Germplasm Browser Tutorial

The Germplasm Browser is used to search for a specific germplasm or a set of germplasms. Two modes can be used for search, either by Germplasm ID or by Name. With the Germplasm Browser, selected germplasms can also be added to an existing Germplasm List. Details of a germplasm can also be viewed.

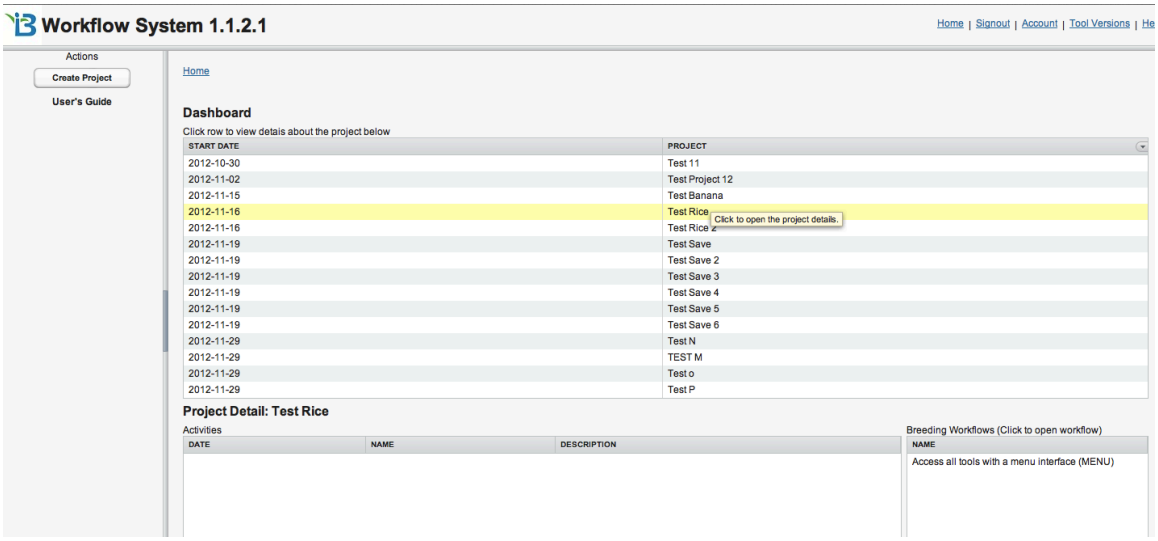
This tutorial discusses how to start and use the Germplasm Browser. As of this writing, the latest version of Germplasm Browser is 1.1.2.3.

Starting Up the Germplasm Browser

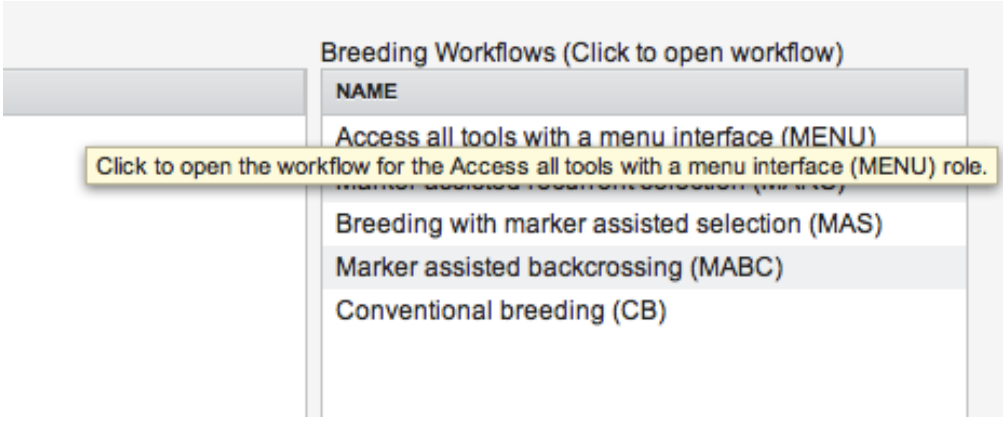
The Germplasm Browser can be launched from IB Workflow System (Workbench). Follow the steps listed below to launch the browser:

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

2. 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.



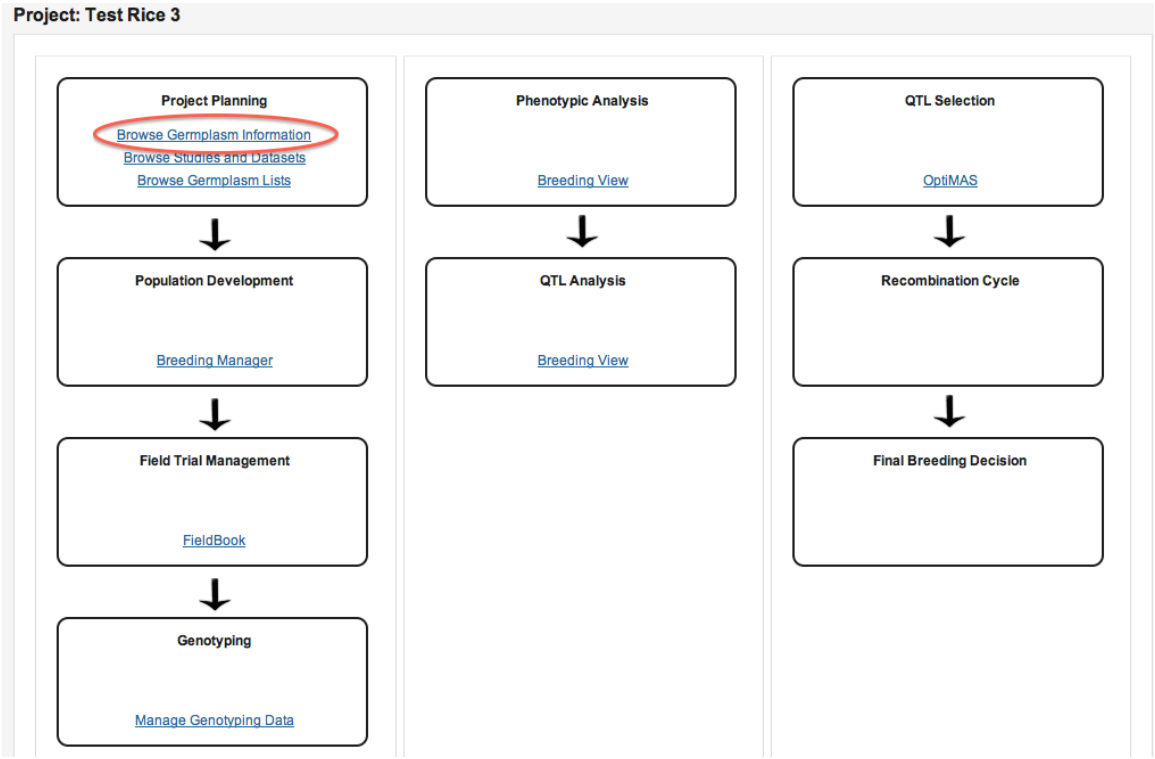
3. In Project Details --> Breeding Workflows, you will see all the available workflows for the chosen project. Click on a workflow to view its details.



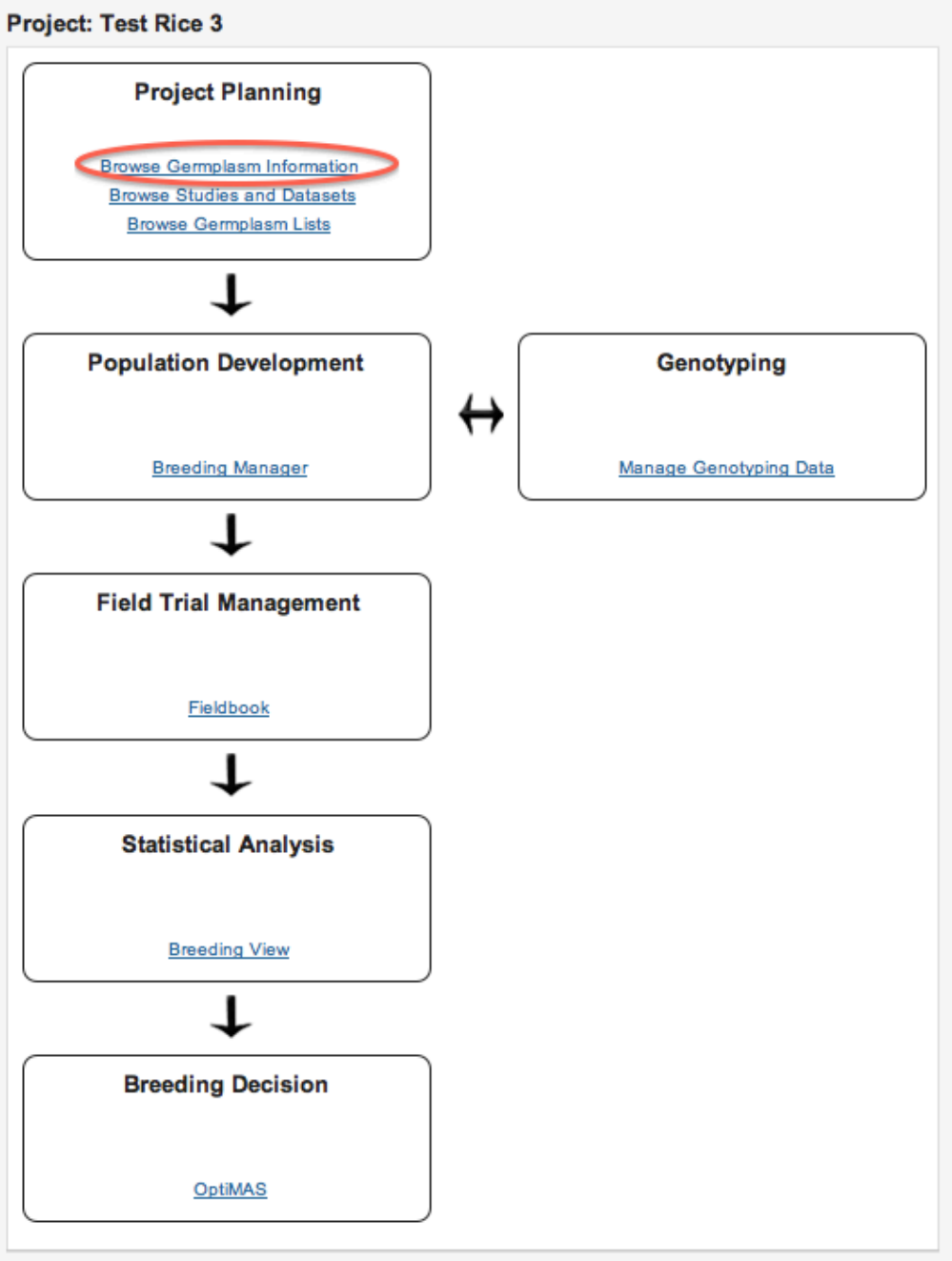
The following images show the different workflows available as of this writing:

Manager Workflow

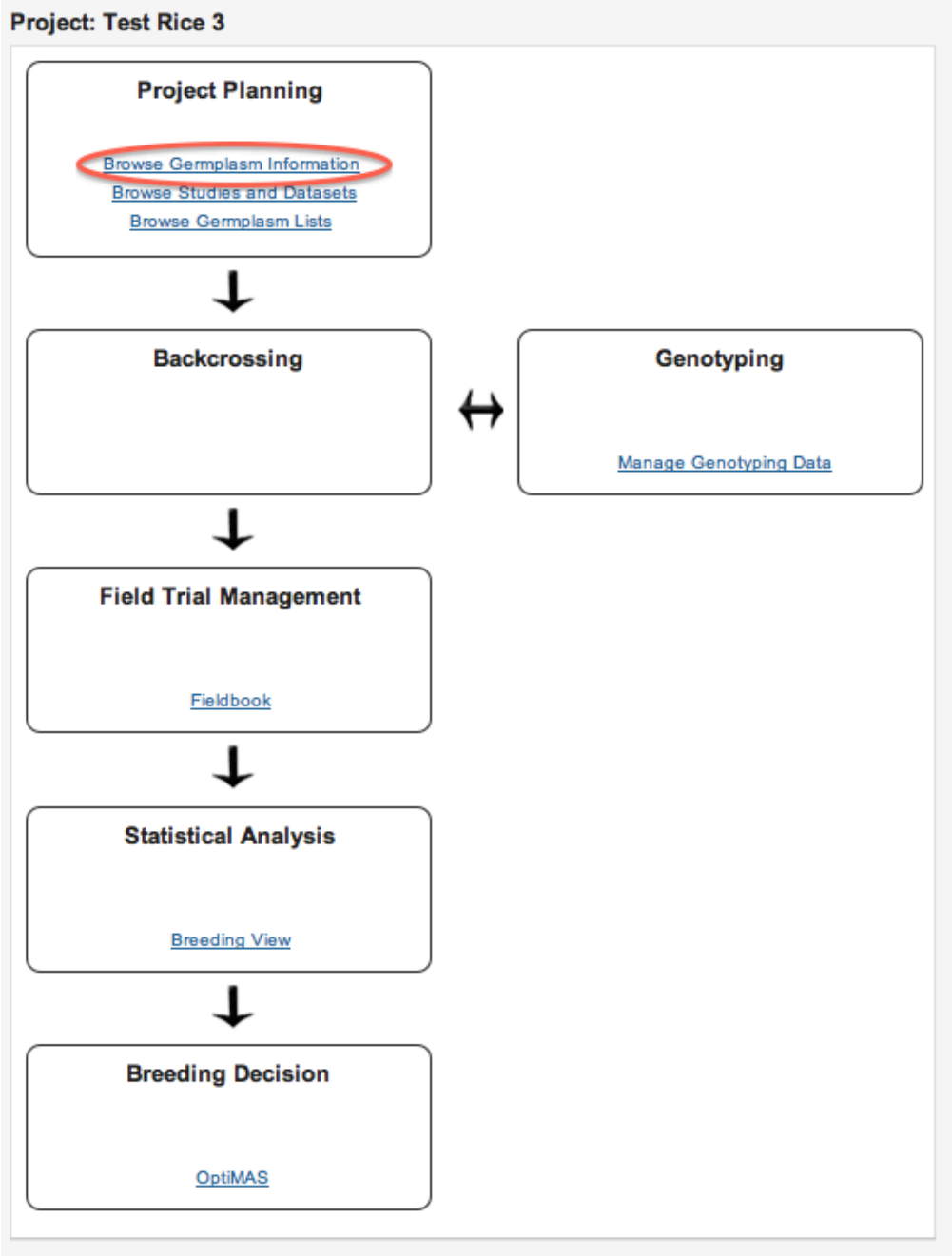
MARS Workflow



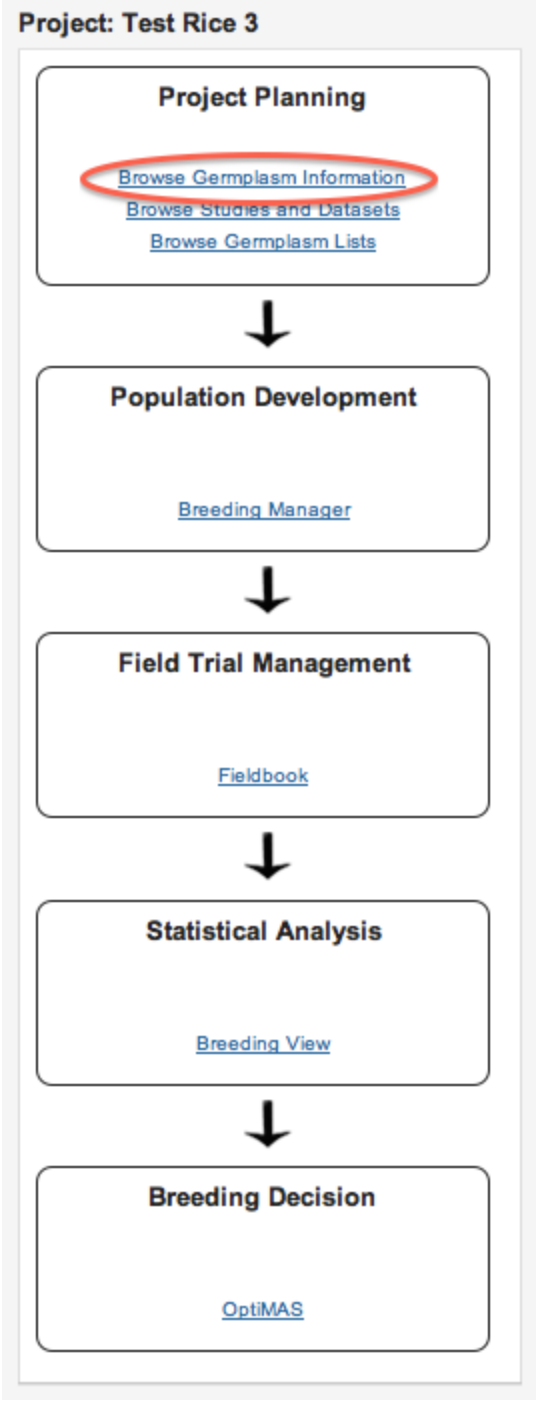
MAS Workflow



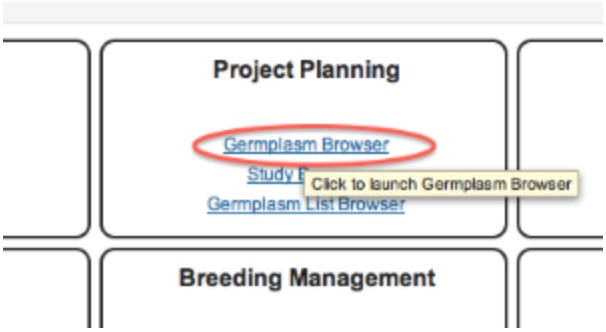
MABC Workflow


Project: Test Rice 3
Project Planning
Browse Germplasm Information
Browse Studies and Datasets
Browse Germplasm Lists
Backcrossing
Genotyping
Manage Genotyping Data
Field Trial Management
Fieldbook
Statistical Analysis
Breeding View
Breeding Decision
OptiMAS

CB Workflow



4. Click either the **Germplasm Browser** or **Browse Germplasm Information** link from the workflow:



You will be redirected to the Germplasm Browser:

You can now search for germplasms.

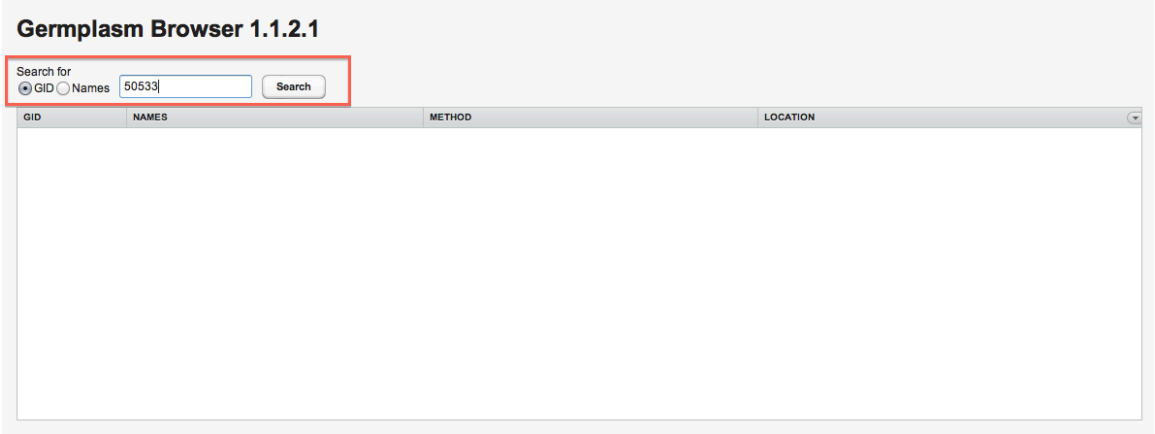
Searching

To search for germplasms, choose from two modes: Search by **GID** or search by **Names**.

Search By GID

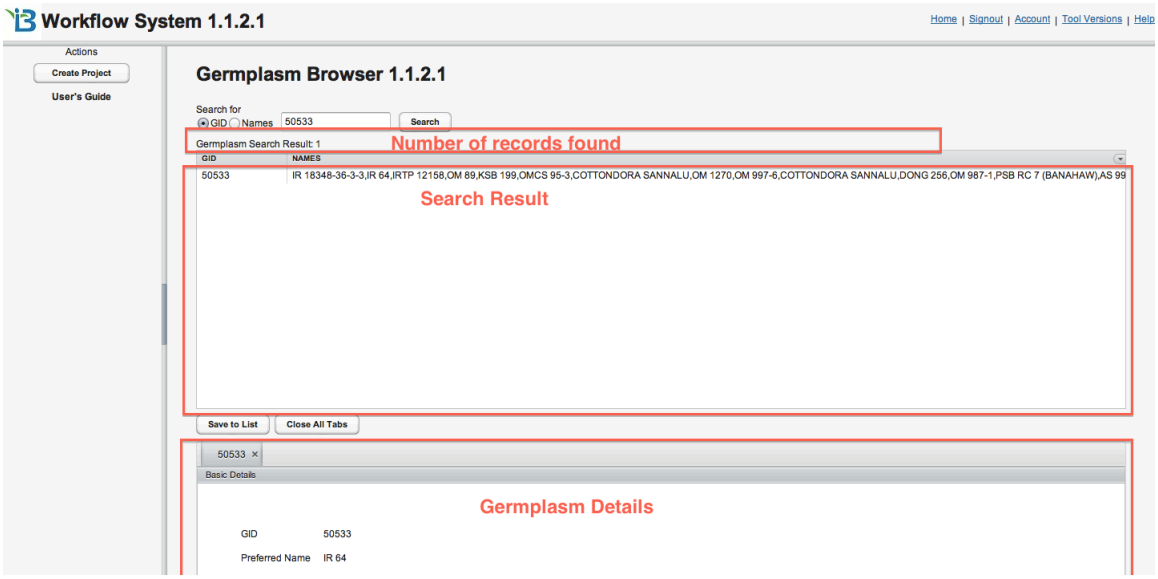
To search by GID, follow the steps listed below:

1. With the Germplasm Browser open, select the radio button **GID**.
2. Input the GID on the text box provided. If you input a negative number, it will search for the record from the local database.

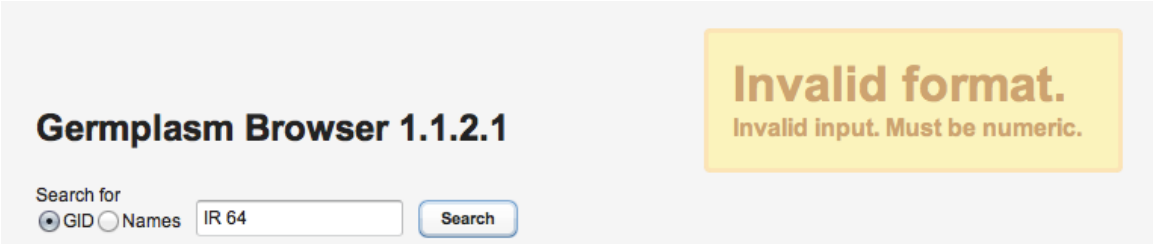


3. Press the **Search** button.

   If the search is successful, one germplasm will be shown in the result, and the details tab of the germplasm is already shown.



Take note that your input must be a valid number. If a non-numeric input is supplied, the following message will be shown:



Search By Name

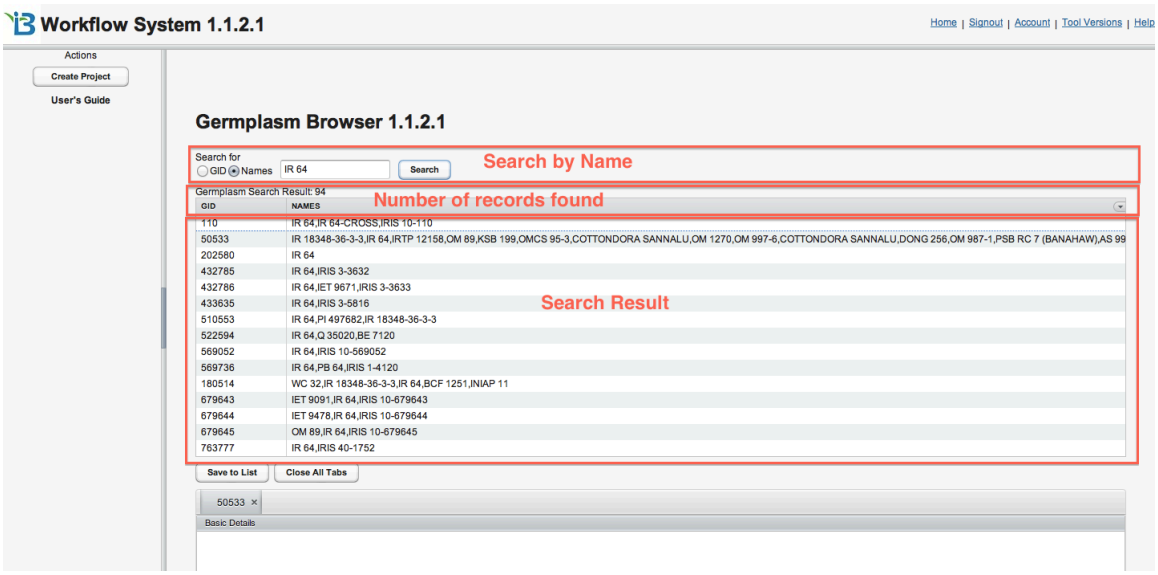
To search by Name, follow the steps listed below:

1. With the Germplasm Browser open, select the radio button **Names**. This is the default search mode.

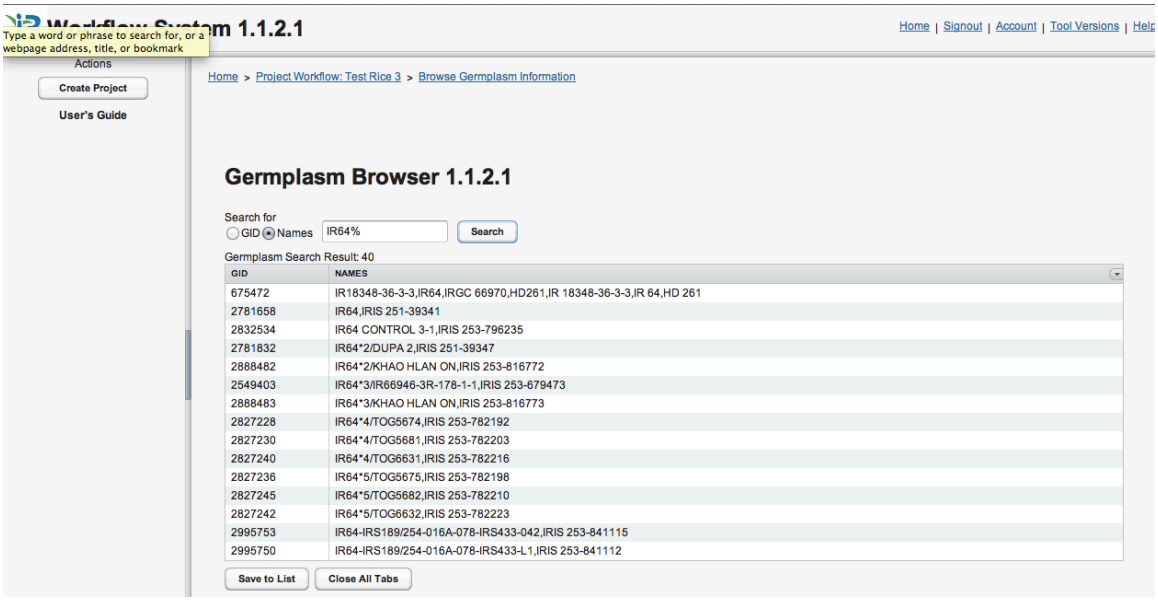
2. Input the search string on the text box provided. The search is performed on both local and central databases. The databases are searched for germplasms having names that match the given text, its standardized version, and its non-space equivalent.

3. Press the **Search** button.

   If the search is successful, the search result table will show all the matching germplasms. The total number of matches is shown on top of the search result:



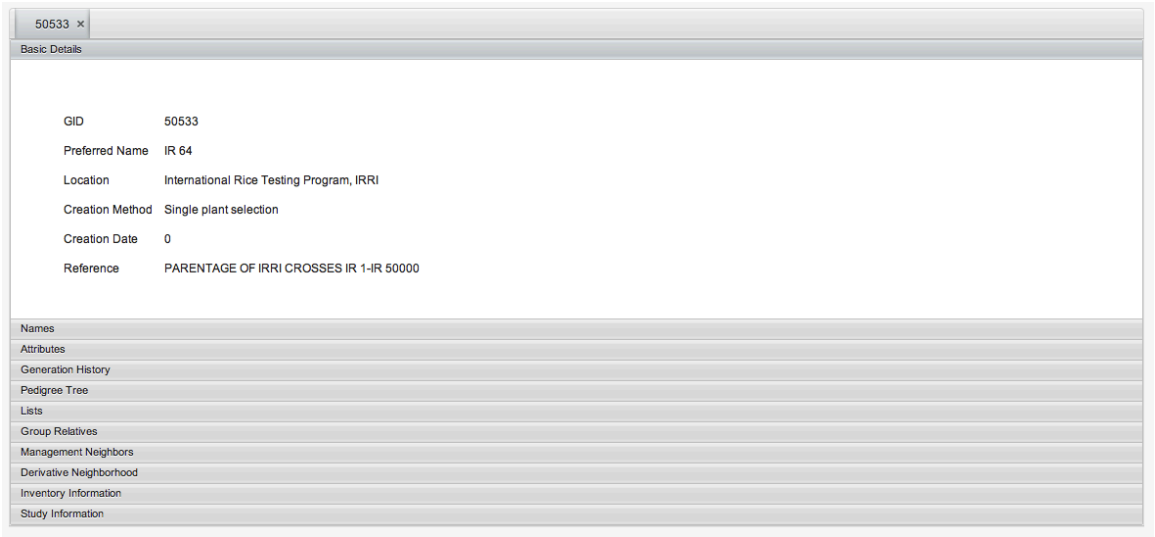
4. Wildcard search can also be done with the use of the character '**%**'. It will look for germplasms that match the given expression. For instance, the following shows the result of searching for all germplams that start with 'IR64':



Viewing the Details of a Germplasm

The details of a germplasm can be viewed by clicking the corresponding entry in the search result table in the Germplasm Browser. For example, to view the details of the germplasm with name 'IR 64' and GID 50533, click on its entry on the table:

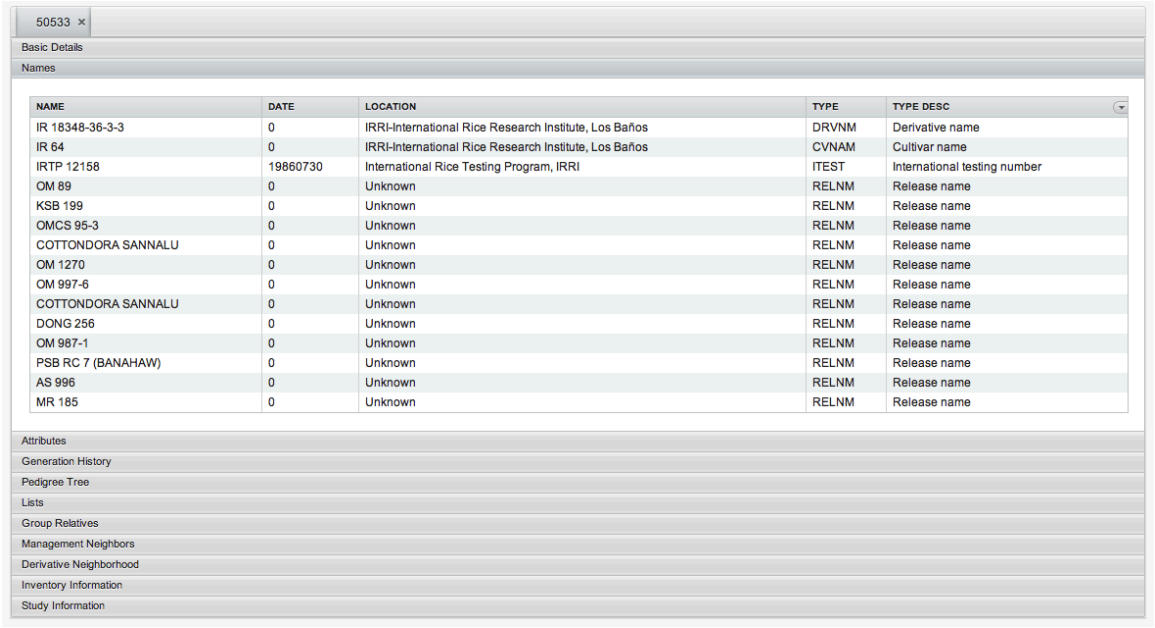
and it will show the following tab with the GID as its label:



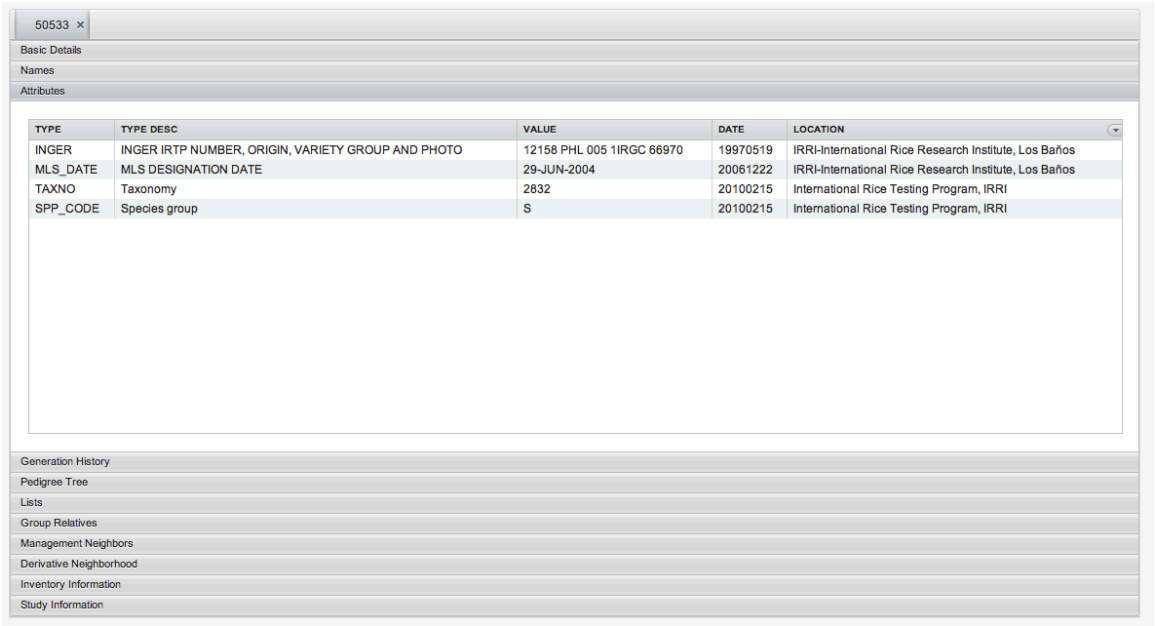
The details accordion of a germplasm shows the tabs Characteristics, Names, Attributes, Generation History, Pedigree Tree, Germplasm Lists, Group Relatives, Management Neighbors, Derivative Neighborhood, Inventory Information and Study Information.

1. To view the basic details, there is no need to do anything. The **Characteristics (Basic Details)** tab, as shown in the previous image, is shown by default. It shows the GID, Preferred Name, Location, Germplasm Method, Creation Date and Reference.

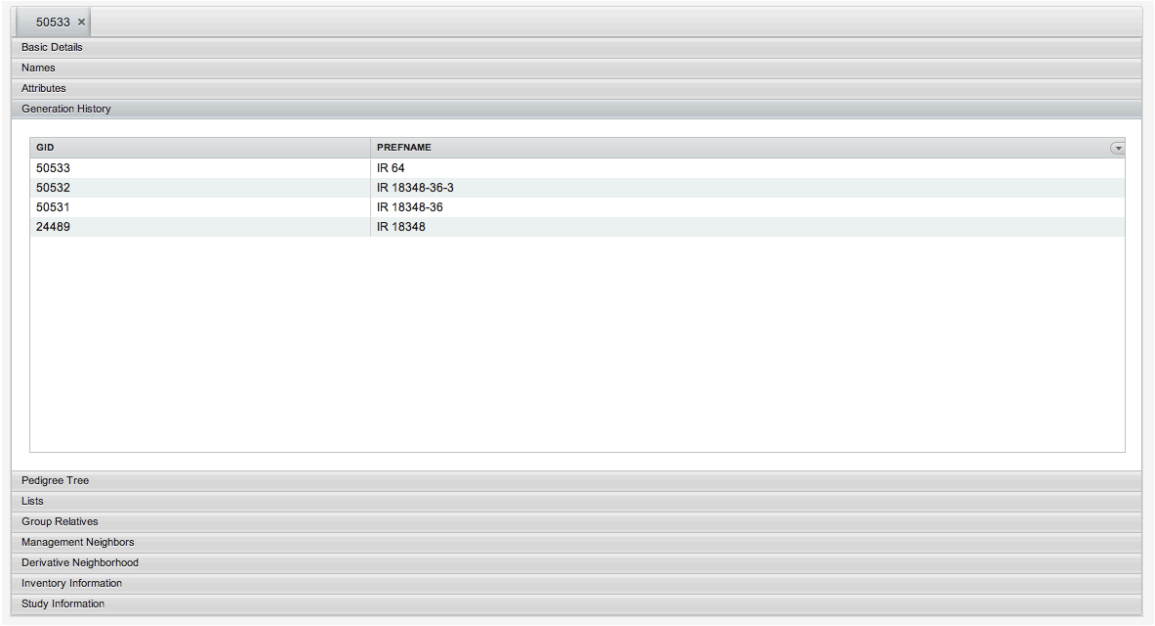
2. To view the names of the germplasm, click on the **Names** tab. Type, Name, Date, Location and Type Description are shown.



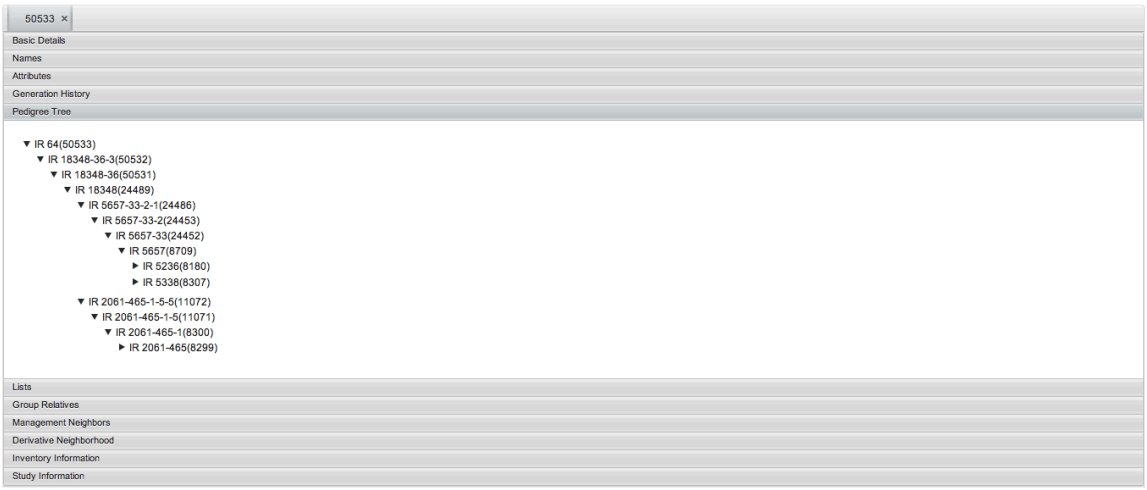
3. To view the attributes of the germplasm, click on the **Attributes** tab. Type, Name, Date, Location and Type Description are shown.



4. To view the generation history of the germplasm, click on the **Generation History** tab. GID and Preferred Name are shown.

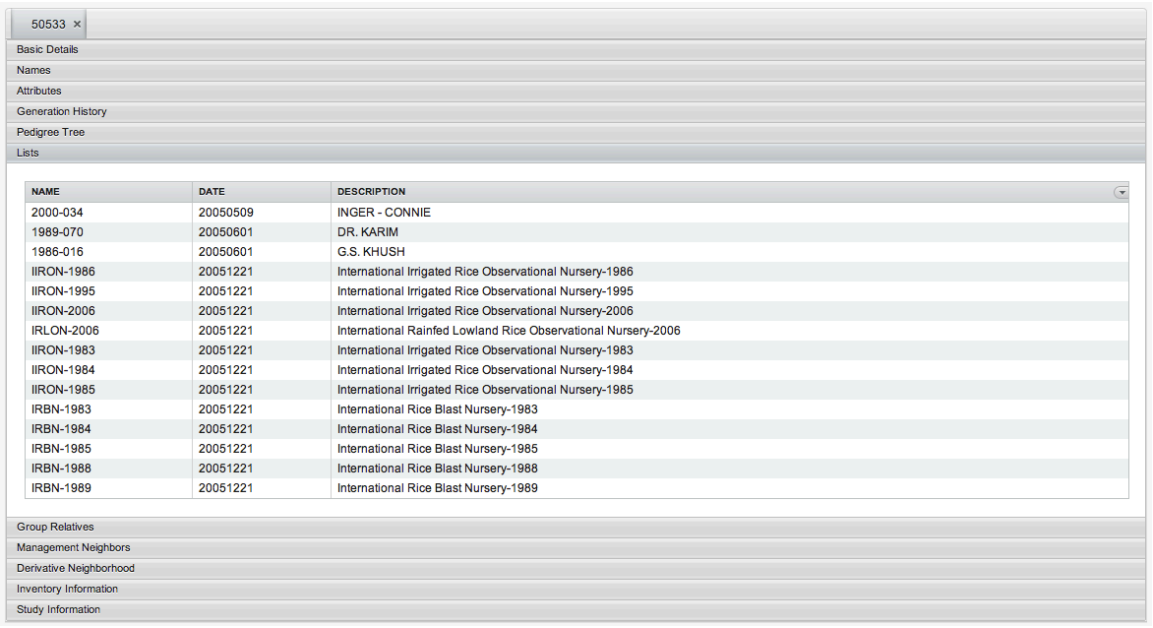


5. To view the pedigree of the germplasm, click on the **Pedigree Tree** tab. Click on the arrows beside the nodes to expand them and navigate the tree. Clicking on a node will open the Germplasm Details Tab of the selected germplasm.

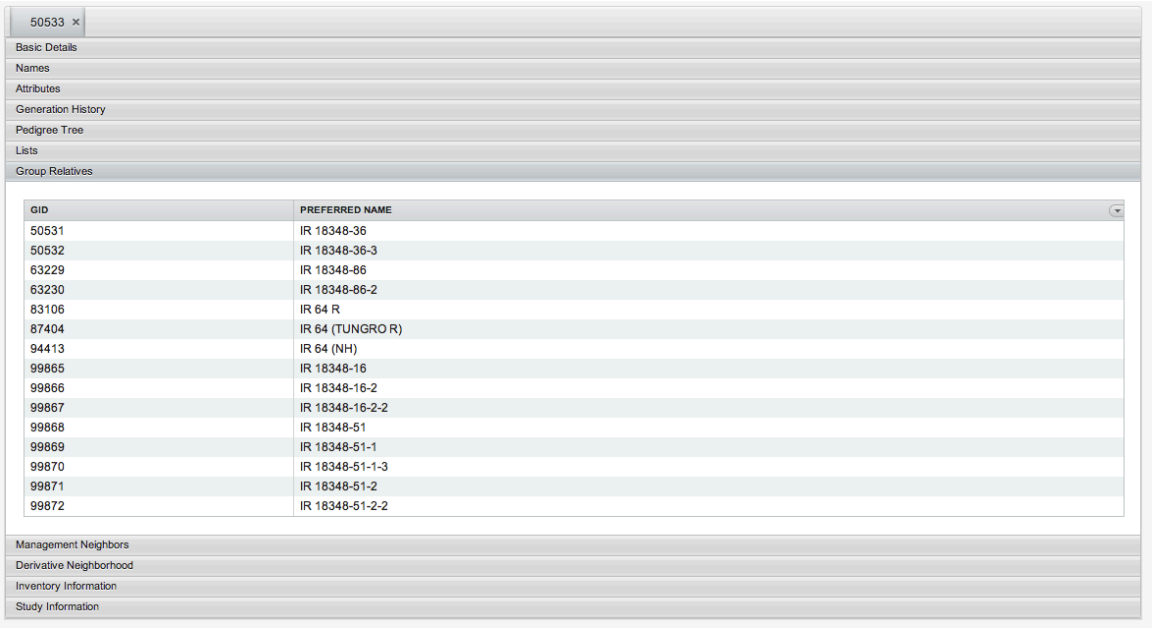


The germplasms in the tree can be clicked to show the details. When clicked, a new tab for the selected germplasm will be opened.

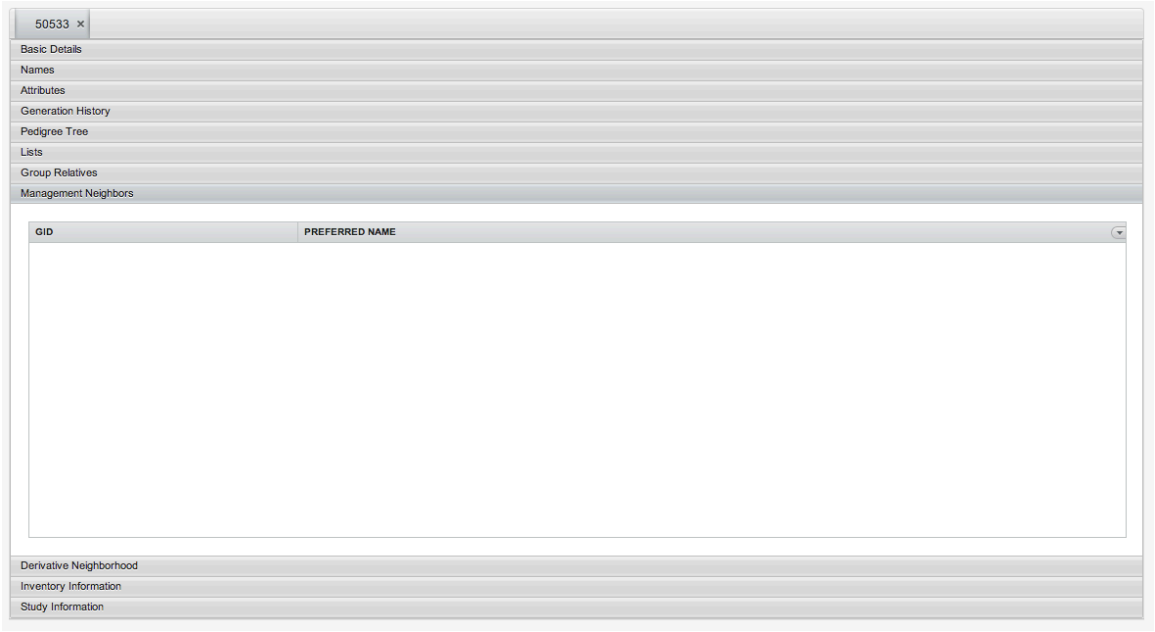
6. To view the Germplasm Lists that the selected germplasm belongs to, click the **Lists** tab. List Name, Date and Description are shown.



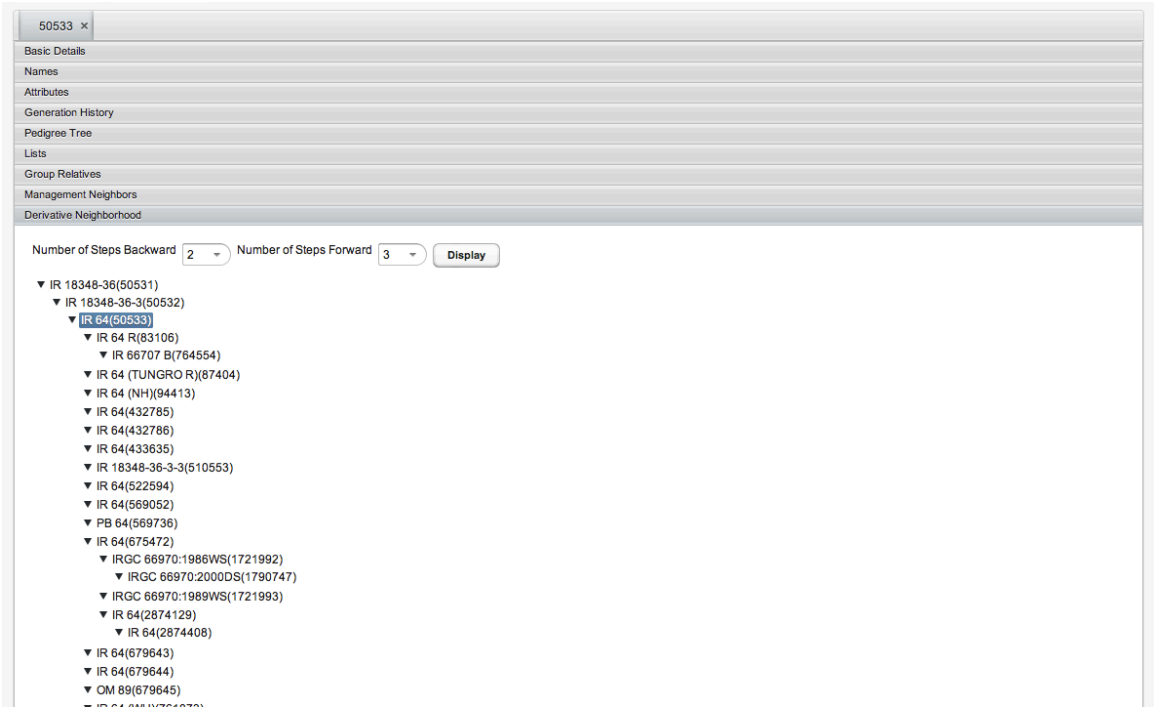
7. To view the germplasms that belong to the same group as the selected germplasm. click on the **Group Relatives** tab. It contains the germplasms which belong to the same group as the selected germplasm and they were also created via a derivative or maintenance breeding method. GID and Preferred Name are shown.



8. To view the germplasms that belong to the same management group as the selected germplasm, click the **Management Neighbors** tab. GID and Preferred Name are shown.

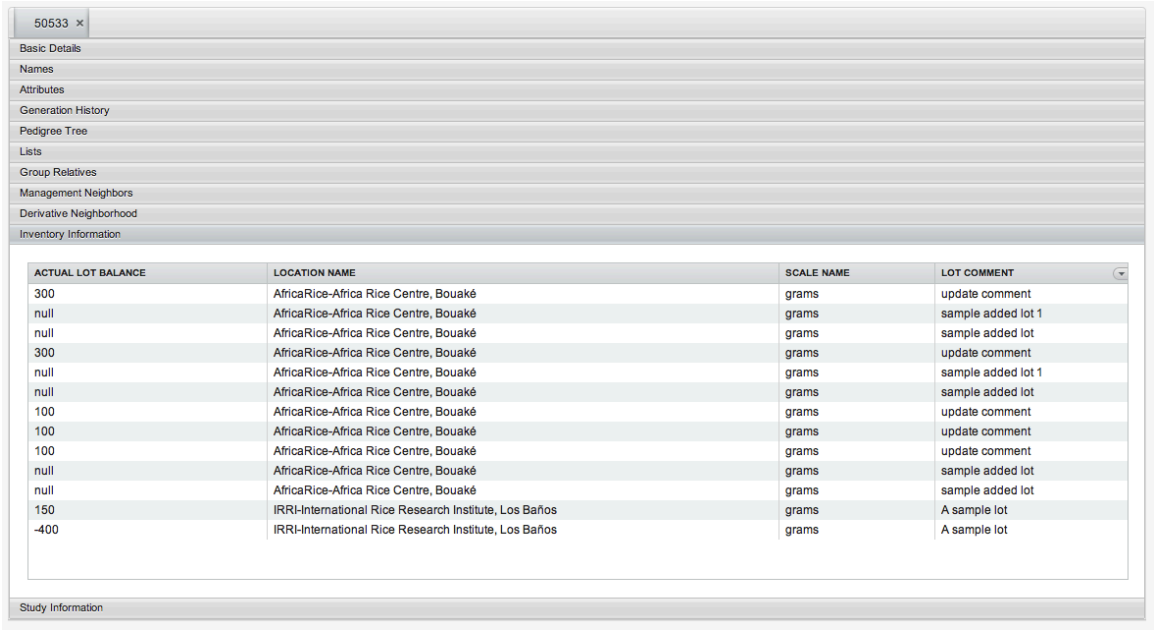


9. To view the germplasms that belong to the derivative neighborhood of the selected germplasm, click the **Derivative Neighborhood** tab contains the germplasms which belong to the derivative neighborhood of the selcted germplasm.



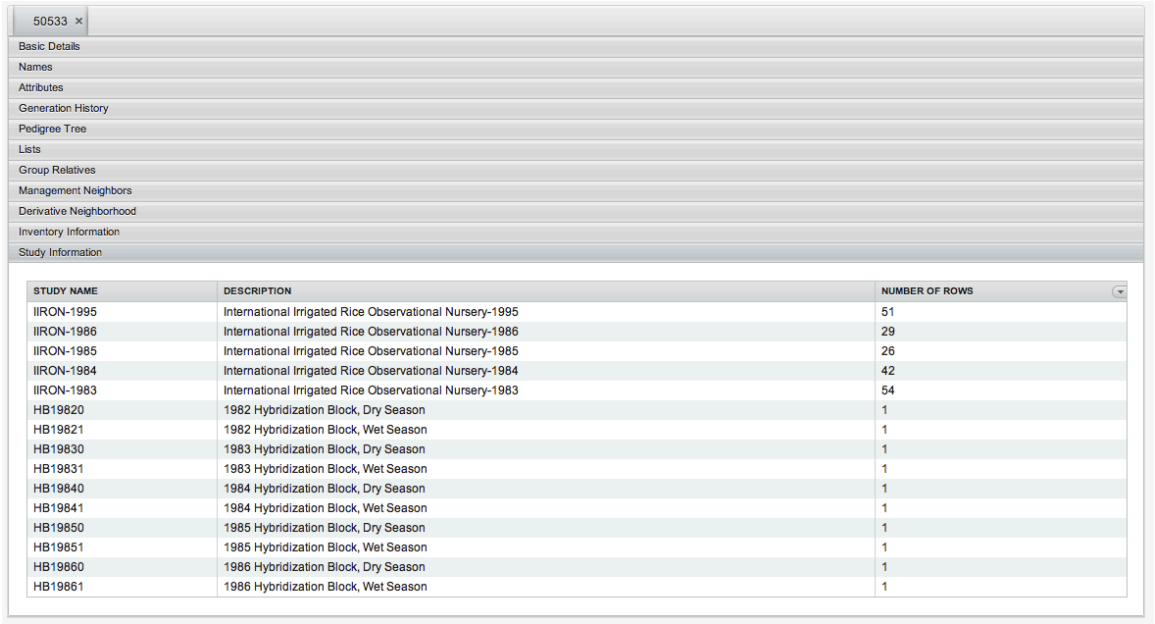
   a. By default the derivative neighborhood tree initially displayed shows germplasms which is 2 steps backward and 3 steps forward from the selected germplasm.
   b. The number of steps backward and forward can be changed and then the **Display** button should be clicked to display the desired derivative neighborhood.
   c. Clicking on a node will open the details tab for that germplasm.

10. To view the data on seed stocks available for the selected germplasm, click on the **Inventory Information** tab. Actual Lot Balance, Location Name, Scale Name and Lot Comment are shown.



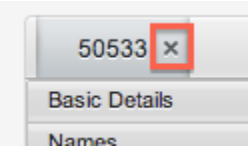
ACTUAL LOT BALANCE	LOCATION NAME	SCALE NAME	LOT COMMENT
300	AfricaRice-Africa Rice Centre, Bouaké	grams	update comment
null	AfricaRice-Africa Rice Centre, Bouaké	grams	sample added lot 1
null	AfricaRice-Africa Rice Centre, Bouaké	grams	sample added lot
300	AfricaRice-Africa Rice Centre, Bouaké	grams	update comment
null	AfricaRice-Africa Rice Centre, Bouaké	grams	sample added lot 1
null	AfricaRice-Africa Rice Centre, Bouaké	grams	sample added lot
100	AfricaRice-Africa Rice Centre, Bouaké	grams	update comment
100	AfricaRice-Africa Rice Centre, Bouaké	grams	update comment
100	AfricaRice-Africa Rice Centre, Bouaké	grams	update comment
null	AfricaRice-Africa Rice Centre, Bouaké	grams	sample added lot
null	AfricaRice-Africa Rice Centre, Bouaké	grams	sample added lot
150	IRRI-International Rice Research Institute, Los Baños	grams	A sample lot
-400	IRRI-International Rice Research Institute, Los Baños	grams	A sample lot

11. To view the list of studies where the selected germplasm was involved in, click on the **Study Information** tab. Study Name, Description and Number of Rows are shown.



STUDY NAME	DESCRIPTION	NUMBER OF ROWS
IIRON-1995	International Irrigated Rice Observational Nursery-1995	51
IIRON-1986	International Irrigated Rice Observational Nursery-1986	29
IIRON-1985	International Irrigated Rice Observational Nursery-1985	26
IIRON-1984	International Irrigated Rice Observational Nursery-1984	42
IIRON-1983	International Irrigated Rice Observational Nursery-1983	54
HB19820	1982 Hybridization Block, Dry Season	1
HB19821	1982 Hybridization Block, Wet Season	1
HB19830	1983 Hybridization Block, Dry Season	1
HB19831	1983 Hybridization Block, Wet Season	1
HB19840	1984 Hybridization Block, Dry Season	1
HB19841	1984 Hybridization Block, Wet Season	1
HB19850	1985 Hybridization Block, Dry Season	1
HB19851	1985 Hybridization Block, Wet Season	1
HB19860	1986 Hybridization Block, Dry Season	1
HB19861	1986 Hybridization Block, Wet Season	1

12. To close the details tab of the germplasm, simply click on the ___ beside the tab caption.



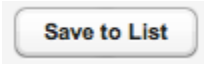
Saving Germplasms to a List

Germplasms with details tab opened in the Germplasm Browser can be added to an existing list or be saved to a new one.

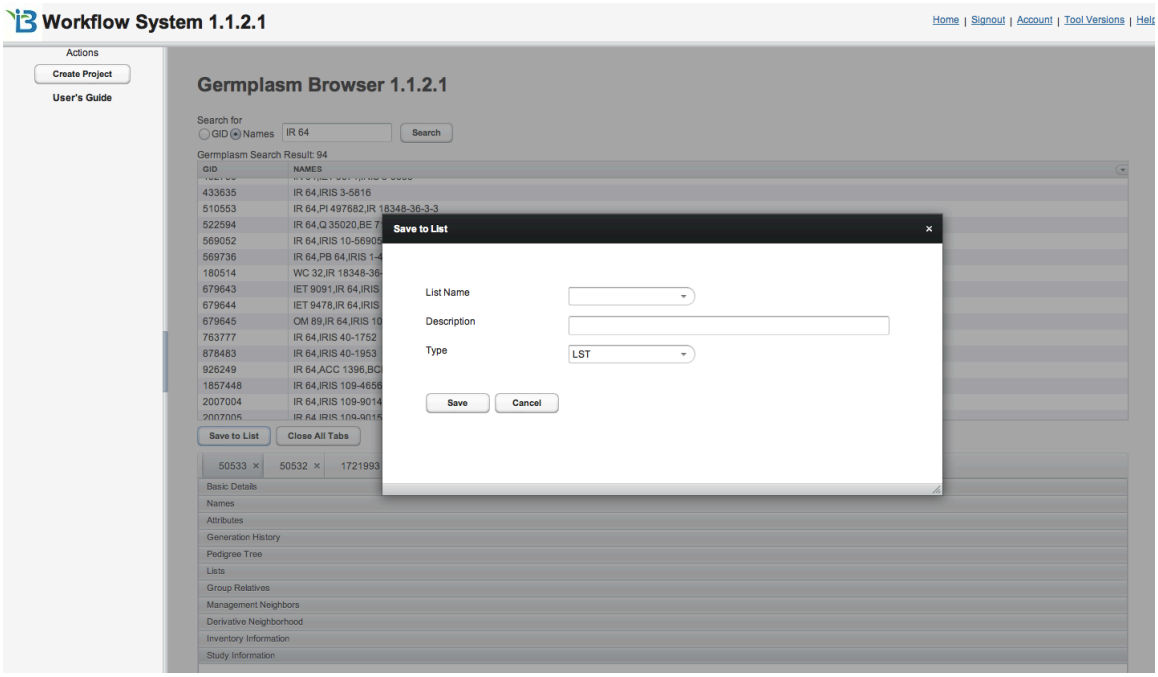
Saving Germplasms to an Existing List

To save selected germplasms to an existing list, follow the steps listed below:

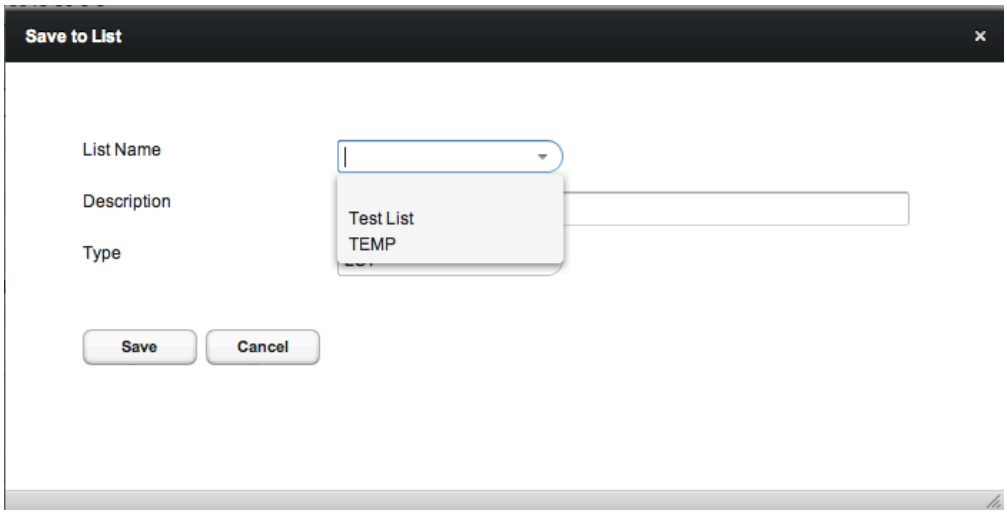
1. Click the **Save to List** button:

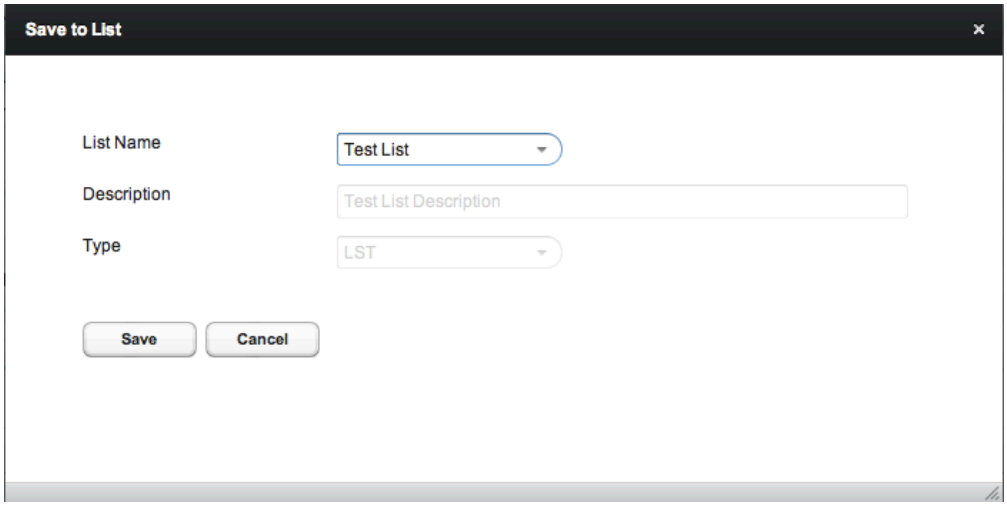
   It will open the following pop-up window:

2. To add the selected germplasms to an existing list, choose the list name from the drop-down:

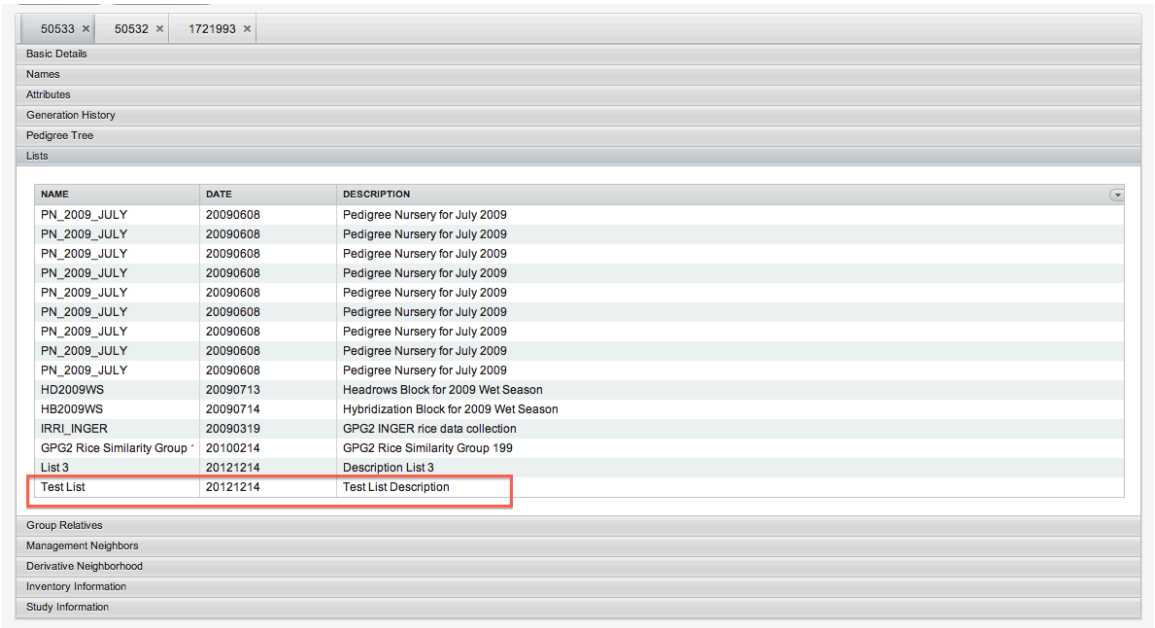
   

Once a list is selected, its **Description** and **Type** fields are automatically populated based on the retrieved values:



3. Click **Save**.

4. To verify, a refreshed version of the Lists tab in Germplasm Details will show the name of the selected list added to the table:



Saving Germplasms to a New List

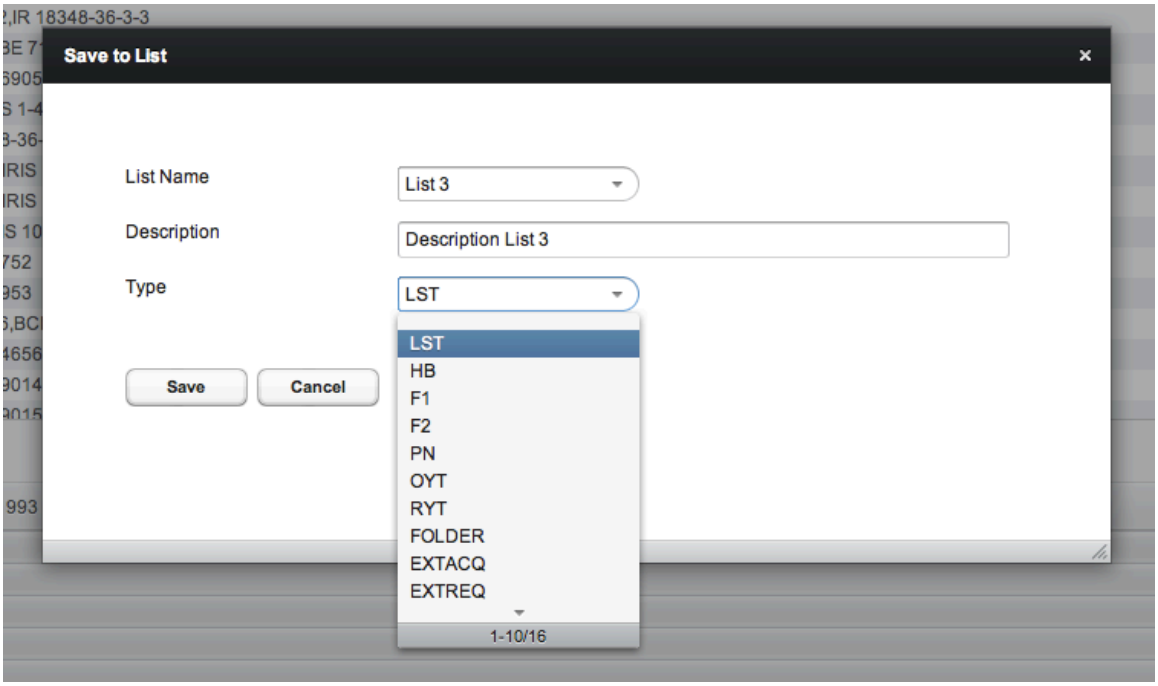
To save selected germplasms to an existing list:

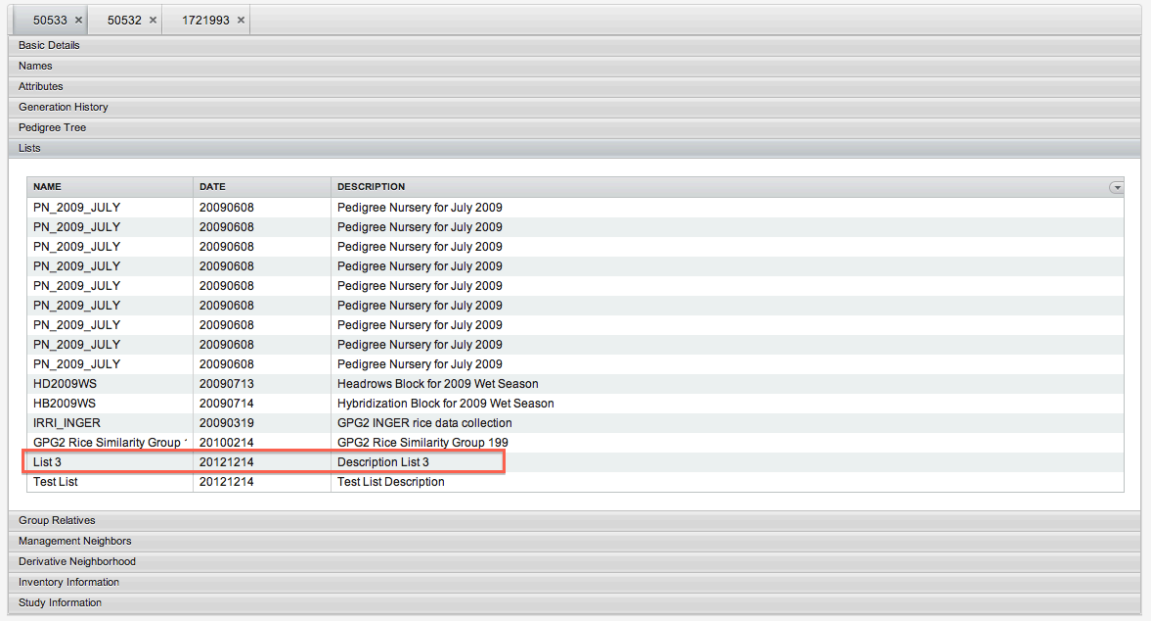
1. Follow step 1 above.

2. To add a new list, type its name on the **List Name** field in the pop-up window.

3. Add a **Description**.

4. Choose the **Type** of the list from the drop-down.



5. Click **Save.**

6. To verify, a refreshed version of the Lists tab in Germplasm Details will show the name of the selected list added to the table: