# Agricultural yield database Flanders

## PEILIMPACT project

## Description

Database containing the evolution of yield of agricultural crops in Flanders under ‘conventional’ farming practices. This yield database represents the variability induced by spatially and temporally variable meteorological conditions and by spatially heterogeneous soil and groundwater conditions.

## Aims

1. Allow for **regional validation of crop model** simulations based on generic data layers for soil, groundwater and weather conditions (cfr. SWAP-WOFOST, PEILIMPACT project).
2. Create an **Open reference yield database in Flanders** for future crop model calibration or validation efforts by any researcher (ILVO and external, respecting confidentiality level of datasets). For this, any additional locally measured data on soil properties, groundwater dynamics or weather should also be included in the database.
3. Provide an easy-to-use tool to keep **collecting yield information** from various trials in Flanders.

## Information on the database

This database contains information about the yield in ton/ha of the most important crops in Flanders. When available, it includes the planting and harvesting dates. At the moment, the crops included in the database are maize, winter wheat, sugar beet, potato and grass. The data is collected from different research departments at ILVO and other governmental and private Flemish institutions. Yield from variety trials and experimental fields are on average 15-20 % higher than of normal farmer fields.

The information is saved in a csv file. The following data is included in the database:

|  |  |
| --- | --- |
| **Name** | **Description** |
| Field\_ID | Identification number of the farmer field |
| Location | Town or experimental field name |
| Coord\_X | Approximate coordinate x (m) in Belgian Lambert 72 (EPSG:31370) of the field |
| Coord\_Y | Approximate coordinate y (m) in Belgian Lambert 72 (EPSG:31370) of the field |
| Yield\_ID | Identification number of the yield observation in the specific field, for each year and crop. There can be several yield observations in the same field. |
| Crop | Crop name |
| Specie | Scientific name of the crop specie |
| Year | Planting year |
| Sowing\_date | Sowing/planting date |
| Harvest\_date | Harvest date |
| Fresh\_Yield | Fresh harvest in ton/ha |
| Dry\_Yield | Dry matter yield in ton/ha |
| Type | Type of observation. It can be from experimental fields, variety trials, or farmer fields |
| SD | Standard deviation of yield observations from several varieties and /or plots, in ton/ha |
| Comments | Any remark about the data |
| Institution | Institution owner of the data |
| Project | Project in which the yield data was collected |
| Contact | Main contact person |
| Email | Email address of the contact person |