. Limit access to your flock by using foot baths and changing clothes before entering the coop, particularly if you've been around other birds. Avoid visiting other poultry farms or handling poultry in different locations to minimize the risk of disease transmission.

Before introducing new chickens to your flock, it's essential to quarantine them for a period of at least two weeks. This practice allows you to observe any signs of illness in new birds before they come into contact with your existing flock. Keep new birds in a separate, well-ventilated area, away from your other chickens, and monitor them closely for any signs of disease. Consult with a veterinarian to perform necessary health checks during this quarantine period.

Maintaining a balanced and nutritious diet for your chickens is vital for their immune system and disease resistance. Provide a high-quality commercial feed specifically formulated for poultry, ensuring it contains essential vitamins, minerals, and sufficient protein. Supplement their diet with fresh fruits, vegetables, and clean water. Avoid feeding chickens with moldy or spoiled food, as it can lead to digestive issues and weaken their immune systems.

Good hygiene practices play a significant role in disease prevention. Regularly clean and replace bedding material, such as straw or wood shavings, in the coop to prevent the buildup of pathogens. Ensure proper ventilation to maintain a dry and well-ventilated environment, as excessive moisture can contribute to the growth of bacteria and fungi. Additionally, practice good waste management by regularly removing droppings from the coop and maintaining a clean outdoor area.



Consult with a veterinarian to develop a vaccination program suitable for your flock. Vaccinations can protect chickens from various common diseases, such as Newcastle disease, Marek's disease, and

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Cabbage Rolls

- 12 cabbage leaves
- 1 pound lean ground beef
- 1 cup cooked brown rice
- 1 (15 ounce) can tomato sauce
- 1 teaspoon garlic salt
- ¼ teaspoon pepper
- ½ teaspoon dried basil
- ½ teaspoon dried oregano
- ½ cup chopped onion
- ¼ cup chopped green pepper
- 1 teaspoon sugar
- 1 tablespoon cornstarch
- 1 tablespoon water

Cover cabbage leaves with boiling water. Let stand until leaves are limp, about 4 minutes. Drain. When cool, trim away excess ridge on leaf for easier rolling.

Mix beef, rice, ½ cup tomato sauce, garlic salt, pepper, basil, oregano, onions and green pepper. Put ⅓ cup in each leaf, starting at leaf end; roll, tucking in the sides. Place seam side down in a 9-by-11-inch baking dish.

Mix remaining tomato sauce with the sugar, pour over rolls. Cover and bake at 350° F for 1 hour.

Remove cabbage rolls from baking dish, pour juice in a saucepan. Mix cornstarch and water; stir into saucepan. Heat and stir until mixture boils, cook 1 minute. Serve sauce with cabbage rolls.

*Makes 6 servings Servings; 2 Rolls each
190 calories; 4g fat; 1.5g saturated fat; 40mg cholesterol; 550mg sodium; 24g carbohydrate; 6g fiber; 9g sugars; 18g protein.*

Source: *Plate it up! Kentucky Proud Project.*



infectious bronchitis. Vaccines are typically administered when the chickens are young, and booster shots may be necessary to ensure long-term immunity. Keep accurate records of vaccinations to track the health status of individual birds and the flock as a whole.

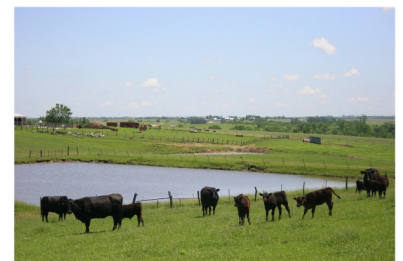
Regularly observe your flock for any signs of illness or abnormal behavior. Some common symptoms include decreased activity, reduced appetite, weight loss, changes in feces, respiratory distress, or unusual discharge from the eyes or nostrils. Promptly isolate and consult a veterinarian if you notice any concerning signs. Early detection can prevent the spread of diseases to the rest of the flock and increase the chances of successful treatment.

Maintaining a healthy backyard chicken flock requires a proactive approach to disease prevention and control. By implementing biosecurity measures, practicing good hygiene, providing a nutritious diet, and monitoring the flock closely, you can reduce the risk of disease outbreaks. Regular veterinary check-ups and appropriate vaccinations further enhance the flock's immunity. Remember that preventing diseases is always more effective and cost-efficient than treating them. By following these guidelines, you can enjoy a thriving flock of happy and healthy chickens in your backyard.

Maintaining Farm Ponds

Ponds are a critical part of many farms in Kentucky and proper maintenance can ensure they will perform well for many years after construction.

Constructing ponds in the appropriate sites is the first step to ensuring a useful pond. A good supply of clean drinking water for livestock must be located within an adequate forage area to produce healthy animals. The volume of water required for livestock depends on the size of the animal, size of the herd and amount of time the water supply will be in use.



Most livestock ponds should be entirely fenced with gravity feed water supplied to a watering tank keeping animals out of the pond. This prevents soil erosion and protects stabilizing vegetation on the dam, spillway and pond banks. Keeping the animals out of ponds reduces the amount of sediment going into the pond from an eroding bank. It also improves water quality by reducing turbidity (muddiness) caused by eroded clay soils.

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Nutrients provided from manure and fertilizer in the watershed will fertilize pond vegetation. However, aquatic plants will receive these nutrients directly where the livestock are allowed to wade into ponds. A poorly managed pond will fill quickly with debris and sediment due to increased loading of organic matter from manure and decaying aquatic plants, combined with erosion. These can reduce the life of a pond and pollute the water possibly contributing to poor animal health.

Many farm ponds in Kentucky serve the dual purpose of a place to relax and catch a few fish or swim. They also may be used for irrigation or rural fire control. Managing ponds for multiple purposes can be difficult. Pond volume, watershed size and number of animals kept in the watershed, will affect nutrient run-off into the pond. When properly applied, to the watershed, little of the nitrogen and phosphorus contained in inorganic fertilizers should be lost in runoff into the pond.

Fish populations may benefit from the minimal nutrient runoff of well managed pastures. However, excessive nutrients from livestock waste will create water quality problems. Aquatic plants and algae will thrive on excessive nutrients and may become difficult to control.

The weedy appearance can be unattractive as well as cause largemouth bass to have a more difficult time preying on bluegill. This may result in an overpopulation of bluegill. Chemical controls can be time consuming and costly and in some instances, may not be legal, safe or practical in livestock watering ponds.

Ponds used for fishing must be stocked properly, limed and harvested correctly. For Kentuckians interested in maintaining fish ponds, a monthly management calendar is available from <http://ces.ca.uky.edu/westkentuckyaquaculture>. Before using any fertilizers or chemicals, be sure to check that they are safe for livestock if the pond is serving this dual purpose.



Livestock ponds less than ½ acre in surface area may provide little opportunity for managing sport fish populations due to their small size, and possible water quality problems. If a pond is constructed in acid soils it should be limed before filling. The pond lime requirement would be similar to the amount of lime used to raise the soil pH to that used for planting alfalfa. Fulfilling the soil's lime requirements is especially important before beginning a pond fertilization program.

Weed control is an essential part of pond management. Preventive measures include proper design. Banks should be sloped steeply so that very little water is less than two to three feet deep. To help prevent serious weed infestations you can do the following things:

- Most waters in Kentucky are sufficiently rich in plankton and other food organisms to support large fish without the need for supplemental fertilization.
- Maintain a good sod and grass cover around your pond. This will help prevent runoff and erosion. Do not fertilize the turf directly around the pond.
- If the water is used for livestock, fence the pond and water the animals from a stock tank below the dam and outside the fence. Animals will increase turbidity and fertility and erode the banks. Do not allow livestock access to a pond unless a gravity flow tank cannot be installed. In this case, fence the pond to allow limited access to a few locations around the shoreline. Consider providing a source of shade in pastures so animals can avoid extreme heat.



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- Check septic tanks for possible leaching into the pond. Locate new septic drainage fields so that the nutrient-rich effluent will not reach your pond.
- Do not permit runoff from chicken coops, feedlots and other areas to enter your pond. If this kind of runoff is occurring upstream from your pond, you should check with your county Board of Health to see if anything can be done about it.

If you have a weed problem mechanical controls can be used. Mechanical controls include hand removal, dredging of shallow pond areas or winter draw down may be effective in freezing and killing shoreline vegetation. Using rakes with ropes attached can work for removing some floating plants. But these methods can be impractical or uneconomical.

A biological control that can be used is triploid grass carp to control soft-stemmed vascular plants and branched algae. These fish are plant eaters and can help control pond vegetation. They need to be stocked at a rate of 5 to 20 fish or more per surface acre of water depending on the severity of the plant problem.


Chemical control methods also can be used. Weed identification is essential in determining which herbicide to use. When used properly, aquatic herbicides are effective in controlling vegetation without harming fish. There may be restrictions on water usage for a period of time after treating with a particular herbicide. Always check the herbicide label for possible restrictions.

Source: Forrest Wynne, KSU Extension aquaculture specialist; UK Cooperative Extension Service Pesticide Applicator Training Program



2023 Pest Management Field Day
at the UKREC Farm
June 29, 2023

Location: 1205 Hopkinsville St., Princeton, KY 42445
Time: 8:30 a.m. to 12:30 p.m. CDT — Sign-in begins at 8 a.m. CDT



Pre-registration is highly recommended by June 22, 2023
by either scanning QR Code, clicking web link, or by telephone.

https://uky.az1.qualtrics.com/jfe/form/SV_4PjveAuq6mK9rXU
Or contact the UKREC at (270) 365-7541, ext. 22569.

Topics and Speakers


<ul style="list-style-type: none"> • Palmer amaranth and Waterhemp control • Weed Control in early planted soybean • Weed Control in corn • Italian ryegrass Research Update 	<p><i>Travis Legleiter</i></p>
<ul style="list-style-type: none"> • Herbicide Resistant Johnsongrass • Weed Management utilizing cover crops 	<p><i>JD Green</i> <i>Erin Haramoto</i></p>
<ul style="list-style-type: none"> • Corn Disease Research Update • Entomology Research Update 	<p><i>Kiersten Wise</i> <i>Raul Villanueva</i></p>

**Continuing Education Units for
Certified Crop Advisors and Kentucky pesticide applicators available**

Follow us on Twitter: *@TravisLegleiter* and *@KYGrainCropsIPM*
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LEXINGTON, KY 40546



Disabilities accommodated with prior notification.



LEARN ABOUT SMALL RUMINANTS

June 27th, 2023
6:00-7:30 pm

Boone County Cooperative
Extension Office- Claxon Room
(6028 Camp Ernst Road,
Burlington, KY, 41005)

Dr. Kenneth Andries will be
discussing how to care each
month for your sheep and goats.

This program is CAIP approved

To register, contact
us at (859) 586-6101
or visit
boone.ca.uky.edu



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accommodated
with prior notification.

Supporting Local Producers: The Benefits of Buying Beef Locally

In recent years, there has been a growing trend among consumers to prioritize locally sourced and sustainable food options. When it comes to purchasing beef, this sentiment holds true, as more and more people are opting to buy their meat directly from local producers. This shift in consumer behavior is driven by a multitude of factors, ranging from health and environmental concerns to supporting local economies. In this article, we delve into the numerous benefits of buying beef from local producers, highlighting why this decision is not only advantageous for individuals but also for communities as a whole.

One of the key reasons to consider purchasing beef from local producers is the unparalleled quality and taste that comes with it. Local farmers often raise their cattle on small-scale operations, allowing them to provide individual care and attention to each animal. These producers are committed to maintaining high standards of animal welfare and employing sustainable farming practices, resulting in healthier and happier livestock. The end result is beef that is not only fresher but also boasts superior flavor and tenderness, providing a truly delightful culinary experience.

Buying beef from local producers offers consumers a unique advantage: transparency and traceability in the food supply chain. When you purchase beef directly from local farmers, you have the opportunity to learn about the origin of the meat and the specific practices employed in its production. This level of transparency ensures that you know exactly what you're consuming, giving you peace of mind regarding factors such as the



use of hormones, antibiotics, or genetically modified organisms (GMOs). By establishing a direct relationship with local producers, you can ask questions, learn about their farming methods, and make informed decisions about the meat you bring into your home.

Choosing to support local beef producers also contributes to environmental sustainability. Large-scale industrial livestock operations often have detrimental effects on the environment, including water pollution, deforestation, and greenhouse gas emissions. In contrast, local producers typically prioritize sustainable farming techniques such as rotational grazing, regenerative agriculture, and responsible land management. By purchasing beef from these producers, you support their commitment to minimizing environmental impact, ensuring a healthier planet for future generations.

Buying beef from local producers has a direct and positive impact on the local economy. By choosing to support these small-scale farmers, you help them stay in business, encouraging the growth and vitality of the local agricultural community. The money spent on local beef stays within the region, creating a ripple effect that benefits other local businesses, such as feed suppliers, equipment manufacturers, and veterinary services. Moreover, local producers often reinvest their earnings back into the community, further stimulating economic development.

Purchasing beef from local producers fosters a sense of community and strengthens the bond between consumers and farmers. When you buy directly from local producers, you have the opportunity to engage in conversations, learn about their experiences, and understand the challenges they face. This direct connection helps build trust, encourages collaboration, and provides a deeper appreciation for the hard work and dedication that goes into farming. Additionally, many local producers offer educational programs or farm visits, allowing individuals and families to experience firsthand the farming lifestyle and gain a better understanding of where their food comes from.

The decision to buy beef from local producers offers a multitude of benefits that extend beyond the dinner table. From superior quality and taste to increased transparency, environmental sustainability, and economic support for local communities, purchasing meat directly from farmers is a choice that aligns with consumer values. By embracing the local food movement, individuals can savor delicious, responsibly sourced beef while making a positive impact on their health, the environment, and their community as a whole.

Gary Stockton,
Boone County Extension Agent
for Agriculture
gary.stockton@uky.edu

Lacey Kessell,
Boone County Extension Agent
for Natural Resource &
Environmental Education
lacey.laudick@uky.edu