

Sorghum resistant to herbicide, drought, pests in advanced development

For the past several years sorghum research has lagged behind that of corn and soybeans, but that could soon change with technology advances. DuPont Pioneer partnered with the Sorghum Checkoff to improve sorghum breeding.

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The group found two sorghum inducer lines—the first step toward a double haploid breeding system and the first discovery of its kind in sorghum. An inducer line is used to create sorghum progeny with a single set of chromosomes instead of the two copies normally found in sorghum. After these chromosomes are then doubled, breeders can make hybrid crosses with all chromosomes homozygous in just one generation.

“This takes us from four to six years to create an inbred line down to just one year,” says Cleve Franks, DuPont Pioneer sorghum researcher. “This will allow us to expedite the breeding process tremendously, as well as streamline adding traits like herbicide, drought or sugarcane aphid tolerance.”

Double haploid breeding systems, while more advanced, are still non-GMO. Breeders use native traits and the “blank slate” type inducer lines to quickly produce the desired cross. The total time for a new hybrid can be as short as four years from start to finish.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [Sorghum Breeding Research Cuts Time in Half](#)

For more background on the Genetic Literacy Project, read [GLP on Wikipedia](#)