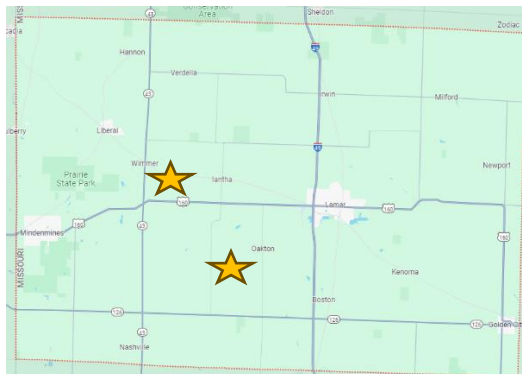


Crop Scouting Update: May 6, 2024

Weather Station

According to the Lamar Weather Station, the temperature at was at 58.4°F at 6:08 a.m. but was up to 76.9°F at 3:43 pm. Lamar received at total of 2.27 inches of rain between 4/29/24 to 5/6/24. Scattered Thunderstorms are forecasted for Wednesday May 8th and Monday May 13.



Wheat

Wheat fields for two farmers were checked near the middle of Barton County. Wheat was around 35 to 40 inches tall and nearing the end of flowering starting early kernel development. Fields were scouted for Fusarium head blight and other head diseases, but so far no noticeable amount of disease was detected. Both Farmer stated that they already sprayed their fields with Mirvaris Ace ahead of the rain to prevent head scab. Overall, the fields looked very good at this time. No sign of Fusarium head blight yet, but still maybe too early to tell. So far it seems fungicide treatment has been effective. For any farmer who was not able to spray their fields with fungicide before the rain and suspect Fusarium head blight might be present, please contact me and I will gladly help scout for disease if there is a concern.

Corn

Recent rainfall has left standing water on corn fields usually concentrating in the low areas of the field. Corn is in V3 to V4 stage between 4 to 7 inches tall. Scouting was very limited due to muddy, wet soil, but no cutworm damage was seen at this time. Corn field did not show any noticeable weed issues at this time. Standing water could lead to stand losses for newly planted corn, plants yellowing due to poor nutrient uptake, disease issues or denitrification in the soil. Keep a look out for pale green or yellow plants or struggling diseased plants.



Denitrification of in soil

Denitrification is the microbial process where nitrate-N is converted to gaseous form of nitrogen. This kind of nitrogen loss is common in flooded or saturated fields because flooding removes oxygen from the soil. The rate of denitrification is determined by the length of soil saturation, temperature (rate accelerates when temperature is above 60 °F.) and soil texture. Small amounts denitrification can occur at any time in soils, but significant denitrification can occur when soil has been waterlogged for 36 hours or more. The longer the soil is waterlogged the more potential for nitrogen loss. Soils with heavier texture are prone to more denitrification while sandy soils are more prone to leaching. For every day that silt loam or clay loam soils are saturated, research has indicated that 4 to 5% nitrate-N loss via denitrification can occur. If plants turn pale green or yellow, but not diseased, and do not bounce back after saturated soils dry out, then consider assessing for nitrogen deficiency, and supplemental nitrogen application maybe required.

<https://www.cropscience.bayer.us/articles/bayer/nitrogen-loss-in-flooded-corn-fields>

Should Supplemental Nitrogen be Applied to Corn following Heavy Rainfall?

<https://ag.purdue.edu/news/departement/agry/kernel-news/2021/07/supplemental-n-corn-heavy-rain.html>

Flooding and Ponding in Corn

<https://cropwatch.unl.edu/2018/flooding-and-ponding-corn>

Effect of standing water and saturated soils on corn growth

https://eupdate.agronomy.ksu.edu/article_new/effect-of-standing-water-and-saturated-soils-on-corn-growth-445-1

Corn Diseases and Nematodes

<https://www.uaex.uada.edu/publications/pdf/mp437/chapter7corn.pdf>

Corn and Soybean Replant Decisions

<https://www.youtube.com/watch?v=GQrTOGLHr5Q> Video

<https://extension.missouri.edu/media/wysiwyg/Extensiondata/Pub/pdf/agguides/crops/g04091.pdf>

Scouting for Fusarium Head Blight (FHB) and Harvest Considerations

<https://extension.missouri.edu/media/wysiwyg/Extensiondata/Pub/pdf/agguides/crops/g04351.pdf>

Black Cutworms

<https://extension.missouri.edu/publications/g7112>

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