

PEP725 a European phenological database

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“Phenology – the timing of seasonal activities of animals and plants – is perhaps the simplest process in which to track changes in the ecology of species in response to climate change” (IPCC 2007).

PEP725, the Pan-European Phenological Database, is a European research infrastructure to promote and facilitate phenological research. Its main objective is to build up and maintain a European-wide phenological database with an open, unrestricted data access for science, research and education. So far, 20 European meteorological services and 6 partners from different phenological network operators have joined PEP725.

The PEP725 phenological data base (www.pep725.eu) now offers more than 12 million phenological observations, all of them classified according to the so called BBCH scale. The first datasets in PEP725 date back to 1868; however, there are only a few observations available until 1950. Having accepted the PEP725 data policy and finished the registration, the data download is quick and easy and can be done according to various criteria, e.g., by a specific plant or all data from one country.

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The phenological data set has been growing by about 100000 observations per year. Also the number of user registrations has continually been increasing, amounting to 181 new users and more than 8000 downloads in 2018. The greatest number of users are found in China, followed by Germany and the US. To date we could count 50 reviewed publications based on the PEP725 data set with 17 in 2018, the highest number in an individual year so far.

The data base statistics demonstrate the great demand and potential of the PEP725 phenological data set, which urgently needs development including a facilitated access, gridded versions and near real time products to attract a greater range of users.