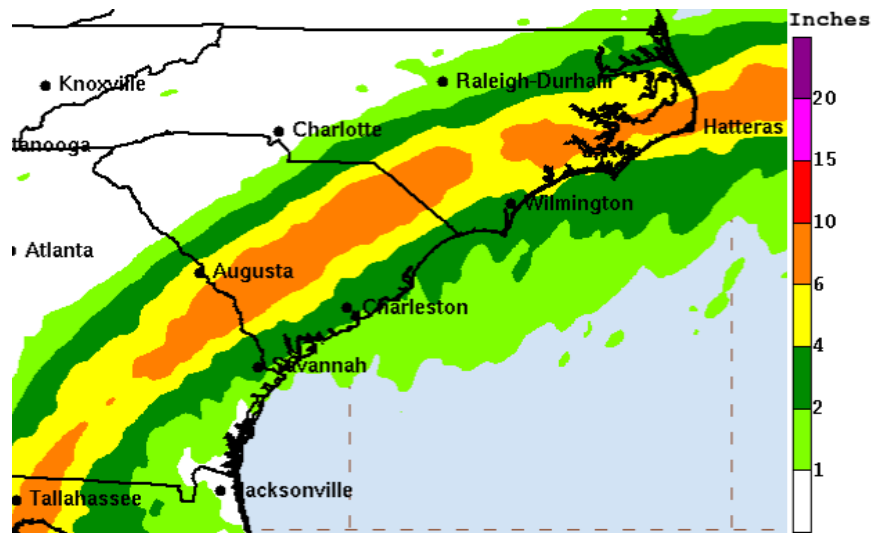


Ag Water Management Considerations in Preparation for Tropical Storm Idalia

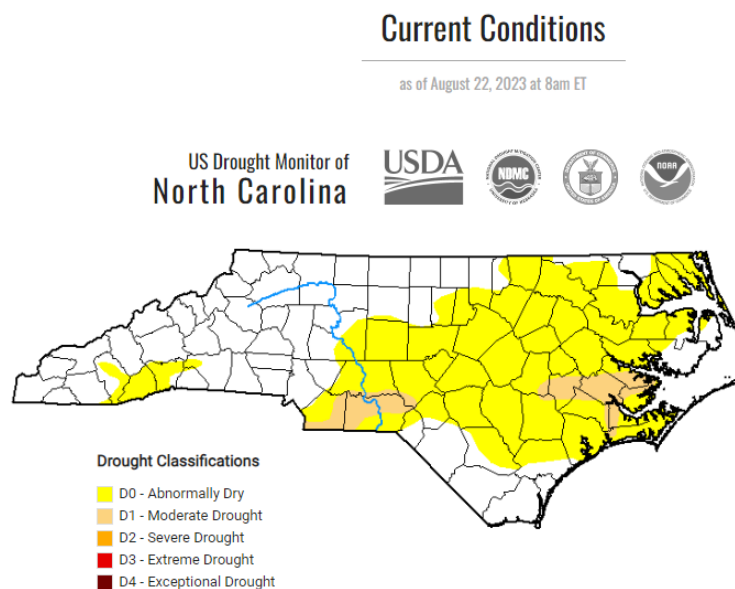
Hurricane Idalia is forecasted to weaken to tropical storm status as it approaches North Carolina. However, it will still impact the state with significant rainfall as it passes through. Figure 1 below shows the rainfall predictions by the National Hurricane Center as of 8:00 am on 8/30/23.

Figure 1. Predicted Rainfall Accumulation During Idalia



The areas that will be affected by the highest accumulation of precipitation 4-10 inches are also relatively dry according to the latest drought monitoring map shown in Figure 2.

Figure 2. Current Drought Conditions taken from ncdrought.org.



The impending rainfall will help to replenish soil water that has been depleted over the several weeks. Most of the soils in these areas will hold a considerable amount of the precipitation

under the current soil water conditions. This storm will however still generate runoff as the precipitation rate at times will be greater than the infiltration rate of the soil. Producers can utilize existing water control structures and surface water holding ponds to maximize both infiltration and water storage to help replenish soil water supplies and lower the downstream flooding potential.

Producers should also check drainage ways and outlets to make sure they are clear of debris that would prevent proper drainage. In coastal counties that utilize both flash board risers and tide gates for flood control, producers should make sure that tide gates are functioning properly, that seals are in place, and that the gates are not plugged with debris. Some areas will receive 2 to 4' of storm surge as shown in Figure 3 from the National Hurricane Center. This storm surge will bring salt water into the lower elevation areas of rural agriculture and silviculture land. This will happen in the Pamlico, Pungo, Neuse and Bay Rivers and their tributaries as a 2-4' storm surge is predicted. The tidal gates, dikes, pumps, and flashboard riser systems can be utilized to lesson the impact of salinization on these areas. In cases with flashboard risers and no tide gates, one may want to consider using the riser boards to keep salt water out allowing freshwater runoff to pond on the upstream side of the structure until the storm surge rescinds. At that point, allow the upstream to drain by removing the boards. Low lying areas that are prone to flooding maybe impacted by salt water due to the storm surge. The sooner ponded surface water is removed after the flooding event the lower the accumulation of salt will be.

Figure 3. NOAA Predicted Storm Surge During Idalia

