

## **Valdai branch office of the State Hydrological Institute**

The Valdai branch office of the State Hydrological Institute was established in 1933. It is the field base for hydrological research. It is situated in the city of Valdai of the Novgorod region on the top of the Valdai Hills in the south-taiga zone.

Nowadays regular measurements are carried out at the following sites:

### **Weather station Valdai**

The station is situated within the city of Valdai. Its coordinates are 57° 59'N, 33° 15'E with an elevation of 201 m. The main meteorological measurements are carried out eight times a day at 0, 3, 6, 9, 12, 15, 18 and 21 UTC and include

Atmospheric pressure

Air temperature

Water vapor pressure

Relative humidity

Saturation deficit

Dew point

Wind speed and direction

Total and low cloud cover

Cloud base height

Range of visibility

Soil (snow) surface temperature

Soil temperature at 5, 10, 15 and 20 cm (from May 1 to September 30)

Precipitation amounts are measured at 3, 6, 15, and 18 UTC. During the warm period, the precipitation intensity is recorded with a pluviograph.

During the snow period, the snow height is measured daily at 6 UTC.

The depth of soil freezing and melting is measured once every 10 days.

Radiation measurements are performed 6 times a day at 00:30, 06:30, 09:30, 12:30, 15:30, and 18:30 UTC. The following parameters are measured:

Direct solar radiation (if present)

Total and diffuse solar radiation

Meadow surface albedo

Long-wave radiation balance