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The influence of bio-stimulant “Regoplant” on the growth and the rooting seedling plants of Scots pine (Pinus sylvestris L.)

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One of the important problems of forestry is to create a highly efficient and environmentally-friendly technologies that are able to maintain the stability of forest ecosystems and strengthen the use of plant protection against pesticides. Plant hormones are one of the most effective systems of intercellular regulation of physiological and biochemical processes in plants

Processing plant roots with biostimulants of bioprotective effect before planting is to stimulate the development of root rudiments and additional roots that are damaged by transplanting which degrades their survival rate.

Therefore, the main purpose of this study was to explore the impact of biostymulant "Regoplant" on the growth and survival rate of seedlings of pine under southern Left Bank Forest Steppe of Ukraine.

In experiments the biostimulant "Regoplant" was used having been mixed with the water-alcohol solution at a concentration of 0.5 ml / l, 1.0, 1.5, 2 and 2.5 ml / l for 24 hours. The root systems of the one-year seedings of Scots pine were processed with the biostimulant in order to raise the survival rate after transplanting. Control test was soaking the root system of pine seedlings during 12 hours in water.

Transplantive root soaking in water-alcohol solution biostymulant "Regoplant" at a concentration of 2 ml/l for 24 hours causes the most intense increase in the surface area of roots, forming thicker root collar and survival rate of one year seedlings of Scots pine.

It was established that biostymulant "Regoplant" should be used to optimize the processes of growth, development and strengthen the formation of drought

tolerant plants Scots pine seedlings. The results should be used to create pine plantations in forest ecosystems.