Agriculture & Natural Resources Newsletter

The Old Farmhand: Part II July 2023

MONEY FOR FARM

IMPROVEMENTS

KENTUCKY AGRICULTURAL DEVELOPMENT FUND

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

Harrison County Beef Cattle

Association 668 New Lair Road

Cynthiana, KY 41031

(859) 234-5510

A Note from Jessica

Hello everyone! I wish I was able to write and say that I am glad we have received some rain but I am looking at the forecast while I am typing and the chances are not looking great. Our crops are really starting to stress and pastures and hayfields are browning off. Hay supply looks to be short for the year especially if we do not receive any measurable rainfall this month. We are in desperate need of rain to help make our crops flourish and have yield potential.

Please take note of all the items in this month's newsletter as the CAIP and the new YAIP program will be available soon as well as information on the County Fair and how to enter your exhibits this year!

Our office will be closed on Tuesday, July 4 in celebration of Independence Day!

COUNTY AGRICULTURAL **INVESTMENT PROGRAM (CAIP)**

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

Application Period: July 5 to July 25, 2023

No applications will be accepted before July 5 or after July 25

CAIP Informational Meeting will be held on July 5, 2023 at 6:00 pm at the Harrison County Extension Office.

Application Availability: Harrison County Extension Office Monday - Friday (8:00 a.m. - 4:30 p.m.)

For More Information: Contact Jessica Barnes at (859) 234-5510 or email jessica.barnes2@uky.edu

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

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LEXINGTON, KY 40546

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



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Disabilities

accommodated

with prior notification.

Jessica Barnes,

Harrison County Office 668 New Lair Road Cynthiana, KY 41031 P: 859-234-5510 harrison.ca.uky.edu



Youth Agricultural Incentive Program (YAIP)

Many of you are familiar with the County Ag Investment Program (CAIP) that runs annually here in Harrison County to help farmers diversify their operations. This year our Ad Development Board has decided to also fund the Youth Agricultural Incentive Program (YAIP) to help youth that are interested in agriculture expand or start their project. This program is open to any Harrison County youth that is 9 years of age to a high school senior.

YAIP is a 50/50 cost-share based program that can reimburse up to \$1,000 per youth for their project. Project can include the following: Agricultural Diversification, Animal Production, Forage Improvement, Showmanship, Supervised Agriculture Experience, or Country Ham Projects.

The application period for YAIP will run from 8:00am on July 5, 2023 to 4:30 pm on July 25, 2023. Applications can be picked up at the Harrison County Extension Office at 668 New Lair Road in Cynthiana. Hours are Monday through Friday 8:00am to 4:30 pm.

IMPORTANT ANNOUNCEMENT FOR COUNTY FAIR EXHIBITS!

This year we are introducing a new online registration program for ALL county fair exhibits! <u>ALL exhibits, for</u> youth and adults, will require pre-registration. We realize that with a new program and with change, it can sometimes be a bit of a learning curve, but the extension office is ready to assist you in any way we can! <u>PRE-REGISTRATION IS REQUIRED and walk-in exhibits will not be accepted</u>. We will have three "help days" where you can come to the extension office and enter your exhibits online. Please see the flyer below for more information and call the office at 859-234-5510 with any questions you might have. We want to make this transition as painless as possible!

REGISTRATION

Pre-registration will be required beginning June 15th, 2023 online using the website:

https://harrisoncountyfairky.fairentry.com/Fair/SignIn/19000

Or use this QR code below:



Check-in will be assigned by appointment only. All entries must be completed online. No walk-up or day-of entries will be accepted.

We have three set days for those needing help entering your items online. Times will be between 8:30 a.m. to 4:00 p.m:

- Thursday, June 29th
- Thursday, July 6th
- Monday, July 10th

This is by appointment only. Please call 859-234-5510 to reserve your spot.

DEADLINE TO ENTER all fair exhibits is Thursday, July 13th at noon.

Tag Instructions:

We will print your tags. Tag pick up will be Thursday, July 13th and Friday, July 14th at the Harrison County Extension Office (668 New Lair Road, Cynthiana, KY 41031).

Dry Weather Effects on Corn at Early Growth Stages

Chad Lee, Extension Professor, Grain Crops

The dry weather across the state is putting stress on the corn crop. The lack of water to corn before the V12 growth stage usually results in minimal yield losses if adequate water occurs at V12 and beyond. Most of the corn in Kentucky ranges from just planted to about V9 as of June 5, 2023.

While yield losses might be minimal, some other issues can or will occur with a lack of water. Each of these scenarios assumes that the water stress lasts for about two weeks and plants will recover on the other side.

Leaf rolling: The corn leaves will roll during the heat of the day to try to conserve as much water as possible. When this leaf rolling occurs, the plant conducts less photosynthesis, causing it to produce less biomass during the drought stress.

Potassium Deficiency: Potassium deficiency is a common indicator for drought stress on young corn plants. Plant tissue samples taken on V3 to V6 corn last week and this week likely will show K deficiency and that K deficiency may be from the drought and nothing else. The corn plant needs water to take up K, so adding more potassium will have no effect on the corn crop if the crop does not have water.

Other Nutrient Deficiencies: Water is needed for corn to take up several nutrients, not just potassium. Potassium might be the most obvious, but a tissue test will reveal several others as being deficient as well. A soaking rain is the best remedy for these transient deficiencies.

Compaction Becomes Evident: Both seed furrow sidewall compaction and subsurface tillage compaction become more obvious in dry soils. If corn in a single row or a section of the field shows twisting and curling before other corn, compaction could be a problem. "Vertical tillage" implements and discs often cause soil compaction at the depth they are set. In dry soils, these compacted areas become impossible for roots to break through. Both sidewall compaction and subsurface compaction stunt roots. Those stunted roots cannot take up as many nutrients resulting in stunted corn plants. Timely rains are about the only in-season remedy for these soils. With the dry weather in the forecast right now, rains might be too late to help.

"Floppy" corn syndrome. (Someone needs to write a "Floppy Corn" song to the tune of Adam Sandler's Sloppy Joe chorus in "Lunch Lady Land".) The dry weather and hot temperatures can cause all roots from one or more nodes to desiccate or dry out and die. A strong wind at this point will knock the plants over. Corn plants from about V2 to V3 will be most susceptible this week. Corn plants in shallow placement are more susceptible. Soaking rains to allow new root growth before any strong winds occur is the best remedy. For more on Floppy corn, see this article. As for that song: "Floppy corn, flop-floppy corn..." It's in your head now, isn't it?

Loss of Row Number or Kernel Number: Once corn reaches V6 growth stage, the dominant ear and tassel formation start. However, water stress starts affecting row number and kernel number closer to the V12 growth stage. At the V6 growth stage, the corn plants have switched to the nodal root system. This is the final stage before exponential growth. A lack of water from V7 to about V12 could reduce total biomass of the stem and leaves. A lack of water around V12 will reduce kernel rows and then kernel numbers per row on the ears.

Less Disease Risk: So, we are looking for a positive aspect with this one. A lack of water means foliar disease pressure is extremely low right now. We should not be applying fungicides to V5 or V6 corn anyhow. We certainly do not need fungicide in a drought. Kiersten Wise will have more on this issue.

A Lack of Residual Herbicide Activity: Most soil residual herbicides need rainfall to activate. Scout fields to identify which weeds are escaping and plan to spray once a rain event occurs. The weeds are not growing well now, either. They need the rain event to be receptive to the herbicides. When applying the herbicides, be sure to use the full adjuvant types and rates recommended on the labels. Travis Legleiter will have more on this issue.

Watch the Roots this Week: Soils usually dry from the surface downward. This movement of water can affect root development. The V9 corn should have well developed roots that are deeper into the soil. While the V9 corn demands more water than V2 corn, the V9 roots are more likely to interact with plant available water longer than the V2 corn this week. Emerging corn (VE) and V1 corn demands very little water (less than 0.1 inches per day), and most soils still have enough for those plants at the start of this week. Corn at the V2 to V3 growth stage this week may be at soil depths without water and could lose nodal roots to the lack of water.

Nitrogen On Dry Soils: Volatilization losses are the greatest risk for N losses in dry weather. Urea fertilizers on the soil surface will be actively volatilizing within 72 hours (about 3 days) after application. Urea treated with the adequate rate of NBPT (the active ingredient in Agrotain and other products) will not begin volatilization for about 7 to 14 days. Urea treated with adequate rates of Duromide plus NBPT (the active ingredients in Anvol) will not volatilize for about 14 to 21 days. If possible, sidedress with liquid urea ammonium nitrate (either 28% or 32% UAN). Only half of the UAN product is urea, making volatilization a smaller risk. The liquid form will soak into the soil further reducing volatilization losses. Injecting the UAN into the soil would be preferred where possible. Whether injected or applied to the surface the UAN will not move far until water reenters the soil profile. Corn will not take up the N, either, until water is available, so getting the N right next to the corn plant may not be as important. Spray booms with StreamJet (or similar style) nozzles in between each row will apply some of the N close to the plant. Avoid applying any of the nitrogen directly to the corn plants. If applied this week, direct contact of N fertilizer with corn leaves will burn the corn leaves. Usually, this burn is cosmetic and does not affect plant health and yield. But, the corn crop is stressed already, and leaf rolling is limiting photosynthesis. There is no need to add additional stress with leaf burn. If dry urea is the only option available, then apply it. If other options are available, pursue those. Edwin Ritchey and John Grove have more on this topic.

The weather forecast this week provides low chances of rain. More corn in more fields will roll this week. Some of it will look bad. But all of it still has a chance to make good to excellent yields. We will all be monitoring the crop closely and will provide updates in the coming weeks.

References

Lee, Chad and Carrie Knott. co-editors. 2023. A Comprehensive Guide to Corn Management in Kentucky. University of Kentucky Cooperative Extension Service. Lexington. http://www2.ca.uky.edu/agcomm/pubs/id/id139/id139.pdf Nielsen, R.L. 2022. "Rootless" or "Floppy" Corn Syndrome. Corny News Network. Purdue Univ. http://www.kingcorn/news/timeless/ FloppyCorn.html









Soring The Come

GIANT PUMPKIN CONTEST

LETS SEE WHO CAN GROW THE LARGEST PUMPKIN IN HARRISON COUNTY!

How to Participate:

- Beginning on June 16, pick up free Giant Extension Office (668 New Lair Road) Pumpkin seeds at the Harrison County
- Take home seeds and grow your pumpkin!
- Come to the Courthouse on Friday October 27th for Weigh-in. Time TBD
- Pumpkins will stay on Display all weekend for downtown Halloween activities
- Pumpkins can be picked up on Wednesday, November 1st. Time TBD