

T3/Oat status update, June 2016

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T3/Oat is the repository of oat phenotype and genotype data for the Oat Global Initiative (www.oatglobal.org) and provides flexible queries for extracting desired datasets for analysis, as well as integrated analysis tools (<http://triticeaetoolbox.org/oat/>).

T3/Oat data submission tutorials

Seven new T3/Oat data submission tutorials have been added to the data submission page of T3/Oat and the T3/Oat Sandbox. The data submission page can be reached through the “About T3” menu. The topics covered in the new data submission tutorials are outlined in Table 1.

Germplasm information, phenotype data, and genotype data are uploaded to T3 using a series of templates that can be found on the data submission page. Each T3 data submission template contains instructions for filling in the template; however, the new data submission tutorials provide additional details to guide users through the entire process of data submission up to test loading the template in the T3/Oat Sandbox and submitting the data to the curator to be uploaded to T3/Oat.

Table 1. The topics covered by the new T3/Oat data submission tutorials.

Tutorial number	Tutorial topic
1	Uploading germplasm information
2	Creating line panels in T3/Oat
3	Uploading phenotype trial descriptions and data
4	Uploading marker information
5	Creating marker panels in T3/Oat
6	Uploading genotype experiment descriptions and data
7	T3 and the Android Field Book

Featured T3/Oat tool: Select Traits and Trials

The “Select Traits and Trials” tool has been designed to select complimentary phenotype data when a line selection has already been made using another T3 selection tool. Once a line selection has been made in T3, the “Select Traits and Trials” tool provides the option to display only traits and trials that involved the lines in the current selection.

The first stage of data selection is to choose a phenotypic trait of interest (Figure 1). A full list of the phenotypic traits currently available in the database, along with further information about these traits, can be found in the “About T3” menu under the heading “Trait descriptions”.

A list of the trials that measured the selected traits will be generated. Multiple traits and trials may be selected by holding “control” (PC) or “command” (Mac). If more than one trait is selected, there is the option to list all of the trials that measured any of the selected traits or, alternatively, to limit this list to the trials that measured all of the selected traits.

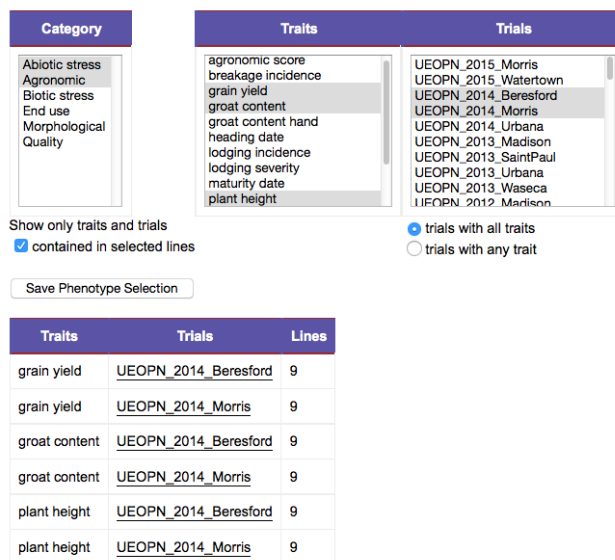
A summary table is generated below the selection windows. The summary table provides details of the number of lines that correspond to each trait and trial selection that has been made using the tool. Please remember to “Save Phenotype Selection” when you are ready.

The selected data are added to the “Current selections”, which can be reviewed in the “Quick Links” sidebar. The “Traits” and “Phenotype Trials” headings in the sidebar link back to the “Select Traits and Trials” tool, which will display the current selection of traits and trials. Individual traits and trials can be removed from the current selection using the “Select Traits and Trials” tool. A subsequent selection of traits and trials, using the “Selection Wizard” or the “Select Traits and Trials” tool will replace the current selection of traits and trials.

An up-to-date summary of all of the data that are available in T3/Oat can be obtained from the “Content Status” page, which can be reached through the “About T3” menu. Please contact the curator with any suggestions or questions, or to discuss uploading data to T3/Oat; any feedback will be gratefully received.

Select Phenotypes

Select multiple options by holding down the Ctrl(PC) Command(Mac) key while clicking.
Selecting traits and trials will NOT affect currently selected lines



Traits	Trials	Lines
grain yield	UEOPN_2014_Beresford	9
grain yield	UEOPN_2014_Morris	9
groat content	UEOPN_2014_Beresford	9
groat content	UEOPN_2014_Morris	9
plant height	UEOPN_2014_Beresford	9
plant height	UEOPN_2014_Morris	9

Figure 1. The interface of the T3 “Select Traits and Trials” tool.