

Use of digital monitoring in the Czech Phenology Network

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Prospects for the use of digital monitoring of the phenological observations are very promising. Because of recent improvements in digital camera's technologies, it is now possible to quantify canopy development and plant phenological states of plant individuals using digital camera data which eliminates the subjectivity inherent in observer-based systems. The seasonal cycle of canopy greenness is the determining factor in the length of the growing season, growing season CO₂-assimilation, and is strongly influencing the energy balance of the earth's surface.

Whole year remote monitoring of forest-tree species phenological phases project has been started at the Doksany observatory in September, 2006. The digital camera Canon PowerShot S3 is located on a piece of land, where an International Phenological Garden is located and the camera is connected via ethernet network to a computer inside the observatory. The camera is fully controlled by the computer running special program on it.; that allows to set parameters of photographing, focuses the camera to a particular details and moves the camera in both vertical and horizontal directions. Because of good results of the pilot project in Doksany its counted on successive enlargements of digital monitoring to other sites.