

Study Browser Tutorial

A study is the basic, reportable unit of research, it is synonymous with the notions of experiment, nursery or survey. It is characterized by a set of scientific objectives and testable hypotheses and results in the collection of one or more data sets. The Study Browser Application's main function is to enable users to easily query and browse on such studies, datasets and other related information.

This tutorial discusses how to start and use the Study Browser. As of this writing, the latest version of Study Browser is 1.1.2.3.

Starting Up the Study Browser

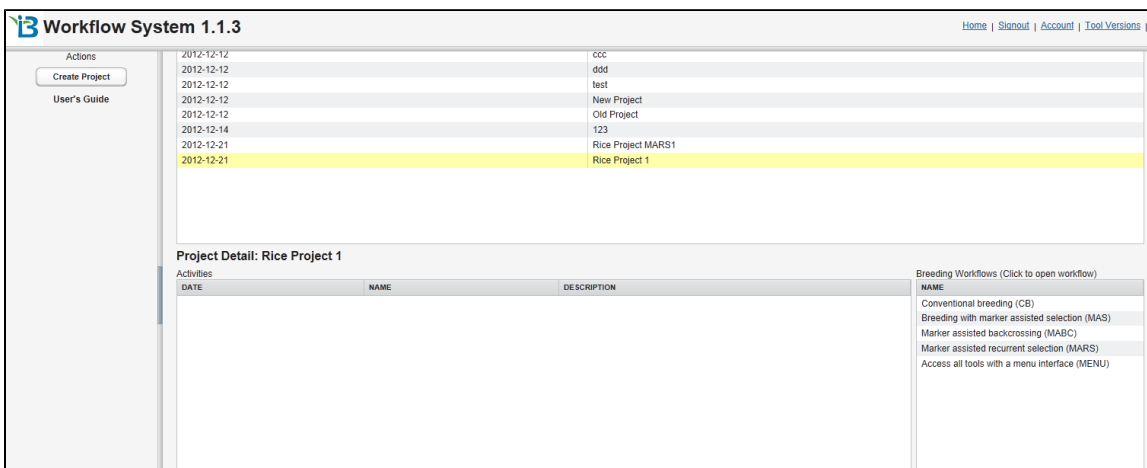
The Study Browser can be launched from IB Workflow System (Workbench). Follow the steps listed below to launch the browser:

1. Log on to the IB Workflow System with your given user name and password.



The image shows the 'IB Workflow System - Sign-in' window. It features a colorful background with stylized faces and plants. The sign-in form includes fields for 'Username' (containing 'user') and 'Password' (masked with dots). Below the password field is a 'Login' button. At the bottom of the form, there are two links: 'Forgot your password?' and 'Register New Account'.

Choose a project from your list if there is any, or create a new project (this is covered in Workbench Tutorial) if there is none.



The image shows the 'IB Workflow System 1.1.3' interface. The top navigation bar includes links for 'Home', 'Signout', 'Account', and 'Tool Versions'. The main content area is divided into two sections. The top section, titled 'Project Detail: Rice Project 1', displays a table of activities. The bottom section, titled 'Breeding Workflows (Click to open workflow)', displays a table of workflows.

DATE	NAME	DESCRIPTION
2012-12-12	ccc	
2012-12-12	ddd	
2012-12-12	test	
2012-12-12	New Project	
2012-12-12	Old Project	
2012-12-14	123	
2012-12-21	Rice Project MARS1	
2012-12-21	Rice Project 1	

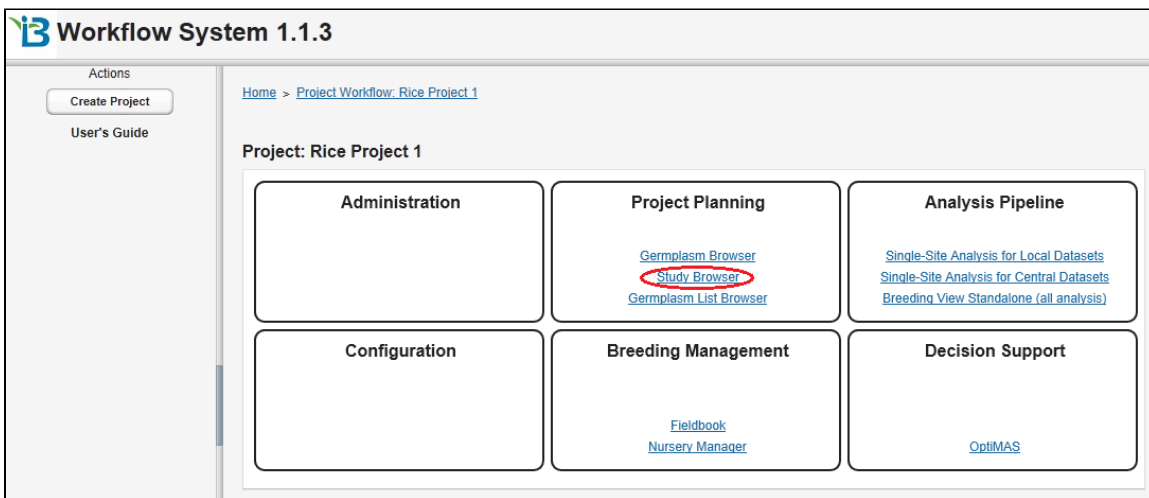
NAME
Conventional breeding (CB)
Breeding with marker assisted selection (MAS)
Marker assisted backcrossing (MABC)
Marker assisted recurrent selection (MARS)
Access all tools with a menu interface (MENU)

2. In Project Details --> Breeding Workflows, you will see all the available workflows for the chosen project. Click on a workflow to view its details.

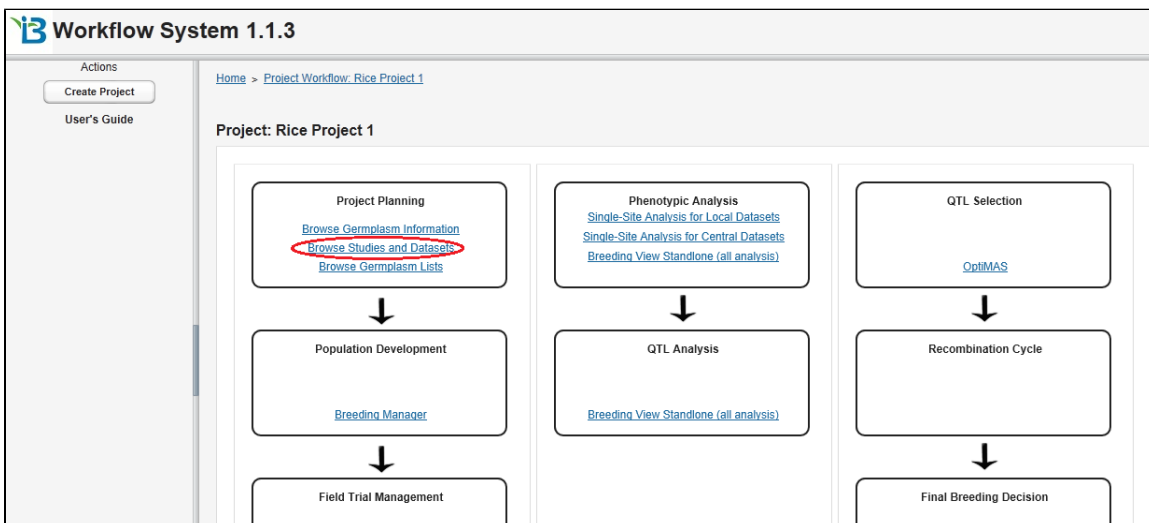
Breeding Workflows (Click to open workflow)	
	NAME
Click to open the workflow for the Access all tools with a menu interface (MENU) role.	Access all tools with a menu interface (MENU)
	Marker assisted recurrent selection (MARS)
	Breeding with marker assisted selection (MAS)
	Marker assisted backcrossing (MABC)
	Conventional breeding (CB)

The following images show the different workflows available as of this writing:

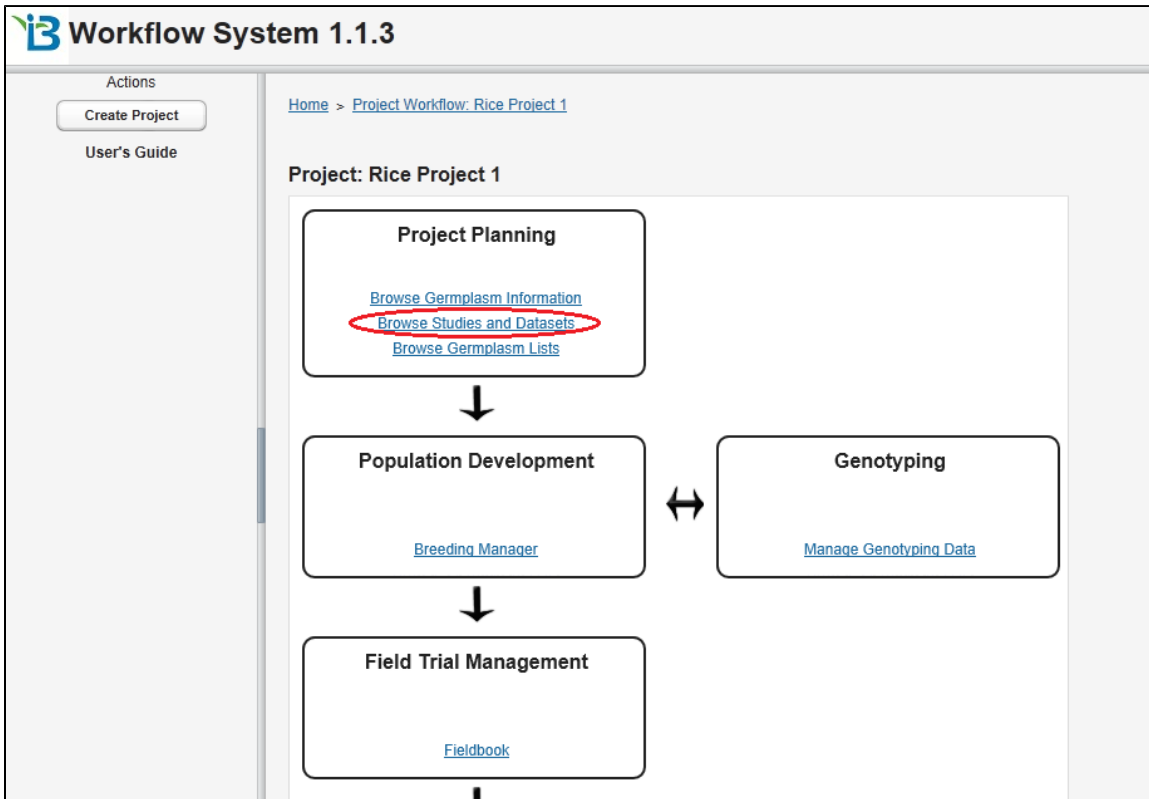
Manager Workflow



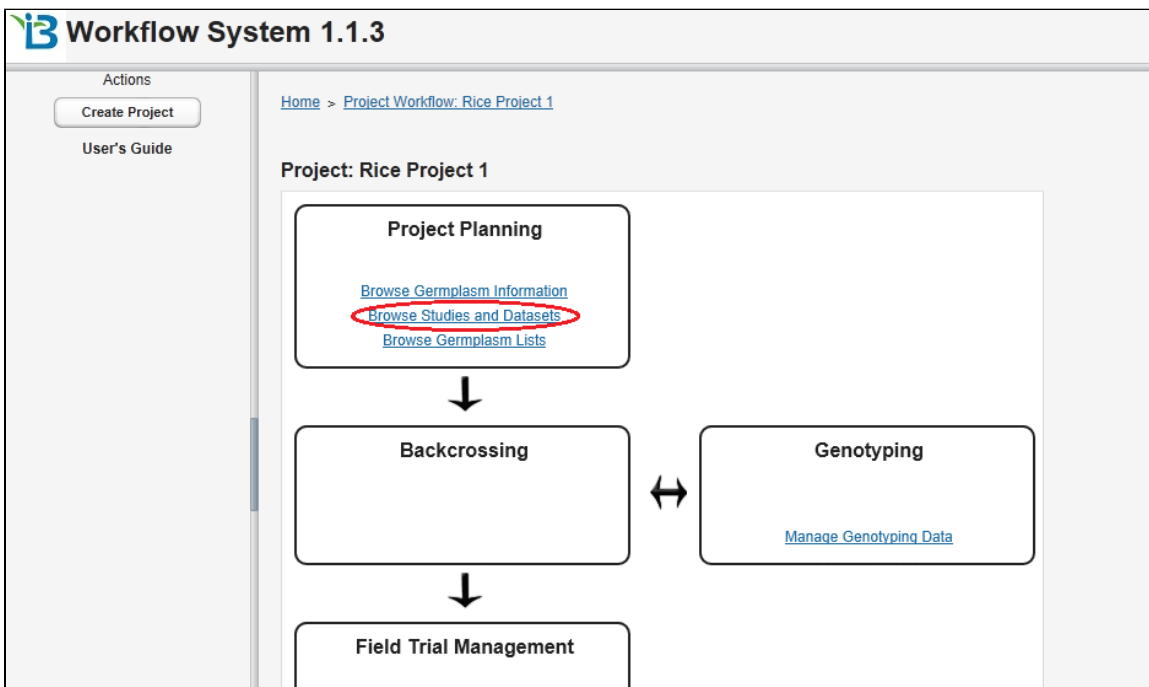
MARS Workflow



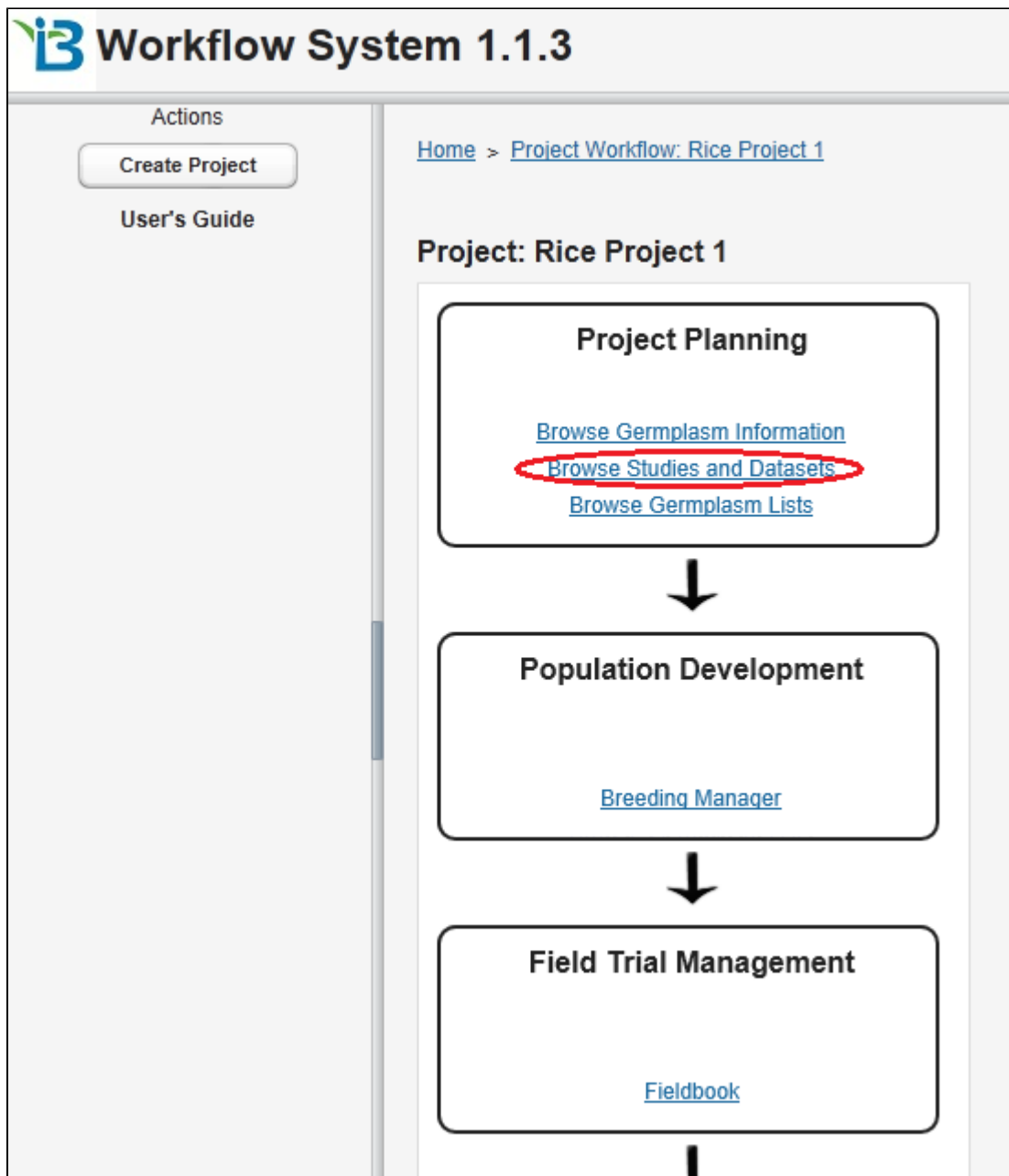
MAS Workflow



MABC Workflow



CB Workflow



3. Click either the **"Study Browser"** or **"Browse Studies and Datasets"** links from the workflow and you will then be redirected to the Study Browser Application:



You may now start upon querying and browsing for studies.

Query & Browse

To query & browse for studies, choose and click one of the three available tab selections: **Local**, **Central** and **Search**

Browsing On Local Tab

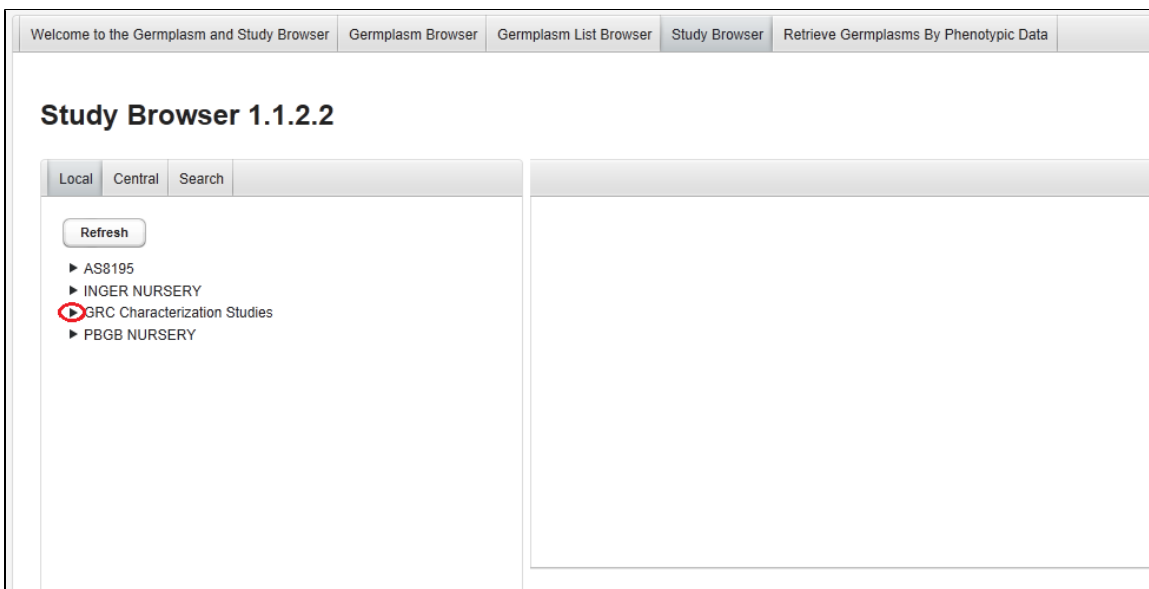
On this tab, follow the steps listed below:

1. First off, a **refresh button** can be clicked to make sure that all studies in your local are up-to-date.



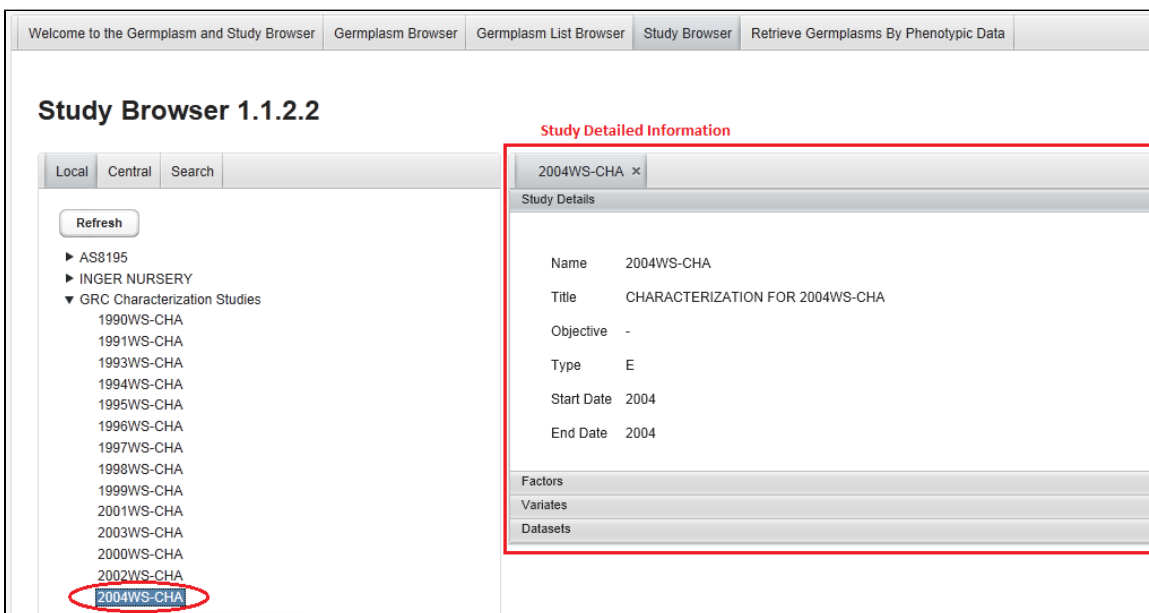
2. A list of study names/folder names will be displayed, choose a name of interest then left-click the **triangle symbol** beside it.

Note: do not click the study name/folder name itself just yet.



- Sub-lists of either study names or folder names will be displayed after left-clicking the triangle symbols, for any studies without the triangle symbol, left-click the **name** itself this time.

This will actually display the detailed information of that selected study.



On the Detailed View, there are horizontal tabs available here for viewing other information of a study of interest. Click the **Factors Tab** and it will show the classifying variables of the study.

Welcome to the Germplasm and Study Browser | Germplasm Browser | Germplasm List Browser | Study Browser | Retrieve Germplasm By Phenotypic Data

Study Browser 1.1.2.2

Local Central Search

2004WS-CHA x

Refresh

- ▶ AS8195
- ▶ INGER NURSERY
- ▼ GRC Characterization Studies
 - 1990WS-CHA
 - 1991WS-CHA
 - 1993WS-CHA
 - 1994WS-CHA
 - 1995WS-CHA
 - 1996WS-CHA
 - 1997WS-CHA
 - 1998WS-CHA
 - 1999WS-CHA
 - 2001WS-CHA
 - 2003WS-CHA
 - 2000WS-CHA
 - 2002WS-CHA
 - 2004WS-CHA
- ▶ PBGB NURSERY

Study Details

Factors

NAME	DESCRIPTION	PROPERTY	SCALE	METHOD	DATATYPE
ACCNO	-	GERMPLASM IDENTIFICATION	ACCNO	Not Specified	C
CROPYEAR	-	GERMPLASM IDENTIFICATION	IRGC Crop Season	IRGC Method	C
GID	-	GERMPLASM IDENTIFICATION	GID	Not Specified	N
MIGID	-	GERMPLASM IDENTIFICATION	Plot number	Management Group	N
PLOTNO	Plot no. in the field layout	PLOT NUMBER	Plot number	Field Layout	N
POP_CODE	-	IRGC Population Code	IRGC Population Code	IRGC Method	C
SOURCE CROPYEAR	-	IRGC Crop Season	IRGC Crop Season	IRGC Method: Source Cropyear	C
STUDY	-	STUDY	Name	Not Specified	C

Variables

Datasets

Next, click the **Variables Tab**, this will display the variables of a specific study that are being measured.

Welcome to the Germplasm and Study Browser | Germplasm Browser | Germplasm List Browser | Study Browser | Retrieve Germplasm By Phenotypic Data

Study Browser 1.1.2.2

Local Central Search

2004WS-CHA x

Refresh

- ▶ AS8195
- ▶ INGER NURSERY
- ▼ GRC Characterization Studies
 - 1990WS-CHA
 - 1991WS-CHA
 - 1993WS-CHA
 - 1994WS-CHA
 - 1995WS-CHA
 - 1996WS-CHA
 - 1997WS-CHA
 - 1998WS-CHA
 - 1999WS-CHA
 - 2001WS-CHA
 - 2003WS-CHA
 - 2000WS-CHA
 - 2002WS-CHA
 - 2004WS-CHA
- ▶ PBGB NURSERY

Study Details

Factors

Variables

NAME	DESCRIPTION	PROPERTY	SCALE	METHOD	DATATYPE
ANLT			IRGC Anther Length - Wild	IRGC WILD RICE	N
APCO_REV_POST	Apiculus color	APICULUS COLOR	IRGC Apiculus Color Code - Post-harvest	Post-harvest Stage	C
APCO_REV_REPRO	Apiculus color	APICULUS COLOR	IRGC Apiculus Color Code - Reproductive	Reproductive Stage	C
APFUB			IRGC Apiculus Pubescence Code (Wild Rice)	IRGC WILD RICE	C
AUCO_REV_75DAG	Auricle color	AURICLE COLOR	IRGC Auricle Color Code (Wild Rice)	IRGC WILD RICE at 75 DAG	C
AUCO_REV_VEG	Auricle color	AURICLE COLOR	IRGC Auricle Color Code	Vegetative Stage	C
AUPR			IRGC Auricle Presence Code (Wild Rice)	IRGC WILD RICE	C
AUPUB_30DAG			IRGC Auricle Pubescence Code (Wild Rice)	IRGC WILD RICE at 30 DAG	C
AUPUB_75DAG			IRGC Auricle Pubescence Code (Wild Rice)	IRGC WILD RICE at 75 DAG	C
AWCO_REV	Awn color	AWN COLOR	IRGC Awn Color Code	IRGC Method	C
AWLT_ANTH			mm	IRGC WILD RICE at Anthesis	N
AWLT_POST			mm	IRGC WILD RICE at Post-harvest	N
AWPR_POST			IRGC Awn Presence Code (Wild Rice)	IRGC WILD RICE at Post-harvest	C
AWPR_REPRO			IRGC Awn Presence Code	Reproductive Stage	C
AWTEXT_ANTH			IRGC Awn Texture Code (Wild Rice)	IRGC WILD RICE at Anthesis	C

Datasets

4. Finally, click the **Datasets Tab**, this will display the lists of datasets available for a selected study of interest.

After selecting this tab, choose and click a **specific dataset** of interest on that list.

Study Browser 1.1.2.2

Local Central Search

Refresh

- ▶ AS8195
- ▶ INGER NURSERY
- ▼ GRC Characterization Studies
 - 1990WS-CHA
 - 1991WS-CHA
 - 1993WS-CHA
 - 1994WS-CHA
 - 1995WS-CHA
 - 1996WS-CHA
 - 1997WS-CHA
 - 1998WS-CHA
 - 1999WS-CHA
 - 2001WS-CHA
 - 2003WS-CHA
 - 2000WS-CHA
 - 2002WS-CHA
 - 2004WS-CHA
- ▶ PBGB NURSERY

2004WS-CHA ×

Study Details

Factors

Variates

Datasets

Dataset 1552 - EVALUATION DATA

5. Upon clicking a dataset, this will open a new tab that will enable to view the detailed information of your selected dataset.

Study Browser 1.1.2.2

Local Central Search

Refresh

- ▶ AS8195
- ▶ INGER NURSERY
- ▼ GRC Characterization Studies
 - 1990WS-CHA
 - 1991WS-CHA
 - 1993WS-CHA
 - 1994WS-CHA
 - 1995WS-CHA
 - 1996WS-CHA
 - 1997WS-CHA
 - 1998WS-CHA
 - 1999WS-CHA
 - 2001WS-CHA
 - 2003WS-CHA
 - 2000WS-CHA
 - 2002WS-CHA
 - 2004WS-CHA
- ▶ PBGB NURSERY

2004WS-CHA ×

Study Details

Factors

Variates

Datasets

Dataset of EVALUATION DATA

STUDY	CROPYEAR	PLOTNO	GID	ACCNO	SOURCE CROPYEAR	MGID	POP_CODE	L_LIGHT2ND_ANTH	LWD_2ND	LLT_2ND	HDG_1
2004WS-CHA	2004WS	6096.0	1772014	106524	1993WS	317055.0	A	2.2	2.7	51.0	122.0
2004WS-CHA	2004WS	6089.0	1771989	106517	1998WS	317047.0	B	12.4	1.1	54.0	142.0
2004WS-CHA	2004WS	6089.0	1771989	106517	1998WS	317047.0	A	23.4	1.2	60.0	142.0
2004WS-CHA	2004WS	6088.0	1771985	106516	1993WS	317046.0	C	29.2	1.4	68.0	132.0
2004WS-CHA	2004WS	6088.0	1771985	106516	1993WS	317046.0	B	24.8	1.6	55.0	132.0
2004WS-CHA	2004WS	6088.0	1771985	106516	1993WS	317046.0	A	16.2	1.3	58.0	132.0
2004WS-CHA	2004WS	6086.0	1794893	106508	2001WS	317037.0	C	28.0	1.1	53.0	125.0
2004WS-CHA	2004WS	6086.0	1794893	106508	2001WS	317037.0	B	26.6	1.4	71.0	125.0
2004WS-CHA	2004WS	6086.0	1794893	106508	2001WS	317037.0	A	24.2	1.3	48.0	125.0
2004WS-CHA	2004WS	6095.0	1772010	106523	1992WS	317054.0	C	29.8	1.3	58.0	132.0
2004WS-CHA	2004WS	6095.0	1772010	106523	1992WS	317054.0	B	38.0	1.4	74.0	132.0
2004WS-CHA	2004WS	6095.0	1772010	106523	1992WS	317054.0	A	34.4	1.3	70.0	132.0
2004WS-CHA	2004WS	6094.0	1772007	106522	1993WS	317053.0	A	2.2	2.5	44.0	125.0
2004WS-CHA	2004WS	6093.0	1772004	106521	1994WS	317052.0	A	2.8	2.3	43.0	125.0
2004WS-CHA	2004WS	6092.0	1771999	106520	1993WS	317051.0	A	2.6	3.2	69.0	122.0

Click button to Export current Dataset

Export to Fieldbook Excel File

Left-click to view detailed information of germplasms

6. Going back on the list view of studies, you may be able to open and view more than one study. This is enabled via a tab view of all studies selected while using the application.

Study Browser 1.1.2.2

Local Central Search

Refresh

- ▶ AS8195
- ▶ INGER NURSERY
- ▼ GRC Characterization Studies
 - 1990WS-CHA
 - 1991WS-CHA
 - 1993WS-CHA
 - 1994WS-CHA
 - 1995WS-CHA
 - 1996WS-CHA
 - 1997WS-CHA
 - 1998WS-CHA
 - 1999WS-CHA
 - 2001WS-CHA
 - 2003WS-CHA
 - 2000WS-CHA
 - 2002WS-CHA
 - 2004WS-CHA
- ▼ PBGB NURSERY
 - ▶ HB NURSERY
 - ▶ RYT NURSERY
 - ▼ OYT NURSERY
 - OYT19761
 - OYT40770

Study Details

Factors

Variates

Datasets

Dataset of EVALUATION DATA

ENTRYNO	SOURCE	DESIGNATION	GID	GRPNO	NURSERY	YEAR	SEASON	STUDY	FLW
A6542	5267	BAM3	95003		OYT	1976.0	1.0	OYT19761	106.0
A5713	4446	BALA	385370		OYT	1976.0	1.0	OYT19761	70.0
A5744	4481	BAHAGIA	385331		OYT	1976.0	1.0	OYT19761	102.0
A6362	5101	BAGIAMON 349	95988		OYT	1976.0	1.0	OYT19761	86.0
A5698	ACC4895	BASMATI 370	1859		OYT	1976.0	1.0	OYT19761	77.0
A6139	DMR1140	BASHFUL	32035		OYT	1976.0	1.0	OYT19761	70.0
A6207	ACC17229	BANIH KUNING	95009		OYT	1976.0	1.0	OYT19761	130.0
A6401	5142	BANAUE RICE	15051		OYT	1976.0	1.0	OYT19761	100.0
A6002	4814	ARC 6601	95944		OYT	1976.0	1.0	OYT19761	96.0
A5961	4773	ARC 6608	95945		OYT	1976.0	1.0	OYT19761	91.0
A5865	4690	ARC 5981A	95939		OYT	1976.0	1.0	OYT19761	75.0
A5958	4771	ARC 6125	95942		OYT	1976.0	1.0	OYT19761	102.0
A6538	5262	ASD5	421710		OYT	1976.0	1.0	OYT19761	121.0
A5712	4445	ASWATHY	95965		OYT	1976.0	1.0	OYT19761	89.0
A5962	4774	ARC 7347	95951		OYT	1976.0	1.0	OYT19761	70.0

Click the X symbol to close a study details tab

Browsing On Central Tab

On this tab, all options are the same as on the **local tab** with the exception of the not having **refresh button**:

Welcome to the Germplasm and Study Browser | Germplasm Browser | Germplasm List Browser | Study Browser | Retrieve Germplasms By Phenotypic Data

Study Browser 1.1.2.2

Local Central Search

- ▶ AS8195
- ▶ INGER NURSERY
- ▶ GRC Characterization Studies
- ▶ PBGB NURSERY

Using the Search Tab

On this tab, you may able to do some **custom querying of studies**. Follow the steps listed below to see how it is done:

1. To start, this tab will first have an entry field for **Date**. Enter **valid numerical** date values only.

Study Browser 1.1.2.2

Local Central Search

Date
Year Month Day

Name

Country

Season

Search Clear

2. Next, you may enter a **name** of a study as a search filter.

Study Browser 1.1.2.2

Local Central Search

Date
Year Month Day

Name

Country

Season

Search Clear

3. A selection field is also available for custom querying of studies, here is the option for filtering by **country**.

Study Browser 1.1.2.2

Local Central Search

Date
Year Month Day

Name

Country

Season

Unknown
AFGHANISTAN
ALBANIA
ALGERIA
AMERICAN SAMOA
ANDORRA
ANGOLA
ANTARCTICA
ANTIGUA

1-9/536

4. Lastly, you may also select a search filter option for **season**.

Study Browser 1.1.2.2

Local Central Search

Date
Year Month Day

Name

Country

Season
DRY
WET
GENERAL

5. When satisfied with what you have selected or entered, you may press **Search** to start the query.

Study Browser 1.1.2.2

Local

Central

Search

Date

Year

Month

Day

Name

Country

ALGERIA

Season

WET

Search

Clear

Search Result: 1272

← Number of hits displayed

ID	NAME
1	HB19770
2	HB19771
3	HB19780
4	HB19781
5	HB19790
6	HB19791
7	HB19800
8	HB19801
9	HB19810
10	HB19811
11	HB19820
12	HB19821
13	HB19830
14	HB19831

Click to view study details

results can be clicked to view more detailed information on any studies chosen

6. Clicking **one or more** of the results will open a detailed view of a study/studies.

Study Browser 1.1.2.2

Local

Central

Search

Date

Year Month Day

Name

Country

ALGERIA

Season

WET

Search

Clear

Search Result: 1272

ID	NAME
1	HB19770
2	HB19771
3	HB19780
4	HB19781
5	HB19790
6	HB19791
7	HB19800
8	HB19801
9	HB19810
10	HB19811
11	HB19820
12	HB19821
13	HB19830

HB19790 x HB19801 x

Study Details

Factors

Variates

Datasets

Dataset of EVALUATION DATA

GRPNO	ENTRYNO	SOURCE	DESIGNATION	GID	NURSERY	YEAR
1.0	HB0131	HB433	IR11248-131-3-2-2	37537	HB	1980
1.0	HB0151	1894	IR17488-2-3-2	41254	HB	1980
1.0	HB0150	2155	IR15813-304-2-3	43882	HB	1980
1.0	HB0148	1796	IR15538-338-1-2-3	40827	HB	1980
1.0	HB0149	1885	IR15529-253-2-2-2	44003	HB	1980
1.0	HB0155	2183	IR19255-26-2	43886	HB	1980
1.0	HB0154	2180	IR18599-68-1	45727	HB	1980
1.0	HB0153	HB447	IR17494-32-3-1-1-3	37341	HB	1980
1.0	HB0152	1925	IR17494-32-2-2-1-3-3-1	99488	HB	1980
1.0	HB0159	1659	IR19774-27-2-2-1	101158	HB	1980
1.0	HB0158	1609	IR19723-2-2-1	52874	HB	1980
1.0	HB0157	1980	IR19672-24-2-3	43599	HB	1980
1.0	HB0156	2187	IR19256-88-1	43889	HB	1980
1.0	HB0103	HB403	IR20	2298	HB	1980
1.0	HB0162	1681	IR19816-8-1-3-2	101222	HB	1980

Export to Fieldbook Excel File

7. Finally, you may press the **Clear** button to reset your entries.

Study Browser 1.1.2.2

Local

Central

Search

HB19790 ×

HB19801 ×

Study Details

Factors

Variates

Datasets

Dataset of EVALUATION DATA

Date

Year Month Day

Name

Country

Season

Search

Clear

Search Result: 1272

ID	NAME
1	HB19770
2	HB19771
3	HB19780
4	HB19781
5	HB19790
6	HB19791
7	HB19800
8	HB19801
9	HB19810
10	HB19811
11	HB19820
12	HB19821
13	HB19830

GRPNO	ENTRYNO	SOURCE	DI
1.0	HB0131	HB433	IF
1.0	HB0151	1894	IF
1.0	HB0150	2155	IF
1.0	HB0148	1796	IF
1.0	HB0149	1885	IF
1.0	HB0155	2183	IF
1.0	HB0154	2180	IF
1.0	HB0153	HB447	IF
1.0	HB0152	1925	IF
1.0	HB0159	1659	IF
1.0	HB0158	1609	IF
1.0	HB0157	1980	IF
1.0	HB0156	2187	IF
1.0	HB0103	HB403	IF
1.0	HB0162	1681	IF

Export to Fieldbook Excel File

All Entries and Selections are reset on clear

This concludes the tutorial for the Study Browser Application.