



T3/Oat status update, March 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 analytical tools (<http://triticeaetoolbox.org/oat/>).

This report is the first in a series of monthly updates to highlight data that have recently been uploaded to the T3/Oat database. Each monthly update will also describe one of T3's integrated tools, starting with the selection wizard.

2015 Uniform Oat Performance Nurseries

Data from the 2015 Uniform Oat Performance Nurseries (UOPN) have now been uploaded to T3/Oat. There are currently over 780 UOPN trials stored in the database, dating back to 1996 and providing phenotypic data on over 650 lines.

Expanded oat consensus map

An expanded oat consensus map (Tinker *et al.*, 2016) is now available on the site, in addition to the framework oat consensus map developed by Chaffin *et al.* (2016). Additional SNPs and Haplotype-based loci, called using Haplotag, were placed on the framework map based on the closest average distance to framework markers. GBS loci were validated using a training population of 4,657 diverse hexaploid oat lines. Nine mapping populations, which were used in the construction of the original consensus map, were also used for marker placement. The twelve component maps used to construct the framework oat consensus map have also been uploaded to T3/Oat.

Featured T3/Oat tool: Selection wizard

The T3 selection wizard can be found under the 'Select' menu and is used to combine datasets from T3 into coherent, analyzable sets of lines, phenotypic traits, and phenotype trials. Initially, phenotype trials can be selected by their location, the phenotypic traits that were measured, the 'Data program' responsible for the trial, or by the 'Breeding program' that contributed any of the line entries. Additionally, if a set of lines has already been selected using another of T3's selection tools, then the selection wizard can be used to choose phenotype trials that involved those lines by choosing the 'Lines' starting point from the wizard's dropdown menu. The wizard provides a series of selection windows to further refine the data selection, and multiple selections can be made in each window.



The selected data will be displayed in the 'Current selections' section of the 'Quick Links' sidebar. Current selections can be replaced or combined with any additional selections that are made. In this manner, T3's selection tools can be used together to create a customized dataset for download or for analysis using one of T3's integrated analytical tools.

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.