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Optimization of the Contents of the Composts from Wood-Plant Residues in the Soil When Growing Seedlings of Norway Maple

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The aim of this work is to determine the optimal content of compost from woody plant remains in the soil for growing seedlings of Norway maple. As wood-plant residues used branches, roots, trunks of woody plants and grass. Studied biometrics maple depending on the content in soil compost or peat and period of cultivation. As biometric parameters were the plant height and diameter of their trunks at the root collar. In the control variant used light loamy soil of the nursery. The experimental data are processed by methods of mathematical statistics and regression analysis. The article presents the results of experiments in tabular and graphical form. Comparative characteristics of the dynamics of biometric parameters of seedlings of maple when grown using compost from wood-plant residues and peat with the same content in the soil, which showed no differences. The optimal range of content of compost from woody plant remains in the soil for growing seedlings of Norway maple, which is in the range of 41–48 %.

When growing maple in the «compost + sand + loam» determined by the mass of dried roots. Determined the average rate of increase in the mass of the root system of seedlings.

The performed studies allowed us to draw the following conclusions:

✓ the dependence of the growth rate of Norway maple in height, trunk diameter at the root collar and on the content of compost in the soil;

✓ unacceptable use pure compost as the rate of ro-hundred plant height and diameter are lower than in the control;

✓ optimal content of compost, necessary for the rapid growth of maple, is in the range from 41 to 48 %.

✓ the rate of growth of a maple tree height and trunk diameter at the root collar when growing it on the compost and peat with 33 % of their content is practically identical.