

Recent Publications

2024

Multi-locus genome-wide association studies reveal genomic regions underlying root system architecture traits in Ethiopian sorghum germplasm. DOI: <https://doi.org/10.1002/tpg2.20436>

Genetic diversity in Pima (*Gossypium barbadense* L.) and advanced interspecific hybrids (*Gossypium hirsutum* x *Gossypium barbadense*) of cotton germplasm in Ethiopia. DOI: <https://doi.org/10.1016/j.plgene.2024.100458>

Performance Evaluation of Different Sorghum Genotypes (*Sorghum bicolor* (L.) Moench) Using GGE Bi-plot Stability Analysis. DOI: <http://www.sciencepg.com/journal/116/archive/1161202>

Morphological Variations in Bread Wheat (*Triticum aestivum* L.) Genotypes in Gechi District, South West Ethiopia. DOI: <http://www.sciencepublishinggroup.com/j/ijgg>

Estimation of standard heterosis and heterotic grouping of elite sorghum [*Sorghum bicolor* (L.) Moench] inbred lines under moisture stress conditions. DOI: <https://doi.org/10.1016/j.egg.2024.100242>

Character Association and Path Coefficient Analysis of Morphological Quantitative Traits in Ethiopian Kale (*Brassica Carinata* A.). DOI: <https://doi.org/10.9734/ijpss/2024/v36i84870>

Multivariate analysis of root system architectural traits of sorghum for drought tolerance. DOI: <https://doi.org/10.1007/s10722-023-01640-6>

Root system architecture variation among barley (*Hordeum vulgare* L.) accessions at seedling stage under soil acidity condition. DOI: <https://doi.org/10.1007/s00425-024-04424-z>

Genetic diversity among Ethiopian sweet sorghum [*Sorghum bicolor* (L.) Moench] accessions using simple sequence repeat markers. DOI: [10.1016/j.genrep.2024.102007](https://doi.org/10.1016/j.genrep.2024.102007)

Genetic variation and determination the optimal crop age for harvest in cassava (*Manihot esculenta* Crantz) accessions based on accumulated storage root yield. DOI: [10.1080/23311932.2024.2355991](https://doi.org/10.1080/23311932.2024.2355991)

Selfing revealed potential for higher yield performance than backcrossing among tomato segregating populations of *Solanum lycopersicum* × *S. pimpinellifolium* crosses under tropical humid climate. DOI: [10.1016/j.jafr.2024.100993](https://doi.org/10.1016/j.jafr.2024.100993)

Banana (*Musa Spp.*) Production System, Utilization and Constraints in Major Banana Growing Regions of Ethiopia. DOI: <https://www.ajol.info/index.php/ejcs/article/view/267249>

2023

Genome-wide association study reveals genomic loci influencing agronomic traits in Ethiopian sorghum (*Sorghum bicolor* (L.) Moench) landraces. DOI: <https://doi.org/10.1007/s11032-023-01381-5>

Genetic dissection of root architecture in Ethiopian sorghum landraces. DOI: <https://doi.org/10.1007/s00122-023-04457-0>

Genetic diversity in Ethiopian sorghum germplasm for root system architecture and trait association. DOI: <https://doi.org/10.1016/j.rhisph.2023.100759>

Detection of the local adaptive and genome-wide associated loci in southeast Nigerian taro (*Colocasia esculenta* (L.) Schott) populations. DOI: <https://doi.org/10.1186/s12864-023-09134-6>

Combining Ability and Heterosis Estimation in Elite Sorghum [*Sorghum bicolor* (L) Moench] Inbred lines Under Moisture Stress Areas of Ethiopia. DOI: <https://doi.org/10.21203/rs.3.rs-2866905/v1>

Gene action and combining ability estimation in elite sorghum [*sorghum bicolor* (l) Moench] inbred lines under Dry Lowland Areas of Ethiopia. DOI: <https://doi.org/10.21203/rs.3.rs-2866862/v1>

Diversity and drought indices analysis reveals potential sorghum accessions for post-flowering drought stress tolerance. DOI: <https://doi.org/10.21203/rs.3.rs-3356014/v1>

A review of population genetics and the prospects for crop improvement. DOI: doi.org/10.20935/AcadBiol6117

Genetic Variability, Heritability and Correlation of Some Morphological and Yield Components Traits in Potato (*Solanum tuberosum* L.) Collections. DOI: [10.4236/ajps.2023.149070](https://doi.org/10.4236/ajps.2023.149070)

CRISPR-Cas-Based Genome Editing for Crop Improvement: Progress, Challenges and Future Prospects. DOI: [10.12974/2311-858X.2023.11.3](https://doi.org/10.12974/2311-858X.2023.11.3)

Genetic variability and divergence analysis in cassava (*Manihot esculenta* Crantz) accessions for storage root yield and other agronomic characters. DOI: [10.1016/j.jafr.2023.100874](https://doi.org/10.1016/j.jafr.2023.100874)

Genetic Diversity and Association of Yield-Related Traits in Taro (*Colocasia esculenta* (L.) Schott) Sourced from Different Agroecological Origins of Nigeria. DOI: [10.1155/2023/8832165](https://doi.org/10.1155/2023/8832165)

Association mapping in bambara groundnut [*Vigna subterranea* (L.) Verdc.] reveals loci associated with agro-morphological traits. DOI: [10.1186/s12864-023-09684-9](https://doi.org/10.1186/s12864-023-09684-9)

Phenotypic Characterization, Evaluation, and Classification of Cassava (*Manihot esculenta* Crantz) Accessions in Ethiopia. DOI: [10.1155/2023/1559070](https://doi.org/10.1155/2023/1559070)

Assessment of Cassava Utilization Patterns, Postharvest Handling Practices, and Productivity Influencing Factors in South and Southwest Ethiopia. DOI: [10.1155/2023/9914370](https://doi.org/10.1155/2023/9914370)

An Overview of Mapping Quantitative Trait Loci in Peanut (*Arachis hypogaea* L.). DOI: [10.3390/genes14061176](https://doi.org/10.3390/genes14061176)

Comparative Metabolomics Profiling Reveals Key Metabolites and Associated Pathways Regulating Tuber Dormancy in White Yam (*Dioscorea rotundata* Poir). DOI: [10.3390/metabo13050610](https://doi.org/10.3390/metabo13050610)

Exploring phenotypic variation of diverse bambara groundnut (*Vigna subterranea* L) origin and development of mini-core collection for future breeding. DOI: [10.1002/fes3.460](https://doi.org/10.1002/fes3.460)

AMMI and GGE Biplot Analyses for Mega Environment Identification and Selection of Some High-Yielding Cassava Genotypes for Multiple Environments. DOI: [10.1155/2023/6759698](https://doi.org/10.1155/2023/6759698)

Role of Non-Structural Sugar Metabolism in Regulating Tuber Dormancy in White Yam (*Dioscorea rotundata*). DOI: [10.3390/agriculture13020343](https://doi.org/10.3390/agriculture13020343)

Hybrid Vigor and Heritability Estimates in Tomato Crosses Involving *Solanum lycopersicum* × *S. pimpinellifolium* under Cool Tropical Monsoon Climate. DOI: [10.1155/2023/3003355](https://doi.org/10.1155/2023/3003355)

Detection of the local adaptive and genome-wide associated loci in southeast Nigerian taro (*Colocasia esculenta* (L.) Schott) populations. DOI: [10.1186/s12864-023-09134-6](https://doi.org/10.1186/s12864-023-09134-6)

2022

QTL analysis in multiple sorghum mapping populations facilitates dissection of the genetic control of agronomic and yield-related traits in sorghum [*Sorghum bicolor* (Moench)]. DOI: <https://doi.org/10.1007/s10681-022-02968-3>

Genetic dissection of root architecture in Ethiopian sorghum landraces. DOI: <https://doi.org/10.1007/s00122-023-04457-0>

Genome-wide association study reveals genomic loci influencing agronomic traits in Ethiopian sorghum (*Sorghum bicolor* (L.) Moench) landraces. DOI: <https://doi.org/10.1007/s11032-023-01381-5>

Exploiting genetic variation from unadapted germplasm-An example from improvement of sorghum in Ethiopia. DOI: <https://doi.org/10.1002/ppp3.10292>

Genetic dissection of root architecture in Ethiopian sorghum landraces. DOI: <https://doi.org/10.21203/rs.3.rs-2159601/v1>

Natural variation further increases resilience of sorghum bred for chronically drought-prone environments. DOI: <https://doi.org/10.1093/jxb/erac217>

Genetic Variability and Association of Traits in Bread Wheat (*Triticum aestivum* L.) Genotypes in Gechi District, South West Ethiopia. DOI: <https://doi.org/10.1155/2022/7132424>

Genomic selection in tropical perennial crops and plantation trees: a review. DOI: <https://doi.org/10.1007/s11032-022-01326-4>

Genome properties of key oil palm (*Elaeis guineensis* Jacq.) breeding populations. DOI: <https://doi.org/10.1007/s13353-022-00708-w>

DARTSeq SNP-based genetic diversity and population structure studies among taro [(*Colocasia esculenta* (L.) Schott)] accessions sourced from Nigeria and Vanuatu. DOI: [10.1371/journal.pone.0269302](https://doi.org/10.1371/journal.pone.0269302)

Organoleptic Quality Attributes and Their Association with Morphological Traits in Arabica Coffee (*Coffea arabica* L.) Genotypes. DOI: [10.1155/2022/2906424](https://doi.org/10.1155/2022/2906424)

Comparative analysis of variation in African Bambara groundnut [*Vigna subterranea* (L) Verdc.] landraces assessed through seed traits. DOI: <https://doi.org/10.1016/j.sajb.2022.06.060>

Evaluation of 93 Accessions of African Yam Bean (*Sphenostylis stenocarpa*) Grown in Ethiopia for Physical, Nutritional, Antinutritional, and Cooking Properties. DOI: [10.1155/2022/8386258](https://doi.org/10.1155/2022/8386258)

Biochemical Analysis of Cassava (*Manihot esculenta* Crantz) Accessions in Southwest of Ethiopia. DOI: [10.1155/2022/9904103](https://doi.org/10.1155/2022/9904103)

Genetic characterization and quantitative trait relationship using multivariate techniques reveal diversity among tomato germplasms. DOI: [10.1002/fsn3.2850](https://doi.org/10.1002/fsn3.2850)

Genetic diversity and population structure of an African yam bean (*Sphenostylis stenocarpa*) collection from IITA GenBank. DOI: [10.1038/s41598-022-08271-4](https://doi.org/10.1038/s41598-022-08271-4)

Evaluation of Bread Wheat (*Triticum aestivum* L.) Germplasm at Kafa Zone, South West Ethiopia. DOI: [10.1155/2022/1682961](https://doi.org/10.1155/2022/1682961)

2021

Genetic diversity of Ethiopian sorghum reveals signatures of climatic adaptation. DOI: <https://doi.org/10.1007/s00122-020-03727-5>

Genetic diversity, population structure, and selection signature in Ethiopian sorghum [*Sorghum bicolor* L. (Moench)] germplasm. DOI: <https://doi.org/10.1093/g3journal/jkab087>

Determination of root system architecture variation of drought adapted sorghum genotypes using high throughput root phenotyping. DOI: <https://doi.org/10.1016/j.rhisph.2021.100370>

New adaptive peaks for crops – an example from improvement of drought-resilience of sorghum in Ethiopia. DOI: <https://doi.org/10.1101/2021.10.18.464815>

Genome Mapping to Enhance Efficient Marker-Assisted Selection and Breeding of the Oil Palm (*Elaeis guineensis* Jacq.). DOI: [10.4236/abb.2021.1212026](https://doi.org/10.4236/abb.2021.1212026)

Genetic diversity and population structure analysis of bambara groundnut (*Vigna subterrenea* L.) landraces using DArT SNP markers. DOI: [10.1371/journal.pone.0253600](https://doi.org/10.1371/journal.pone.0253600)

A Review on the Cooking Attributes of African Yam Bean (*Sphenostylis stenocarpa*). DOI: [10.5772/intechopen.99674](https://doi.org/10.5772/intechopen.99674)

Genotype × Environment Interaction Studies of Promising Teppi Coffee (*Coffea arabica* L.) Genotypes in Southwestern Ethiopia. DOI: [10.1155/2021/5519467](https://doi.org/10.1155/2021/5519467)

Morphological characterization and genotypic identity of African yam bean (*Sphenostylis stenocarpa* Hochst ex. A. Rich. Harms) germplasm from diverse ecological zones. DOI: [10.1017/S1479262121000095](https://doi.org/10.1017/S1479262121000095)

2020

Phenotyping sorghum [*Sorghum bicolor* (L.) Moench] for drought tolerance with special emphasis to root angle. DOI: <https://doi.org/10.5897/AJAR2020.14801>

Evaluation and Genetic Analysis of a Segregating Sorghum Population under Moisture Stress Conditions. DOI: <https://doi.org/10.1007/s12892-019-0091-0>

Agro-morphological diversity of Ethiopian sorghum [*Sorghum bicolor* (L.) Moench] landraces under water limited environments. DOI: <https://doi.org/10.1007/s10722-020-00968-7>

Gene action, combining ability and heterotic performance of Ethiopian Sorghum (*Sorghum bicolor* (L.) Moench) lines under moisture stress areas in Ethiopia. DOI: <https://doi.org/10.5897/AJPS2019.1813>

Protocol optimization for in vitro propagation of Kulfo, orange flesh sweet potato (*Ipomoea batatas*) variety using shoot tip culture. DOI: <https://doi.org/10.5897/AJPS2017.1621>

Characterization and association mapping for drought adaptation in Ethiopian sorghum (*Sorghum bicolor* (L.) Moench) germplasm. DOI: <https://doi.org/10.1007/s42535-020-00163-0>

Genotyping by Sequencing for Plant Breeding- A Review. DOI: [10.19080/AIBM.2019.14.555891](https://doi.org/10.19080/AIBM.2019.14.555891)