Editorial

Virtual Special Issue: Improving Breeding Methods to Enhance Productivity of Sorghum

William L. Rooney

Department of Soil and Crop Sciences, Texas A&M University, College Station, Texas, 77843, USA; Email: William.Rooney@ag.tamu.edu

INTRODUCTION AND SCOPE

Sorghum (*Sorghum bicolor* L. Moench) is an important cereal crop grown in hot, drought prone environments around the world to produce grain, forage and industrial products. Sorghum is grown as staple inbred crop for smallholder farmers in Africa and Asia, and as a hybrid crop in commercial agriculture. Possessing excellent abiotic and biotic stress tolerance, sorghum is a climate-smart crop and the genetic improvement of is essential to fully developing it potential.

In this edition dedicated to sorghum improvement, we wish to gather expertise from elite sorghum research groups to publish 10–15 articles addressing important aspects of sorghum crop improvement. The topics/subjects of emphasis include:

1. Genetic diversity: its importance and use in sorghum breeding programs.
2. Breeding methodologies: new approaches to decreasing the cycle time to produce new cultivars such as haploid induction, speed breeding and evaluation techniques.
3. Genomics: application of marker-assisted and genomic selection.
4. Phenomics: utilization of high throughput phenotyping and phenomic data.
5. Gene editing and transformation technology for trait modification in sorghum.
6. Statistical approaches to mitigate environment, management and their interaction with genotypes.
7. Breeding sorghum as a climate smart crop: unique traits to enhance sustainability or new types of sorghum for more sustainable production of bioindustrial products.

For application-based studies, field testing with a minimum of four environments and appropriate genotypes are necessary. Methodology and conceptual manuscripts will be evaluated on a case-by-case basis.

Open Access

Received: 10 December 2022
Accepted: 14 December 2022
Published: 14 December 2022

ARTICLES GUIDENCE

We desire research in sorghum crop improvement that is novel and pertinent to the goal of improving the breeding process to create productive new germplasm. The term for article submission is set for 15 August 2023. All publications will be open access and available online. Publication fees will be fully waived for papers submitted to this special issue.

We are looking forward to receiving your submissions!

How to cite this article:
Rooney WL. Virtual Special Issue: Improving Breeding Methods to Enhance Productivity of Sorghum. Crop Breed Genet Genom. 2022;4(4):e220004. https://doi.org/10.20900/cbgg20220004