



How well do seed impact mills kill weed seeds?

Two Seed Impact Mills Tested:
Redekop SCU
iHSD (integrated
Harrington Seed
Destructor)

UNDER OPTIMAL HARVEST CONDITIONS

- * Both the Redekop SCU and iHSD killed **>98% of 10 weed seeds** tested in soybean chaff.
- * Both the Redekop SCU and iHSD killed between **91% and 96% of ryegrass species** in wheat chaff.
- * For all other wheat weed species, both units killed **>99% of seeds**.

UNDER ADVERSE HARVEST CONDITIONS

Soybean

- * Though reduced in some cases, weed seed kill rates remained **above 98.5%** at 28% chaff moisture.
- * Higher chaff flow rates also reduced seed kill rates, but they remained **above 98.5%** even at 2X chaff flow.

Wheat

- * Chaff moisture and flow rate **ONLY affected Italian ryegrass** seed kill.
- * At 28% chaff moisture, ryegrass seed kill rates fell 11% to 17% for the Redekop SCU & iHSD, respectively.
- * At 2X chaff flow, ryegrass seed kill rates fell 5.1% and 14% for the Redekop SCU & iHSD, respectively.



VIRGINIA TECH

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WEED SPECIES TESTED



SOYBEANS

Barnyardgrass
Common ragweed
Giant ragweed
Giant foxtail
Johnsongrass
Morningglory spp.
Palmer amaranth
Redroot pigweed
Velvetleaf
Waterhemp

WHEAT

Annual ryegrass
Canola
Cereal rye
Hairy vetch
Italian ryegrass
Wild mustard



2021
to
2024

Virginia Tech researchers fed soybean and wheat chaff (infested with weed seeds) through the mills and then tested seed germination.

