Integrated Breeding Platform (IBP)

Concevoir une pépinière de croisement

Summary

This tutorial describes how to design a crossing nursery and making seed reservation and withdrawal for planting.

Nursery Details

- Both Nurseries and Trials are handled with the **Manage Studies** tool. Launch **Start a New Study** within the Maize Tutorial Program.
- Select **Nursery** from the drop down button under **Study Type**.

- Establish the basic details of the nursery

- Study Name: Crossing Nursery
- Description: 2018
- Study type: Nursery
- Objective: Generate F1 seed for F1 nursery
- Creation Date: Default
- Completion Date: Blank
- Any previously created study can be used as a template. Do not use a previously created study as a template in this example.
- Select **Save**

- After saving, the view refreshes with the basic details collapsed.

Select Study Settings

- Establish the nursery settings by selecting the **Add** button next to **Study Settings** and selecting from available options.
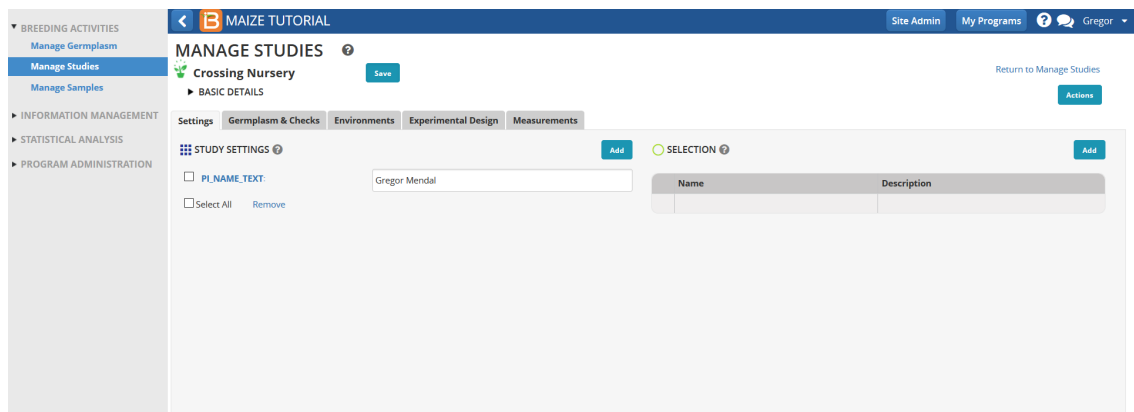
Management Details

Management Details are variables describing the management of the whole nursery.

- Select the **Add** button. Search for Person and select PI_Name_Text
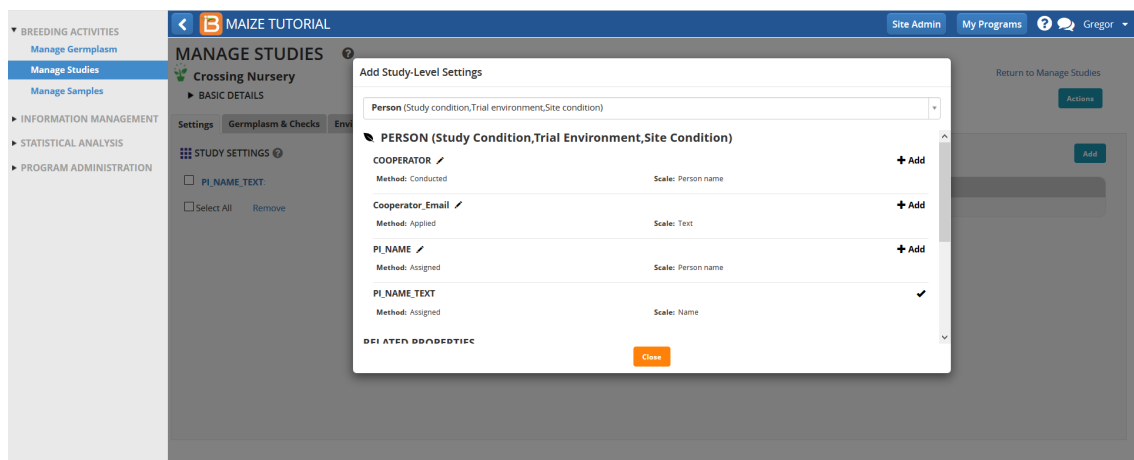
Other available management details can be selected if needed.

Selection Variates

Selection Variates describe the units of selection in the nursery. For example, choosing number of plants selected allows a breeder to choose specific number of plants to advance to the next generation.

Since this is a crossing nursery all successful crosses (crosses resulting in seed/inventory) will be advanced, therefore, no selection criteria is required.

Germplasm & Checks

- Open the **Germplasm and Checks** tab. **Browse** for a germplasm list for the F1 nursery.
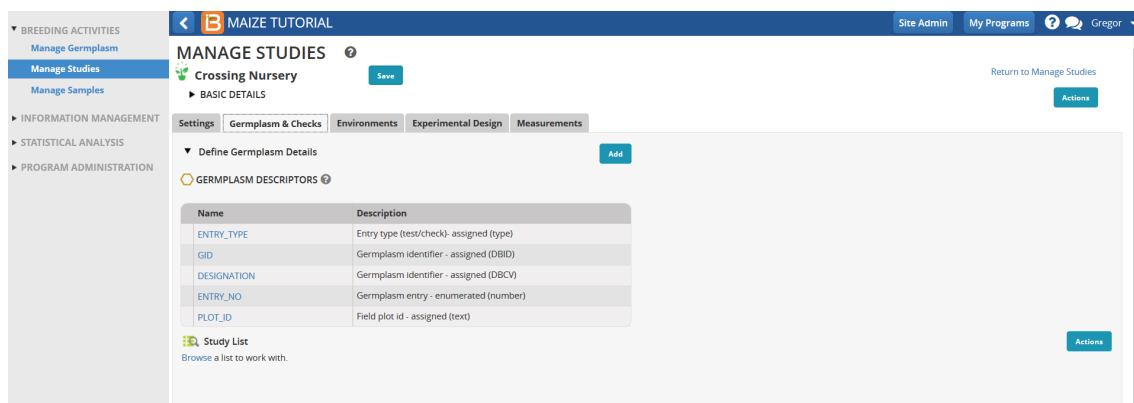
- Highlight the 50 entry Parental Germplasm list and Select.
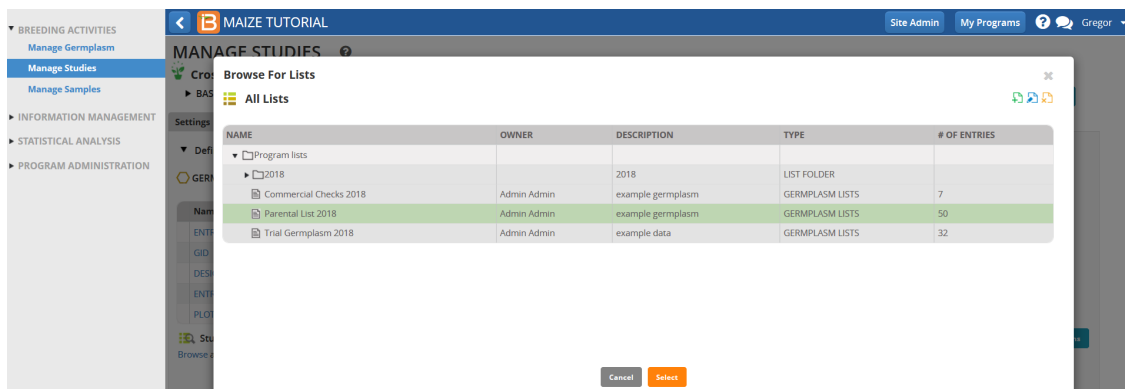
Default Germplasm descriptors are indicated in column headings. Entry Type is identified as Test Entry. This example of the crossing nursery will not have any checks. If some entries in the selected list are to be considered as checks, the entry type can be changed by clicking on the Test Entry and selecting from the resulting window.
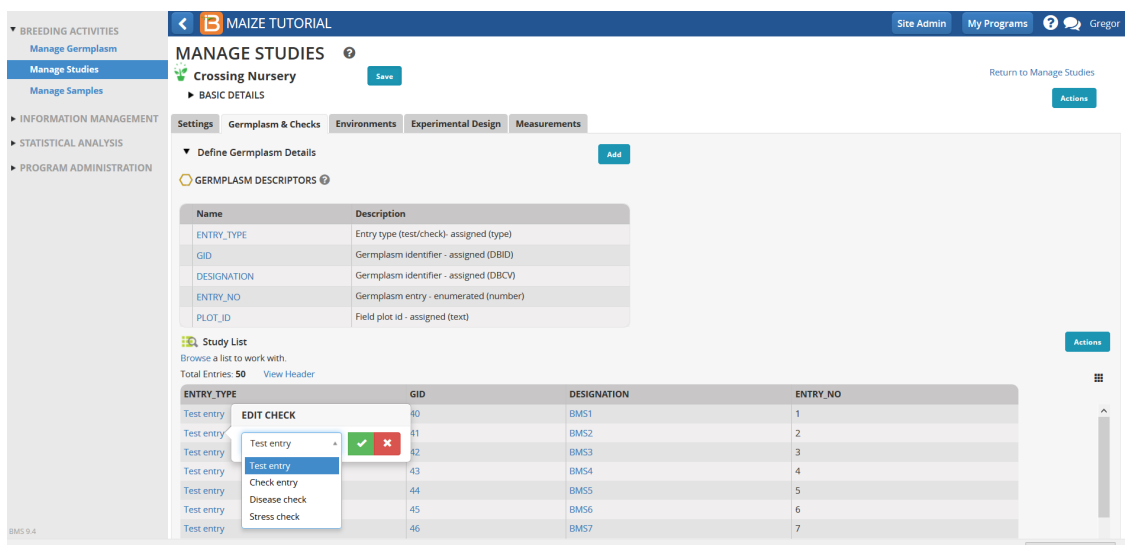
- Select the **Environments** tab. Since this is a crossing nursery, the number of environments is one. Specify environment details by selecting a Location Name. Specific location names can be created by using the Manage Locations icon.

- For the F1 nursery, we will use Default Breeding Location, which can be selected from the drop down icon available under the Location Name.
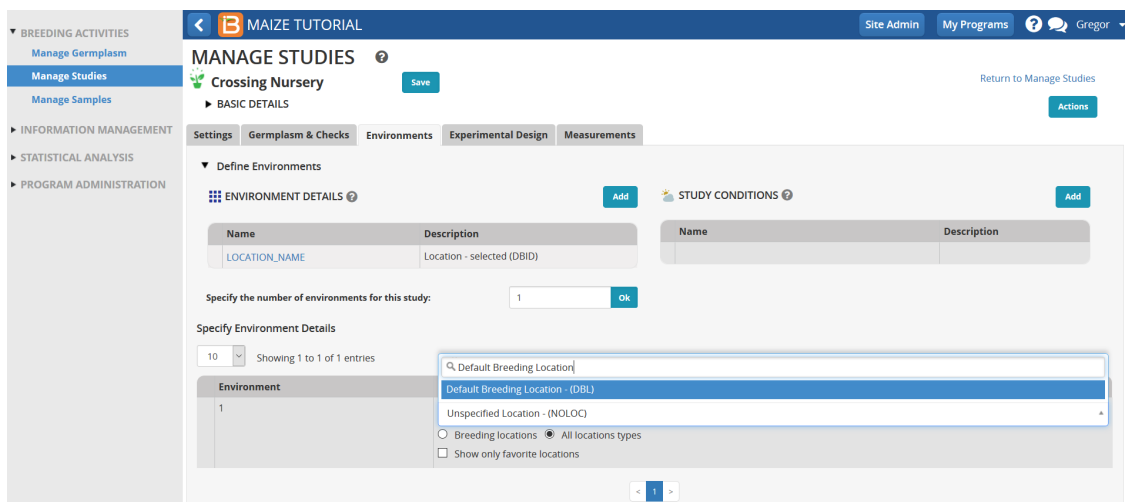
- Select the **Experimental Design** tab.
- Several Design Types are available in the drop down icon. Since this is a crossing nursery, select the **Entry List Order design**.

- Select **Generate Design**

- Select **Save** to save the nursery details.

After all the nursery criteria have been specified, saving the nursery populates the Measurement tab and the Actions menu options are activated.

Reserve Seed for Planting

- Return to **Manage Germplasm** tool and browse to the Parental Germplasm list. Close directory popup window.

- Select **Inventory View** from the **Actions** menu.

- Select all 50 entries and choose **Reserve Inventory** from the Inventory Management Options of the **Actions** menu. In this example, all 50 entries have a seed inventory of 100000 gm of seed.

- Each plot in the Crossing Nursery requires 100g of seed for planting. Enter 100g for SEED_AMOUNT, and select **Finish**.

- All 50 entries now show a reserved (pending) withdrawal amount of 100g of seed.

- **Save changes** from the Inventory Management Options of the **Actions menu**.

- Select **Export Seed Preparation list** (.xls) to take to the stock room.

The seed preparation list contains two worksheets. The description sheet describes the germplasm list and the observation sheet provides details about the pending seed withdrawal. The Amount Withdrawn column on the Observation sheet is empty and ready to record the actual withdrawal.

	A	B	C	D	E	F	G	H	I	J	K	L
	ENTRY	DESIGNATION	GID	CROSS	SOURCE	LOT_ID	LOT_Location	STOCK_ID	TRN_ID	Withdrawal Amount	Amount Withdrawn	Balance
	1 BMS1		40	-		68	Default Seed Store	SID3-1	109	100.0		
	2 BMS2		41	-		69	Default Seed Store	SID3-2	105	100.0		
	3 BMS3		42	-		66	Default Seed Store	SID3-3	95	100.0		
	4 BMS4		43	-		67	Default Seed Store	SID3-4	115	100.0		
	5 BMS5		44	-		72	Default Seed Store	SID3-5	121	100.0		
	6 BMS6		45	-		73	Default Seed Store	SID3-6	134	100.0		

Description | **Observation** | +

Withdraw Seed

- Update the Amount Withdrawn column for all entries with 100.0g. Save the seed preparation (.xls) file on your computer.

	A	B	C	D	E	F	G	H	I	J	K	L
	ENTRY	DESIGNATION	GID	CROSS	SOURCE	LOT_ID	LOT_Location	STOCK_ID	TRN_ID	Withdrawal Amount	Amount Withdrawn	Balance
	1 BMS1		40	-		68	Default Seed Store	SID3-1	109	100.0	100	
	2 BMS2		41	-		69	Default Seed Store	SID3-2	105	100.0	100	
	3 BMS3		42	-		66	Default Seed Store	SID3-3	95	100.0	100	
	4 BMS4		43	-		67	Default Seed Store	SID3-4	115	100.0	100	
	5 BMS5		44	-		72	Default Seed Store	SID3-5	121	100.0	100	
	6 BMS6		45	-		73	Default Seed Store	SID3-6	134	100.0	100	

- Select **import seed preparation list** from the **Actions** menu.

- **Browse** to the updated seed preparation file that was saved and select **Finish**.

- Select **Continue**.

The withdrawal is complete. The column 'Total Withdrawals' indicates that 100g of seed has been withdrawn for each entry.