CITRUS GENOME DATABASE

Resources for citrus genomics, genetics, breeding and disease research

What's new in CGD?

New Data
- Four *Citrus sinensis* and one *Poncirus trifoliata* genomes added

Outreach
- Marker Search Video Tutorial (2.39 mins)
- Genetic Map and Genome Correspondence Video Tutorial (2.47 mins)

Tool Improvements
- MapViewer updated to display GWAS and adjust colors
- MegaSearch updated to query GWAS, search records with empty fields
- Gene annotation template and loader created
- Links to Fruit and Nut Cultivars Database
- Ortholog page added to gene/mRNA pages

Viewing traits and descriptors

We curate the trait and trait descriptors from QTL and phenotype data. The curation process links all the similar traits together under a unified ontology and provides easy access to all the data associated with that trait (QTL, Phenotype Data, Publications). There are multiple ways to view the trait information. We have already covered the QTL Search in a video on our YouTube channel so let's focus on the other ways to explore traits and trait descriptors.

The first is from the Data menu, Data → Trait Abbreviations. This opens an expandable interface with a list of all the trait categories. The second is from the Search Menu, Search → Trait Search.

This search allows for filtering by keyword or trait category and the data can be downloaded in a table format. Click on a category to see all the traits. Trait Descriptors for phenotypic data are also stored and searched using Search → Trait Descriptor Search. You can also download the results in a table format.

All of these trait and trait descriptor searches have hyperlinks to the Trait Overview page which allows for easy access to all the QTLs and manuscripts associated with the trait. The Descriptor Overview has links to datasets and germplasm associated with the descriptor.

Links to associated data and germplasm

Links to all associated QTLs and publications

Descriptor Overview
Datasets
Germplasm

Descriptor Overview

Trait Descriptor	treehabit
Of Trait	Habit of tree
Definition	General growth
Format	categorical
Trait Category	stature or vigor trait
Datasets	[view all 1]
Germplasm	[view all 743]

Trait Overview
QTLs/MTLs
Publications

Trait Overview

Trait	Seed Embryony
Trait Category	growth and development trait
Abbreviation	SE
Definition	Presence of a single or multiple embryos in a seed
QTLs	[view all 3]

Search Markers by Locus

Did you know? You can search for markers near the marker locus of your interest? For example, you can search SNPs that are near an SSR or search for SSRs near a SNP of interest. Access the search via the tool bar, Search → Marker Search by Locus.

Marker Search by Locus

Search for markers in CGD. In search nearby markers site, users can obtain a list of all loci that are within a specified distance of the particular locus on any genetic map. | Text tutorial | Email us with problems and suggestions

Locus	CX2019	Choose File No file chosen	(upload limit: 10000 lines)
Distance	0	cM	
Marker Type ⓘ	SNP		

Search   Reset

> Limit the search by locus name(s), distance or marker type

> Download the results

16178 records were returned   Download Table

#	Locus	Map ▼	Linkage Group	Position	Neighbor	Position	Marker Type
1	CiC4652-02	Poncirus/Citrus-SynthesisMap-Ref-F1	LG5	11.90	CiC0202-02	11.90	SNP
2	CiC1998-02	Poncirus/Citrus-SynthesisMap-Ref-F1	LG3	114.50	CiC0264-02	114.50	SNP
3	CiC0023-03	Poncirus/Citrus-SynthesisMap-Ref-F1	LG2	108.20	CiC0023-07	108.20	SNP
4	CiC0202-05	Poncirus/Citrus-SynthesisMap-Ref-F1	LG5	11.90	CiC0202-02	11.90	SNP
5	CiC0264-02	Poncirus/Citrus-SynthesisMap-Ref-F1	LG3	114.50	CiC0264-01	114.50	SNP
6	CiC0264-01	Poncirus/Citrus-SynthesisMap-Ref-F1	LG3	114.50	CiC0264-02	114.50	SNP
7	CiC2387-01	Poncirus/Citrus-SynthesisMap-Ref-F1	LG8	55.87	CiC0002-08	55.87	SNP
8	CiC0023-07	Poncirus/Citrus-SynthesisMap-Ref-F1	LG2	108.20	CiC0023-03	108.20	SNP
9	CiC0046-02	Poncirus/Citrus-SynthesisMap-Ref-F1	LG9	63.70	CiC0046-03	63.70	SNP
10	MEST236	Poncirus/Citrus-SynthesisMap-Ref-F1	LG8	60.40	CiC0100-04	60.40	SNP
11	CiC0202-02	Poncirus/Citrus-SynthesisMap-Ref-F1	LG5	11.90	CiC0202-05	11.90	SNP
12	CiC4652-02	Poncirus/Citrus-SynthesisMap-Ref-F1	LG5	11.90	CiC0202-05	11.90	SNP
13	CiC1998-02	Poncirus/Citrus-SynthesisMap-Ref-F1	LG3	114.50	CiC0264-01	114.50	SNP

Poncirus/Citrus-SynthesisMap-Ref-F1

Map Overview
View Map
Contact
Map Loci
Publication

Map Overview

Click on any linkage group to explore this map further. You will be taken to MapViewer and leave this page.

📷 Viewing genetic map Poncirus/Citrus-SynthesisMap-Ref-F1

LG1   LG2   LG3   LG4   LG5   LG6   LG7   LG8   LG9

CiC1998, CiC199...

> Links to view the map and marker details

Marker Overview
Contact
Map Positions
Publications

Marker Overview

Name	CiC1998
dbSNP ID	N/A
Type	SNP
SNP Alleles	N/A
Species	Citrus spp.
Publication	[view all]
Contact	Patrick Ollitrault

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