What's new in PCD?

Tool Improvements
- GWAS added to updated QTL/GWAS search

Outreach
- GWAS Search and Viewing in MapViewer video (2:23 mins)
- How to Search Traits and See Associated Data video (1:49 mins)

New Data
- ZW6 pea, mung bean, vetch, yardlong bean, and two faba bean genomes added to database and BLAST, JBrowse, Synteny Viewer, and PathwayCyc tools

- 3,922 genetic markers, 6 genetic maps, 212 QTL, and 41 GWAS added in last quarter

Viewing GWAS data

We have added the ability to search for GWAS data in the updated QTL/GWAS Search. GWAS is now a data type that can be selected, and the search can be refined by organism, trait, GWAS name, genome location, gene, and publication.

And as always, the displayed results can be customized using the toolbar on the right. You can select which data fields are displayed and download the results in the CSV and TSV file formats for manipulation in Excel.

See the next page for more details.

#	QTL/GWAS Label	Trait Name	GWAS Marker	Gene	Organism	Type	Published Symbol	P value	R2	Map
1	GWAS0000001	Lateral root angles	ISU_6_19440349		Vigna radiata	GWAS	LRA-6_19440349	5.56E-8	0.10564	
2	GWAS0000002	Lateral root angles	ISU_2_9095694		Vigna radiata	GWAS	LRA-2_9095694	4.26E-7	0.08585	
3	GWAS0000003	Lateral roo...	ISU_7_12284246		Vigna radiata	GWAS	LRA-7_12284246	3.86E-6	0.06085	
4	GWAS0000004			55829	Vigna radiata	GWAS	LRA-2_2226549	6.5E-6	0.06824	
5	GWAS0000005	Lateral roo...		LOC106768494	Vigna radiata	GWAS	LRA-7_1916612	6.55E-6	0.06827	
6	GWAS0000006	Lateral root angles	ISU_2_19972687	gene-LOC106753988	Vigna radiata	GWAS	LRA-2_19972687	8.13E-6	0.07675	

Select GWAS here

Click here to see GWAS details

GWAS Details and Display in MapViewer

From the GWAS details page, you can see all the details about the GWAS and see the link to MapViewer.

GWAS0000004

GWAS Overview
Genome Location
Properties
Publications
Terms

GWAS Overview

GWAS Label	GWAS0000004 [MapViewer]
Published Symbol	LRA-2_2226549
Trait Name	Lateral root angles
Trait Alias	N/A
GWAS Marker	ISU_2_2226549
GWAS Study	Mung_Bean-Root_trait -GWAS-Chiteri_2022
Genome Assembly	Vigna radiata cv. VC19 3A genome v1.0
Statistical Method	BLUP, linear mixed model
Experimental Model	randomized incomplete block design
GWAS Panel	N/A
LOD	N/A
P Value	6.5E-6
R2	0.07
Unique key	3961-LRA-ISU_2_222 549
Effect	-1.1

BIMS Workshop at NAPB 2023!

We had a successful BIMS workshop at **NAPB 2023** (July 16-20, Greenville, SC)! Thank you for those who participated! The presentations for each section of the workshop, including the use case demo, is available on breedwithbims.org. Recordings will also be *available when they are released.*
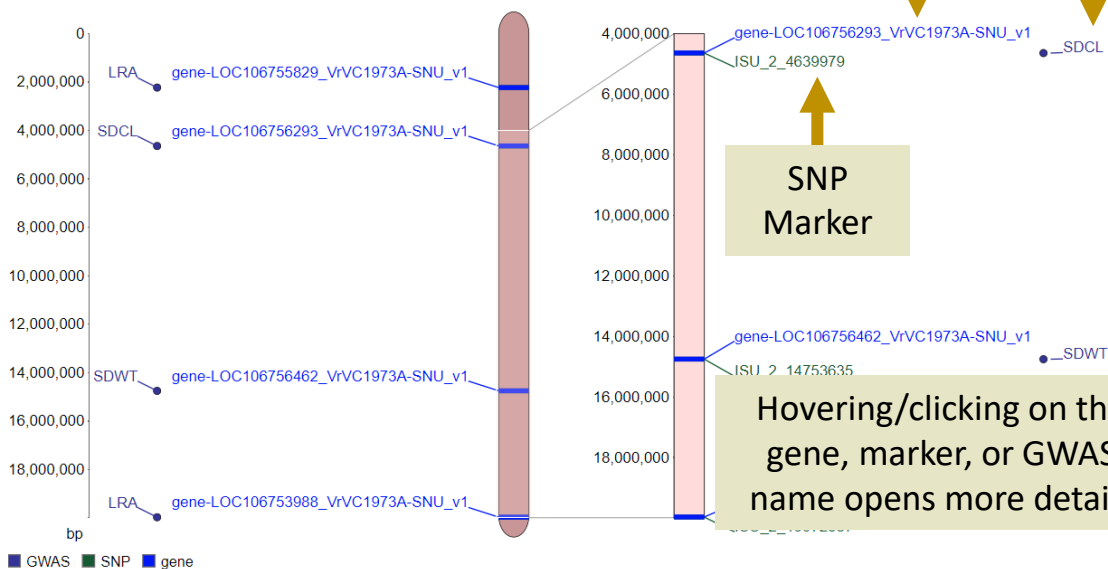
Change Genome   Short video tutorial | Text tutorial   📷

chr02_VrVC1973A-SNU_v1 of genome Vigna radiata cv. VC1973A ge nome v1.0   [Genome Detail]
To zoom in, drag the mouse across the scaffold

Gene   GWAS

gene-LOC106756293_VrVC1973A-SNU_v1
ISU_2_4639979
SDCL

SNP Marker

gene-LOC106756462_VrVC1973A-SNU_v1
ISU_2_14753635   SDWT

LRA   gene-LOC106755829_VrVC1973A-SNU_v1
SDCL   gene-LOC106756293_VrVC1973A-SNU_v1
SDWT   gene-LOC106756462_VrVC1973A-SNU_v1
LRA   gene-LOC106753988_VrVC1973A-SNU_v1

■ GWAS ■ SNP ■ gene

Hovering/clicking on the gene, marker, or GWAS name opens more details

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