



# How Breedbase Helps Our Breeding Program

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# 1. Finding Information on Lines of Interest

- Are X line(s) in your trials?
- Does X line have Fhb1?
- What's the pedigree of X line(s)?
- Can you tell me something about the parents of X?



# Line Search Example

  
CB stock 84801 (07-4415)

Stock type	<b>accession</b>
Uniquename	<b>07-4415</b>
Description	

## Navigator



View and edit additional properties such as synonyms, editors, and all types of properties.

### Additional Info

Add Synonym

Add Additional Info

#### Synonyms

stock\_synonym IL07-4415[X]


#### Additional information

**notes** Selection: FHB1[X], 3b1[X], 3b4[X], Lr37/Yr17/Sr38[X], Sbm1[X], and FHB1[X]

**PUI** [https://wheat-uiuc.triticeaetoolbox.org/stock/84801/view\[X\]](https://wheat-uiuc.triticeaetoolbox.org/stock/84801/view[X])

**organization** University of Illinois[X]

**purdy pedigree** P96169RE2-3-6-4 / 01-34159[X]

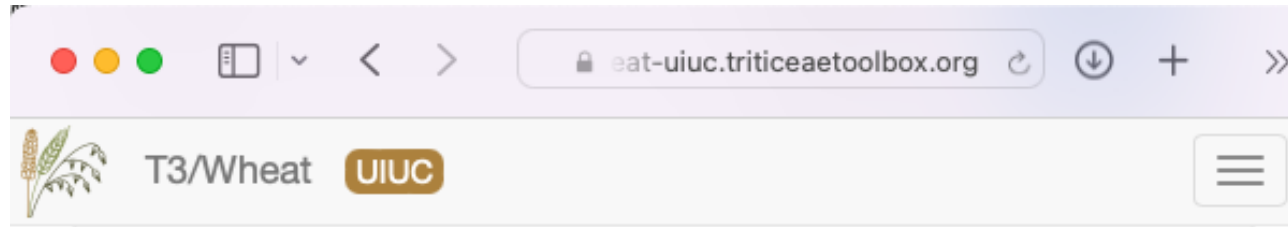
 **Experiment Usage** View experiments that this stock has been used in.

Show  entries Search:

Trial name	Location	Details
A5S_Scb_21	Urbana, IL	<a href="#">Details</a>
Adv_Neo_21	Neoga, IL	<a href="#">Details</a>
Adv_Scb_21	Urbana, IL	<a href="#">Details</a>
Adv_Stj_21	St. Jacob Township, IL	<a href="#">Details</a>
Adv_Urb_21	Urbana, IL	<a href="#">Details</a>
Aug_Urb_21	Urbana, IL	<a href="#">Details</a>
CC_Urb_21	Urbana, IL	<a href="#">Details</a>
DH2_Urb_21	Urbana, IL	<a href="#">Details</a>
DH_Neo_21	Neoga, IL	<a href="#">Details</a>
DH_Urb_21	Urbana, IL	<a href="#">Details</a>

Showing 1 to 10 of 22 entries (filtered from 308 total entries)

Previous  2 3 Next



# Example retrieving pedigrees

**Download Accession Properties**

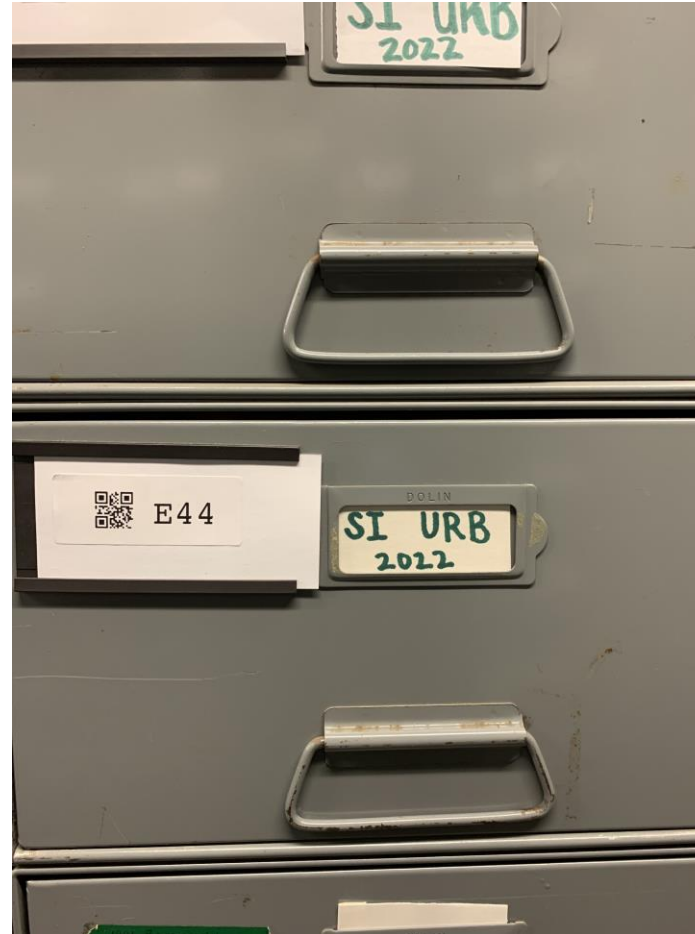
Select parameters:

---

Accessions	Format	Action
<input type="text" value="SouthAfricaLines"/>	<input type="text" value="XL"/>	<input type="button" value="Download"/>

accession_n	species_nam	population_n	organization	synonym	PUI	variety	country of o	notes	accession n	purdy pedig	filial generation
18-14535	Triticum aes	UIC Winter	University of Illinois		<a href="https://wheat-uiuc.triticeaetoolbox.org/stock/240518/view">https://wheat-uiuc.triticeaetoolbox.org/stock/240518/view</a>					12 - 8545/07-4415	
18-17905	Triticum aes	UIC Winter	University of Illinois		<a href="https://wheat-uiuc.triticeaetoolbox.org/stock/240558/view">https://wheat-uiuc.triticeaetoolbox.org/stock/240558/view</a>					G09418/MO 080104//10-21934	
18-6852	Triticum aes	UIC Winter	University of Illinois		<a href="https://wheat-uiuc.triticeaetoolbox.org/stock/240634/view">https://wheat-uiuc.triticeaetoolbox.org/stock/240634/view</a>					09-3264/12 - 7918, 09-3264/12-7	
19-13414	Triticum aes	UIC Winter	University of Illinois		<a href="https://wheat-uiuc.triticeaetoolbox.org/stock/239388/view">https://wheat-uiuc.triticeaetoolbox.org/stock/239388/view</a>					13-20171/10-21934	
19-18153	Triticum aes	UIC Winter	University of Illinois		<a href="https://wheat-uiuc.triticeaetoolbox.org/stock/239636/view">https://wheat-uiuc.triticeaetoolbox.org/stock/239636/view</a>					02-19463-7/12-21660//12-8545	
19-18156	Triticum aes	UIC Winter	University of Illinois		<a href="https://wheat-uiuc.triticeaetoolbox.org/stock/239637/view">https://wheat-uiuc.triticeaetoolbox.org/stock/239637/view</a>					02-19463-7/12-21660//12-8545	
19-18826	Triticum aes	UIC Winter	University of Illinois		<a href="https://wheat-uiuc.triticeaetoolbox.org/stock/239645/view">https://wheat-uiuc.triticeaetoolbox.org/stock/239645/view</a>					10-19464/11-36131//P0762A1-2	
19-27565	Triticum aes	UIC Winter	University of Illinois		<a href="https://wheat-uiuc.triticeaetoolbox.org/stock/240134/view">https://wheat-uiuc.triticeaetoolbox.org/stock/240134/view</a>					13-1910/02-19463-7	
US17-IL-108	Triticum aes	UIC Winter	University of Illinois		<a href="https://wheat-uiuc.triticeaetoolbox.org/stock/240834/view">https://wheat-uiuc.triticeaetoolbox.org/stock/240834/view</a>					10-21934/13-1910	
US17-IL-11	Triticum aes	UIC Winter	University of Illinois		<a href="https://wheat-uiuc.triticeaetoolbox.org/stock/240851/view">https://wheat-uiuc.triticeaetoolbox.org/stock/240851/view</a>					11-662/10-21934	

## 2. Keeping Track of Seedlots



# Seed lot example

## Details for List 'SouthAfricaSeedLots'

### Details

List Name	SouthAfricaSeedLots
List ID	603
Type	seedlots
Number of Items	25
Description	

### List Items

Download List Items

Show 10 entries

Search:

Seedlot Name	Content Name	Content Type	Description	Box Name	Current Count	Current Weight	Quality
LgI_Urb_22-6.2	18-6852	accession		I12	NA	14061.4	
LgI_Urb_22-36.2	US17-IL-111-005	accession		I3	NA	18143.7	
LgI_Urb_22-6.1	18-6852	accession		H7	NA	23133.2	
LgI_Urb_22-18.1	18-14535	accession		I14	NA	453.6	

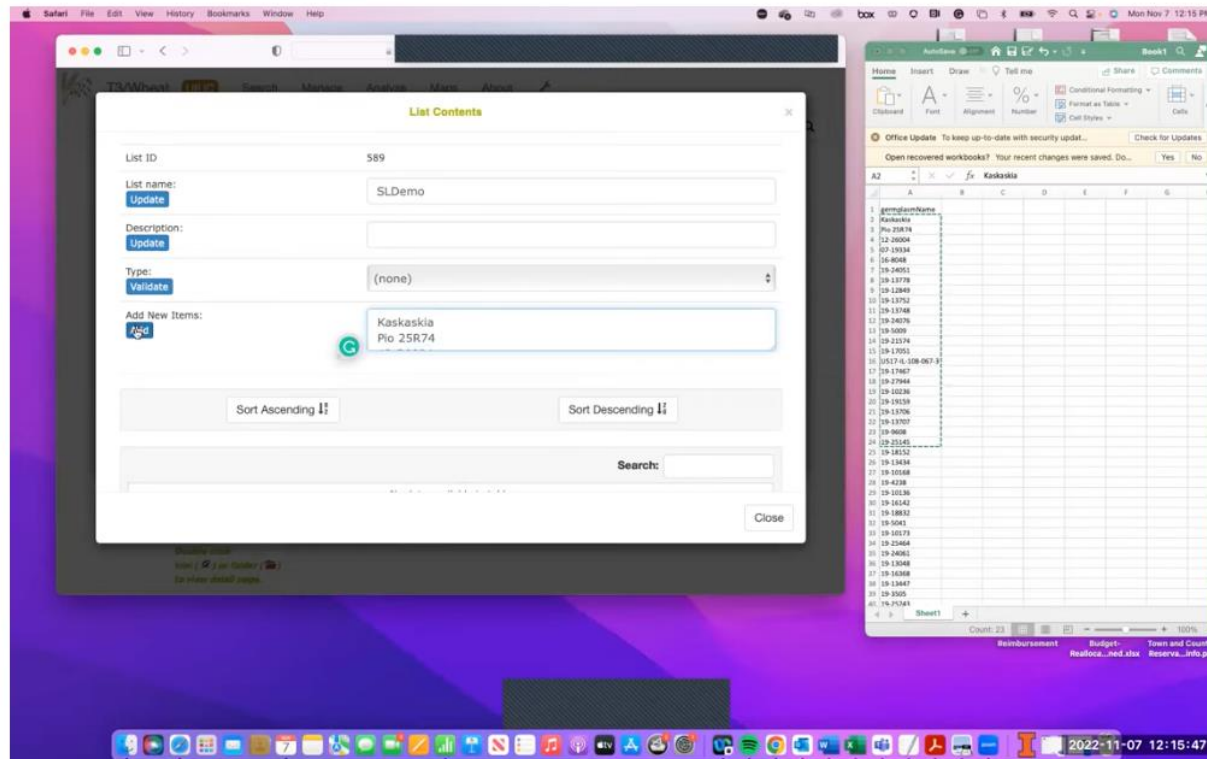
- Make a list of lines and use it to make a list of seed lots.
- Download seed lot information
- Include the weight and location of selected seed lots in the entry list

	accession_name	Seedlot Name	Box Name	Current Weight
1	IL18-14535	SmallInc2I 054	B6	7711.1
2	IL18-17905	SmallInc2I 018	E5	9525.4
3	IL18-6852	Lgl Urb 22-6.1	H7	23133.2
4	IL19-13414	MI Urb 22-43.1	B5	8618.3
5	IL19-18153	MI Urb 22-80.2	F3	9071.8
6	IL19-18156	MI Urb 22-81.1	I6	9525.4
7	IL19-18826	MI Urb 22-84.1	E1	9071.8
8	IL19-27565	MI Urb 22-126.1	F7	6577.1
9	US17-IL-108-039	SmallInc2I 107	B6	4535.9
10	US17-IL-111-005	Lgl Urb 22-36.1	A12	9979



Brief youtube video to  
help train staff to use  
Breedbase to find  
seedlots

<https://www.youtube.com/watch?v=JyWXmJAK07g>



Downloading seedlot information for a list of accessions

# 3. Speeding up Data Turn-around Time

Less time messing with data gives us more time to prepare seeds. This lets us be more precise and reduces labor needs.

New Timeframe												
	July				August				September			
	1	2	3	4	5	6	7	8	9	10	11	12
Operations	Wheat harvest	Oat harvest	Seed cleaning, FDK	Stage 1 seed prep	Arrange selected entries	Stage 2-4 seed prep					Arrange trials	Plant
Design and Analysis		Upload data	Analyze data	Make selections		Design Trials						
Old Timeframe												
	July				August				September			
	1	2	3	4	5	6	7	8	9	10	11	12
Operations	Wheat harvest	Oat harvest	Seed cleaning, FDK	Stage 1 seed prep			Stage 2 prep		Stage 3 and 4 prep	Arrange Illinois Trials	Arrange cooperatives	Plant
Design and Analysis				Enter data	Summarize stage 2 data	Select stage 2	Summarize stage 3 and 4 data	Select stages 3 and 4				



# Example: Same-day Phenotype Upload



export

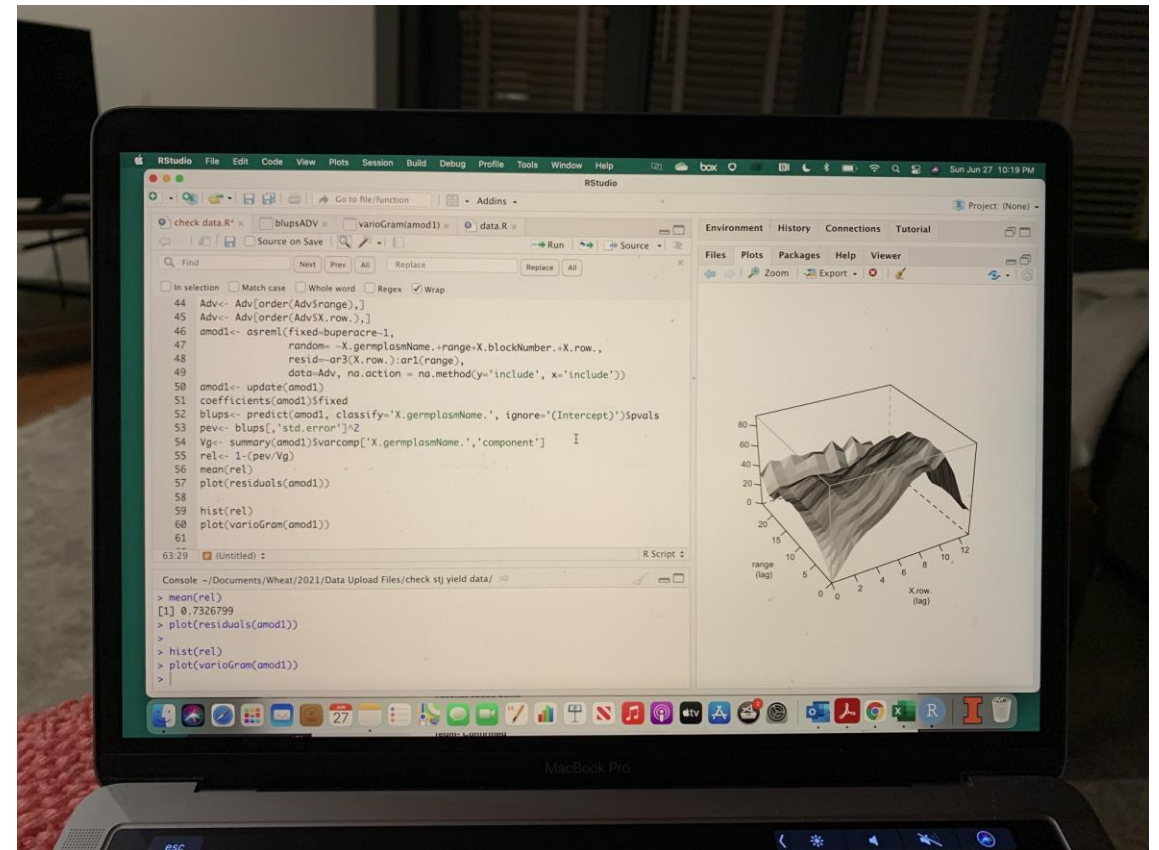


observationunit_name	Plant height -
Org_Dan_21-101	116.84
Org_Dan_21-102	96.52
Org_Dan_21-103	101.6
Org_Dan_21-104	121.92
Org_Dan_21-105	96.52
Org_Dan_21-106	116.84
Org_Dan_21-107	116.84
Org_Dan_21-108	91.44
Org_Dan_21-109	96.52
Org_Dan_21-110	111.76
Org_Dan_21-111	91.44
Org_Dan_21-112	86.36
Org_Dan_21-113	106.68
Org_Dan_21-114	86.36
Org_Dan_21-115	86.36
Org_Dan_21-116	127
Org_Dan_21-117	127
Org_Dan_21-118	127
Org_Dan_21-119	91.44
Org_Dan_21-120	91.44
Org_Dan_21-121	121.92
Org_Dan_21-122	81.28

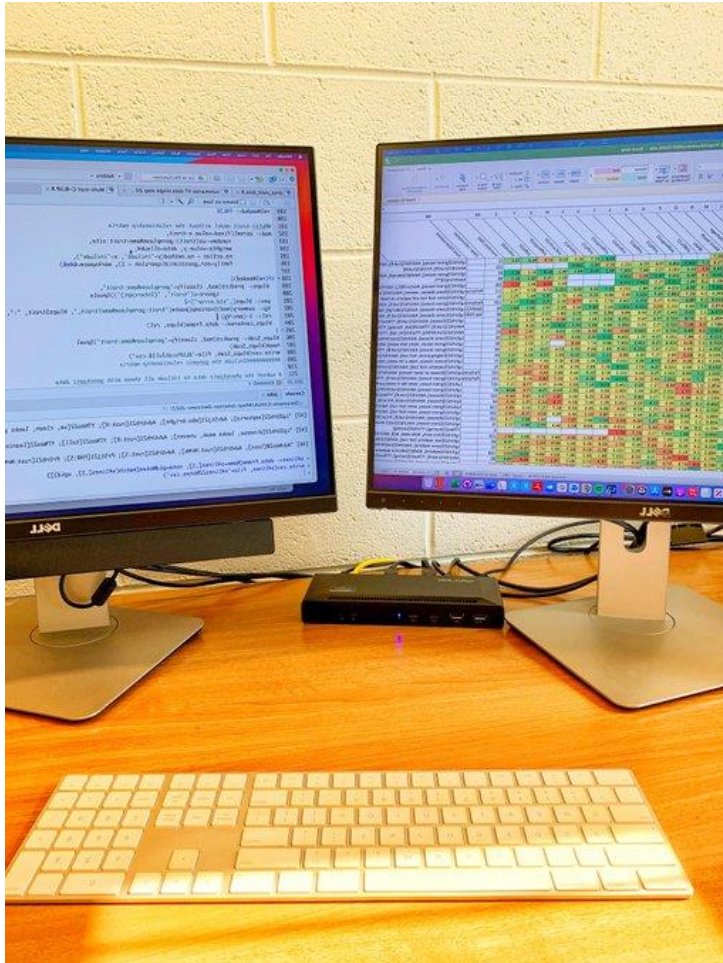
upload

A screenshot of a web browser showing the 'Upload Phenotype Spreadsheet' interface. The browser address bar shows 'eat-uiuc.triticeaetoolbox.org'. The interface has a title bar 'Upload Phenotype Spreadsheet' with a close button. Below the title bar is a section 'File format information' with a sub-section 'Spreadsheet Format'. Under 'Spreadsheet Format', there is a dropdown menu currently set to 'Simple'. Below this is a section 'Timestamps Included:' with an unchecked checkbox. Further down is a section 'Phenotype Spreadsheet:' with a 'Choose File' button and the text 'no file selected'. At the bottom right of the interface are three buttons: 'Close', 'Verify', and 'Store'.

# Example: Same-day Yield Trial Analysis



**All data summaries and analyses are completed 12 days after harvest (July 20<sup>th</sup>)**



Gives us time to take thousand kernel weights and treat seeds on all entries prior to seed packing





# Thank you

- Juan Arbelaez
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- Fred Kolb



U.S. Wheat & Barley  
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