



Field Notes for The Week Of 6-13-2022

Too Much Water!

Too much of a good thing, this is the situation that southern Ohio producers are facing as the month of June continues. Much of Adams County has exceeded the average monthly precipitation amounts for the month of June, precipitation amounts ranging from 4-5.5 inches in first two weeks. The average monthly precipitation amounts usually range from 1.5-3 inches. Looking at future forecast models, relief might be on its way. Forecast models are showing the later half of June and beginning of July to be drier and much warmer. This past week was a slow week for field work due to many fields being flooded and standing in water. I did talk to a few producers that managed to make some wet haylage and side dress some corn toward the beginning of the week before the large amounts of rain came. I did not talk to many cattle producer clipping pastures as the grass continues to grow at a rapid pace. Pinkeye cases are becoming more prevalent and fly populations are increasing. Concerns are rising over poor quality hay and hay that has been rained on. Feed value of forages are diminishing as they continue to stand in the field and mature. Wet weather can be very frustrating, and I often wish I could send the moisture to the producers in the western plains that are in the midst of a horrible drought. Many ranchers are having to sell their herds of cattle that took generations to build, and wildfires are destroying properties and livelihoods.

Every growing season presents a challenge and 2022 is no exception. As I scout many fields, I feel sorry for the corn that had a great start but is now being held back by too much of a good thing. Today I want to discuss yellowing, nitrogen loss, and what happens to crops when soils become waterlogged. Water or H₂O is the source of life hydrogen and oxygen come together to allow plants to grow and take up other critical nutrients. The soil is made up of roughly 25% air, 25% water, 5% organic matter, and 45% of minerals (sand, silt, and clay), when the 25% air space is filled with water this is termed as field capacity or full. When the infield capacity not oxygen is available to plant roots, the plants literally drown. Soil textures make a big difference in how much moisture is needed to meet field capacity. For example, sandy soils take much more moisture to reach field capacity than heavy clay soils. When field become waterlogged exchange of air between the soil and atmosphere is greatly reduced, this leads to reduced water and nitrogen transport through corn roots. This will cause extreme yellowing also called necrosis. Toxins such as sulfides and butyric acids can accumulate in plants causing extreme wilting and even death of the plant. Root growth is diminished, and some roots will die off permanently. Corn and other crops can be pretty resilient though, as weather patterns change and field dry out new roots will grow back but overall growth can be stunted, leading to potential yield loss. The challenges don't end there, when roots are injured, and plant cell growth is hindered plants can become more susceptible to diseases such as stalk and root rot diseases. As we trudge through the mud make sure to stay diligent in evaluating nutrient needs and possible disease pressures. Too much of a good thing can be a challenge but with patience and proper management strategies we can find that pot of gold at the end of the rainbow!

