Sterile Sorghum Mutant for 2 Line Breeding
OTT ID #1578

APPLICATIONS
Joint inventors from UWM and USDA ARS have discovered new nuclear male sterile (NMS) mutants of sorghum which can be used to create an easier breeding system using a two-line system versus the current systems that use three lines.

TECHNOLOGY
A three-component genetic construct comprising the capacity to produce pure male sterile plants, rescue the male fertility, ablate transgenic pollen, sort the transgenic seeds from non-transgenic seeds, and allow propagation of pure male sterile sorghum plants for hybrid breeding and maintenance of a maintainer line.

KEY BENEFITS
- **Faster** – 2-line breeding system will allow for faster growth of new sorghum lines
- **Easier** – Currently breeders use 3-line systems making breeding cumbersome
- **Safer** – The transgenic seeds will be removed by molecular ablation and physical sorting to ensure the male sterile plants in the nursery are transgene-free
- **Cheaper** – Maintaining fewer lines should provide a savings in the breeding process
- **Versatile** – Male sterile sorghum plants can be created in diverse genetic backgrounds for hybrids

INTELLECTUAL PROPERTY
PCT Filed January 2019.
This technology is available for developmental research support/licensing under either exclusive or non-exclusive terms.

PAPERS:

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