

Resource Summary Report

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MaizeGDB

RRID:SCR_006600

Type: Tool

Proper Citation

MaizeGDB (RRID:SCR_006600)

Resource Information

URL: <http://www.maizegdb.org>

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Description: Collection of data related to crop plant and model organism Zea mays. Used to synthesize, display, and provide access to maize genomics and genetics data, prioritizing mutant and phenotype data and tools, structural and genetic map sets, and gene models and to provide support services to the community of maize researchers. Data stored at MaizeGDB was inherited from the MaizeDB and ZmDB projects. Sequence data are from GenBank. Data are searchable by phenotype, traits, Pests, Gel Pattern, and Mutant Images.

Abbreviations: MaizeGDB

Synonyms: Maize Genetics and Genomics Database, MaizeGDB, MaizeGDB Locus

Resource Type: service resource, data or information resource, data repository, organism-related portal, data analysis service, storage service resource, database, production service resource, analysis service resource, topical portal, portal

Defining Citation: [PMID:21624896](#), [PMID:18769488](#), [PMID:15888678](#), [PMID:14681441](#)

Keywords: ze mays, corn, model organism, genome, locus, metabolic pathway, genetics, genomics, sequence, gene product, function, literature reference, phenotype, trait, pest, gel pattern, mutant, blast, gene, image, corn, genotype-environment interaction, gene mapping, plant genome mapping, plant genome, gold standard, bio.tools, FASEB list

Funding: USDA ;
USDA/ARS ;
NSF ;
National Corn Growers Association

Availability: Free, Freely available, Acknowledgement requested, The community can contribute to this resource

Resource Name: MaizeGDB

Resource ID: SCR_006600

Alternate IDs: OMICS_01655, biotools:MaizeDIG, nif-0000-03096, r3d100010795

Alternate URLs: <https://bio.tools/MaizeDIG>, <https://doi.org/10.17616/R3V32B>

Record Creation Time: 20220129T080237+0000

Record Last Update: 20260729T044137+0000

Ratings and Alerts

No rating or validation information has been found for MaizeGDB.

No alerts have been found for MaizeGDB.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 806 mentions in open access literature.

Listed below are recent publications. The full list is available at [dkNET](#).

Ao J, et al. (2025) Gene mapping and candidate gene analysis of a sorghum sheathed panicle-I mutant. The plant genome, 18(1), e70007.

Yang X, et al. (2025) Novel candidate genes and genetic basis analysis of kernel starch content in tropical maize. BMC plant biology, 25(1), 105.

Huang J, et al. (2025) Model-to-crop conserved NUE Regulons enhance machine learning predictions of nitrogen use efficiency. The Plant cell, 37(5).

Casatejada-Anchel R, et al. (2025) Metabolic engineering of the serine/glycine network as a means to improve the nitrogen content of crops. Plant biotechnology journal, 23(1), 268.

Sullivan A, et al. (2025) 20 years of the Bio-Analytic Resource for Plant Biology. Nucleic acids research, 53(D1), D1576.

Lv D, et al. (2025) Analysis of candidate genes identified via genome-wide association analysis of sugar-related traits in maize kernels. The plant genome, 18(3), e70101.

Uberti A, et al. (2025) Molecular breeding approaches for the improvement of oil content and fatty acid composition in exotic-derived maize germplasm. The New phytologist,

248(4), 1920.

Fang H, et al. (2025) Meta-QTL Analysis and Identification of Candidate Genes Associated with Stalk Lodging in Maize (*Zea mays* L.). *Current issues in molecular biology*, 47(10).

Chen H, et al. (2025) Fifteenth century CE Bolivian maize reveals genetic affinities with ancient Peruvian maize. *eLife*, 14.

Mishra SJ, et al. (2025) Unraveling the interactive effect of opaque2 and waxy1 genes on kernel nutritional qualities and physical properties in maize (*Zea mays* L.). *Scientific reports*, 15(1), 3425.

Cheng S, et al. (2025) Comparative transcriptome analysis reveals potential regulatory genes involved in the development and strength formation of maize stalks. *BMC plant biology*, 25(1), 272.

Arag??n-Raygoza A, et al. (2025) Diverse roles of ethylene in maize growth and development, and its importance in shaping plant architecture. *Journal of experimental botany*, 76(7), 1854.

Gesteiro N, et al. (2025) Genome-Wide Association Study and Genomic Predictions for Hydroxycinnamate Concentrations in Maize Stover. *Journal of agricultural and food chemistry*, 73(4), 2289.

Wang X, et al. (2025) Genome-wide identification and functional roles relating to anthocyanin biosynthesis analysis in maize. *BMC plant biology*, 25(1), 57.

Zhao B, et al. (2025) CRISPR/Cas9-mediated genomic editing of *Brachytic2* creates semi-dwarf mutant alleles for tailored maize breeding. *Plant biotechnology journal*, 23(4), 1133.

Farid B, et al. (2025) Expression divergence of BAG gene family in maize under heat stress. *BMC plant biology*, 25(1), 16.

Kim EJ, et al. (2025) OsPRK1/2/3-mediated reactive oxygen species signaling is required for pollen tube germination in rice. *Journal of integrative plant biology*, 67(7), 1965.

Lian T, et al. (2025) An Allele of Glutamate Formiminotransferase Triggers 5-Methyl-Tetrahydrofolate-to-MeFox Conversion and Facilitates Folate Biofortification in Maize. *Advanced science* (Weinheim, Baden-Wurttemberg, Germany), 12(42), e15082.

Sayari M, et al. (2025) Unveiling molecular mechanisms and candidate genes for goss's bacterial wilt and leaf blight resistance in corn through RNA-Seq analysis. *BMC genomics*, 26(1), 755.

Mikhailov ME, et al. (2025) Enhancing local meiotic crossovers in *Arabidopsis* and maize through juxtaposition of heterozygous and homozygous regions. *Nature plants*, 11(9), 1769.