



Welcome to the 4th issue of the CottonGen newsletter in 2024. 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

- [Markers search by trait & view genome position](#). (2:41mins)
- [Cross-searching with gene or RNA names](#). (1:41mins)

New Data and Search Function

New genome

- [Gossypium raimondii \(D5\) Telomere-to-Telomere genome PKU_v1.0 assembly and gene annotation data \(Huang et al., 2024\)](#)

New Data

- NCGC ([National Cotton Germplasm Characterizations](#)) data:
 - Re-organized and added new traits, descriptors, locations, and germplasm, etc.
 - Characterized data collected from Mexico, Costa Rica, and Texas.
 - 368.5K phenotype scores of 40 traits collected from 17391 plants between 2006-2023.

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

New option in Gene and Transcript Search

The new option allows you to search with the list of gene names and no longer need to convert the gene names to mRNA names and vice versa.

Search -> Search Genes and Transcripts

Gene/Transcript name

Name

File Upload No file chosen

Provide names in a file. Separate each name by a new line.

Also search associated mRNA/gene if the name in uploaded file matches a gene/mRNA

- Location
- BLAST
- InterPro
- GO Term
- GO Accession
- GenBank Keyword



Search Marker Near by Loci

Did you know?

In Search Nearby Markers, you can retrieve a list of all loci that are within a specified distance of the locus on any genetic map.

Type in a **marker** (or upload a file with marker names) and **distance**

Species - Data - Search - Tools - ICGI - General - Help - Data Curation - My account -

Search Markers by Locus

Nearby Loci | Nearby QTL | Between Markers

Search for markers in CottonGen. In search nearby markers site [Text tutorial](#) | [Email us with problems and suggestions](#)

Locus: (eg. DPL)

Distance: cM

Marker Type:

- Search Contact
- Search Genes and Transcripts
- Search Genotype
- Search Germplasm
- Search Images
- Search Map
- Search Markers
- Search Markers by Locus**
- Search Orthologs and Paralogs
- Search Publications
- Search QTL/GWAS
- Search Sequences
- Search Trait
- Search Trait Descriptors
- Search Trait Evaluation
- MegaSearch

are within a specified distance of the particular locus on any genetic map. | (upload limit: 10000 lines)

16 records were returned Download Table

#	Locus	Map	Linkage Group	Position	Neighbor	Position	Marker Type
1	JESPR261	Emian-22 x 3-79, BC1 (2011)	chr20	59.14	NAU6693	57.61	SSR
2	JESPR261	Emian-22 x 3-79, BC1 (2011)	chr20	59.14	BNL3838	59.24	SSR
3	JESPR261	Emian-22 x 3-79, BC1 (2011)	chr20	59.14	CIR121	60.00	SSR
4	JESPR261	Emian-22 x 3-79, BC1 (2011)	chr20	59.14	BNL3948	61.10	SSR
5	JESPR261	Emian-22 x 3-79, BC1 (2011)	chr20	59.14	HAU2200	58.79	SSR
6	JESPR261	Emian-22 x 3-79, BC1 (2011)	chr20	59.14	NAU3464	57.28	SSR
7	JESPR261	Emian-22 x 3-79, BC1 (2011)	chr20	59.14	NAU2698b	58.33	SSR
8	JESPR261	Emian-22 x 3-79, BC1 (2011)	chr20	59.14	NAU3531	59.24	SSR
9	JESPR261	TM-1 x 3-79, RIL (2014)	chr10	90.90	DPL0037b	90.60	SSR
10	JESPR261	Monsanto SSR Bin Map, (2009)	CH10	101.00	BNL2524	101.00	SSR

Search results. Click on a green color name you see the name's detailed information.

The search results can be saved by clicking on the word '**table**'

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