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Deutscher Wetterdienst
Wetter und Klima aus einer Hand

DATA SET DESCRIPTION

Annual grids of the end of the vegetation period in Germany

Version 0.x

Cite data set as: DWD Climate Data Center (CDC): Annual grids of the end of the vegetation period in Germany, version 0.x, current date.

INTENT OF THE DATASET

This document describes the freely available data of the DWD Climate Data Center (CDC). These grids are derived from the observations of the annual phenological network. The end of the vegetation period is specified by the phenological phase pedunculate oak - autumn leave fall and indicated the begin of winter.

POINT OF CONTACT

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DATA DESCRIPTION

Spatial coverage Germany

Temporal coverage 01.01.1992 - last year

Spatial resolution 1 km x 1 km

Temporal resolution annual

Projection 3-degree Gauss-Kruger zone 3, Ellipsoid Bessel, Datum Potsdam (central point Rauenberg), EPSG:31467, see http://spatialreference.org/ref/epsg/31467/. The appropriate prj-file can be downloaded at: ftp://ftpcdc.dwd.de/pub/CDC/help/gk3.prj.

Format(s) The ascii file has in the header the coordinates for the lower left grid cell, including the definition of its center [XLLCENTER],[YLLCENTER] or its corner [XLLCORNER],[YLLCORNER]. It contains a table of 654 x 866 numbers. Each row goes from West to East. The first row is the northernmost one (654 values with 4 digits). Missing values are marked with -999.

Parameters Values in the grids are running days of the respective year (with 28th and 29th Februay counted as a single day).

Uncertainties Uncertainties are caused by the interpolation method, and erroneous or missing observations. When comparing grid fields for different years, it should be considered that the measurement network has changed over time.

Quality information without quality flags

DATA ORIGIN

For each year all available data of the phenological annual reporters will be included for interpolation. Germany is divided in 20 regions of overlapping circles of the same size. All observations within each region were processed by a multiple linear regression. Regression coefficients are height, longitude and latitude. The calculated regression coefficients of the four surrounding circles for a given location were weighted with the distance to circle centres. This form of interpolation does not match the observation days at each location, but yields a most plausible smoothed fit.

VALIDATION AND UNCERTAINTY ESTIMATE

The resulting grids depend strongly on the used interpolation. Plausibility tests showed good performance.

REFERENCES

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REVISION HISTORY

This document is maintained by DWD unit KU21, last edited on 19.12.2018.