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FRACTIONAL COMPOSITION AND STOCK OF FOREST LITTER IN EROSION CONTROL STANDS.

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The aim of research was to establish the morphological and fractional composition of forest litter in erosion stands of Novgorod-Siversk Polissia.

The study was performed on three plots, which respectively characterize artificial pine and deciduous plantings and birch stands of natural origin.

The greatest power is litter leaf plantations located on the southeastern slope exposure 12^0. Its thickness reaches 4.5 cm, which is classified as a strong power. The average thickness of the forest floor is fixed in the coniferous stands where its thickness was 2.2 cm.

The presence of two layers of hardwood litter can be explained by accelerated mineralization processes under conditions of a large number of soft bedding and more moisture due to terrace with reverse angle.

On the southern slope of gully the floor litter has a three-layer structure, which is underdeveloped. This is understandable, since a large proportion of litter belong fraction needles of pine and spruce. Between the entire litter substrate uncoupled, with intermittent loose degree of coverage. Contact with soil solid, indicating good certainty humification layer. The degree of shelter soil litter varies slightly depending on the type and location of planting. Thus, in all species plantations on terraces observed continuous shelter – more than 90% of the soil surface covered with forest litter and litter between terraces power is much less intermittent ground cover (slope southern exposure) and patchy (slope south-eastern exposure). This is a microrelief features and composition of plantations.

The study of the fractional composition of litter allows determining the rate of decomposition and the content of individual components. Thus, the fraction of branches in plantations coniferous and birch stands of natural origin is respectively 25.7 and 28.4%, reflecting an increase in mortality due to deterioration of site conditions on the slopes of hills south exposures. In the oak-maple plantation

awarded the largest share of the fruits of litter that reaches 15.2%. This is because the foundation plantings are up oak, maple, linden, Hawthorn, Tatar maple, mountain ash. Note that fruit with leaves and dust belong to the active part of the litter.

A somewhat smaller proportion of the total stock of litter fractions such as the bark of trees and shrubs are 2,3-7,4. Analysis of the fractional composition of litter oak and maple erosion control stands shows that the main contribution to its formation is carried out following fractions: branches, leaves and dust, which accounts for 23.8%, 35.1 and 18.4%. Fraction of bark is only 5.9% of the total reserves of litter, due to satisfactory condition of all trees and shrubs species.

The bulk of the inventories of bedding pine-fir plantations are inactive litter, which is 33.1 ts·ha^{-1} or 53.8%. An active part of litter in the plantation accounted 46.2% of its common stock or 28.4 ts·ha^{-1}. Another pattern found in the deciduous forest floor vegetation. It dominates the active part of the litter, which is 61.5% in birch plantation of natural origin and 70.3% in oak and maple plantation or 49.0 and 64.3 ts·ha^{-1}, respectively. This indicates a high microbiological activity of forest litter of erosion control plantings featuring hardwood.