

Original article

EDN AUUFTI

DOI 10.24419/LHI.2304-3083.2025.3.02

Using Modified Growth Powder Kornevin to Stimulate Root Formation in Semi-Lignified Cuttings of *Juniperus sabina* L.

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Abstract. Growth powders are used to root semi-lignified cuttings of coniferous trees in forest nurseries. The range of such powders is represented by preparations with only one concentration of the active substance IBA (4 (indol-3yl) butyric acid) – 5 g/kg (0.5% IBA), in this regard, the possibility of mixing Kornevin with talc or crushed charcoal was studied. Semi-lignified cuttings of *Juniperus sabina* L. were used in the experiments, rooting was carried out under conditions of artificial low-pressure fog using substrate heating. It was shown that the best option under the experimental conditions was the use of powder obtained by mixing Kornevin with talc in a ratio of 1:1 (IBA concentration 0.25%) to stimulate rooting. The rooting of cuttings was 89.3%. Kornevin without additives had a phytotoxic effect, which was expressed in a decrease in survival by 26% compared to the best option. The use of powders with a lower IBA content led to an increase in callus formation and a deterioration in root formation. Thus, for successful rooting of cuttings of Cossack juniper, powders with an IBA content of 0.25% are needed, which can be obtained by mixing Kornevin with talc or crushed charcoal. When modifying Kornevin, it is necessary to take into account that with the same mixing proportion (by powder volume), the effectiveness of the powder with crushed charcoal is weaker than with talc.

Key words: *Juniperus sabina*, propagation, rooting of cuttings, growth powders, auxins.

For citation: Borovkov V., Demchenko G. Using Modified Growth Powder Kornevin to Stimulate Root Formation in Semi-Lignified Cuttings of *Juniperus sabina* L. – Text : electronic // Forestry Information. 2025. № 3. P. 18–27. DOI 10.24419/LHI.2304-3083.2025.3.02. <https://elibrary.ru/auufti>.

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