SoyBase, the USDA-ARS Soybean Genetics and Genomics Database

David Grant

Vickie Carollo Blake Kevin Feeley Rex Nelson Nathan Weeks Steven B. Cannon







SoyBase and the Soybean Breeder's Toolbox Integrating Genetics and Molecular Biology for Soybean Researchers

SoyBase Home Help & Tutorials Genetic Map Sequence Map Expression Mutants Projects Tools Community Site Map

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| Examples: BARC-013845-01256 Satt53 | 1 | | SoyBase News RSS |
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| Click Here For The A Download SoyBean | dvanced Search Interface | An experimental database summarizing the results of t | the 2012 and 2013 Sovhean Uniform |
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| Sautheen Date Download Rese | | community to solicit suggestions for improvements to t | |
| Soybean Data Download Page | | database. These tables are the summary data taken fro a full report, including methodology and comments, see | |
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| | | published sources. The database lists the parentage of | |
| | | were supplied by the cooperators and where possible t | |
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| | | filtered by region. If you have suggestions on extending corrections to the parentage information please let us h | |
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| SoyBean Breeder's Toolbox Quick Jum | The Full BLAST Interface | Read More | |
| Genetic Map Genome Sequen | | SOY2016 Molecular and Cellular Biology of the S | oybean 16th Biennial Conference |
| Viewer -OR- Viewer | | •Read More | Date: 8-7-2016 TO 8-10-2016 |
| Linkage Group Chromosome | | World Soybean Research Conference 10 | Date: 9-10-2017 TO 9-16-2017 |
| -SELECTSELECT | | •Read More | |
| SoyCyc Search HELP Ad | vanced Metabolism Search→ | View Meeting Archive | |
| Search | | | |
| Examples: inosine ethanol gibberellin | | | |
| Click Here For The Advanced Me | tabolism Search Interface | | |
| Site Map | | | |
| View SoyBase Site Map | | | |
| SoyBase Tutorials | | | |
| Browse SoyBase Tutorials | | | |
| | | | |





SoyBase Site Map and Navigation

| SoyBase Site Map | 1 |
|--|---|
| Table of Contents | |
| SoyBase Home Page Genetic and Physical Map Resources Sequence Map Resources Annykim Tools | |
| Sequence Map Resources | |
| | |
| SoySeq Expression Allas Download SoyBean Data | |
| SoyBase Home Page | |
| | |
| Aukunst Black Fage Cash Black Fage Black Black Fage Black Black Fage Black Black Fage Black Bla | |
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| Ensein Mutach by Treit Plancippi Creanpline. Eisenin Mutach by Treit Plancippi Creanpline. | |
| Advanced Boylewa's BLART Page | |
| Quint BLART Quint Greetin Map Jump | |
| Guile Report of The Arris | |
| The Second Secon | |
| | |
| Genetic and Physical Map Resources | |
| Composite Generals Illip Thrybran Physical Maps Land 48 OTA: in WagNam | |
| Lini of REQT. In Novillane Download Descence and Generic Data | |
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| Sequence Map Resources | |
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| Anayisis Tools | |
| Descriptions of the available FEAXT Databases | |
| Dispersional Annualizations for a Tarteci Lini of Gameric GDT Term Tercholment Terci | |
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SoyBase Site Map

Table of Contents

- SoyBase Home Page and Toolbox
- Genetic and Physical Map Resources
- Sequence Map Resources
- Anaylsis Tools
- Community Resources
- SoySeq Expression Atlas
- Mutant Populations
- Download SoyBase Data

SoyBase Home Page and Toolbox

Quickly Search All of SoyBase (in SoyBase Toolbox) Advanced Search Page Tools for extracting and downloading all or subsets of the data in SoyBase Download genetic map coordinates for selected features Download sequences for genetic loci Convert Wm82.a1.v1.1 Gene Model Names to Wm82.a2.v1 Names Download genome sequence coordinates for selected features Download genome sequence coordinates for selected features Download genome or predicted protein sequence for gene calls Download gene model flanking sequence Download gene model 3' and 5' UTR sequences Download SoySNP50K Data External Data Sources BLAST sequence similarity search Ouick BLAST Acainst Wm82 a2 Genome Sequence (in SouBase Toolbox)

Quick BLAST Against Wm82.a2 Genome Sequence (in SoyBase Toolbox) Advanced SoyBase BLAST Page

SoyCyc Soybean Metabolic Enzyme Database Quick SoyCyc Search (in SoyBase Toolbox)

Quick Jump to a Linkage Group in Genetic Maps (in SoyBase Toolbox) Quick Jump to a Chromosome in Sequence Browser (in SoyBase Toolbox) Description of New Genome Nomenclature

Soybean Growth and Developmental Ontologies Soybean Sequence Data and Literature Soybean Community Resources SoyBase News Meeting Announcements

Community Job Announcements About SoyBase and Soybeans

How to Cite SoyBase Submit Your Data to SoyBase Contact SoyBase





- SoyNAM Project
- Variety Announcements
- Pedigrees for Selected Cultivars
- Uniform Test Data
- GRIN Descriptor Data
- SNP Haplotype Viewer
- Milestones Sequencing Project
- Expression and Methylation Data
- Submitting Data to SoyBase







SoyNAM Project Page

Nested Association Mapping (NAM) of Genes Controlling Soybean Yield and Other Key Traits

Our goal is to improve the yield potential of soybean varieties. To this end we have mapped the chromosomal locations of genes that control yield and other important agronomic traits in both domestic and exotic germplasm using a Nested Association Panel composed of 40 important soybean varieties and cultivars crossed to a common hub parent. Further details about the SoyNAM Project are available. Funding was provided by the North Central Soybean research Program (NCSRP) and the United Soybean Board (USB).

NAM Parents

140 Recombinant Inbred Lines (RILs) were developed from each cross between the NAM parents and IA3023.

| Click on | a NAM Parent for deta | ails about that Populatio | n. |
|-------------------------|--------------------------------|------------------------------------|------------|
| High Yielding Lines | Lines With Diverse Ancestry | Pls With High Yields in Drought | Hub Parent |
| 4J105-3-4 5M20-2-5-2 | LG03-2979 LG03-3191 | PI 398881 PI 427136 | IA3023 |
| CL0J095-4-6 | LG00-3372 | PI 437169B | |
| CL0J173-6-8 | LG04-4717 | PI 507681B | |
| HS6-3976 | LG04-6000 | PI 518751 | |
| LD00-3309 | LG05-4292 | PI 561370 | |
| LD01-5907 | LG05-4317 | PI 404188A | |
| LD02-4485 | LG05-4464 | PI 574486 | |
| LD02-9050 | LG05-4832 | | |
| Magellan | LG90-2550 | | |
| Maverick | LG92-1255 | | |
| NE3001 | LG94-1128 | | |
| Prohio | LG94-1906 | | |
| S06-13640 | LG97-7012 | | |
| Skylla | LG98-1605 | | |
| TN05-3027 | | | |
| U03-100612 | | | |

You can also browse through images of the populations with our image browser.

View Results of Analyses

Coming Soon

See SoyNAM QTL in SoyBase sequence browser

See SoyNAM QTL in SoyBase genetic maps

Download Data

Click here to see the distribution in the soybean genome of the SoyNAM SNPs.

Click here to download the phenotypic data for all SoyNAM Populations.

Click here to download the SNP haplotypes for all 40 SoyNAM Populations.

Request Seed

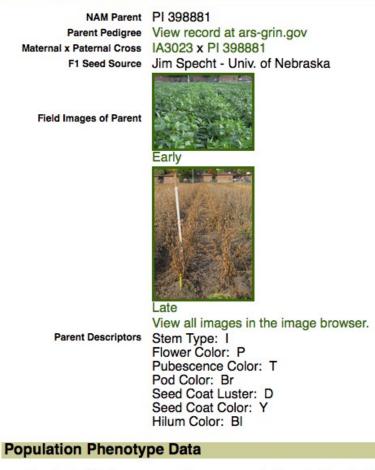
Click here to request Parent seed. Click here to request RIL seed.





SoyNAM Parent Report

SoyNAM Population NAM40



Replicated trials were used to measure yield, maturity, plant height,... for the NAM Parents and RILs.

Click here to download the phenotypic data for this SoyNAM Population.

Click here to download SNP haplotypes for this SoyNAM Population.

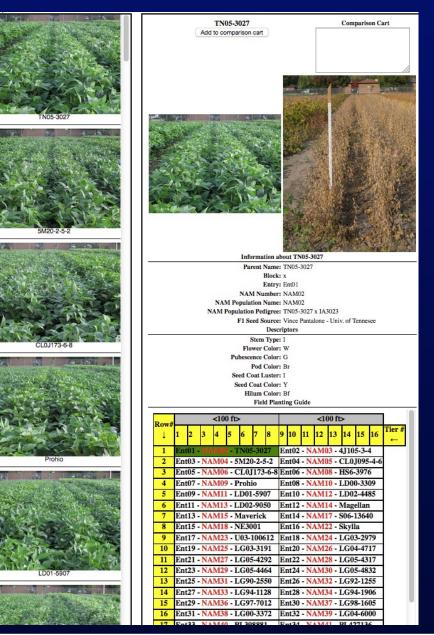
Request Seed

Click here to request Parent and/or RIL seed for this SoyNAM Population





SoyNAM Parent Image Browser







Variety Release Announcements

| Variety Release Notices | | | | | | | | | |
|---|---|------------|--|--|--|--|--|--|--|
| Variety Name | e Description | Date | | | | | | | |
| CM422 | CM422, a conventional MG V soybean with resistance to soybean rust (Rpp4), Phytophthora root rot (Rps1k), and stem canker. | 2014-11-17 | | | | | | | |
| DB04-10836 | DB04-10836 is a high yielding selection with resistance to SCN race 3 and moderate resistance to southern root-knot nematode. DB04-10836 also has resistance to southern stem canker. | 2015-05-15 | | | | | | | |
| Interested in seei Fill out and retu | ing your variety release announcement here? rn this Excel spreadsheet. | | | | | | | | |
| Questions or con | nments? Contact Us | | | | | | | | |





Variety Release Announcements

| \diamond | Α | В | С | D | E | F | G | H |
|---|---------------------|--------------------|-----------------------|------------------|------------------|-------------------|----------------|---------|
| 1 | Soybase Varie | ty Release | Worksheet V1. | 1 | | | | |
| 2 | | | | | | | | |
| 3 | Send this complete | d form along v | vith any additional f | iles by email to | the SoyBase C | urator (david.g | grant@ars.usda | .gov) |
| 4 | Note: Items in yell | ow are mandat | ory | | | | | |
| 5 | | | | | | | | |
| | Variety Name: | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 10 | Full Description: | | | | | | | |
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| 11 | | (h) (h) | | · | | | | |
| | Author(s): | | authors of the rele | | mandatory, cor | ntact info option | nal) | |
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| 18 | Hatemai | Faternai | | | | | | |
| 19 | | | | | | | | |
| | Contact for informa | ation and Seed | requests: | (Contact infor | mation for furth | her information | and/or seed re | egests) |
| | Name | Address | Phone Number | Email | | | | ,, |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | URL(s): | (URLs for released | ase notices or Journ | al articles) | | | | |
| 25 | URL 1 | | | | | | | |
| 26 | | | | | | | | |
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| | | (e.g. a PDF of | the announcement, | etc;) | | | | |
| | Filename 1 | | | | | | | |
| 30 | | | | | | | | |





Variety Release Announcements

Variety Release Notices

Hack Variety Name: CM422

CM422 is a maturity group V high-yielding cultivar with resistance to Asian soybean rust (ASR). Resistance to ASR was derived from PI 459025 via L87-0482 (PI 547879). This is the first southern US cultivar release with Rpp4 resistance to ASR. CM422 originated as a single F6 plant derived from the cross 5601T x L87-0482. 5601T was derived from the cross Hutcheson x TN89-39. L97-0482 was derived from Williams 82 x PI 459025. The cross of 5601T x L87-0482 was made at Stoneville, MS in 2004. CM422 was tested for three years (2009-2011) in Paraguay across 13 environments and across 12 environments in 2010 and 2011.

Authors

- J.R. Smith
- J.D. Ray R. Frederick
- A. Mengistu
- A. Morel
- W. Morel
- E. Rodriquez

Germplasm Release Documents

CM422-1.pdf

To order seed, contact:

J.R. Smith (Rusty.Smith@ars.usda.gov) 141 Experiment Station Rd, Stoneville, MS





SoyBase Pedigree Tool

Uniform Soybean Tests Parentage Information

View Uniform Field Trial Data Here

The soybean parentage information in this database was partially gleaned from the Uniform Soybean Tests for the Southern and Northern regions as well as other sources such as USDA technical bulletins, variety registrations and PVP applications. The strains that appear here were part of the uniform trials and not the preliminary trials. In most cases, the pedigree of individual strains was followed back to named strains in both maternal and paternal lineages where possible. In some cases, the parentage of strains was not specified by the cooperators in the tests. In those cases the maternal and paternal parents are labeled as "Unspecified". In some cases, the actual parental information is partially or completely unknown. In those cases the unknown parentages is labeled with "Unknown". When available, synonyms for the strains were also collected. If a strain was named its PI number was also included as a synonym. In cases where the strain was found to be covered by PVP protection, the PVP registration number was also included. Because this list was based on participants in the Soybean Uniform Trials, not all named soybean strains are listed. For a complete list of named strains the user should consult GRIN.

| To find the immediate parents of a line or cultivar tested in the Uniform Soybean Tests, type the cultivar name or strain indentifier in the box below. |
|---|
| Find Line: Search |
| To limit the list below to either Northern or Southern strains, choose a region. |
| Limit by Region: All Tests 🗾 Limit by Test ? |
| Looking for a specific strain or cultivar? |

Browse Full Alphabetical List of All Strains

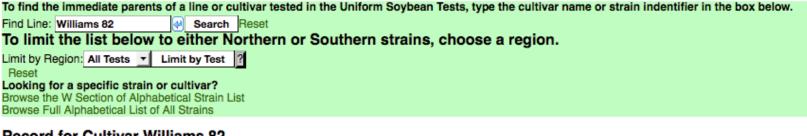
Records

| Cultivar | Synonyms | Maternal Parent X Paternal Parent |
|------------|-----------|-----------------------------------|
| (HC)Gnome | Gnome 85 | Gnome (6) X Williams 82 |
| 0351-29 | | Unspecified X Unspecified |
| 052-903 | | Unspecified X Unspecified |
| 059-903 | PI 438471 | Introduction |
| 0D032-3118 | | Unspecified X Unspecified |
| 11-54-132 | | M10 X Capital |
| 11-54-240 | | (Lincoln (2) x Richland) X Korean |





SoyBase Pedigree Tool



Record for Cultivar Williams 82

| Cultivar | | Maternal Parent X Paternal Parent | Comment | Google Search (New Window) |
|-------------|-------------------|-----------------------------------|---------|----------------------------|
| Williams 82 | PI 518671 L24A | Williams (7) X Kingwa | | Scour Google For This Line |

Records Containing Williams 82

| Cultivar | Synonyms | Maternal Parent X Paternal Parent | Comment |
|----------------|--------------------------------------|--|---|
| (HC)Gnome | Gnome 85 | Gnome (6) X Williams 82 | |
| A Elgin BC | PI 518666 Elgin 87 | Elgin (5) X Williams 82 | PVP 8800086 |
| A Hardin BC(k) | | Hardin (5) X Williams 82 | |
| A Harper BC | PI 518667 Harper 87 | Harper (6) X Williams 82 | PVP 8800087 |
| ABSR 101BC | PI 546487 Archer | (BSR 101 (5) x Williams 82) X [BSR 101 (5) x (Harosoy x Altona)] | PVP 9100040 |
| AHW-Pella BC | PI 509044 Pella 86 | Pella (5) X Williams 82 | |
| Amcor 89 | PI 546375 | Amcor X Williams 82 | |
| Archer | PI 546487 ABSR 101BC BSR 101BC | (Williams 82 x BSR 101) X (PRX 54-59 x BSR 101) | PVP 9100040, See PI 546487 for parentage explaination |
| Asarow A2224 | A2234 | (Calland x Ameou) ¥ (Contury (2) x Williams 82) | |





Uniform Test Data

Uniform Test Data

This is an experimental display of the data in the Northern Uniform Tests for the years 2012 and 2013. It is designed to closely approximate the main results tabels in published reports for those years. The reader is encouraged to consult the reports for the Soybean Uniform Tests for the Northern and Southern Regions for the complete reports. To use this tool:

First Step

Choose the type of data you want to see (Strains and Parentage, Descriptive and Disease Data, Regional Summary, Yield, Yield Rank, Lodging, Plant Height, Seed Quality, Seed Size, Protein, Oil or Strain Description) by clicking on their text.

Second Step

Choose the maturity group and years to see by clicking on the radio buttons. The default is to see the parentage for maturity group 00 for all years.

Last Step

The last step is to click the text 'Set Maturity Group, Year, Strain'. The data will be sorted by strain and then by year for comparison. Not all strains were tested in both years so some strains will only have values in one year.

We are actively soliciting your suggestions for how to make this tool better. If you have suggestions, please contact us with your suggestions here.

| | | | | | Tabl | e of Conten | ts | | | | |
|----------------|---------------|---------------------|----------|----------|-------------|-------------|-----------------|--------------|--|--------------------------------------|------------------------|
| Strains | Discos | Regional Summary | | | | | Seed Quality | Seed Size | Protein (% by wt, 13% moisture) | Oil (% by wt, 13% moisture) | Strain Descriptions |
| Filter Rep | orts By Mat | urity Grou | p, Yea | r and/o | or Strain | | | | | | |
| Select Maturi | ty Group: 💿 0 | | |)IV | | | | | | | |
| Select Year: | OALL 02013 | 3 2012 | | | | | | | | | |
| Select Strain: | ALL | ▼ Set | Maturity | Group, Y | ear, Strain | | | | | | |

Strains and Parentage for Maturity Group 0 for ALL years

Click to Download Data from this Table

| | Uniform Test Maturity Group 0, All Years | | | | | | | | | |
|------|--|-------------|---------------------|----------------|---------------|------------------|--|--|--|--|
| Year | Maturity Group | Strain | Parentage | Seed Source | Gen. Comp. | Unique Traits | | | | |
| 2013 | 0 | MN0071 (00) | Harmony X OT92-8 | Orf | F5 | | | | | |
| 2012 | 0 | MN0071 (00) | Harmony X OT92-8 | Orf | F5 | | | | | |
| 2013 | 0 | Cavalier | Sargent X ND96-1006 | Helms | F4 | | | | | |
| 2012 | 0 | Cavalior | Sargont V ND06-1006 | Holme | E1 | | | | | |





Uniform Test Data

| Table of Contents | | | | | | | | | | | |
|---|--------------|---------------------|-----------------|---------------|--------------------|-----------------------------|-----------------|------|--|--------------------------------------|------------------------|
| Strains | Discose | Regional Summary | Yield (bu/a) | Yield Rank | Lodging (Score) | Plant Height (inches) | Seed Quality | Seed | Protein (% by wt, 13% moisture) | Oil (% by wt, 13% moisture) | Strain Descriptions |
| Filter Rep | orts By Matu | urity Grou | p, Yea | r and/o | or Strain | | | | | | |
| Select Maturi | ty Group: 00 | OI OI (| OIII O | IV | | | | | | | |
| Select Year: OALL 2013 2012 | | | | | | | | | | | |
| Select Strain: ALL Set Maturity Group, Year, Strain | | | | | | | | | | | |

Yield (bu/a)

2013

2012

0012

0

0

Click to Download Data from this Table J

MN1410 (I)

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Surge (L)

Surgo (L)

| | Uniform Test Maturity Group 0, All Years | | | | | | | | | | | | | | |
|------|--|--------------|----------------|------------------|--|----------------------|---------|----------------|------------------|------------------------------------|--------------------------------------|----------------------|--------------|------------------|-------------------|
| | Yield (bu/a) | | | | | | | | | | | | | | |
| Year | Maturity Group | Strain | Bristol, SD | Casselton, ND | | Grand Bend, ND | | Ottawa, ONT | Rosemount, MN | St. Germain de-Grantham, QUE | St. Mathieu de-Beloeil, QUE | St. Pauls, ONT | Volga, SD | Watertown, SD | Woodstock, ONT |
| 2012 | 0 | Sheyenne (0) | 35.6 | 70.0 | | | 37.9 | 27.2 | 45.6 | | 94.1 | 66.6 | 45.3 | | 52.7 |
| 2013 | 0 | Sheyenne (0) | | 61.2 | | | 30.8 | 57.7 | 30.8 | | 91.4 | 42.7 | 40.1 | 59.4 | 43.8 |
| 2012 | 0 | MN1410 (I) | 29.9 | | | | <u></u> | <u> </u> | <u>00 1</u> | | Table of C | | | | 50.0 |

| | L | Table of Contents | | | | | | | | | |
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| - | Strains | Discos | Regional Summary | | | Lodging (Score) | | Seed | Seed Size (g/100) | (% by wt, 13% | Strain Descriptions |
| | Filter Rep | orts By Matu | urity Grou | p, Yea | r and/c | or Strain | | | | | |
| | Select Maturit | elect Maturity Group: 0 0 1 1 0 11 0 1V | | | | | | | | | |
| | Select Year: | elect Year: OALL 2013 2012 | | | | | | | | | |
| | Select Strain: | ALL | ▼ Set | Maturity | Group, Y | ear, Strain | | | | | |

Protein (% by wt, 13% moisture)

Click to Download Data from this Table J

| | Uniform Test Maturity Group 0, All Years | | | | | | | | | | | | |
|------|--|------------|------------------|------------------|----------------------|---------------|----------------|------------------|------------------------------------|-----------------------------------|----------------------|--------------|-------------------|
| | Protein (% by wt, 13% moisture) | | | | | | | | | | | | |
| Year | Maturity Group | Strain | Casselton, ND | Casselton, SD | Grand Bend, ND | Morris, MN | Ottawa, ONT | Rosemount, MN | St. Germain de-Grantham, QUE | St. Mathieu de-Beloeil, QUE | St. Pauls, ONT | Volga, SD | Woodstock, ONT |
| 2012 | 0 | AG0532 | 31.5 | NA | 31.3 | 34.7 | NA | 37.1 | NA | NA | NA | NA | NA |
| 2013 | 0 | AG0532 | NA | 37.2 | NA | 34.8 | NA | 36.6 | 36.0 | NA | NA | NA | NA |
| 2012 | 0 | AG0231 (E) | 31.9 | NA | 28.3 | 34.4 | NA | 36.1 | NA | NA | NA | NA | NA |
| 2013 | 0 | AG0231 (E) | NA | 33.8 | NA | 34.4 | NA | 35.7 | 35.8 | NA | NA | NA | NA |
| 2012 | 0 | AG0808 | 29.8 | NA | 26.6 | 31.6 | NA | 33.0 | NA | NA | NA | NA | NA |
| 2013 | 0 | AG0808 | NA | 32.8 | NA | 33.8 | NA | 35.2 | 33.9 | NA | NA | NA | NA |







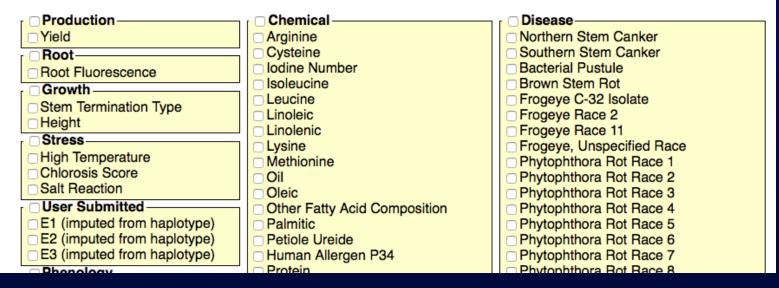
Integrating Genetics and Molecular Biology for Soybean Researchers

SoyBase Home Help & Tutorials Genetic Map Sequence Map Expression Mutants Projects Tools Community Site Map

Data Explorer

In collaboration with the USDA Germplasm Resources Information Network (GRIN) we have developed a tool to facilitate searches of the GRIN Descriptor Data (data current as of 8/26/2015). Imputed alleles at the E1, E2 and E3 loci for the GRIN soybean germplasm collection were provided by Langewisch and Bilyeau.

To use the tool, use the checkboxes select the trait(s) of interest and then click on the green Next button. The trait(s) chosen will be used on the next page.







| Production | Chemical | Disease |
|------------------------------------|---|--|
| Vield | Arginine | Northern Stem Canker |
| Root- | Cysteine | Southern Stem Canker |
| □ Root Fluorescence | Iodine Number | Bacterial Pustule |
| Growth | | Brown Stem Rot |
| 0 | | Frogeye C-32 Isolate |
| Stem Termination Type | Linoleic | Frogeye Race 2 |
| | Linolenic | Frogeye Race 11 |
| Stress | Lysine | Frogeye, Unspecified Race |
| High Temperature | Methionine | Phytophthora Rot Race 1 |
| Chlorosis Score | 🗹 Oil | Phytophthora Rot Race 2 |
| Salt Reaction | Oleic | Phytophthora Rot Race 3 |
| User Submitted | Other Fatty Acid Composition | Phytophthora Rot Race 4 |
| E1 (imputed from haplotype) | Palmitic | Phytophthora Rot Race 5 |
| E2 (imputed from haplotype) | Petiole Ureide | Phytophthora Rot Race 6 |
| E3 (imputed from haplotype) | Human Allergen P34 | Phytophthora Rot Race 7 |
| Phenology | Protein | Phytophthora Rot Race 8 |
| Flowering | Stachyose | Phytophthora Rot Race 9 |
| Maturity Date | Stearic | Phytophthora Rot Race 10 |
| Twining Date | | Phytophthora Rot Race 12 |
| Maturity Group | | Phytophthora Rot Race 17 |
| □ Insect | Tryptophan | Phytophthora Rot Race 20 |
| Defoliation | Valine | Phytophthora Rot Race 25 |
| Leaf Hopper Injury | Morphology | Phytophthora Rot Race 30 |
| Mexican Bean Beetle Damage | Lower Leaflet Area | Phytophthora Rot Race 30T |
| Beet Armyworm | Upper Leaflet Length | Phytophthora Rot Race 31 |
| Soybean Looper | Pod Length | Phytophthora Rot Race 33 |
| Velvetbean Caterpillar | Late Shattering Score | Phytophthora Rot Race 38 |
| Corn Ear Worm | Early Shattering Score | Phytophthora Rot |
| Soybean Aphid Resistance | Mottling Score | Pythium Ultimum |
| Nematode | Flower Color | Soybean Mosaic Virus |
| Reniform Nematode | Seed Shape Of G. Soja | Soybean Mosaic Virus Strain G1 |
| Cyst Nematode Race 1 | Hilum Color | Soybean Mosaic Virus Strain G2 Soybean Mosaic Virus Strain G3 |
| Cyst Nematode Race 2 | Leaflet Shape Of Glycine soja | |
| Cyst Nematode Race 3 | Leaflet Size Of Glycine soja | Soybean Mosaic Virus Strain G4 Soybean Mosaic Virus Strain G5 |
| Cyst Nematode Race 4 | Other Leaf Traits | Soybean Mosaic Virus Strain G6 |
| Cyst Nematode Race 5 | Other Plant Traits | Soybean Mosaic Virus Strain Go |
| Cyst Nematode Race 14 | Other Seed Traits | Bean Pod Mottle Virus |
| Cyst Nematode | Pod Color | Peanut Mottle Virus |
| | Pubescence Color Dubescence Density | Soybean Rust Mixed |
| | Pubescence Density Dubescence Form | Soybean Rust Tan |
| | Pubescence Form Lower Looflet Petio | Soybean Rust |
| | Lower Leaflet Ratio | Soybean Rust Red-Brown |
| | Upper Leaflet Shape | Soybean Sudden Death Syndrome |
| | Seed Coat Color Seed Coat Luster | |
| | Seed Coat Luster | |
| | Stem Termination Score | |
| | Branching | |
| | | |
| | Louging Lower Leaflet Aspect | |
| | Seed Quality | |
| | Seed Weight | |
| | | |





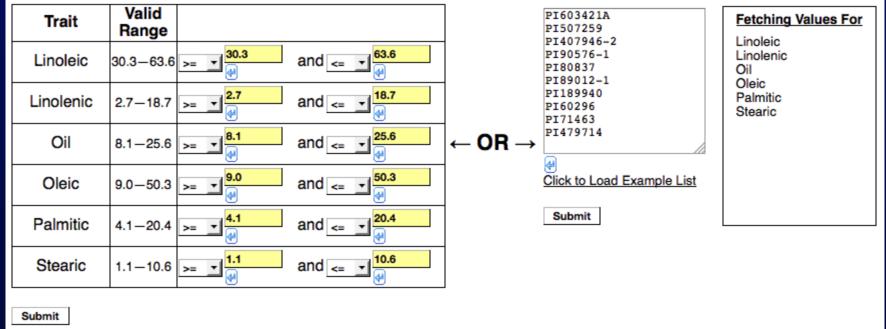
Data Explorer

Back one step.

This page provides two tools for searching the germplasm phenotype data. One returns a list of germplasm accessions based on the phenotype data for the trait(s) previously selected. The other accepts a list of germplasm accessions and returns a table of phenotype data for the selected trait(s).

Identify Germplasm Based on Phenotype Data

Retrieve Phenotype Data from a Germplasm List







| Data Explorer Report | | | | | | | |
|---|--|--|--|--|--|--|--|
| ← Perform a new lookup. | | | | | | | |
| Download result as CSV. | | | | | | | |
| Search parameters: | | | | | | | |
| LINOLEIC >=30.3 AND LINOLEIC <=63.6 LINOLENIC >=2.7 AND LINOLENIC <=18.7 OIL >=8.1 AND OIL <=25.6 OLEIC >=9.0 AND OLEIC <=50.3 | | | | | | | |
| PALMITIC >=4.1 AND PALMITIC <=20.4 STEARIC >=1.1 AND STEARIC <=10.6 | | | | | | | |
| Cultivar Name | | | | | | | |
| FC2108 | | | | | | | |
| FC2109 | | | | | | | |
| FC3548 | | | | | | | |
| FC3654-1 | | | | | | | |
| FC3654N | | | | | | | |
| FC3659 | | | | | | | |
| FC3981 | | | | | | | |
| FC4002B | | | | | | | |
| FC4002N | | | | | | | |
| FC4007B | | | | | | | |
| FC19976-2 | | | | | | | |
| FC19976-1 | | | | | | | |
| FC19979-4 | | | | | | | |
| FC19979-1 | | | | | | | |
| FC19979-2 | | | | | | | |
| FC19979-7 | | | | | | | |
| FC19979-3 | | | | | | | |
| FC19979-6 | | | | | | | |
| EC10070 E | | | | | | | |





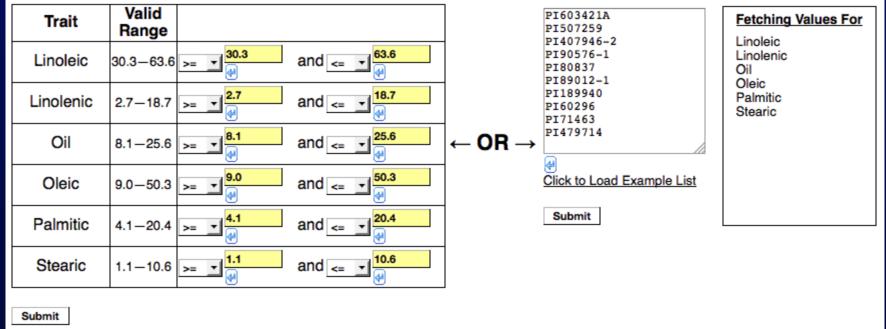
Data Explorer

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Identify Germplasm Based on Phenotype Data

Retrieve Phenotype Data from a Germplasm List







Data Explorer Report

← Perform a new lookup.

Download result as CSV.

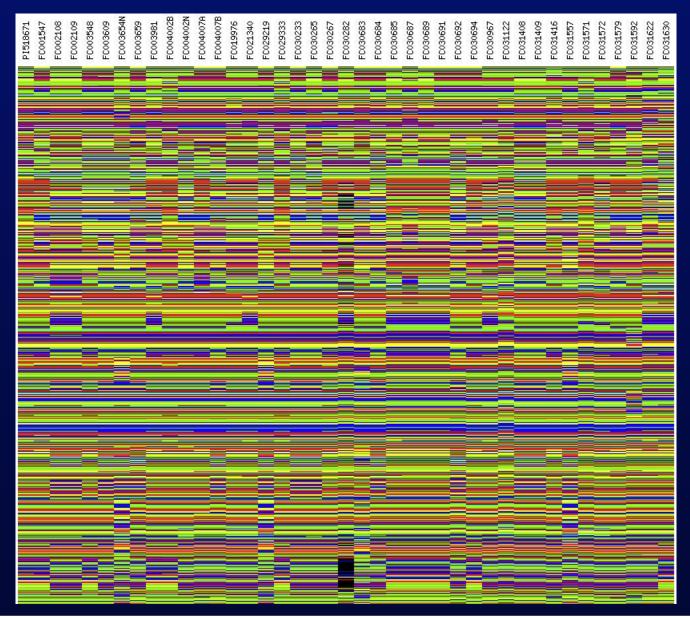
| Cultivar Name | GRIN ACC ID | Linoleic | Linolenic | Oil | Oleic | Palmitic | Stearic | Cultivar Name |
|---------------|-------------|----------|-----------|------|-------|----------|---------|---------------|
| PI60296 | 1111783 | 50.9 | 5.9 | 18.6 | 25.4 | 11.3 | 3.4 | PI60296 |
| F100230 | | 52.0 | 7.8 | 20.3 | 28.1 | 13.3 | 4.2 | F100230 |
| PI71463 | 1116195 | 54.9 | 9.3 | 18.4 | 20.3 | 11.8 | 3.6 | PI71463 |
| PI80837 | 1118475 | 51.9 | 10.0 | 18.2 | 20.6 | 10.7 | 4.0 | PI80837 |
| F100037 | 1110475 | 52.6 | 9.6 | 19.0 | 25.5 | 12.6 | 4.3 | F100037 |
| PI89012-1 | 1485933 | 49.4 | 9.6 | 20.2 | 23.4 | 13 | 4.7 | PI89012-1 |
| PI90576-1 | 1485954 | 52.1 | 8.4 | 20.6 | 21.1 | 11.6 | 3.8 | PI90576-1 |
| F130370-1 | 1403334 | 52.5 | 8.7 | 21.8 | 25.2 | 13.8 | 4.5 | F130370-1 |
| PI189940 | 1161957 | 42.1 | 8.1 | 19.5 | | | | PI189940 |
| PI407946-2 | 1486472 | 56 | 8.7 | 17.1 | 19.6 | 12.2 | 3.5 | PI407946-2 |
| PI479714 | 1374650 | 50.6 | 5.4 | 20.1 | 26.6 | 11.7 | 3.6 | PI479714 |
| 14/3/14 | 10/4030 | 51.7 | 6.0 | 20.7 | 27.7 | 8.7 | 4.3 | 14/5/14 |
| PI507259 | 1402195 | 58.9 | 8.3 | 12.4 | 17.5 | 12.2 | 3 | PI507259 |
| PI603421A | 1595755 | 53 | 9.1 | 17.2 | 21.8 | 12.8 | 3.3 | PI603421A |

← Perform a new lookup.





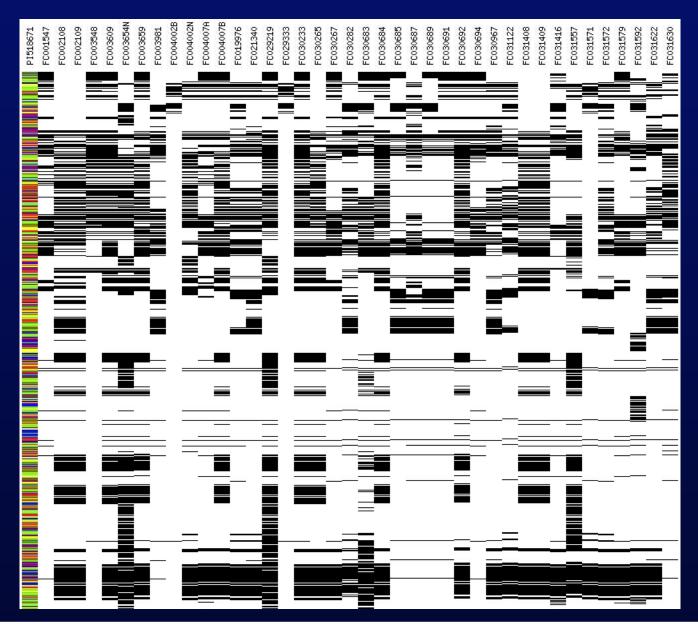
Prototype SoyBase SNP Haplotype Viewer







Prototype SoyBase SNP Haplotype Viewer







Prototype SoyBase SNP Haplotype Viewer

Hap viewer

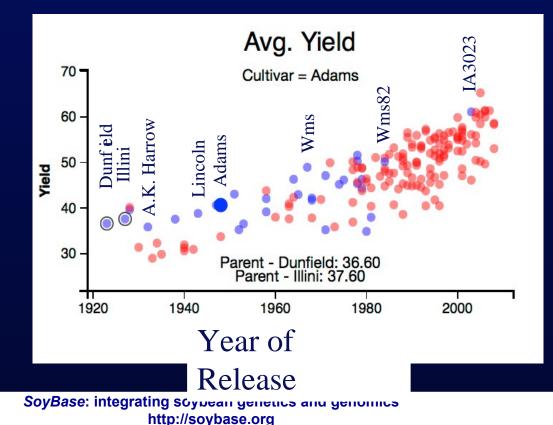
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|---|---------------------------------------|---|---|---|---|
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| Views: show fasta show input Show output show tree view | * | | | | |
| [Display Settings] | | | | | |
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Soybean Milestones Sequencing Project

- 1. Increase soybean grower prof is by improving the yield potential of soybean varieties.
- 2. Detect "breeder signatures" using DNA sequences of land races and varieties that represent "milestone" achievements in yield potential.
- **3.** Make the data publicly available for use by the soybean community.





Soybean Milestones Sequencing Project

Tools have been integrated with SoyBase and will be formally announced next week.

Bulk data downloads will be made available in the coming weeks.

Data is being released pre-publication to the community.

Tools can be leveraged to handle other data types.





Expression Data at SoyBase

| Gene Expression Projects | |
|---|---|
| CEXpression data from Expression data of Experimental Treatments Transcriptional resp plants [GEO:GSE3542] The effects of bud Root Descriptive Experiments | removal on soybean leaf gene expression [GEO:GSE23129] pollen and two biological replicates for sporophytic tissues were used. |
| RNA-Seq Atlas of C Experimental Treatments | Glycine max: A guide to the soybean transcriptome |
| Soybean transcr 416937) [GEO:GSE] | Gene Expression Projects |
| © Expression data | Fitle: Expression data from soybean seed compartments with embryos at the globular stage |
| Poot Anical Maristom | GEO Dataset Accession: GSE6414 |
| · · · · · · · · · · · · · · · · · · · | Veb site: http://seedgenenetwork.net Publication: SoyBase20151003b |
| G | Description: Globular-stage seed compartments were isolated using the Leica AS LMD system. Total RNA was amplified and hybridized with Affymetrix Soybean Genome Arrays. Laser capture micro-dissection was used to isolate tissues at the globular embryo stage of seed development. Tissues were sampled using biological replication. |
| s | Samples: |
| | Embryo Proper Suspensor Seed Endosperm Seed Endothelium Seed Epidermis Seed Hilum Seed Inner Integument Seed Outer Integument Leaflet Whole Seed |
| | See Selected Samples in Genome Browser Save Selected Samples To Shopping Cart |
| | Download Raw Data for Selected Samples |





Expression Data at SoyBase

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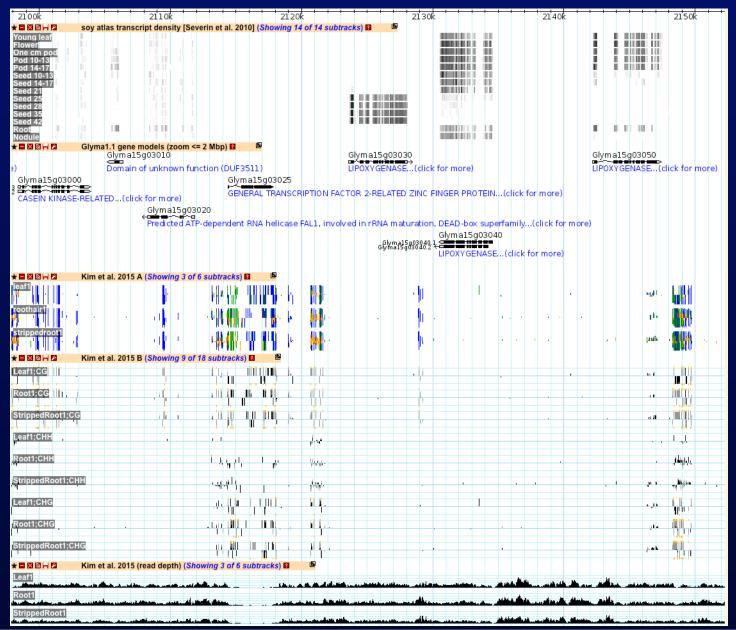
Methylation Data at SoyBase

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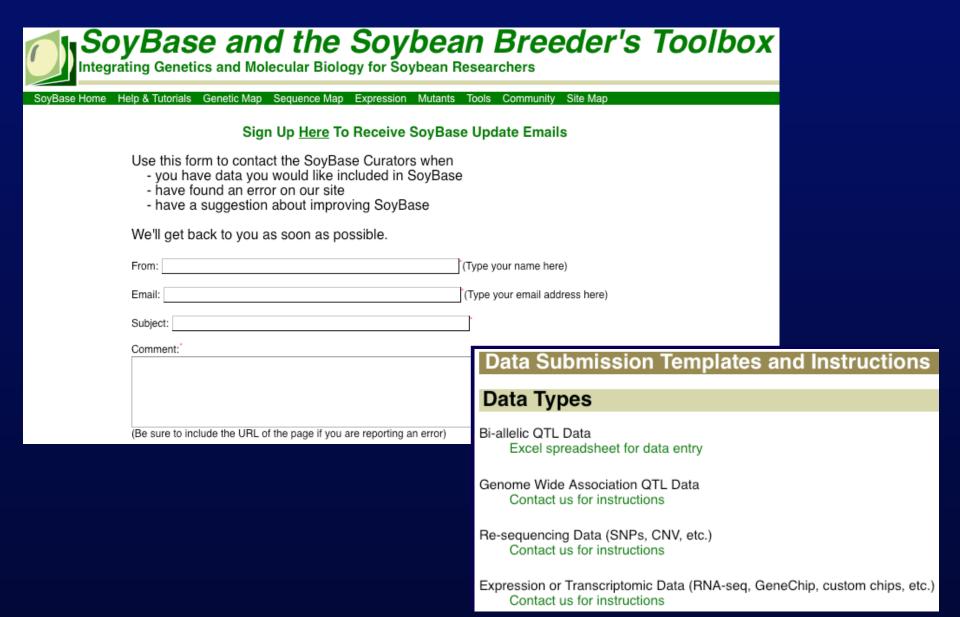
Combined Expression and Methylation Data







Submit Your Data to SoyBase







Questions?

We value your opinion!!

Please take our quick six question survey using the link on the SoyBase home page

Twitter @SoyBaseDatabase











• SoyNAM Project





• Variety Announcements





• Pedigrees for Selected Cultivars





• Uniform Test Data





• GRIN Descriptor Data





• Haplotype Viewer





• Milestones Project Data





• Submitting Data to SoyBase





• Expression and Methylation Data



