Architecture of root branches of Norway spruce trees (Picea abies [L.] Karst.) growing in gley soil

P. Štofko, M. Kodrík

https://doi.org/10.17221/55/2008-JFS

Citation: Štofko P., Kodrík M. (2008): Architecture of root branches of Norway spruce trees (Picea abies [L.] Karst.) growing in gley soil. J. For. Sci., 54: 485-490.

download PDF

In the locality Hnilé Blatá (the High Tatras Mts.), the structure was measured of root branches in the windthrown spruces (Picea abies [L.] Karst.). After cleaning the root plates, the number, diameter, and length of individual root branches were measured. Individual root branches were classified into twelve diameter classes – according to their diameters measured in the middle of the root branch length. We found out a high frequency of the root branches in the first three root-diameter classes; the values of the average frequency of root branches smoothly declined with their diameters increasing. We found out the lowest mean values of the root branch length in the first two root diameter classes. However, the values of total average length of root branches were the highest in the first root diameter class and these values continually decreased with increasing values of the root branch diameter. On the basis of the high values of root frequency and of total root length in the thinnest root-diameter classes, it seems that the spruce trees growing in gley soil form a similar root structure as those growing in podzolic brown soil.

Keywords:

Picea abies; root branch; gley soil

download PDF

Slezská 7, 120 00 Praha 2, Republic