



## **The influence of meteorological conditions on the progress and dynamics of pollen phenophases of selected species.**

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In Poland phenological data is used mainly as a natural indicator of the influence of climate changes on environment.

In relation to the growing interest of phenology in scientific research, we substantially extended observation ranges, concentrating mainly on phenophases of selected species that are important for allergology.

Phenological data application in complex analysis together with meteorological and aerobiological data, give an opportunity for drawing conclusions on variability of the starting date of pollen season and its dynamics in a meteorological aspect.

Species have their regional phenological characteristics, however the characteristics depends on meteorological conditions in a particular year. Therefore, the calculation of pheno-meteorological parameters is important for pollen release prediction.

Availability of phenological database can also be useful in the field of preventive health care, through phenological data application in different atmospheric models (NWP models, phenological models, pollen release models) for numerical forecasting of pollen concentration in the air.

Genetic conditions, industrial development, increase of air pollution are regarded as the main determinants of allergic diseases. The results of pheno - aero- meteorological analysis enable the estimation of the influence of natural environmental changes on the increasing prevalence of allergic diseases in Poland.