BOONE COUNTY EXTENSION SERVICE
Agriculture & Natural Resources

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

Ag and Natural Resources News

March 2024

Cooperative Extension Service
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Mark your calendars now!

▶**Honeysuckle Removal Volunteer Day**
March 23, 2024, 9:00am
Nature Center

▶**Fencing School**
March 23, 2024, 9:00am
Boone County Extension Office

▶ **Bull Breeding Soundness Exams:**
April 13, 2024
Kenton County Fairgrounds

The March Calving Advantage: Strategies for Successful Spring Calf Births

March calving season marks a crucial period in the annual cycle of cattle farming. As winter loosens its grip and signs of spring emerge, many farmers strategically plan for the arrival of new calves. This article delves into the significance of calving in March, exploring the advantages, challenges, and essential strategies for ensuring a successful and productive spring calving season.

March offers a transition from winter to spring, providing milder temperatures and reduced risks of extreme cold. This is beneficial for both the newborn calves and their mothers, as they face less stress from harsh weather conditions.

Spring-calved cows have the advantage of accessing lush, nutrient-rich forage as it begins to regrow. This abundance of fresh forage enhances the nutritional status of the lactating cows, supporting optimal milk production and calf growth.

Calving in March aligns with market trends, allowing farmers to strategically time the sale of weaned calves. The demand for feeder calves typically increases during the fall, presenting an opportunity for farmers to capitalize on market trends and potentially maximize returns.

Early spring can bring muddy conditions,

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Apple Sage Pork Chops

Servings: 4
Serving Size: 1 pork cup

Ingredients:

- 1 tablespoon flour
- 1 teaspoon dried sage
- 2 tablespoons garlic powder
- 1/2 teaspoon ground thyme
- 1 teaspoon salt
- 4 boneless center cut pork chops
- 2 tablespoons oil
- 1/2 large onion thinly sliced
- 2 thinly sliced red apples
- 1 cup unsweetened apple juice
- 2 tablespoons brown sugar (optional)

Directions:

1. Gently clean all produce under cool running water.
2. Mix flour, sage, garlic, thyme, and salt together in a small bowl.
3. Sprinkle 1 1/2 tablespoons of the mixture over both sides of the pork chops. Remember to wash hands after handling raw meat.
4. Heat oil in a large skillet over medium-high heat.
5. Sear pork chops for 2 to 3 minutes on each side. Pan will smoke a little.
6. Remove pork chops from the pan and set aside.
7. Reduce heat to medium. To the same skillet, add onion and cook for 2 minutes, or until soft.
8. Add apples, and continue cooking until tender, about 2 minutes.
9. Add apple juice, brown sugar, and remaining spice mixture and stir to dissolve.
10. Return pork chops to the skillet by nestling them in the pan.
11. Bring the liquid to a boil, reduce heat to low, and simmer for 5 minutes or until the pork is cooked through and reaches 145 degrees F a food thermometer.
12. Refrigerate leftovers within 2 hours.

Source: University of Kentucky Cooperative Extension: Plate It Up Kentucky Proud!
Nutrition facts per serving: 310 Calories 10g total fat; 1.5g saturated fat; 50mg cholesterol; 660mg sodium; 35g total carbohydrate; 3g fiber; 25g total sugars; 7g added sugars; 22g protein; 6% DV vitamin D; 2% DV calcium; 6% DV iron; 15% DV potassium

posing challenges for both cattle and farmers. Proper pasture management and the provision of dry, comfortable areas for calving can help mitigate the impact of muddy conditions on the health of the newborns.

Despite milder temperatures, March can still bring unpredictable weather, including sudden cold snaps or storms. Farmers must be vigilant in monitoring weather forecasts and be prepared to provide additional care, such as shelter or supplemental feeding, if adverse conditions arise.

Proper nutrition is crucial in ensuring the health and well-being of both cows and calves. Implementing a sound pre-calving nutrition program, including adequate mineral supplementation, helps support the cow's immune system and promotes optimal calf development.

Well-designed calving facilities equipped with clean, dry bedding are essential for a successful calving season. Regular monitoring of pregnant cows, especially during the night, allows farmers to intervene quickly if assistance is needed during the birthing process.

Establishing a strong relationship with a veterinarian is key to managing any unforeseen challenges during calving. A comprehensive herd health program, including vaccinations and disease prevention measures, can contribute to the overall success of the calving season.

Accurate record-keeping is vital for tracking the health and development of both the cow and calf. This includes monitoring calving dates, ensuring timely vaccinations, and recording any interventions or health issues. Comprehensive records contribute to informed decision-making and the overall management of the herd.

March calving presents an array of opportunities and challenges for cattle farmers. By understanding the advantages, addressing potential challenges, and implementing strategic management practices, farmers can optimize the success of their spring calving season. With proper planning, nutrition, and attentive care, March calving can contribute to the overall health and productivity of the herd, setting the stage for a prosperous year in cattle farming.

Email List for the Newsletter

You can email gary.stockton@uky.edu and be added to the email list or you can scan the QR code to get added.

HANDS-ON FENCING SCHOOL

Cooperative Extension Service

SATURDAY, MARCH 23, 2024

9:00– 11:00 AM

Meadowview Farm

10830 Big Bone Church Rd., Union

- Fencing for Horticultural & Agricultural Use
- Understanding Fence Laws in Kentucky
- Building your Fence according to the Purpose of the Fence!
  - Are you building fence to deter deer and other wildlife?
  OR
  - Are you building fence to contain livestock?
  OR
  - Are you building fence to border your property?
- Concepts & Construction of High Tensile Fence
- How to build effective fencing– Brace posts, Insulators, Chargers, Ground wires....

Gary Stockton,
Boone County Extension Agent
for Agriculture & Natural Resources Education

>> PLEASE REGISTER

Call 859-586-6101 or online @ boone.ca.uky.edu
Lunch will be served after the program.

Cooperative Extension Service

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

MARTIN-GATTON COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT

Lexington, KY 40506

The Importance of Lime

Kentucky, renowned for its picturesque landscapes and thoroughbred horse farms, owes much of its lush greenery to an unsung hero in agriculture – lime. The importance of lime in maintaining healthy pastures in Kentucky cannot be overstated. This often-overlooked soil amendment plays a crucial role in optimizing soil pH, nutrient availability, and overall pasture productivity.

One of the primary functions of lime in Kentucky pastures is to regulate soil pH levels. Soil acidity or alkalinity profoundly affects the availability of essential nutrients to plants. Kentucky soils are naturally acidic, and this acidity can lead to reduced nutrient uptake by plants, hindering their growth and overall health.

Lime acts as a pH buffer, neutralizing soil acidity and creating an environment conducive to optimal plant growth. Most forage crops in Kentucky, such as fescue and clover, thrive in slightly alkaline conditions. By applying lime to pastures, farmers can create an environment where these plants can absorb nutrients efficiently, leading to healthier and more robust pasture ecosystems.

Beyond its role in pH regulation, lime is instrumental in unlocking essential nutrients in the soil. Many vital nutrients, such as phosphorus and potassium, become less available to plants in acidic soils. Lime helps break down these nutrient compounds, making them more accessible for plant roots.

In Kentucky, where pastures support a variety of livestock and wildlife, maintaining optimal nutrient levels is critical. A well-balanced nutrient profile ensures that grazing animals receive the necessary vitamins and minerals for growth, reproduction, and overall well-being. Lime application, therefore, becomes a strategic investment in the nutritional health of both the pasture and the animals that depend on it.

The application of lime in Kentucky pastures directly contributes to improved forage quality. Forage crops, such as tall fescue, are staples in the diets of livestock. These crops require specific soil conditions to produce high-quality forage with optimal nutritional content.

Lime aids in the production of forage with balanced nutrient levels, making it an indispensable tool for livestock farmers. When forage quality is enhanced, livestock not only enjoy a more nutritious diet but also exhibit improved performance in terms of weight gain, milk production, and overall health. This, in turn, has positive economic implications for Kentucky's vibrant agricultural industry.

Kentucky pastures, like many others, face challenges related to toxic elements in the soil. One such issue is the presence of aluminum, which can become more soluble in acidic soils, posing a threat to plant and animal health. Lime application helps mitigate the risk of aluminum toxicity by binding with soluble aluminum ions, rendering them less harmful.

By addressing toxicity issues, lime contributes to the creation of a safer and healthier grazing environment. This is particularly important in Kentucky, where livestock farming is a significant economic driver. The reduction of toxic elements in pastures not only ensures the well-being of livestock but also enhances the reputation of Kentucky agricultural products.

Kentucky's pastures are not just economic assets; they are also crucial habitats for a diverse range of plant and animal species. Lime plays a role in preserving biodiversity by creating conditions conducive to the growth of a variety of plant species. A balanced and thriving plant community, in turn, supports a diverse ecosystem of insects, birds, and small mammals.

Moreover, lime application can help control the spread of invasive plant species that often thrive in acidic soils. By promoting the growth of native plants and discouraging invasive ones, lime contributes to the overall health and resilience of Kentucky pastures. This ecological balance is vital for the sustainability of the state's agricultural and environmental resources.

In the rolling hills of Kentucky, lime stands as a silent champion in the pursuit of healthy and productive pastures. Its multifaceted role in regulating soil pH, enhancing nutrient availability, improving forage quality,

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mitigating toxicity issues, and preserving biodiversity makes it an indispensable tool for farmers and land managers alike.

As Kentucky continues to uphold its reputation as a leader in agriculture, recognizing the importance of lime in pasture management becomes paramount. Through informed and strategic lime application, farmers can unlock the full potential of their pastures, ensuring a sustainable future for Kentucky's rich agricultural heritage. Lime is an investment in the vitality of the land, the well-being of livestock, and the prosperity of the state's agricultural community.

The Vitality of Backyard Poultry: Vigilance Against Avian Influenza

In recent years, the practice of raising backyard poultry has surged in popularity. It offers numerous benefits, from a sustainable source of fresh eggs and meat to fostering a deeper connection with nature. However, as we embrace this rewarding hobby, it's crucial to remain vigilant against potential threats, particularly the looming specter of avian influenza.

Backyard poultry keeping has become a prevalent trend across urban and rural landscapes alike. Many individuals and families are drawn to the idea of self-sufficiency, knowing exactly where their food comes from, and reducing their ecological footprint. Moreover, the companionship provided by these feathered friends adds an enriching dimension to daily life.

Avian influenza, commonly referred to as bird flu, is a highly contagious viral disease that primarily affects birds. However, certain strains, such as H5N1 and H7N9, have demonstrated the ability to infect humans with potentially severe consequences. The virus typically spreads through direct contact with infected birds or their droppings, as well as through contaminated surfaces and materials.

As backyard poultry enthusiasts, it's imperative to maintain a proactive stance in safeguarding our flocks against avian influenza. This entails adopting stringent biosecurity measures to minimize the risk of exposure. Simple practices such as limiting contact with wild birds, quarantining new additions to the flock, and regularly disinfecting equipment and premises can significantly mitigate the spread of the virus.

Recognizing the signs of avian influenza is essential for early detection and containment. Birds infected with the virus may exhibit symptoms such as sudden death, decreased egg production, respiratory distress, and neurological abnormalities. Promptly isolating sick birds and seeking veterinary assistance can help prevent further transmission within the flock and to other poultry populations.

Community outreach and education play a pivotal role in combating the threat of avian influenza. By sharing knowledge about the disease, its transmission dynamics, and preventive measures, we empower fellow backyard poultry keepers to uphold robust biosecurity practices. Additionally, collaborating with local agricultural authorities and veterinary services can facilitate coordinated efforts to monitor and respond to potential outbreaks.

The ramifications of avian influenza extend far beyond individual households and communities. With the increasing interconnectedness of global trade and travel, the spread of the virus poses significant public health and economic risks on a global scale. Heightened surveillance, rapid response protocols, and international collaboration are indispensable in containing outbreaks and preventing widespread transmission.

Backyard poultry keeping offers a plethora of benefits, but it also comes with the responsibility of safeguarding our feathered companions and surrounding ecosystems. By remaining vigilant against the threat of avian influenza and implementing robust biosecurity measures, we can continue to enjoy the joys of poultry ownership while mitigating the risks associated with infectious diseases. Let us strive to cultivate a culture of resilience and preparedness within the backyard poultry community, ensuring the well-being of both humans and birds alike.

Poison Hemlock—A Growing Concern

Poison hemlock (*Conium maculatum*) has become widespread throughout most of Kentucky. Although this plant is often seen along roadways, fence rows, and other non-cropland sites, it has expanded out into grazed pasture lands and hay fields. It has also become an increasing concern in residential locations when it is observed in areas that are not frequently mowed, such as vacant and abandoned lots. The concern not only stems from its invasive nature, but the fact that it is one of the most toxic plants in the world. Throughout history, the toxicity of poison hemlock is well known for accidental deaths of humans and other animals.

Description

Poison hemlock is classified as a biennial that reproduces only by seed. It is capable, however, of completing its lifecycle as a winter annual in Kentucky if it germinates during the fall months. New plants emerge in the fall or late winter forming a cluster of leaves that are arranged as a rosette on the ground (Figure 1). The individual leaves are shiny green and triangular in appearance. Although poison hemlock is most noticeable in late May and June during the flowering stage of growth, the vegetative growth stage is readily observed during the cooler months of the year (Figure 2) with its parsley-like leaves which are highly dissected or fern-like.

Figure 1. P*oison hemlock rosette (Photo: JD Green, UK).*

Figure 2. *Poison hemlock plants growing along a fence line in late December (Photo: JD Green, UK).*

As the plant begins to send up flower stalks in the spring, the leaves are alternately arranged on the main stem. Each individual leaf is pinnately compound with several pairs of leaflets that appear along opposite sides of the main petiole. As the plant matures, poison hemlock creates a taproot and grows upwards to about 6 to 8 feet tall. At maturity the plant is erect, often with multi-branched stems (Figure 3). Poison hemlock has hollow stems which are smooth with purple spots randomly seen along the stem and on leaf petioles. There are no hairs on the plant that helps distinguish it from other plants similar in appearance. The flowers, when mature, are white and form a series of compound umbels (an umbrella-shaped cluster of small flowers) at the end of each terminal stalk. Poison hemlock can be associated with areas having adequate moisture throughout the year, as well as, drier environments.

Figure 3. *Mature poison hemlock plant. (Photo: JD Green, UK)*

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Toxicity

The risk of exposure to poison hemlock toxicity is primarily through ingestion. Just small amounts of ingestion can result in possible death to all mammals. The principal toxin in poison hemlock is coniine and a few other toxic alkaloids, which are present in all parts of the plant, including the seeds and roots. A well-known case of human toxicity was the death of Socrates, a Greek philosopher, who was sentenced to death in 399 BC by ingestion of a poison hemlock potion.

There have been some concerns expressed that toxicity such as dermal reactions may occur by simply being in proximity of poison hemlock plants. However, it is unlikely that most people will experience skin rashes who come in direct contact with poison hemlock as opposed to exposure to other plants such as wild parsnip or other potentially toxic plants within the carrot plant family Apiaceae.

If consumed, all classes of livestock are known to be affected by poison hemlock. Cattle, horses, and goats are considered to be the most susceptible domestic animals although other animals can be affected as well. Symptoms of poisoning can occur rapidly anywhere within 30 minutes to 2 hours depending on the animal, quantity consumed, and other factors. Initial symptoms can include nervousness, trembling, muscular weakness and loss of coordination, dilation of pupils, coma, and eventually death from respiratory paralysis. Lethal doses for cattle are considered to be in the range of 0.2 to 0.5% of the animal's body weight. Poison hemlock is also known to cause fetal deformation when pregnant animals consume the plant. Fortunately, most animals tend to avoid grazing poison hemlock if other forage is readily available. However, animals may be more prone to consume green plants during the late winter and early spring when other forage species are more limited. Toxicity may be somewhat reduced in dried plants, but the potential for toxicity still exists, particularly when a sufficient quantity is consumed in dried hay. Therefore, extreme caution should be considered before feeding animals hay known to contain large quantities of poison hemlock. Also, animals may be attracted to consume poison hemlock when plants are treated with an herbicide.

Control

The principal strategy for poison hemlock control is to prevent seed production, which can be a challenge since a fully mature plant is capable of producing 35,000 to 40,000 new seeds. Once plants have produced flowers it is generally too late to utilize herbicide control methods. Whereas, mechanical control efforts (if feasible) such as mowing or cutting down individual plants should be initiated just before peak flower production to avoid or reduce the amount of new seed being produced.

As an overall strategy, make note of areas known to contain populations of poison hemlock and begin to look for emergence of new plants in the fall and during the winter months. Throughout the fall (October/November) or early spring (late February/March) is the best time of year for herbicide treatment. Herbicide products containing 2,4-D can be effective when applied to smaller, actively growing plants that are still in the younger rosette stage of growth. As plant rosettes become more mature, premixtures of products containing 2,4-D + dicamba, 2,4-D + triclopyr, or aminopyralid are needed for best results. Spot treatments with products containing 2,4-D, triclopyr, or glyphosate can also be used depending on the location. Always consult product labels for approved sites of application and for precautions that should be considered when applying herbicides.

By J. D. Green, Weed Science Extension Specialist

Is your herd bull ready for breeding season?
Is he sitting down on the job?

Cooperative Extension Service

BULL BREEDING SOUNDNESS EXAMINATIONS

Saturday, April 13, 2024
at Kenton County Fairgrounds

Cost per bull for examination
$25 for NKCA members - $50 for non-members
Vaccinations are additional

- Exams by licensed Veterinarians
- For all breeding age bulls (over 12 months old)
- Semen test
- Physical examinations
- Vaccinations and deworming available for extra charge

APPOINTMENT REQUIRED

Gary Stockton, Boone County Extension Agent for Agriculture & Natural Resources

Dan Allen, Kenton County Extension Agent for Agriculture & Natural Resources

Please call the Boone County Extension Service at 859-586-6101 By April 8 to schedule an appointment.
(program will be cancelled if there are less than 25 bulls)

Sponsored by:
Northern KY Cattle Association UK Cooperative Extension Service

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Lexington, KY 40506

Disabilities accommodated with prior notification.

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