

# Study Report Help us improve the Breeding Scheme Designer GUI

Report created by UXtweak on February 15, 2021



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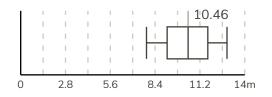
### Overview



#### **Summary**

Created on	January 15, 2021
Launched on	January 27, 2021
Last respondent	February 10, 2021
Completed	4 respondents
Abandoned	2 respondents
Screened out	0 respondents
Total unique categories	5
Avg. number of categories	5
Highest number of categories	5

#### Time Taken



Lowest observed time	7m 52s (7.86m)
Lower quartile	9m 9s (9.15m)
Median	10m 28s (10.46m)
Upper quartile	11m 41s (11.69m)
Highest observed time	12m 53s (12.89m)

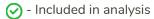
#### **Top locations**

Location	Respondents	Percentage
CO	2	33.3%
MX	1	16.7%
ML	1	16.7%
SN	1	16.7%
KE	1	16.7%



### Respondents

LEGEND



#### Respondent 6



Started at	Feb 10, 2021, 5:17 PM
Status	Completed
Time taken	7m 51s
Questions answered	100.0%
Cards sorted	100.0%

#### Respondent 5



Started at	Feb 9, 2021, 6:19 PM
Status	Completed
Time taken	10m 26s
Questions answered	80.0%
Cards sorted	100.0%

#### Respondent 4



Started at	Feb 8, 2021, 4:06 PM
Status	Completed
Time taken	10m 29s
Questions answered	100.0%
Cards sorted	100.0%

#### Respondent 3

Started at	Feb 9, 2021, 9:05 AM
Status	Abandoned
Time taken	0s
Questions answered	0.0%
Cards sorted	0.0%

#### Respondent 2



Started at	Feb 3, 2021, 10:27 PM
Status	Completed
Time taken	12m 53s
Questions answered	100.0%
Cards sorted	100.0%

#### Respondent 1

Started at	Feb 3, 2021, 3:15 PM
Status	Abandoned
Time taken	2h 26m 45s
Questions answered	0.0%
Cards sorted	0.0%



# **Analysis - Questionnaire**



#### Post-study

 ${\bf QUESTIONS}$  FILTER: Rows are grouped by similarity degree  ${\bf 0.75.}$ 

#### QUESTION 1: Which other features do you think the Breeding Scheme Designer GUI should support?

#### DESCRIPTION

Please list features that were not covered in the card sorting session.

#### SETTINGS

Multi-line text answer

Questions sorted descending by Respondents.

Answers	Respondents	Percentage
Respondent 2, The stage concept is very confusing. There should be some flexibility in selecting the stages and parameters, for example, genetic gain based on single-stage evaluation only, or two-stage or three-stage of evaluation combined	1	25.00%
Respondent 4, number of time requested for crosses/ recombination	1	25.00%
Respondent 5, 1. Plot size differences between different stages 2. Partially replicated designs	1	25.00%
Respondent 6, Be able to include other genotyping cost related to field operation as the current only assume phenotyping cost.	1	25.00%

#### QUESTION 2: On a scale from 1 to 5, how useful did you find the Breeding Scheme Designer GUI?

#### SETTINGS

5-point Likert scale

Answers	Respondents	Total
1	-	0 (0.0%)
2	-	0 (0.0%)
3	-	0 (0.0%)
4	Respondent 2	2 (50.0%)
	Respondent 5	
5	Respondent 4	2 (50.0%)
	Respondent 6	



QUESTION 3: On a scale from 1 to 5, how difficult/easy did you find using the Breeding Scheme Designer GUI?

#### SETTINGS

5-point Likert scale

Answers	Respondents	Total
1	-	0 (0.0%)
2	-	0 (0.0%)
3	-	0 (0.0%)
4	Respondent 4	3 (75.0%)
	Respondent 5	
	Respondent 6	
5	Respondent 2	1 (25.0%)

QUESTION 4: On a scale from 1 to 5, how useful did you find the presentation of the results (as plots and tables) in the Breeding Scheme Designer GUI?

#### **SETTINGS**

5-point Likert scale

Answers	Respondents	Total
1	-	0 (0.0%)
2	-	0 (0.0%)
3	Respondent 6	1 (25.0%)
4	Respondent 2	2 (50.0%)
	Respondent 5	
5	Respondent 4	1 (25.0%)

QUESTION 5: Any other ways you think we could improve the Breeding Scheme Designer GUI?

#### DESCRIPTION

Other comments and thoughts regarding the tool.

#### SETTINGS

Multi-line text answer

Questions sorted descending by Respondents.

Answers	Respondents	Percentage
Respondent 2, 1. The number of years per cycle could be in fraction too.	1	33.33%
2. Number of reps should also accommodate p-rep designs scenarios		



Answers	Respondents	Percentage
Respondent 4, Supporting information on how you expect a breeder to calculate each of the parameters.  Like a helpLink or resources link	1	33.33%
Respondent 6, More discussion and undertesting to input the different variance component	1	33.33%



# **Analysis - Cards**

#### **SETTINGS**

Cards sorted descending by **Categories**. Categories sorted descending by **Freq**..

Card name	Categories	Category name	Freq.	Avg. pos.
Export results in a file.	3	High Importance	2	1.5
		Medium Importance	1	2.0
		Low Importance	1	1.0
Be able to set other costs (fixed/personel/ genotyping) to estimate more realistically the total cost of a breeding scenario.	3	High Importance	2	3.0
		Medium Importance	1	1.0
		Low Importance	1	1.0
Include a glossary of terms that describes each of the terms and how they are calculated.	3	Medium Importance	2	5.5
		High Importance	1	1.0
		Low Importance	1	1.0
Be able to define time intervals in fractions of a year (e.g. 3.5 years) or months.	3	Medium Importance	2	4.5
		High Importance	1	2.0
		Low Importance	1	2.0
Be able to set more input parameters to define more realistically a breeding scenario.	2	Medium Importance	3	3.0
		High Importance	1	3.0
Be able to compare different scenarios in matters of cost, duration, expected genetic gain etc.	2	Medium Importance	3	4.7
		I Don't Know	1	1.0
Explore gain per dollar and gain per year for ranges of input parameters.	2	High Importance	2	3.0
		Medium Importance	2	2.0
Be able to model the multiplication years before the selection phase.	2	High Importance	3	3.7
		Low Importance	1	2.0
Be able to use the tool offline as a standalone application.	2	High Importance	3	1.7
		Not Useful	1	1.0



Card name	Categories	Category name	Freq.	Avg. pos.
Apply cost/duration/gain filters to the grid of scenarios calculated for ranges of parameters.	2	Medium Importance	3	2.0
		High Importance	1	5.0
Set ranges of input parameters for different stages of a program (not only the first stage).	1	Medium Importance	4	2.8



# **Analysis - Categories**

#### **SETTINGS**

Cards sorted descending by **Cards**. Categories sorted descending by **Freq**..

Category name	Unique cards	Respondents	Card name	Freq.	Avg. pos.
High Importance	9	4	Be able to model the multiplication years before the selection phase.	3	3.7
			Be able to use the tool offline as a standalone application.	3	1.7
			Export results in a file.	2	1.5
			Be able to set other costs (fixed/personel/genotyping) to estimate more realistically the total cost of a breeding scenario.	2	3.0
			Explore gain per dollar and gain per year for ranges of input parameters.	2	3.0
			Be able to set more input parameters to define more realistically a breeding scenario.	1	3.0
			Include a glossary of terms that describes each of the terms and how they are calculated.	1	1.0
			Be able to define time intervals in fractions of a year (e.g. 3.5 years) or months.	1	2.0
			Apply cost/duration/gain filters to the grid of scenarios calculated for ranges of parameters.	1	5.0
Medium Importance	9	4	Set ranges of input parameters for different stages of a program (not only the first stage).	4	2.8
			Be able to set more input parameters to define more realistically a breeding scenario.	3	3.0



Category name	Unique cards	Respondents	Card name	Freq.	Avg. pos.
			Be able to compare different scenarios in matters of cost, duration, expected genetic gain etc.	3	4.7
			Apply cost/duration/gain filters to the grid of scenarios calculated for ranges of parameters.	3	2.0
			Explore gain per dollar and gain per year for ranges of input parameters.	2	2.0
			Include a glossary of terms that describes each of the terms and how they are calculated.	2	5.5
			Be able to define time intervals in fractions of a year (e.g. 3.5 years) or months.	2	4.5
			Export results in a file.	1	2.0
			Be able to set other costs (fixed/personel/genotyping) to estimate more realistically the total cost of a breeding scenario.	1	1.0
Low Importance	5	3	Export results in a file.	1	1.0
			Be able to set other costs (fixed/personel/genotyping) to estimate more realistically the total cost of a breeding scenario.	1	1.0
			Be able to model the multiplication years before the selection phase.	1	2.0
			Include a glossary of terms that describes each of the terms and how they are calculated.	1	1.0
			Be able to define time intervals in fractions of a year (e.g. 3.5 years) or months.	1	2.0
Not Useful	1	1	Be able to use the tool offline as a standalone application.	1	1.0
I Don't Know	1	1	Be able to compare different scenarios in matters of cost, duration, expected genetic gain etc.	1	1.0



# **Analysis - Results Matrix**

Total respondents: 4

0% 100%

Cards	C1	C2	C3	C4	C5
Be able to set more input parameters to define more realistically a breeding scenario.	1	3	0	0	0
Export results in a file.	2	1	1	0	0
Be able to set other costs (fixed/ personel/genotyping) to estimate more realistically the total cost of a breeding scenario.	2	1	1	0	0
Be able to compare different scenarios in matters of cost, duration, expected genetic gain etc.	0	3	0	0	1
Explore gain per dollar and gain per year for ranges of input parameters.	2	2	0	0	0
Be able to model the multiplication years before the selection phase.	3	0	1	0	0
Be able to use the tool offline as a standalone application.	3	0	0	1	0
Include a glossary of terms that describes each of the terms and how they are calculated.	1	2	1	0	0
Be able to define time intervals in fractions of a year (e.g. 3.5 years) or months.	1	2	1	0	0
Set ranges of input parameters for different stages of a program (not only the first stage).	0	4	0	0	0
Apply cost/duration/gain filters to the grid of scenarios calculated for ranges of parameters.	1	3	0	0	0



# **Analysis - Popular Placements Matrix**

Values are given as percentages.

Cards	C1	C2	С3	C4	C5
Be able to model the multiplication years before the selection phase.	75	0	25	0	0
Be able to use the tool offline as a standalone application.	75	0	0	25	0
Export results in a file.	50	25	25	0	0
Be able to set other costs (fixed/ personel/genotyping) to estimate more realistically the total cost of a breeding scenario.	50	25	25	0	0
Explore gain per dollar and gain per year for ranges of input parameters.	50	50	0	0	0
Set ranges of input parameters for different stages of a program (not only the first stage).	0	100	0	0	0
Be able to set more input parameters to define more realistically a breeding scenario.	25	75	0	0	0
Be able to compare different scenarios in matters of cost, duration, expected genetic gain etc.	0	75	0	0	25
Apply cost/duration/gain filters to the grid of scenarios calculated for ranges of parameters.	25	75	0	0	0
Include a glossary of terms that describes each of the terms and how they are calculated.	25	50	25	0	0
Be able to define time intervals in fractions of a year (e.g. 3.5 years) or months.	25	50	25	0	0





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