Original article

EDN NCTTCK
DOI 10.24419/LHI.2304-3083.2025.2.06

The Influence of Transplanting and Growth Stimulants on the Biometric Parameters of Containerized Silver Birch Seedlings

Evgeny V. Tatun[1]
Vadim V. Nosnikov[2]
Candidate of Agricultural Sciences

Abstract. *The aim of the study was to determine the degree of pricking out influence and joint application of growth regulators on biometric indices of annual containerized silver birch.*

At the first stage, we investigated the optimal size of birch seedlings for transplanting of 1, 2, 3 and 4 cm in size. We found that the optimum size for transplanting was about 2 cm. Seedlings of this size demonstrated higher biometric parameters after the end of vegetation compared to other variants, and their growth processes resembled those of seedlings sown directly into cells. Direct-sown seedlings outperformed transplanting seedlings by 26% in average absolute dry weight in 2023 and by 12% in 2024.

At the second stage, we determined the effect of treatment with growth regulators Zircon and Epin-extra on the survival of pricking out birch plants and their further growth. Treatment with Zircon stimulant (1 ml/10 L) immediately after transplanting eliminated the difference in mass between transplanting seedlings and seedlings sown directly into cells. Seedlings treated with Epin-extra (1 ml/5 L) showed no changes in growth processes. They were 13% inferior in weight to seedlings obtained by direct sowing.

Key words: *silver birch, seedlings, cassettes, picking, growth stimulants.*

For citation: *Tatun E., Nosnikov V. The Influence of Transplanting and Growth Stimulants on the Biometric Parameters of Containerized Silver Birch Seedlings. – Text : electronic // Forestry information. 2025. № 2. P. 94–104. DOI 10.24419/LHI.2304-3083.2025.2.06. https://elibrary.ru/ncttck.*

[1] Belarusian State Technological University, Postgraduate student of the Department of Forest Crops and Soil Science (Minsk, Republic of Belarus), evgeniy.tatun@mail.ru
[2] Belarusian State Technological University, Associate Professor of the Department of Forest Crops and Soil Science (Minsk, Republic of Belarus), nosnikov@belstu.by