



## Introduction to the database

One of the aims of WP1 was to develop a system curating the latest available information in scientific literature, compiled by scientific experts in the subtasks of Yield, Nutritional Quality and Sustainability. This has resulted in a compiled spreadsheet listing the state-of-the-art research topics, technologies, genes and traits that could have implications to crop improvement.

The data was collected by means of a survey, which collects individual entries from key stakeholders and scientific experts on the focus topics of the work package. The survey is still active and accepting entries, which are periodically updated into the database links below. It can be accessed at the following link:

<https://docs.google.com/forms/d/e/1FAIpQLSdFmwhogelBzUGaUOYcyTc97ZFOOfJdSTK8EZA5rKWmNdYx3w/viewform>

The database is condensed into two searchable excel spreadsheets: One for Nutritional quality related publications, the other for Yield and Sustainability related publications.

Basic construction of each spreadsheet: Each entry has similar basic information presented in columns which are filterable based on specific information. General columns common to both datasets are- Publication title, Authors names, Year of publication, Abstract or summary of article, Bibliographic references, Crop category, Species (with the species defined as essential by WP1 indicated with asterisks), Geographical region, Reviews vs research publications, Gene or trait name, Biological pathway it is involved in, Orthologues of the gene if any, Transferability potential if any, the survey takers opinion on the entries relevance to subtask, Whether the gene/ trait under consideration affected other subtasks, Methods or technologies utilized in the publication being entered. In addition, free text comments are enabled to allow the survey taker to highlight gaps and potential of any survey entry. Additionally in keeping with WP1.1, the survey entrants were asked to evaluate the application of the entry with respect to each scenario outcome of WP1.

Each spreadsheet also documents specialized topics relevant to each subtask, which are also searchable by column. For example in nutritional quality, specific columns range from the categories and subcategories within nutrient classes to the specific factors or stressors affecting nutritional quality in the given entry. For a detailed list of all the category options within each topic, please refer to the survey key, annex 2.