

Original article

EDN NZDNIO

DOI 10.24419/LHI.2304-3083.2024.4.08

The Influence of Complex Fertilizers on the Ornamentality of Roll Lawn in Moscow Conditions

Karina M. Gordyushkina¹

Anton I. Chudetsky²

Candidate of Agricultural Sciences

Sergey S. Makarov³

Doctor of Agricultural Sciences

Alexander M. Antonov⁴

Candidate of Agricultural Sciences

Abstract. The article presents the results of studies on the effect of modern-generation complex fertilizers on the ornamentality of rolled lawns in Moscow. The studies were conducted on the territory of the Scientific and Practical Center for Horticulture and Vegetable Growing named after V.I. Edelshtein on the basis of the Russian Timiryazev State Agrarian University in 2022–2024. Various indices of ornamental value (projective cover, tillering density (shoot formation) of a lawn made of meadow bluegrass (*Poa pratensis* L.) were studied against the background of the use of complex granulated mineral fertilizers of the modern generation (Bona Forte – with microelements, Ceolong Blue Bona Forte Professional – prolonged action with bioavailable silicon, Bona Forte – in a prolonged-release shell, Osmocote Exact Standart – prolonged action in a polymer shell, FertiPro Ruscote – prolonged action in a polymer shell), which were applied at a rate of 40 g/m² by scattering over the surface of the grass stand. The overall ornamental value of the grass stand was assessed monthly throughout the growing season according to A.A. Laptev's method using one-way analysis of variance in assessing the tillering density of the grass stand. The use of granulated mineral fertilizers Bona Forte and Osmocote Exact Standart affects the tillering density of rolled lawns and their overall decorativeness from the 2nd year after laying. The rolled lawn is characterized by an excellent quality assessment throughout the growing season and had maximum indicators of tillering density (more than 10–15 thousand pcs/m²) and overall ornamentality (25 points) both in the variants with and without the application of fertilizers in the 3rd year of observations.

Key words: lawn, grass stand, ornamental qualities, tillering density, shoot formation, projective cover, complex fertilizers.

For citation: Gordyushkina K., Chudetsky A., Makarov S., Antonov A. The Influence of Complex Fertilizers on the Ornamentality of Roll Lawn in Moscow Conditions. – Text : electronic // Forestry Information. 2024. № 4. P. 76–84. DOI 10.24419/LHI.2304-3083.2024.4.08. <https://elibrary.ru/nzdnio>.

¹ Russian State Agrarian University – Moscow Timiryazev Agricultural Academy, Assistant at the Department of Ornamental Horticulture and Lawn Science (Moscow, Russian Federation), gordyushkina@rgau-msha.ru

² Russian State Agrarian University – Moscow Timiryazev Agricultural Academy, Associate Professor at the Department of Ornamental Horticulture and Lawn Science (Moscow, Russian Federation), a.chudetsky@mail.ru

³ Russian State Agrarian University – Moscow Timiryazev Agricultural Academy, Head of the Department of Ornamental Horticulture and Lawn Science (Moscow, Russian Federation); Northern (Arctic) Federal University named after M.V. Lomonosov, Professor at the Department of Landscape Architecture and Artificial Forests (Arkhangelsk, Russian Federation), makarov_serg44@mail.ru

⁴ Northern (Arctic) Federal University named after M.V. Lomonosov, Head of the Department of Landscape Architecture and Artificial Forests (Arkhangelsk, Russian Federation), a.antonov@narfu.ru