

Evaluation of selected wild plants flowering season 1991 – 2009 (1991 - 2000 & 2001 – 2009)

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The subsequent wild plants are observed by volunteer observers at CHMI phenological network: *CALTHA palustris* L., *ANEMONE nemorosa* L., *HEPATICA nobilis* Mill., *RANUNCULUS acer* L., *FRAGARIA vesca* L., *TRIFOLIUM repens* L., *HYPERICUM perforatum* L., *CHAMAENERION angustifolium* L. Holub, *VACCINIUM myrtillus* L., *LAMIUM album* L., *CHRYSANTHEMUM leucanthemum* L., *TUSSILAGO farfara* L., *PETASITES albus* (L.) Gaert., *PETASITES hybridus* (L.) G. M. Sch., *CONVALLARIA majalis* L., *GALANTHUS nivalis* L., *DACTYLIS glomerata* L., *ALOPECURUS pratensis* L. and others. Some of them start to blossom in early spring, some others in the summer. Part of them belong to very important allergens, part of them have medicinal effects. Phenophases first leaves (FL – BBCH11), inflorescence emergence (IE – BBCH 51), beginning and end of flowering (BF – BBCH 61, EF – BBCH 69) are observed by these species. Statistical parameters (average, median, lower quartile, upper quartile, minimum, maximum, standard deviation, variation range and variation coefficient) of phenophase onset are computed from all of phenological stations in Czechia for the period 1991 – 2009. The phenophase onset and phenophase duration depend not only on genetic base but also on external effects such as weather. We have compiled dynamics of temperature to phenophase onset according CHMI meteorological stations for the same period 1991 – 2009 (especially sums of active temperatures above biological minimum 5°C and progression of extreme temperatures). We have also compared results between two periods (1991 – 2000, 2001 – 2009). Phenological stations are at different altitude. At this case study were used results from 4 phenological stations at altitude (< 300 m asl), 4 phenological stations at altitude (300 – 500 m asl) and 4 phenological stations at altitude (> 500 m asl).

GALANTHUS nivalis L.
Station: Lednice (165 m n. m.)
Period: 1991 - 2000

Statistical parameter/phenophase BBCH 61 BBCH 69
Average 62 94
Median 60 97
Lower quartile 57 86
Upper quartile 66 101
Minimum 51 70
Maximum 79 116
Variation range 28 46
Standard deviation 8,6 12,9
Variation coefficient 13,9 13,8

GALANTHUS nivalis L.
Station: Lednice (165 m n. m.)
Period: 2001 – 2009

Statistical parameter/phenophase BBCH 61 BBCH 69

Average 67 101

Median 64 104

Lower quartile 62 102

Upper quartile 74 105

Minimum 53 83

Maximum 83 111

Variation range 30 28

Standard deviation 9,2 8,4

Variation coefficient 13,7 8,3

GALANTHUS nivalis L.

Station: Lednice (165 m n. m.)

Period: 1991 – 2009

Statistical parameter/phenophase BBCH 61 BBCH 69

Average 64 97

Median 62 101

Lower quartile 58 88

Upper quartile 72 104

Minimum 51 70

Maximum 83 116

Variation range 32 46

Standard deviation 9,3 11,6

Variation coefficient 14,5 12,0