



Welcome to the 1st issue of the CottonGen newsletter in 2025. This newsletter is issued to inform users about **new or updated data and tools in CottonGen**. In addition to new and updated data, each issue will provide more information on data or tools in **the featured tools/data** section.

What's New in CottonGen?

Short video tutorials

- [How to find orthologs and corresponding functional annotations](#). (2:14mins)

New Genome Data

- [Gossypium hirsutum \(AD1\) 'TM-1' genome HAU v2.0](#). (Chang 2024)
- [Gossypium barbadense \(AD2\) '3-79' genome HAU v3.0](#) (Chang 2024)
- **CottonGen Functional Annotations** were added to the above genomes

New Data

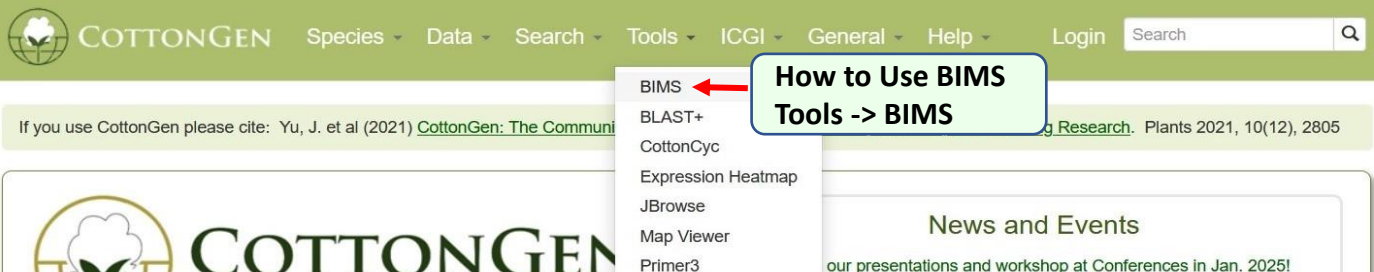
- 2901 GWAS data for fiber qualities with 1717 SNP markers and marker genome positions (*He 2021*, [The genomic basis of geographic differentiation and fiber improvement in cultivated cotton](#))
- The 2023 [RBTN Trial Data](#), which contains: 3593 phenotypic measurements of 18 fiber quality traits collected from 20 germplasm tested in 10 different locations in 2023
- NCGC ([National Cotton Germplasm Characterizations](#)) data:
 - 39000 phenotype scores of 46 traits collected from 3076 plants before 2006.
 - Categories of the 46 traits are: biochemical, disease resistance, morphological, phenological, and production.

These data are searchable from both [CottonGen Search](#) ([Trait Descriptors](#) or [Trait Evaluation](#)) and [CottonGen BIMS](#)

Conference Presentations

Presented at the 2025 Plant and Animal Genome Conference (PAG-32) and the Cotton 2025 Beltwide Cotton Conference (BCC-2025):

- [Database Resources for Crop Genomics, Genetics and Breeding: NRSP10](#) (at PAG-32).
- [How to Use the Rosaceae, Cotton, Citrus, Vaccinium, and Pulse Crop Databases to Further Research and Breeding](#) (at PAG-32)
- [CottonGen BIMS for Effective and Efficient Management of Breeding Data](#) (at BCC-2025)





BIMS: Breeding Information Management System

BIMS can store, manage, archive, and analyze private or public breeding data.

If accessing BIMS for **publicly** available data, **log-in is not required**. Otherwise, log-in is required before accessing BIMS.

Info of selected and changed min and/or max regions

Phenotype search results

Select a trait & change region

EXP: Search Accession with Phenotype Data
Steps: Select a *program* from the list, click 'search' from the left, then search 'Phenotype'.
 Select a *trait* from the trait list, *narrow down* the data region, then click the 'Add' button. *Repeatedly* do for other traits as you want to, such as sel. SOC and narrow the region to 19-26.39, click 'Add', ... click 'View' to view result

Results : matched 171 samples and 513 phenotypic meas.

Result of Select accessions by phenotype data

Accession	Genus	Species	INV	SOC (%)	SPC (%)	SI (g/seed)
320F	Gossypium	hirsutum	SA-1167	25.26	21.22	9.9032
A-618	Gossypium	hirsutum	SA-1297	23.63	19.45	10
A-637-33	Gossypium	hirsutum	SA-1300	24.3833	19.92	10.2333
Acala 1517-99	Gossypium	hirsutum	SA-2580	23.5133	21.45	11.2222
Acala 1517 (New Mexico)	Gossypium	hirsutum	SA-0239	23.4333	20.23	12.4167
Acala 5	Gossypium	hirsutum	SA-1103	21.0267	21.7	12.7209
Acala Royale	Gossypium	hirsutum	SA-3781	22.96	22.08	10.5667
Albar 627	Gossypium	hirsutum	SA-1440	23.5533	21.83	12.4146
Aleppo 1	Gossypium	hirsutum	SA-1395	23.3633	20.64	11.4595
Allen 333	Gossypium	hirsutum	SA-1262	25.3167	19.97	11.5641

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