Sorghum Germplasm

Advanced sorghum parental lines are available for testing, offering resistance to parasitic weeds and molds, along with superior traits for high yield and biomass production.

Sorghum is among the world's five principal cereal grains and an important crop to many countries. Unfortunately, this crop can come under attack, but with smart engineering, could be resistant. One of the common detriments to the sorghum crop is striga, an obligate hemiparasite that is particularly harmful to crops because it attacks from underground, damaging the crop before the plant emerges from the soil. In addition, the seeds from this parasitic plant are stable and can remain dormant for many years. Crop damage can be most severe in areas where drought and poor soil conditions already limit the production of crops.

Researchers at Purdue University have developed remarkable seeds and released twenty sorghum parental lines that are available for testing. These lines represent many years of work by Dr. Gebisa Ejeta and his students. Among the seed lines released, there are four pollinators and sixteen seed parents with advanced agronomic characteristics including high seed yield, excellent stay green and stalk strength, tan plant color, and good grain quality and size. The seeds are resistant to molds and have the potential for high yield, creating high biomass, and make excellent seed parents. These lines fall into five different groups, each with specific attributes. These seed lines offer great promise and potential for expansion by the sorghum industry.

Advantages:

-Wide variety of genetic combinations

-Completely developed and ready for testing and use

-Excellent, desirable plant characteristics

Potential Applications:

-Seed companies

Technology ID

64161

Category

Agriculture, Nutrition, & AgTech/Crop Genetics & Breeding
Biotechnology & Life Sciences/Synthetic Biology & Genetic Engineering

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Royalty to wife)

View online

-Farmers

TRL: 9

Intellectual Property:

N/A, N/A, N/A

Keywords: Sorghum, Striga resistance, parasitic plant, cereal grains, sorghum seed lines, seed parents, pollinators, high yield, excellent stay green, stalk strength, Agriculture, Crop Improvements, Genetics