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

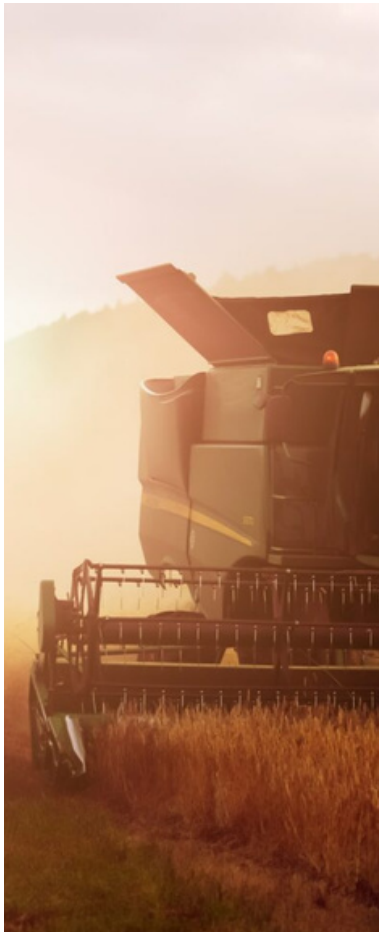
*Newsletter Fall 2023*

*David Fourqurean*

McLean County
PO BOX 265
335 West 7th Street
Calhoun KY 42327
(270)273-3690

# MCLEAN COUNTY
## AGRICULTURE AND NATURAL RESOURCES

# Fall Harvest Safety



By: David Fourqurean, County Extension Agent for Agriculture and Natural Resources

**Fall harvest** season is a busy, often stressful, time for Kentucky farmers and their families.

It also is a peak season for agricultural injuries and an especially important time for farm families to remember safety. Be sure all workers are trained and physically capable of operating equipment and understand the safety procedures for it. Take time to talk to workers about safety. Long working hours can lead to fatigue and stress, making you less alert to potential safety hazards. Take some breaks when operating equipment for an extended period of time. If possible, trade off with other workers for a change of pace. Dress appropriately for the job. Avoid loose clothing, jackets with dangling strings, and sweatshirts that could become entangled in moving equipment. Entanglement in moving parts, especially power take-offs or other chain and belt drivers, is a major fall harvest hazard. Inspect machinery and equipment to be sure shields and guards on moving parts are in place and in good repair. Replace ineffective or missing safety equipment. Before getting off equipment, disengage the power and wait for moving parts to completely stop. When possible, shut off the engine. It is always a good idea to take the ignition key with you so another person does not unexpectedly start equipment while you are performing maintenance or repair. If you are working under any piece of equipment, such as a header unit, always use the jack stand or hydraulic cylinder locks to prevent it from suddenly falling and pinning you under.

**Continued Page 2**

**Fall Harvest Safety Continued.**

Be sure all safety locks are operational. A pinhole-size hydraulic leak can cause severe tissue damage. If you are injected with oil from a hydraulic leak, immediately seek medical assistance. The oil must be surgically removed, and delays can result in serious infections and possible amputations. Always use paper or cardboard to check for hydraulic leaks. Tractor overturns are the leading cause of farm deaths. To prevent these tragedies, equip older model tractors with a roll-over protective structure. Most tractors manufactured after the late 1960s or early 1970s can be equipped with a ROPS for $800 to $1,200, a small price to pay for basic safety. Make it a habit to use the seat belt to ensure you remain inside the zone of protection provided by the ROPS or safety cab. The seat belt also will keep you from being thrown off the tractor if you hit an obstacle. Being thrown off the tractor and run over is the second leading cause of tractor deaths in Kentucky. Although not as common, run-over injuries to extra riders, especially those involving children, who fall off are very tragic. To prevent these tragedies, never allow any extra riders on tractors or equipment Keep bystanders away from operating equipment. Also, be aware of people who may have come into the area. Always check around equipment before starting or moving it. Carry a fire extinguisher on all tractors and self-propelled equipment, especially combines. Periodically check extinguishers to be sure they are pressurized and in good condition. To prevent fires on combines, be sure equipment is clean and hoses and fuel systems are in good shape and not leaking. Remove trash and debris around engine components. Check for clearances with overhead power lines when operating or moving tall machines, because contact may result in electrocution. Moving portable augers around overhead power lines is especially hazardous so always lower them first. When filling silos, watch for the bleach-like odor that indicates silo gas. This yellowish brown gas is heavier than air and will settle on the silage surface and may flow down the chute into adjacent livestock areas. Close any doors leading to livestock areas, keep the base of the silo chute well ventilated and do not enter a silo during the first two weeks.

Farm vehicles on public roads are involved in injury accidents from 6,000 to 7,000 times annually in the United States and typically more than 200 collisions involving farm machinery on public roads occur in Kentucky every year. Thus, people driving farm machinery and those driving vehicles should be especially careful and watchful.

Keep slow-moving-vehicle emblems and extremity markings clean and bright to help motorists notice equipment. Replace faded SMV emblems and check headlights, taillights and flashing lights for satisfactory operation.

To alert on-coming drivers, use reflectors or reflective tape when the edges of towed equipment extend beyond the left side of a tractor. If a tractor has mirrors, keep them clean and adjusted for the driver to watch for approaching motorists. When possible, pull completely off the road to let a line of traffic behind pass.
Since it may be difficult to anticipate the operational intentions of farm machinery on the roadway, other drivers need to watch for unmarked field entrances or other places the driver might be planning to enter. A tractor may need to move to the right to complete a left turn so do not assume the driver wants you to pass when moving to the right side. Pass only in a designated passing zone or when the other driver signals and completely pulls off the road.

For more information contact the McLean County Cooperative Extension Service 270-273-3690


CAIP

**Qualifying Meeting**

**October 26th, 2023**
**Myer Creek Park**
**6:00 PM**

# Congratulations on the National Award!




ABSTRACT

2023 Abstract for Audio recording

This submission is a podcast produced to remind producers of the importance of Safety Precautions while preparing for the Spring Season. It was published through the Kentucky Ag Matters Podcast, a show produced by Jay Stone (Hopkins County ANR Agent), David Fourqurean (McLean County ANR Agent), and Vicki Shadrick (Webster County ANR Agent). The entire podcast was 15 minutes and was recorded on February 8th at the Christian County Farm Bureau Office in Hopkinsville, KY. The podcast was hosted on Podbean and shared to Amazon Music/Audible, Apple Podcasts, Google Podcasts, Podbean, Spotify, and Iheart radio. Agriculture, and farming, is known as one of the most dangerous occupations in today's world. Often, we can do everything correctly and still have accidents that can end in either serious injury or death. Topics for this show included basic safety considerations when dealing with Equipment Power Take Off shafts, Grain Bins, Highway Safety with Equipment, and Safe handling of Livestock and Horses. Statistics shared included children's deaths and severe accidents related to farm life, and how many accidents on the farm occur when folks get too comfortable engaging in everyday activities. Listeners were left with the timely tip to all ways pay attention and free yourself from distractions during all farm related activities. Distribution for this podcast averages 283 downloads per month to 23 states and 13 foreign countries.


Kentucky Ag Matters

Podcast brought to you by
Western Kentucky Ag Network.

**Scan to listen to the episode that won. the Nation Award!**

**CHECK OUT KENTUCKY AG MATTERS PODCAST!**


# CHUTE SIDE TRAINING

## TUESDAY • SEPT 12 • 6-9PM (CST)

Kentuckiana Livestock Market

8411 State Road 81 • Owensboro, KY 42301

NO COST TO ATTEND • FREE BQCA CERTIFICATION

| | |
|---|---|
| 5:15pm | Registration and Meal |
| 5:50pm | Welcome and Housekeeping |
| 6:00pm | Chute Side BQCA Training and Techniques/Latest Information on Genomic Testing |
| | On Farm Pregnancy Determination/Cull Cow Considerations |
| | Body Condition Scoring/Winter Feeding Strategies |
| 8:30pm | Closing Remarks and Completion of BQCA Test for Certification |

Pre-register by September 8 by calling the McLean County Extension office at **(270)273-3690** or email **dfour2@uky.edu**

**REGISTER SOON! 60 spots available!**

University of Kentucky College of Agriculture, Food and Environment

KADF Kentucky Agricultural Development Fund

Beef Quality Assurance

KBN Kentucky Beef Network

**Attendees who complete the BQCA exam at the end of the training will become BQCA Certified.** BQCA certification is valid for three years.

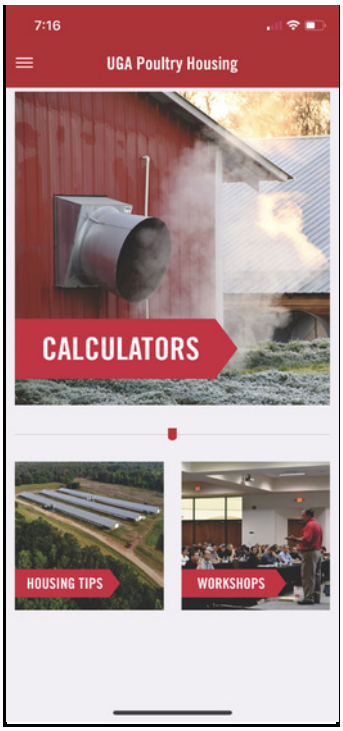
Department of Poultry Science
College of Agricultural & Environmental Sciences
UNIVERSITY OF GEORGIA

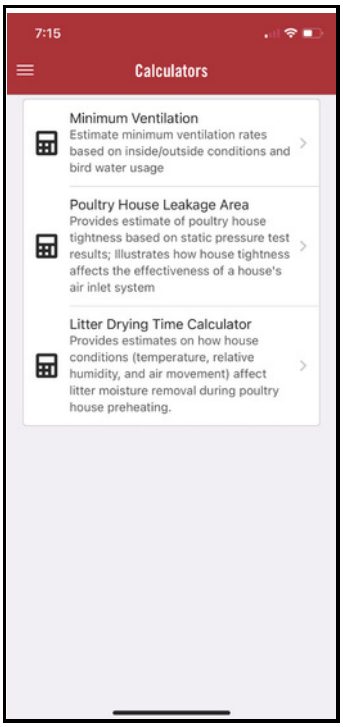
# Poultry Housing Tips

## Poultry411 App - Litter Drying Time Calculator

Volume 34 Number 13

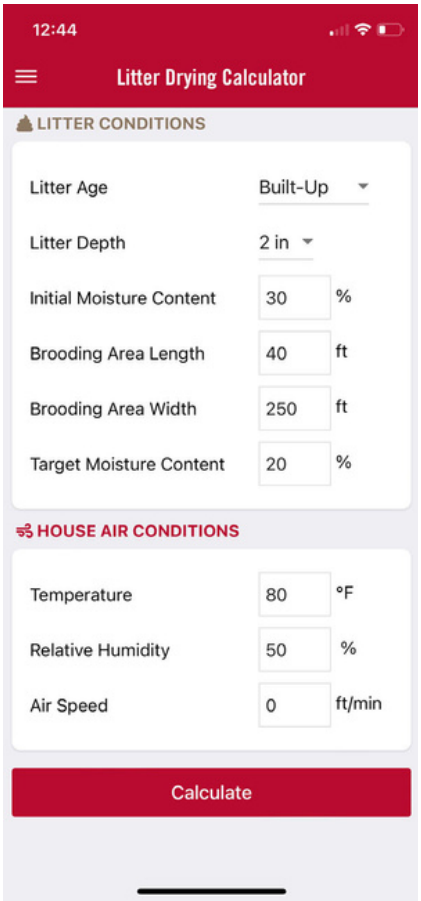
2022




**Google App**

**Apple App**




When placing chicks it is crucial to their future performance and health to make sure the litter they are placed upon has been throughly warmed. Though the air in a house can be heated relatively quickly, insuring the litter throughout a brooding area is heated to between 85oF and 95oF can take from 12 and 36 hours depending on the type of heating system, level of air movement, house tightness, litter moisture level, etc. Since the chicks are in constant contact with the litter, insufficient preheating time can result in low litter temperatures which can be as problematic, if not more, than low house air temperatures.

An equally important, yet commonly overlooked aspect of litter preheating, is litter drying. Damp litter will not only result in chilled chicks, but since litter moisture plays a major roll in ammonia generation, higher litter moisture levels tend to result in higher ammonia levels and/or reduced litter treatment life.

Ideally, litter moisture upon placement should be approximately 15%. But how long should a house be preheated to ensure that the litter has been properly dried? As you might suspect, it primarily depends upon the initial level of litter moisture, which is why it is important to ventilate a house as much as possible prior to preheating. Other important factors include house air temperature, relative humidity, litter type, litter depth, and the amount of air movement over the litter during preheating. Since all these factors interact, it can be difficult to come up with a single amount of time houses should be preheated to ensure optimal litter conditions.

Recently, a calculator was added to the Poultry411 app to provide producers with a relatively simple way of exploring how the various environmental factors affect litter moisture removal rates during preheating. The calculator is based on the extensive work conducted by a leading expert in the area of poultry house litter moisture, Dr. Mark Dunlop of the Department of Agriculture and Fisheries, Queensland

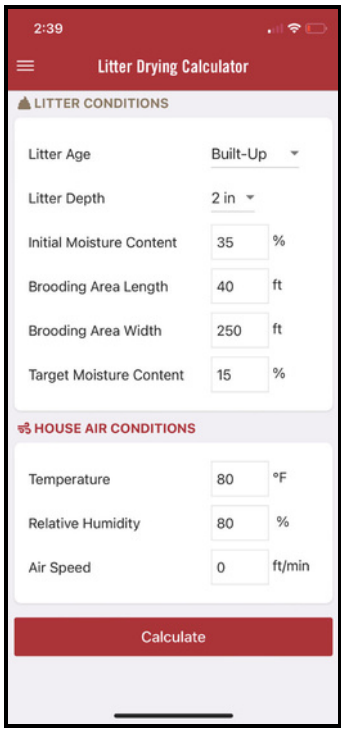
Government, Australia. With the calculator, the user inputs litter type (built-up/pine shavings), litter depth (2", 4", 6"), initial litter moisture content, brooding area length, brooding area width, target moisture content, air temperature, relative humidity, and air speed at floor level. From this information the calculator will determine the moisture removal rate from the litter (gals/hr and gals/day).

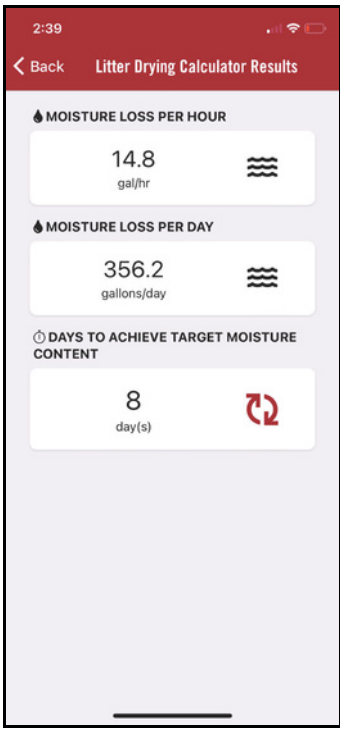
It is important to note that the litter drying times estimated by the calculator are most accurate for determining moisture removal from the top two inches of the litter. For four- and six-inch litter depths to meet the estimated drying times, the litter would most likely need to be lightly harrowed at some time during the preheating period to reached the desired moisture level.

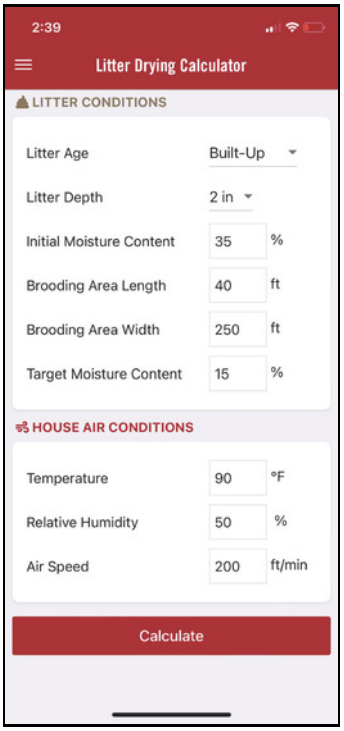
When down times are short, especially during cold weather, it is not uncommon to find litter moisture levels of between 30 to 35% prior to preheating. The calculator can be used to compare how different preheating methods would affect a grower's ability to dry the litter. For instance, if an air temperature of 80oF were maintained during preheating and the relative humidity was 80% (exhaust fans are not operated during preheating), approximately 14.8 gals of moisture would be removed from the litter each hour. At this rate it would take approximately eight days for the litter moisture to reach 15%.

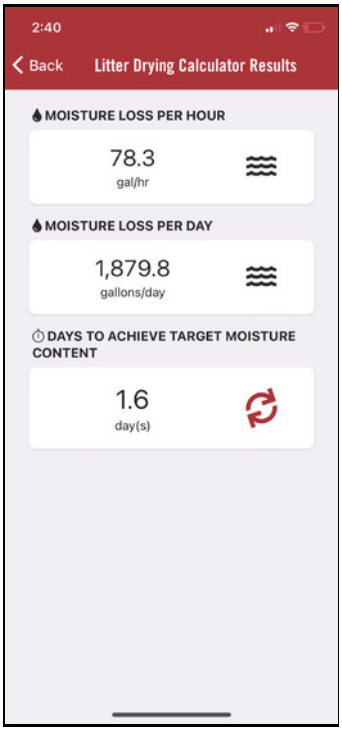
If by contrast, the house temperature were increased to 90oF, the timer fans were operated sufficiently to maintain a relative humidity of 50%, and the house's circulation fans were operating and capable of an air speed of 200 ft/min over the litter, the rate at which moisture is removed from the litter could be increased nearly six fold and as a result it would only take about a day and half to decrease litter moisture from 35% to 15%.

Though the app was designed to be used to examine moisture removal rates during preheating, the fact is the app can also be used to better understand litter moisture removal at any time during a flock. Yes, when birds are in the house they are adding moisture to the litter, but how changes in house Rh, air temperature, and air movement affect the rate at which moisture will be pulled from litter will still hold true, with or without birds. Higher moisture removal rates will tend to result in dryer litter. Lower moisture removal rates, wetter litter.




Whether the calculator is used to estimate litter drying times prior to chick placement, or for the situation where there are older birds in a house, it is hoped that it will provide producers with a better understanding of how the management of house air temperature, humidity, and air movement affects ability to keep their litter dry and their birds productive and healthy.

Authors:
Michael Czarick - UGA Extension Engineer
Brian Fairchild - UGA Extension Poultry Scientist