

Make Field Plan & Labels

BMS 12.0 Tutorials

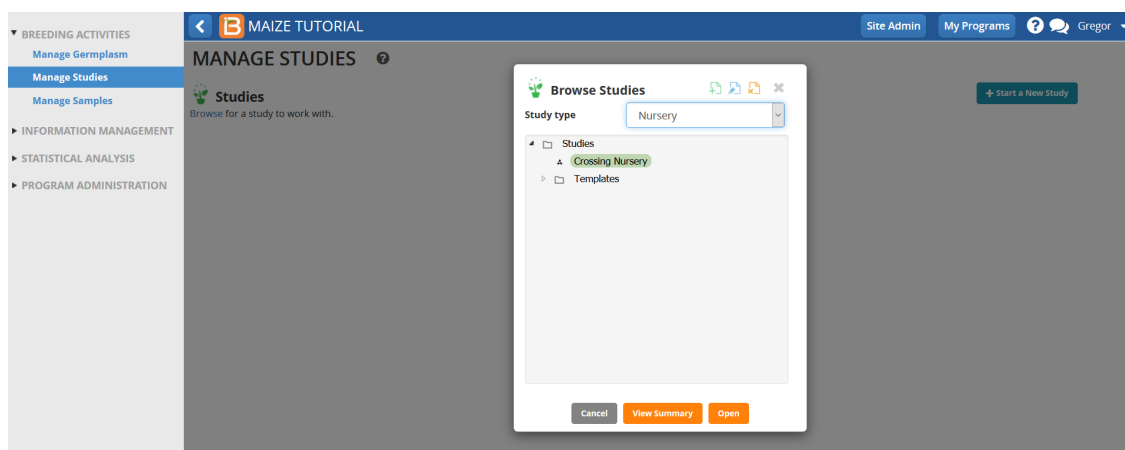
Summary

This tutorial describes how to use the BMS to create a field plan, and how to create labels that match the plots for the crossing nursery. These labels are suitable for the plot markers and seed harvest packets.

- [Open Nursery](#)
- [Make Field Map](#)
- [Export Label File](#)

Open Nursery

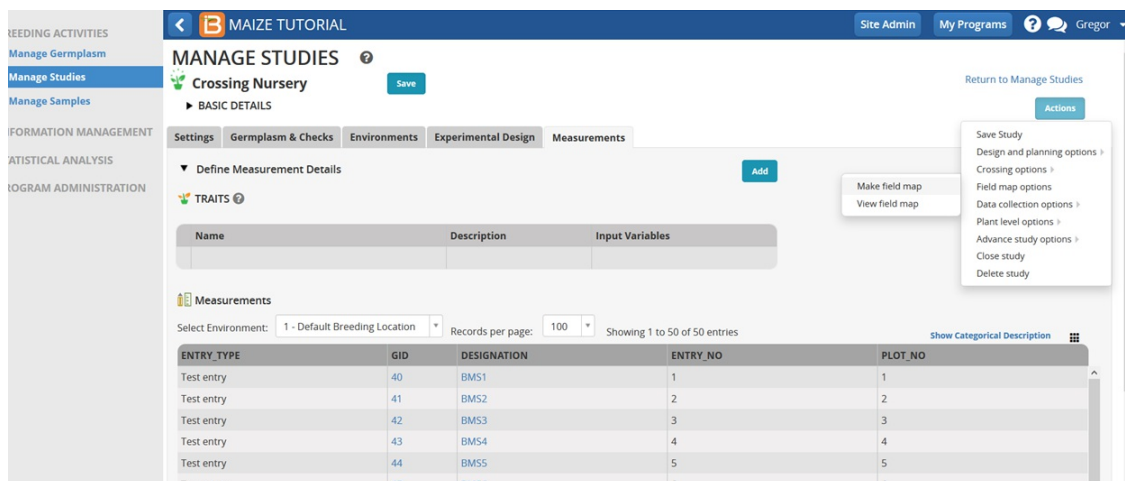
- From the Manage Studies tool, **browse** and from the Study Type drop down icon, select **Nursery**. The Crossing Nursery created previously is shown.
- Highlight the Crossing Nursery and **Open**



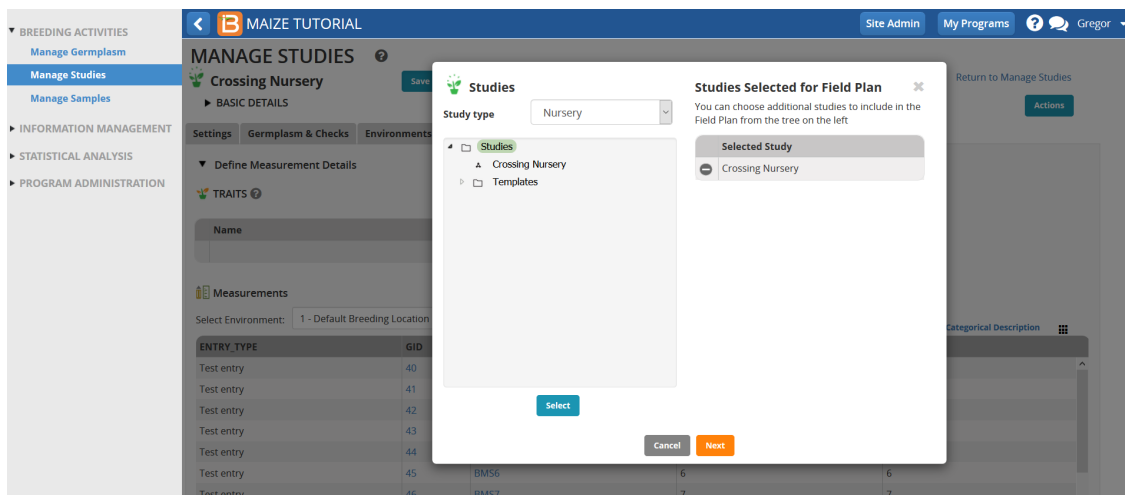
We will be using the F1 Nursery to prepare a Field Map and make Labels for planting.

Make Field Map

- Select **Make Field Map** under Field Map Options from the Actions menu.

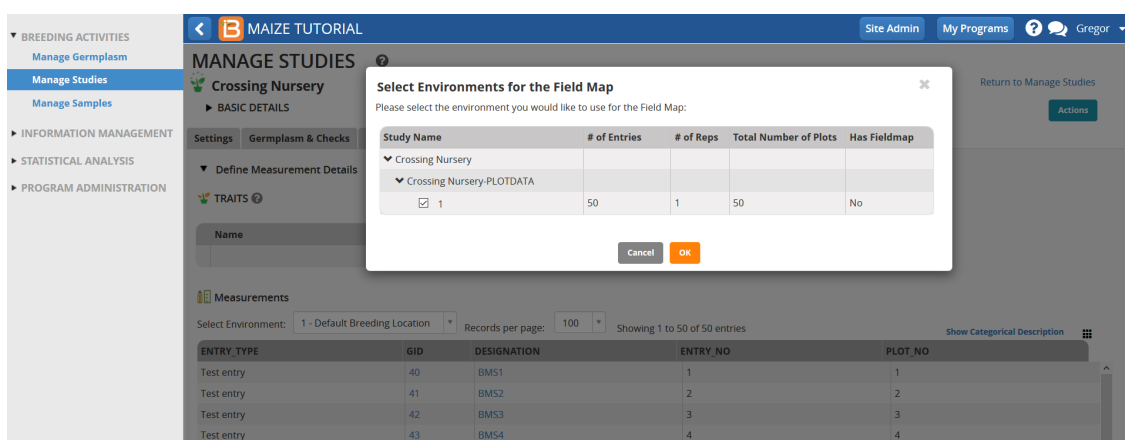


- From the Study type drop down icon, select **Nursery**. Crossing Nursery is identified as the Selected Study for the Field Plan.



- Select **NEXT**.

The single environment with the entry list design (single rep) for the 50 entries is indicated for the Field Map.

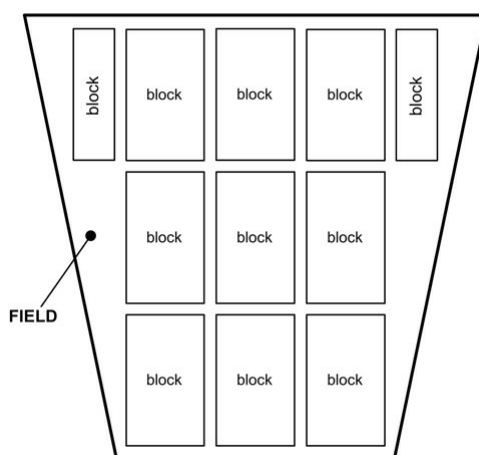


- Select **OK**

Definition of Field & Block

The BMS uses the term 'field' to represent a large planting area which is subdivided into blocks of land each season. A 'block' is part of the field that will be planted in a consistent way for a particular season. (Even if the same part of the field is used in a subsequent season it is treated as a new block).

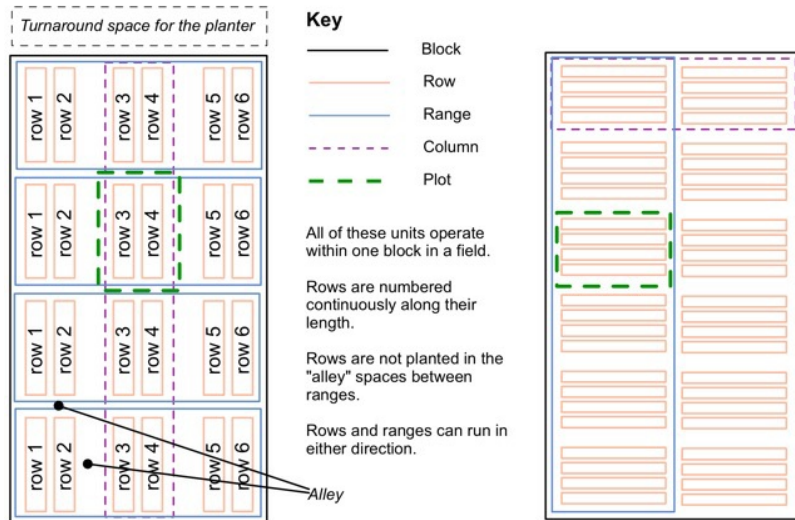
Fields & Blocks



Field Map Definitions

- Row: Planting row; if only one row per plot is specified, row is equivalent to column
- Column: Vertical position of plots, width determined by the number of rows per plot
- Range: Horizontal position of plots
- Plot: Specified by column (vertical position) and range (horizontal position), may contain 1-8 planting rows

Rows, Columns, Ranges and Plots



- Select field location from the drop down icon.

We will use the Default Breeding Location.

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FIELD PLAN

MAKE A FIELD PLAN 1. ENTER FIELD DETAILS 2. ENTER PLANTING DETAILS 3. GENERATE FIELD MAP

STUDY TO BE MAPPED:
* indicates a mandatory field

Selected Studies:
Note: You can drag the entries below to set the order for placing them into the field plan.

Order	Study	Environment	# of Entries	# of Reps	Plots Needed
1	Crossing Nursery	1	50	1	50

Total Number of Plots: 50

FIELD AND BLOCK DETAILS:
Add new field and block details:

Field Location:* ☒ Breeding locations ☐ All locations types
☐ Show only favorite locations [Manage Locations](#)

Enter Field Name:* [Add Fields](#)

Enter Block Name:* [Add Blocks](#)

- Add field and block names.
- Add 5 rows in the block, 1 row per plot, and 10 ranges in the block.
- Select **Next**.

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Total Number of Plots: 50

FIELD AND BLOCK DETAILS:
Add new field and block details:

Field Location:* ☒ Breeding locations ☐ All locations types
☐ Show only favorite locations [Manage Locations](#)

Enter Field Name:* [Add Fields](#)

Enter Block Name:* [Add Blocks](#)

ROW, RANGE AND PLOT DETAILS:

Number of Rows in the Block: Number of Rows per Plot:

Number of Ranges in the Block: Total number of plots: 50

- Select Serpentine plot layout order. Accept the default details and select **Next**.

BREEDING ACTIVITIES

Manage Germplasm

Manage Studies

Manage Samples

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FIELD PLAN

MAKE A FIELD PLAN

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PLANTING DETAILS

* indicates a mandatory field

Starting Coordinates: 1 column 1 range

Plot Layout Order: Row/ColumnSerpentine

Row Capacity of Planting Machine: 1

UNAVAILABLE PLOTS

If there are any plots in this block that are unusable, mark them with an X. To set all plots in a Range or Column, click on the corresponding header.

Rows	1	2	3	4	5
	Column 1	Column 2	Column 3	Column 4	Column 5
Range 10					
Range 9					
Range 8					
Range 7					
Range 6					
Range 5					
Range 4					
Range 3					
Range 2					
Range 1					
	Column 1	Column 2	Column 3	Column 4	Column 5

BackNext

- Review the nursery field map and select**Finish**.

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MAKE A FIELD PLAN

1. ENTER FIELD DETAILS2. ENTER PLANTING DETAILS3. GENERATE FIELD MAP

SUMMARY OF STUDY, FIELD AND PLANTING DETAILS

Selected Studies:

Order	Study	Environment	# of Entries	# of Reps	Plots Needed
1	Crossing Nursery	1	50	1	50

Total Number of Plots :50

FIELD AND BLOCK DETAILS

Field Location: Default Breeding Location - (DBL)

Field Name: A

Block Name: 1

ROW, RANGE AND PLOT DETAILS

Block Capacity: 5 Rows, 10 Ranges

Rows per Plot: 1

Columns: 5

PLANTING DETAILS

Starting Coordinates: Column 1, Range 1

Plot Layout Order: Serpentine

Row Capacity of Planting Machine: 1

Actions

FIELD MAP

Arrows indicate direction of travel of the planting machine.

	↑	↓	↑	↓	↑
	Column 1	Column 2	Column 3	Column 4	Column 5
Range 10	Crossing Nursery-50 Entry 50 Rep 1	Crossing Nursery-49 Entry 49 Rep 1	Crossing Nursery-48 Entry 48 Rep 1	Crossing Nursery-47 Entry 47 Rep 1	Crossing Nursery-46 Entry 46 Rep 1
Range 9	Crossing Nursery-41 Entry 41 Rep 1	Crossing Nursery-42 Entry 42 Rep 1	Crossing Nursery-43 Entry 43 Rep 1	Crossing Nursery-44 Entry 44 Rep 1	Crossing Nursery-45 Entry 45 Rep 1
Range 8	Crossing Nursery-40 Entry 40 Rep 1	Crossing Nursery-39 Entry 39 Rep 1	Crossing Nursery-38 Entry 38 Rep 1	Crossing Nursery-37 Entry 37 Rep 1	Crossing Nursery-36 Entry 36 Rep 1
Range 7	Crossing Nursery-31 Entry 31 Rep 1	Crossing Nursery-32 Entry 32 Rep 1	Crossing Nursery-33 Entry 33 Rep 1	Crossing Nursery-34 Entry 34 Rep 1	Crossing Nursery-35 Entry 35 Rep 1
Range 6	Crossing Nursery-30 Entry 30 Rep 1	Crossing Nursery-29 Entry 29 Rep 1	Crossing Nursery-28 Entry 28 Rep 1	Crossing Nursery-27 Entry 27 Rep 1	Crossing Nursery-26 Entry 26 Rep 1

BackFinish

After saving the changes, when the F1 nursery is selected, the field map columns and ranges are also visible in the Measurement tab.

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MANAGE STUDIES

Crossing Nursery

Save

Return to Manage Studies

Actions

Settings

Germplasm & Checks

Environments

Experimental Design

Measurements

Define Measurement Details

Add

TRAITS

Name	Description	Input Variables
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Measurements

Select Environment: 1 - Default Breeding Location

Records per page: 100

Showing 1 to 50 of 50 entries

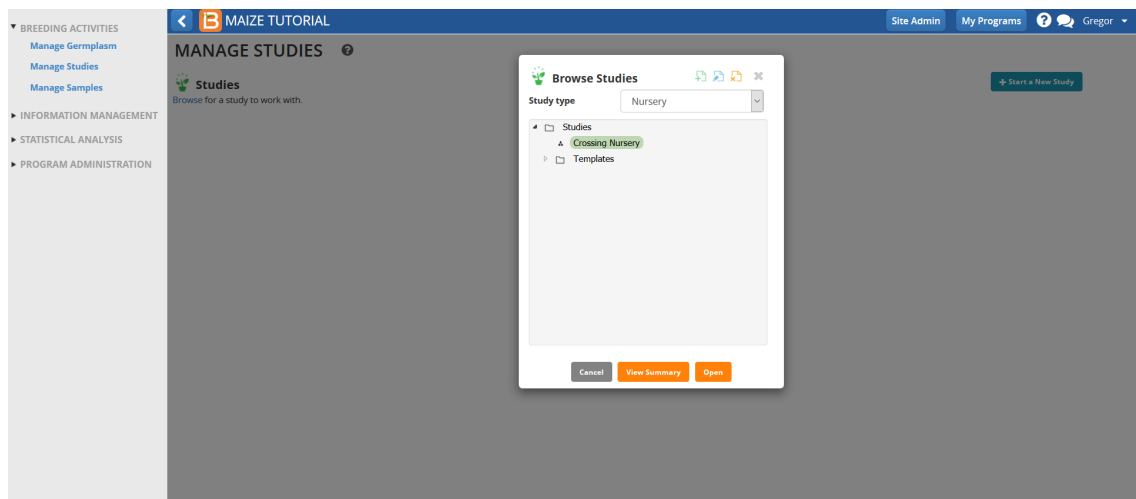
Show Categorical Description

ENTRY_TYPE	GID	DESIGNATION	ENTRY_NO	PLOT_NO	FIELDMAP COLUMN	FIELDMAP RANGE
Test entry	40	BMS1	1	1	1	1
Test entry	41	BMS2	2	2	2	1
Test entry	42	BMS3	3	3	3	1
Test entry	43	BMS4	4	4	4	1
Test entry	44	BMS5	5	5	5	1
Test entry	45	BMS6	6	6	5	2
Test entry	46	BMS7	7	7	4	2
Test entry	47	BMS8	8	8	3	2
Test entry	48	BMS9	9	9	2	2
Test entry	49	BMS10	10	10	1	2
Test entry	50	BMS11	11	11	1	3

Export Label File

The BMS offers nursery-specific information, such as plot # and map coordinates, to be printed on plot and seed packet labels.

- Return to the Crossing Nursery from the Manage Studies tool.



- Select **Create Planting Labels** under Design and planning options from the Actions menu.

ENTRY_TYPE	GID	DESIGNATION	ENTRY_NO	PLOT_NO	FIELDMAP COLUMN	FIELDMAP RANGE
Test entry	40	BMS1	1	1	1	1
Test entry	41	BMS2	2	2	2	1
Test entry	42	BMS3	3	3	3	1
Test entry	43	BMS4	4	4	4	1
Test entry	44	BMS5	5	5	5	1
Test entry	45	BMS6	6	6	5	2
Test entry	46	BMS7	7	7	4	2
Test entry	47	BMS8	8	8	3	2
Test entry	48	BMS9	9	9	2	2
Test entry	49	BMS10	10	10	1	2
Test entry	50	BMS11	11	11	1	3
Test entry	51	BMS12	12	12	2	3

- Choose **Formatted PDF Label Sheets** From the Output Format option.

Environment	# of Entries	# of Reps	Labels Needed
1	50	1	50

Total number of labels: 50

- Drag and drop **Study Details** and **Study List Details** tabs into the right and left fields of the label (Up to 5 rows and 2 fields per row).

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Choose label type
☐ Load saved settings:

Specify label stock
 Please select the size of your label sheet and specify the number of rows of labels it contains. Labels will be laid out in three columns.
 Size of label sheet: A4 (210mm x 287mm)
 Number of rows per page of label: 7

Choose label output
 Choose the format you would like to use for your labels:
 Output format: Formatted PDF Label Sheets

If you need a label size that is not currently supported, you can choose the CSV data output option, select the data fields you need, and then export a data file to use with an external label-creation template.

Choose label fields

Study Details	Study List Details	Left Side Fields	Right Side Fields
Study Name	REP_NO	ENTRY_NO	Plot No.
SITE_NAME	ENTRY_TYPE	DESIGNATION	Plot Coordinates (Range / Column)
STUDY_INSTITUTE	GID		
TRIAL_INSTANCE	Parentage		
LOCATION_NAME			
Year			
Season			
Block Name			
Field Name			
Amount			

- Choose to include the automatically generated bar code (unique plot id). Select **Export Label**.

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Study Details
 Study Name
 SITE_NAME
 STUDY_INSTITUTE
 TRIAL_INSTANCE
 LOCATION_NAME
 Year
 Season
 Block Name
 Field Name
 Amount
 Scale
 Lot ID

Study List Details
 REP_NO
 ENTRY_TYPE
 GID
 Parentage

Left side fields
 ENTRY_NO
 DESIGNATION

Right side fields
 Plot No.
 Plot Coordinates (Range / Column)

Barcode options
 Do you need barcodes on your labels? ☒ Yes ☐ No
 Do you want to use automatically generated unique barcodes? ☒ Yes ☐ No

Specify the name of the label file
 Filename*: Labels-for-Crossing Nursery-1-20180822

Save label settings
 You can save these label settings as a preset to use again by entering a name below.
 Preset name: Settings Name

Cancel Save Preset **Export Label**

- Select **Yes** in the Confirmation window.

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Study Details
 Study Name
 SITE_NAME
 STUDY_INSTITUTE
 TRIAL_INSTANCE
 LOCATION_NAME
 Year
 Season
 Block Name
 Field Name
 Amount

Study List Details
 REP_NO
 ENTRY_TYPE
 GID
 Parentage

Left side fields
 ENTRY_NO
 DESIGNATION

Right side fields
 Plot No.
 Plot Coordinates (Range / Column)

Confirmation
 Proceed export label without saving label printing setting?
 Yes No

- Review the .pdf export file.

3BCMPQ0Swhqba
 DESIGNATION : BMS1
 Plot Coordinates (Range / Column) : Col 1 Range 1
 Plot No. : 1

3BCMP9S48YHS
 DESIGNATION : BMS2
 Plot Coordinates (Range / Column) : Col 1 Range 2
 Plot No. : 2

3BCMPc1RijJ27
 DESIGNATION : BMS3
 Plot Coordinates (Range / Column) : Col 1 Range 3
 Plot No. : 3

Note: The BMS has limited .pdf label formatting options. If these options do not suit your needs, file types compatible (.csv and .xls) with most label making software are also available for export.