

Corn and Grain Sorghum Promotion Board – Update

Title: Assessment of the occurrence and distribution of mycotoxins in sorghum in Arkansas

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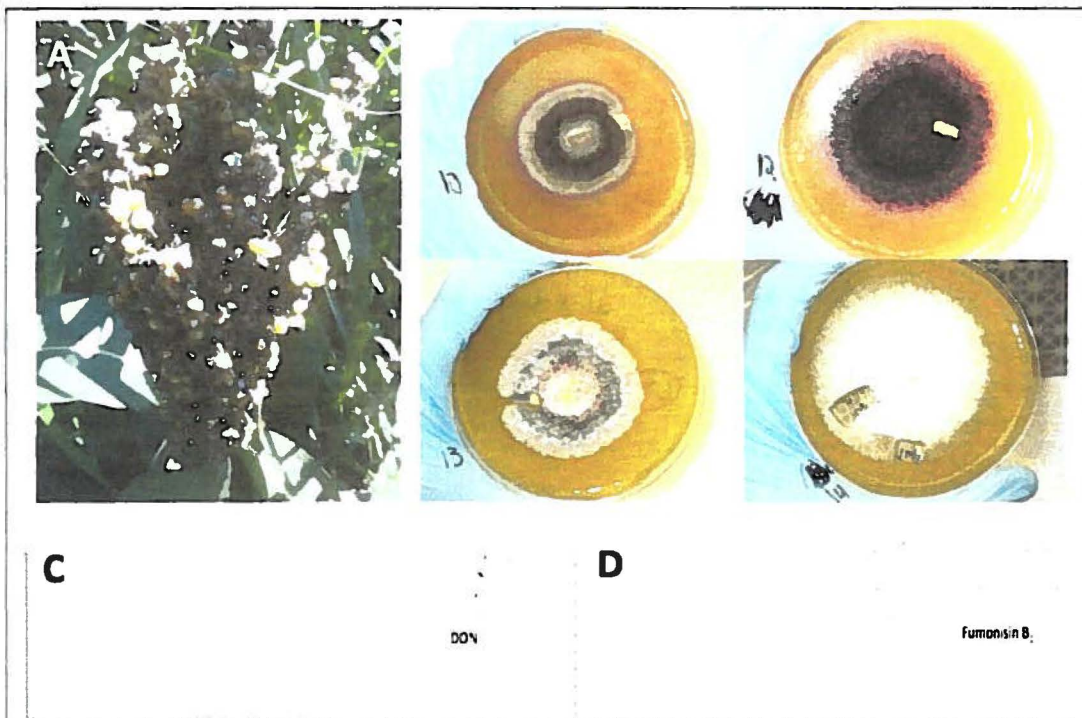
Status: Year 1 (2013)

Goal: To identify which mycotoxins are most prevalent and potentially problematic in Arkansas sorghum production systems.

Specific Objectives:

1. Survey Arkansas sorghum for the types and amounts of mycotoxins present.
2. Assess the resistance or susceptibility of white sorghum to mycotoxins.

Update: Overall, head mold was not widespread in Arkansas in 2013, although some fungal problems were associated with insect damage. Sorghum grain samples have been collected and the isolation of fungi is ongoing. Mycotoxin analyses are currently underway as well. Based on the results so far, mycotoxin levels are low this year, with only low levels of fumonisins detected in a very small number of samples. Specialty sorghum “waxy” is being grown and evaluated in 2013 in greenhouses due to limited availability of seed. Results are anticipated to be completed by early 2014.



Assessment of head mold and mycotoxins in corn. (A) Head mold associated with insect damage. (B) A wide variety of fungi are associated with head mold, some of which produce mycotoxins. Surveys are being performed to determine the significance of various mycotoxins in sorghum, including deoxynivalenol (C) and fumonisins (D).