August 2025

Cooperative Extension Service

Agriculture & Natural Resources Newsletter

Clark County Extension Service • 1400 Fortune Drive • Winchester, KY 40391 • 859-744-4682 • clark.ext@uky.edu • http://clark.ca.uky.edu/

A Word from the Agent . . .

I know, I know. I keep talking about the weather, but this rainy weather then a few dry spells has made this a rough year for haymaking and row crop planting. Hopefully, we are on the downhill swing of things and focusing on weed control and disease control such as fungus. Now is the time to really be thinking about fall planting especially grasses. Make sure your soils are tested before planting because if you are lacking in soil nutrition or if have too many of certain soil nutrients, could mean the difference between a great stand and poor stand of grass forages. Also, we are still taking forage samples, so if you would like for me to have your hay tested, just give me a call here at the office, 859-744-4682. Also, the hay sampling is free.

For the hunters out there, please be cautious of ticks while scouting. It seems like tick incidents are increasing by the second.

Stay safe out there!

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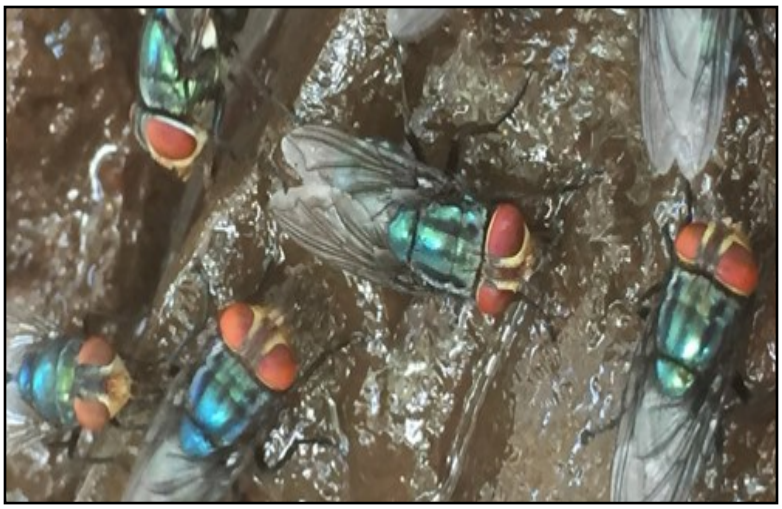
KEEPING YOU Informed

Forage Management Tips for August

- Do NOT graze cool-season pastures closer than 3 to 4 inches. This will help to conserve soil moistures and to prevent overheating of the crowns.
- If drought conditions limit pasture growth, close off pastures and feed hay in a sacrifice area.
- Graze warm season annuals or perennials to allow cool season grasses to recover and to avoid endophyte-infected fescue.
- After the first good rain in August, seed winter annuals (such as small grains, ryegrass, crimson clover, and brassicas) for late fall and early spring grazing.
- Plant alfalfa after first good rain in August to allow sufficient size going into winter and reduce potential for sclerotinia damage.
- Consider renovation of cool-season grass pastures that have thinned.
- In mid-August to early September, exclude livestock from pastures to be stockpiled and apply 60 lb N/A and any need P and K.



Adult New World screwworm flies resemble the common blowfly but have multiple distinguishing features

New World Screwworm

A Recent Threat to U.S. Farm Animals

Recent news headlines have brought attention to the northward movement of a foreign animal disease towards the United States from Mexico: **New World Screwworm (NWS**). This parasite has been eradicated from the United States since 1966 with the most recent outbreak occurring in Florida Key deer in 2016. All living, warm-blooded animals, including birds and humans, can be infested with NWS.

What makes this fly and larvae different?

While our normal, US-borne flies lay eggs that can cause wounds to be infested with maggots (called myiasis), the flies that cause NWS are much more aggressive and the maggot (NWS) feeds on living flesh.

What causes infestation?

The female NWS fly lays eggs near or on a wound of an animal. The eggs hatch and the larvae (maggots) burrow into living flesh, enlarging the wound, attracting more flies and debilitating the animal. NWS flies seek out wounds from fighting injuries, tick bites, newborn navels and even human-made wounds from castration, ear tagging and dehorning procedures. After a week of feeding in the wound, the larvae drop to the ground and burrow where the adult NWS fly emerges.

What strategies are there for control?

Three main tactics are used for controlling NWS. The first two are dependent on veterinarians and animal caretakers and include **visual examination of wounds** with subsequent treatment and quarantine, as well as **movement controls** from impacted areas. The third tool, called **sterile fly release**, takes advantage of the fact that a female fly mates only once in her lifetime. Male NWS larvae can be raised in specialized laboratories, sterilized and released into the wild to mate with females. The female NWS fly's eggs will not hatch after mating with a sterile male NWS fly.

New World screwworm flies, eggs and larvae around and deep within a wound.

What is the urgency?

Recent northward detections of NWS in Mexico prompted United States Department of Agriculture Secretary Brooke Rollins to temporarily stop importation of cattle, horses and bison from Mexico at U.S. land ports. A detection in the United States could cost millions of dollars in livestock losses, trade restrictions and control efforts. Livestock, pets, wildlife and even humans could suffer and die from screwworm infestation. Look for animals that are depressed, not eating and off to themselves with enlarging, foul-smelling wounds. You may notice eggs laid near the wound and possibly moving maggots. NWS flies and maggots look like the common blowfly and maggot. If you suspect a case of NWS, contact a USDA veterinarian (502-395-2368) or Kentucky state veterinarian (502-573-0282) for help identifying it. We can work together to protect the United States from the re-introduction of this terrible disease. Find more information at:

https://www.aphis.usda.gov/livestock-poultry-disease/cattle/ticks/screwworm

2025 Horses & Horsemen:

Farm & Facilities Expo

Tuesday, September 16th

RSVP to Bourbon County Extension Office: 859-987-1895

Schedule:

5:00: Registration and Trade Fair

6:00: Dinner

6:15: Welcome & Farm Overview

Arena footing and maintenance - Dr. Coleman, UK Equine Extension Specialist

Pasture Walk —Central KY ANR Agents

Heavy Use Areas & Farm Infrastructure— Dr. Bob Coleman

Horsemanship Demo - Mike & Chris Stokley

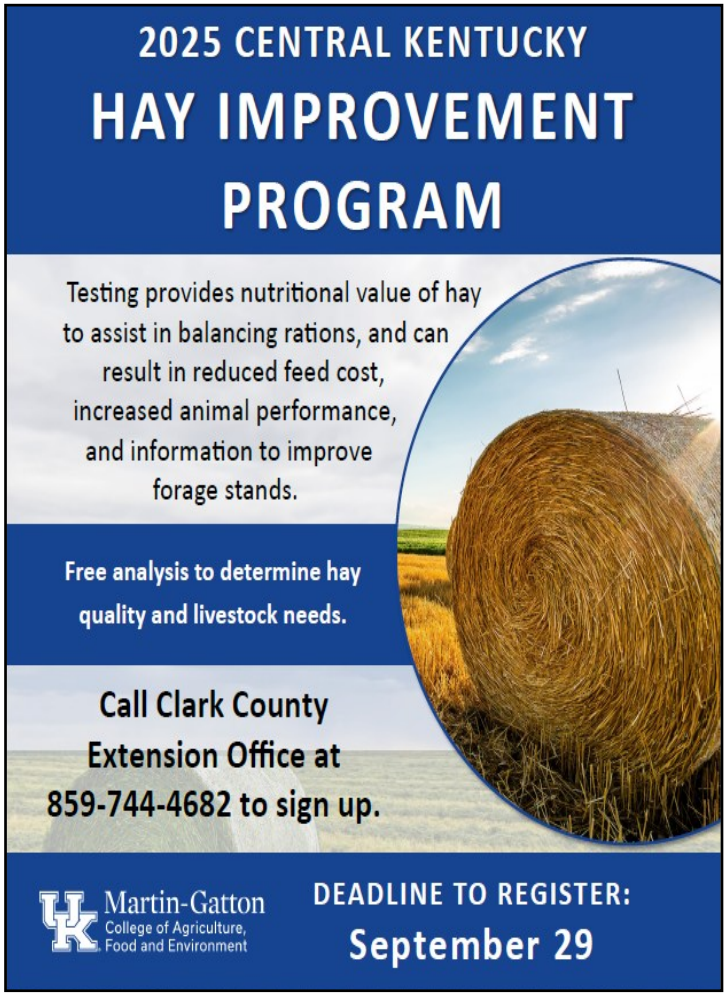
Location:
Mike & Chris Stokley
Big Creek Livestock
1310 Thatchers Mill Rd
Paris, KY 40361

College of Agriculture, Food and Environment
Cooperative Extension Service

University of Kentucky
Ag Equine Programs
College of Agriculture, Food and Environment

Cooperative Extension Service

MARTIN-GATTON COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT



Source: Amanda Gumbert, UK Water Quality Extension Specialist

Ten or more farmed or forested acres in Kentucky? Summer is a good time to update your Agriculture Water Quality Plan

The Agriculture Water Quality Act was passed by the Kentucky Legislature in 1994, mandating that landowners with 10 or more acres in agricultural production must develop a water quality plan. Ten or more acres of crops, livestock or trees that will be harvested qualify for a plan and implementation by law.

This plan documents the best management practices you're using to protect water resources. These best management practices could include planned grazing systems, rotational grazing for livestock, filter or buffer strips around crop fields, animal waste manure storage structures and nutrient management plans. It should also include plans to limit livestock access to streams. Additionally, the document should include information on the proper handling of herbicides and pesticides, as well as the maintenance of septic systems.

To implement a water quality plan, first look at the activities in your operation. You can use a web-based planning tool (https://soilandwater.ca.uky.edu/awq) to answer questions about the operation. By answering these questions, you can identify the appropriate best management practices needed. Then, you document that these practices are being used and properly maintained.

In many cases, proper practices are already in place, and creating an agriculture water quality plan provides a document stating that you are following proper procedures to protect the water quality on your farm.

However, keep in mind that an agriculture water quality plan is not a voluntary document; it is a mandatory document required by the Kentucky Agriculture Water Quality Act. Periodically review and update your plans to reflect changes in farming and forestry practices or land ownership. Additionally, a water quality plan is required by the local Soil and Water Conservation District if you plan to apply for state cost-share programs.

By implementing an agriculture water quality plan, you help protect both surface and groundwater from agricultural contaminants. Keeping the state's water resources clean protects human and animal health and reduces the cost of treating drinking water.

For more information on the Kentucky Agriculture Water Quality Act, please contact the Clark County Cooperative Extension Service, 859-744-4682.

Related Resources: Kentucky Agriculture Water Quality Act and Planning - https://soilandwater.ca.uky.edu/awq

Corn Is Not Making Your Days More Humid

By; Chad Lee, UK Grain Specialist

When it gets very hot and very humid, people see the fields of tall, green corn and point the finger at these fields. Corn is not making your days more humid unless you are walking in corn fields all day.

The very short answer is that corn will transpire around 4,000 to a peak of 8,000 gallons of water per acre per day. But, in these current conditions, there is about 160,000 gallons of water in the air already. So, any water coming from a field of corn is negligible to the total amount of water in the air.

Corn, like all plants, transpires water and oxygen to help maintain plant functions. Once the corn plant leaves cover the rows and intercept most of the sunlight, most water loss from the cornfield comes from the transpiration. Water loss from transpiration is influenced by water availability in the soil, water amount in the plant, relative humidity (which is water in the air), air temperature, cloud cover and windspeed.

If the relative humidity (RH) is high, then transpiration (water loss) from the plants is low. Some estimates in Nebraska place peak water loss from a cornfield at about 0.33 inches per acre per day. That equals 8,960 gallons of water per acre per acre per day for about 20 days. Other estimates east of the Missouri River suggest corn will transpire about 4,000 gallons per acre per day. If RH is 50%, and corn plants are at maximum water demand, corn in the region likely loses closer to the 5,000 gallons per day.

While that is a large amount of water for any household to use in a day, it is very small number compared with what is in the air already.

We can calculate the water in the air by calculating the weight of dry air above one acre, using a psychrometric calculator, and using 86 F and 50% RH at our elevation. With these parameters in the Bluegrass Region of Kentucky there is about 0.0136 pound of water (H_2O) per pound of dry air. That comes to about 160,000 gallons of water above one acre, whether that acre is corn, a football field, or houses in town. See the resources at the end of this publication to double check this math and work out scenarios where you live.

To add more perspective to the volumes of water being discussed, 1-inch of rainfall is 27,184 gallons per acre. The Kentucky Mesonet at Spindletop Farm in Lexington is at 3.1 inches of rainfall for July, which is 84,270 gallons of water per acre that has fallen to soil. If the atmosphere is holding 160,000 gallons of water at 50% RH and 86 degrees Fahrenheit, and all that water decided to fall to earth in a day, that is equivalent to about 5.9 inches of rainfall per acre.

An acre of corn could remove 35,000 pounds of carbon dioxide (CO_2) per acre and release about 25,000 pounds of oxygen (O_2) per acre over the growing season.

If someone walks into a cornfield, that corn will block airflow. As that corn transpires, a person will perspire. Inside of that cornfield, it will feel more humid. But, outside of the cornfield in this region of the country, it is unlikely that corn (or soybeans, sudangrass, or other crops fully closing the rows) will transpire enough water to dramatically affect the humidity in the neighborhoods, towns, and cities.

Resources:

Calculators

Psychrometric calculator: https://daytonashrae.org/psychrometrics/psychrometrics.shtml

Weight of air: https://www.engineeringtoolbox.com/air-density-specific-weight-d_600.html

Publications

Kranz, Irmak, Donk, Yonts and Martin. 2008. Irrigation Management for Corn. G1850. University of Nebraska-Lincoln. https://extensionpubs.unl.edu/publication/g1850/2008/pdf/view/g1850-2008.pdf

Thelen, K. 2021. Understanding the role of carbon in agriculture – Part 3. Michigan State University. https://www.canr.msu.edu/news/understanding-the-role-of-carbon-in-agriculture-part-3

Wilson, A.B., A. Lindsey, and O. Ortez. 2024. Corn sweat and humidity: A few facts explained. Ohio State University Extension. https://extension.osu.edu/sites/ext/files/imce/About_docs/Corn%20Sweat%20and%20Humidity%20articke-30Aug24.pdf

Cooperative Extension Service

Help us understand the needs of cattle producers in Clark County.

This survey focuses on the **adoption of management practices across the beef industry**, along with producers' motivations **for and against** adopting certain practices. It is open to all types of beef operations, and responses are completely confidential.

Scan Me!

RECIPE

Spicy Garlic Trout

Servings: 10 Serving Size: 4 ounces of fish

Source: Cook Wild Kentucky Project

Ingredients:

- 2 1/2 pounds trout fillets
- 1 1/2 tablespoons olive oil
- 2 teaspoons garlic powder
- 2 teaspoons brown sugar
- 1/4 - 1/2 teaspoon red pepper flakes, depending on desired spiciness
- 1/2 teaspoon salt
- 1/2 teaspoon ground pepper

Directions:

1. Wash hands with warm water and soap, scrubbing for at least 20 seconds, especially after handling raw fish.
2. Preheat oven to 350° F.
3. Place trout fillets on a baking pan lined with foil.
4. In a small bowl, whisk together olive oil, garlic powder, brown sugar, red pepper flakes, salt, and pepper.
5. Use a spatula to spread the mixture all over the top side of trout fillets. Loosely cover fillets with a second piece of foil.
6. Place pan in oven. Check fillets after 10 minutes. Fish should reach an internal temperature of 145° F and flake easily with a fork.
7. Serve immediately. Store leftovers in the refrigerator within 2 hours.

Nutrition Facts per Serving: 190 calories; 10g total fat; 1.5g saturated fat; 0g trans fat; 65mg cholesterol; 180mg sodium; 1g total carbohydrate; 0g dietary fiber; 1g sugars; 1g added sugars; 24g protein; 20% Daily Value of vitamin D; 4% Daily Value of calcium; 10% Daily Value of iron; 8% Daily Value of potassium.