

# #012

## The International Life Sciences Institute Crop Composition Database: An Open Resource for High Quality Compositional Data

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The International Life Sciences Institute Crop Composition Database (ILSI-CCDB) is an open access comprehensive resource of high quality compositional data for conventionally bred crops that can be accessed at [www.cropcomposition.org](http://www.cropcomposition.org). The ILSI-CCDB is periodically updated, with version 7.0 released in January 2019 as the latest iteration. The new version contains over 1.24 million data points across nine crops (apple, canola, field corn, sweet corn, cotton, potato, rice, sorghum and soybean). The ILSI-CCDB is owned by the ILSI Research Foundation and managed by a working group that consists of experts from public sector organizations, government agencies and the agricultural and food industries.

In order to ensure that data submitted to the database are of high quality, criteria for production, collection and analysis of samples as well as collection, auditing, archiving and submission of data are outlined in detail for data providers to follow. After acceptance into the ILSI-CCDB, data sets are statistically analyzed to identify potential errors and outliers prior to publication as part of a stringent quality check.

The ILSI-CCDB is extensively used by scientists and researchers all over the world with over 15,600 pageviews by more than 4,300 users from 127 countries in 2018 as sourced by Google Analytics. The Crop composition data has been obtained from controlled field trials conducted in multiple locations in 15 countries over a period of 23 years. Version 7.0 of the CCDB includes 69,722 data points for canola (*Brassica napus*) seed including compositional data for 106 analytes classified under 8 analyte categories: amino acids, bio actives, fatty acids, fiber, glucosinolates, minerals, proximates and vitamins.

The data in the ILSI-CCDB is a robust representation of natural variability in composition of conventional crops. It can be utilized as part of a comparative assessment to inform compositional and safety assessment of new crop varieties developed by traditional methods and modern biotechnology. The database may also be used for methodology comparisons, nutritional studies and identification of nutritional components that could be of interest to plant breeders.

PLENARY TALKS

ORALS

POSTERS

WORKSHOPS