

WEED SEED FATE THROUGH A COMBINE HARVESTER WITH A HWSC MILL

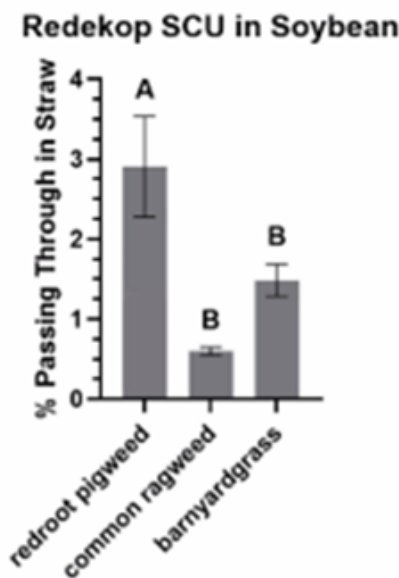
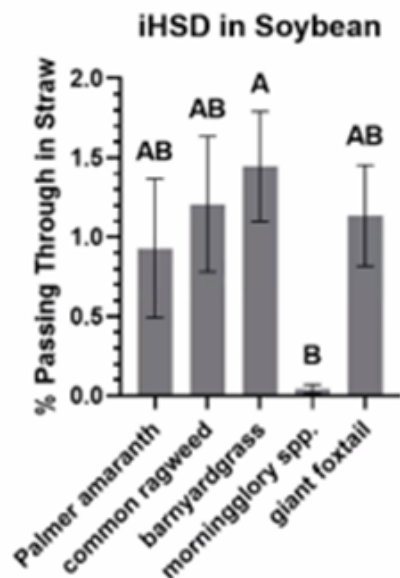
HOW SIGNIFICANT ARE THE LOSSES OF WEED SEEDS PASSING THROUGH TO THE CHOPPER WHEN OPERATING A SEED MILL?

Newly released research by Virginia Tech compares the weed seeds lost through the chopper of the combine when the mill is running for the Redekop SCU in a large grain production system.



TESTING PROCESS

Weed seeds typically found in large grains crop production system were methodically added to an operating combine while running at a typical harvest rate. The chaff and straw residue were captured as it exited the mill or chopper using 500-micro mesh bags. The chaff and weed seeds collected were mixed 1:1 with potting mix and remained in a controlled green house for 12 weeks. A minimum of 40% of each test was grown out to ensure an accurate seed count. All tests were triple replicated.



RESULTS

Care needs to be taken when installing the divider panel between the chopper and the seed mill to ensure the maximum number of seeds are directed into the mill. Open vent holes or poor sealing prior to the mill will also create significant losses. **The total kill rate of the mill system must include losses through the chopper and losses out vent holes. There is no reason to reduce a 95% kill rate mill to 80% because of losses through the chopper and out of vent holes!**