

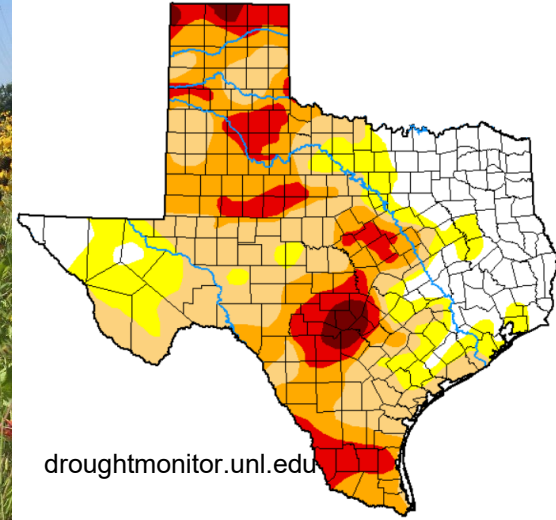
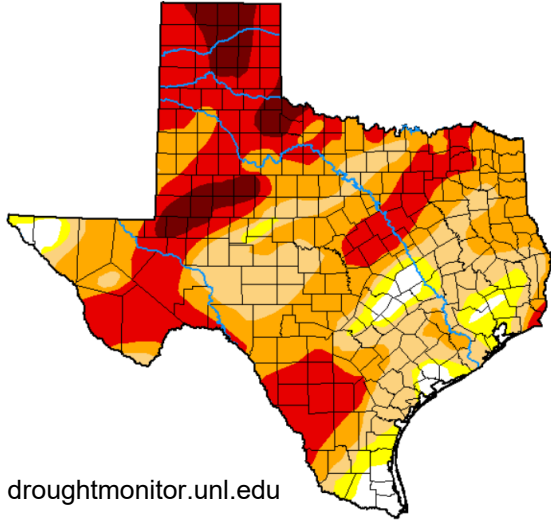


TxDOT's Participation in the Monarch CCAA

Environmental Factors: Drought

Sam Glinsky – TxDOT Maintenance Division

2022 (Severe Drought Year) vs. 2023



- Drought started early – January/February
 - March 8th 2022 – 68% of state in D2 “Severe Drought” or worse
 - Spring peak, 74% D2 or worse

- Moderate rainfall throughout the spring
 - March 7th 2023 – 36% of state in D2 “Severe Drought” or worse
 - Spring peak, 46% D2 or worse

2022 (Severe Drought Year) Monitoring Results



- Plots with >10% nectar resources: 81/109
- Nectar plant percentage (90% confidence): 28.2%+
- Plots with 2+ stems milkweed: 32/109
- Milkweed stems per plot (90% confidence): 4.0+



2023 Monitoring Results



- Plots with >10% nectar resources: 136/140
- Nectar plant percentage (90% confidence): 44.2%+
- Plots with 2+ stems milkweed: 45/140
- Milkweed stems per plot (90% confidence): 5.8+





- While many nectar plants suffer, milkweed growth was observed to be much more consistent in drought conditions
 - Many Texas milkweeds differ significantly from common milkweed
- Using 90% confidence intervals can aid CCAA partners
 - Conducting additional monitoring is beneficial, may prevent adaptive management
 - We can't change the weather
 - Use drought tolerant natives

