

Clinton County Agriculture and Natural Resources Newsletter

Summer 24'



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Upcoming Events in Agriculture:

- CAIP cost -share application period.....July 8th - July 26th CC EXT. Office
- Twin Lakes Beekeepers Assoc. Mtg.....July 11th CC EXT. Office
- Twin Lakes Cattle Assoc. Mtg.....July 23rd CC EXT. Office
- CAIP applications due by 4:00pm.....July 26th CC EXT. Office
- Kentucky State Fair.....August 15th-25th Louisville, KY

I hope this newsletter finds you doing well this summer! The South Central Kentucky area ANR agents are hosting an area hay producers contest to assist producers in learning more about producing quality hay. Information on the hay contest can be found on page 2. The Twin Lakes beekeepers will meet on July 11th with guest speaker Dorothea Morgan talking about beekeeping, and raising hygienic bees as well as other topics. The Twin Lakes Cattle Association will meet on July 23rd with guest speaker UK Extension Specialist Josh Jackson talking about cattle handling, and designing handling facilities. The 2024 CAIP cost-share program applications will be available July 8th thru July 26th at the Clinton County Extension office.

Colby Guffey
 Clinton County Agent for Agriculture and Natural Resources



Eligible Investment Areas:

- Agricultural Diversification
- AgTech & Leadership Development
- Large Animal - Small Animal
- Farm Infrastructure
- Fencing & On-Farm Water
- Forage & Grain Improvement
- Innovative Ag. Systems
- On-Farm Energy
- Poultry & Other Fowl
- Value Added & Marketing

Administered by
Twin Lakes Cattle Association
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COUNTY AGRICULTURAL INVESTMENT PROGRAM (CAIP)

Applications are available for Clinton County's CAIP to assist farmers in making important farm investments.

Application Period:
July 15th through August 2nd, 2024

No applications will be accepted after 4:00pm August 2nd

Application Availability:
 Clinton County Cooperative Extension
 Monday – Friday (7:30 a.m. – 4:00 p.m.)

For More Information:
 Contact Steve Peddicord at (606) 688-4492 or email speddicord@windstream.net

All applications are scored, based on the scoring criteria set by the Kentucky Agricultural Development Board.



SOUTH-CENTRAL KY

Hay Contest



The South-Central KY Area Hay Contest is offered to all individuals raising hay in Adair, Casey, Clinton, Cumberland, Green, Marion, McCreary, Pulaski, Rockcastle, Russell, Taylor, Washington, and Wayne counties.

This program aims to provide producers with free hay analysis results to aid in educating producers on raising higher quality forages and meeting livestock needs.

Producers may submit multiple samples in each contest area to their county agriculture agent. Samples must be submitted no later than September 30th, 2024. Basic analysis results will be sent to producers by November 1st, 2024.

Results will include crude protein, DM, TDN, RFV, ADF, and NDF.

Producers may be provided with livestock ration recommendations in addition to their results upon request.

After completion of the program, an area-wide event will be held to provide an educational overview of the program and present awards to contest winners. There will be one winner selected for the entire area for each hay class. Please reach out to your county agriculture agent for further information.



The Twin Lakes beekeepers Association will hold their monthly meeting on July 11th at 5:00pm at the Clinton County Extension office. Dorothey Morgan will be the guest speaker talking about beekeeping and raising hygienic bees, as well as other topics. Anyone interested in learning more about beekeeping is encouraged to attend.

Keep Cool in the Shade

Dr. Jeff Lehmkulher, PhD, PAS, Extension Professor University of Kentucky

As the summer weather hits full stride, take some time to focus on factors that impact animal performance during these months. Stocker calf performance reflects changes in the environment, plane of nutrition, and overall health of calves. Be mindful of the how summer weather can impact these three overarching factors and consider what you might alter or maintain to minimize the impact of these elements.

Heat stress is the first environmental factor that will impact animal performance during the summer months. The effect of heat stress is exacerbated by the alkaloids produced by the wild endophyte in Kentucky 31 tall fescue. Animals compensate during heat stress with increased respiration rate, increased skin vaporization (sweating), increased peripheral blood flow, decreased appetite to reduce metabolic heat production, and more time seeking relief by standing in the shade, congregating in water or grouped up in areas where urine and feces create a wallow. Increased respiration rate leads to greater energy expended for contraction and relaxation of the diaphragm. This doesn't seem like it would be a big loss but sit there and double your breaths per minute for five minutes and see how you feel. Now consider doubling your respiration for several hours a day and the impact this would have on energy expended. Previous research has shown that cattle at thermoneutral conditions had respiration rates of about 23 breaths per minute while under heat stress this increased to 54 breaths per minute. This increased respiration rate is a key response to heat stress as well as increasing blood flow to periphery.

Compensation of heat stress can also occur through increased sweating or evaporative heat loss as periphery blood flow increases. Skin evaporative energy loss was observed to be 50% greater under heat stress than thermoneutral. However, when exposed to wild-type endophyte, skin vaporization was not increased due to a lack of skin temperature increase which may be attributed to vasoconstriction. Accumulated heat load by animals can be dissipated later into the night when ambient temperatures decline. However, during periods of high humidity and lack of nighttime temperatures falling, animals do not have significant reductions in core body temperature before the next day begins. Successive days of heat stress and minimal dissipation of accumulated heat load leads to severe health concerns for cattle. Add into the mix, the alkaloids from the wild endophyte in tall fescue leading to vasoconstriction reducing blood flow to the skin surface during these night hours limiting heat dissipation from sweating. All these factors combine to increase animal maintenance requirements by 7-25%. If maintenance energy requirements represent 65% of normal daily intake, a 15% increase in maintenance requirements as a result of heat stress would reduce gains significantly.

Shade.....continued from page 3

Providing shade is the first management strategy to help mitigate heat stress during the summer months. Shade helps to reduce heat loading from solar radiation. Additionally, ground surface temperatures under shade have been shown to be greatly reduced compared to unshaded areas. Shade can be natural such as wooded areas or man-made. Cattle will stand more during heat stress to allow more convection heat loss as air moves around the body. Shade should ideally provide sufficient room for cattle to stand in the shade without being crowded.

Often the question is how much shade should be provided. Consider the length from tip of nose to tail and width across the ribs of a mature cow. These measurements may be near 7' x 3' or 21 square feet and these measurements will vary. Spacing between animals is important so the actual shade provided will be greater than the size of the animal. Actual allocated area under shade of 30-40 square feet per cow may be necessary. The University of Nebraska recommends 20-25 square feet per animal for voluntary shade use in feed yards and 25-30 square feet for high-risk feeders on arrival. For man-made structures, ensure there is sufficient distance between the back of the animal while standing and the bottom of the shade structure to facilitate air movement through the structure. When possible, having shade structures that are portable will minimize wallows which can lead to high humidity under the shade from excessive urine and feces deposition. Additional information on shade structures can be found at <https://www2.ca.uky.edu/agcomm/pubs/aen/aen99/aen99.pdf> .

Consider developing shade areas during periods of higher temperatures and humidity to maintain the performance of grazing cattle if wooded areas are not readily available. Temporary electric fencing can be helpful in allocating different areas of wooded areas to minimize soil disturbance under trees and preventing development of wallows. Shade placed on ridges that have greater wind speeds will aid in moving air through the structures and cooling cattle. Ensure cattle have access to fresh, clean water as losses from sweating and increased respiration rates increase water requirements. Consider utilizing CAIP funds for shade or tree plantings for development of natural shade areas. Contact your county Extension office for additional information.

Controlling horn flies in cattle

Source: Lee Townsend, UK extension entomologist

Each summer, pastured cattle must deal with an annoying pest – the horn fly. These flies use their piercing-sucking mouthparts to take up to 30 blood meals from their host each day. This incessant feeding schedule and their large populations can severely impact growing calves and lactating cows.

Horn flies can also play a role in transmitting disease. In all, horn flies suck about \$1 billion in weight gain/milk production losses and control costs each season.

The close relationship between cattle and horn flies can help with control. The flies leave the animal to lay eggs in fresh cow manure or to change hosts. Consequently, most application methods will expose flies to insecticide residues. These include forced-use dust bags or back rubbers, insecticidal ear tags, sprays and pour-on formulations.

One of the biggest challenges in horn fly control is rapid development of insecticide resistance and there are no clear-cut strategies that solve the problem.

Producers can do a several things to manage resistance:

- Do not treat for horn flies until numbers exceed 200 per animal. Cattle can tolerate up to this level before economic losses occur.
- If feasible, keep growing calves and lactating cows separated from mature stock. Fly reduction on growing and lactating animals is more likely to provide an economic return.
- Use periodic treatments with insecticides that have other modes of action (organophosphates, etc.) to break fly exposure to a single product group. Rotating products with different modes of action is a basic strategy that may reduce the potential for resistance.
- Remove ear tags in fall to reduce horn fly exposure to low concentrations of pyrethroids.
- Use a late-season application to reduce the number of horn flies that will enter the over-wintering stage on the farm.

If you don't notice significant fly reduction within two weeks of applying tags, it's a good indication resistant flies are present.

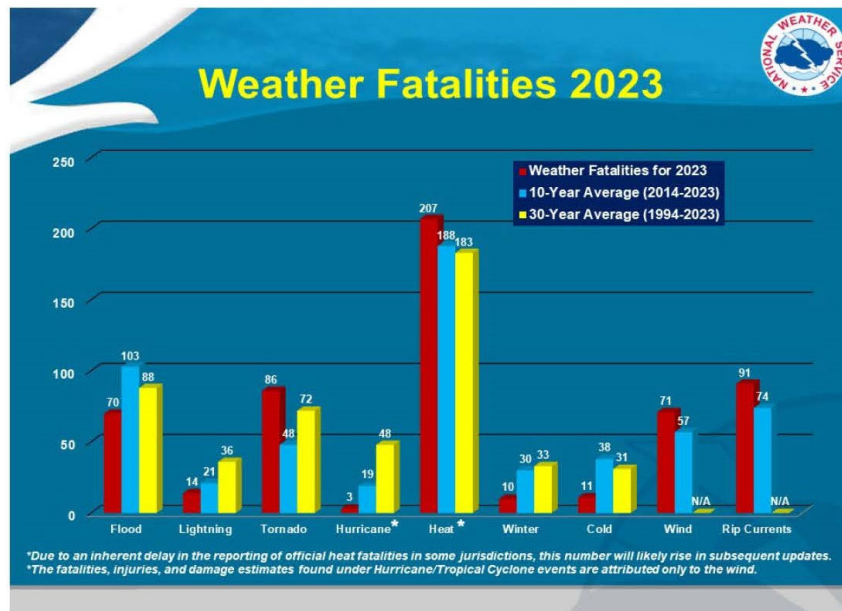


Summer Heat Safety

By Jane Marie Wix - National Weather Service Jackson, KY

Summer heat arrived with a bang in mid-June across Kentucky! Unfortunately, we are only getting started with the summer season - there will most certainly be several months of hot weather ahead. Summer is also the season when everyone wants to be outside, either working or having fun. As much as we love this time of year, it is also a very dangerous season.

Heat continues to be the deadliest form of weather across the country. Higher than flooding, tornadoes, and hurricanes. Sadly, statistics for last year showed a higher-than-average fatality rate. Heat related deaths have been creeping up every year for the last few years.



During excessive heat, avoid heavy activity and direct sunlight. Stay hydrated, find a cool indoor place, and check on children, the elderly, and pets. Protect yourself outside by wearing light, loose-fitting clothes, stay hydrated, and spend time in the shade. Also, never leave anyone (or pets) alone in a locked car, even in the winter, as death can occur in as little as 10 minutes.

Know the signs:

- **Heat Exhaustion:** Becoming faint or dizzy, excessive sweating, cool/clammy skin, nausea, rapid/weak pulse, muscle cramps.
- **Heat Stroke:** Throbbing headache, no sweating, red/hot/dry skin, nausea, rapid/strong pulse, possible loss of consciousness.

If someone experiences these symptoms, get them to a cooler place and try to cool the body (loosen clothing, drink cool water, etc.). If it's a heat stroke, call 911 IMMEDIATELY.

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Fruited Coleslaw



This institution is an equal opportunity provider. This material was partially funded by USDA's Supplemental Nutrition Assistance Program — SNAP.

Nutrition facts per serving:

100 calories; 3.5g total fat; 0.5g saturated fat; 0g trans fat; 0mg cholesterol; 40mg sodium; 16g total carbohydrate; 2g dietary fiber; 14g total sugars; 1g added sugars; 1g protein; 0% Daily Value of vitamin D; 2% Daily Value of calcium; 6% Daily Value of iron; 2% Daily Value of potassium

Source:

Adapted from Iowa State University Extension

- 2 tablespoons mayonnaise
 - 1/2 teaspoon apple cider vinegar (or any type of vinegar)
 - 2 teaspoons sugar
 - 3 tablespoons crushed pineapple canned in 100% juice, including juice
 - 2 cups shredded or finely chopped cabbage
 - 1/2 cup chopped apples (or fruit of choice: orange, mandarin oranges, pear)
 - 1/2 cup raisins or dried cranberries
1. Wash hands with warm water and soap, scrubbing for at least 20 seconds.
 2. Wash fresh produce under cool running water, using a vegetable brush to scrub veggies with a firm surface. Dry and cut to prepare for this recipe.
 3. Combine mayonnaise, vinegar, sugar, and pineapple in a small bowl. Stir to mix well.
 4. In another bowl, combine cabbage and other fruit.
 5. Pour dressing over cabbage and fruit. Stir to mix.
 6. Serve right away.
 7. Refrigerate leftovers within 2 hours.

Makes 6 servings
Serving size: 1/2 cup
Cost per recipe: \$1.57
Cost per serving: \$0.26

