

Pollen calendar for Ljubljana, Slovenia

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The 1996-2006 pollen counts were performed using a Burkard 7-day recording volumetric trap. Airborne pollen grains were trapped on an adhesive tape by intake of air at a flow of 10 l/min. The pollen were stained and counted by light microscopy. The amount of pollen was expressed as the number of pollen grains/m³ of air. The pollen calendar was constructed following Spieksma's model.

Ljubljana lies in the central part of Slovenia in a large basin with the distinctive yearly and daily temperature course, in the pre-alpine fitogeographical region. Climatological variability from year to year has significant impact on pollen counts, but also on beginning and ending of pollen season. The measurements of pollen concentration are performed in urban region for the allergological purposes.

The data from the period 1996-2006 were used to construct pollen calendar, which will be graphically presented. Results of pollen monitoring indicate that the most frequent pollen types such as trees and shrubs (Carpinus and Ostrya, Castanea, Pinus, Taxaceae and Cupressaceae, Corylus, Quercus, Betula, Alnus, Salix, Fraxinus, Fagus, Juglans, Sambucus, Tilia, Ulmus, Populus, Platanus, Poaceae) and weeds (Urticaceae, Ambrosia, Artemisia, Plantago, Chenopodiaceae and Amaranthaceae, Rumex) represent 80-85% of the annual totals, depends on variability of pollen production between seasons. The rest of the registered pollen consisted plant taxons which were represented each at less then 0,5% of a total seasonal count.

The start and the end data of annual pollen seasons for the allergologically most important taxa are presented.