

AAU-Sida Project: Application of Biotechnology for Environmentally Safe and Sustainable Food Security and Green Development of Ethiopia

PhD dissertation title: Screening and association mapping of drought tolerant sorghum genotypes in Ethiopia

Student: Muluken Birara

Supervisors: Professor Tileye Feyissa, Dr. Kassahun Tesfaye, Dr. Mulatu Geleta from AAU and the Ethiopian Agricultural Research Institute, Addis Ababa
Dr. Cicilia Hammenha and Prof. Anders Carlsson from SLU, Sweden

An article has recently appeared in a peer reviewed journal describing **Ethiopian Sorghum Varieties Hold Traits for Drought Tolerance** and presented the image below the promising variety flourishing in Ethiopia settings.



By planting different accessions from the Ethiopian sorghum landrace, scientists from the Addis Ababa University, Ethiopian Institute of Agricultural Research, and the Swedish University of Agricultural Sciences have initially identified novel sources of germplasm that can be used for breeding drought tolerant sorghum.

The team conducted multi-environment field trials in three drought-prone sites in [Ethiopia](#) during the 2019 crop-growing season using 320 sorghum landraces and four improved varieties. They meant to determine the responses of different drought tolerance related traits by examining targeted traits such

as chlorophyll content at flowering and maturity stages, green leaf number at flowering, stay-green, flag leaf area, peduncle length, and panicle exertion.

More details can be found in [Frontiers in Plant Science](#).