

Original article

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The Influence of Soil Conditioners on the Quality of Lawn Coverage in Urban Environment

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Abstract. The results of field research to study the effect of soil conditioners on lawn surfaces in an urban environment. The studies were carried out 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 (Moscow) in 2020–2023. We studied the quantitative and qualitative indicators of the lawn cover (grass density, projective cover area, grass color, resistance to biotic factors) with using the preparations Agrigate®, Reasil® Soil Conditioner, Zeba®, Adsoil® Soil Conditioner Universal, Glauconite. The quality of the grass stand was assessed according to the methods of A.A. Laptev and NTEP (National Turfgrass Evaluation Program). The highest indicators of grass density at the end of the 1st year of growing season are observed in the experimental variants using the preparations Agrigate® (5 343 pcs./m²) and Zeba® (5 233 pcs./m²); at the end of the 2nd year – Reasil® Soil Conditioner (9 320 pcs./m²) and Glauconite (8 852 pcs./m²); at the end of the 3rd year – Agrigate® (11 423 pcs./m²), Reasil® Soil Conditioner (11 863 pcs./m²), Glauconite (11 320 pcs./m²). The preparations Agrigate®, Reasil® Soil Conditioner and Glauconite has the greatest impact on the ornamentalness and density of the grass stand in the field conditions of the urban environment. The use of Reasil® Soil Conditioner increased the humus content in the soil by 0.15 % over the entire period of the field experiment.

Key words: lawn, soil conditioners, grass stand, shoot formation productivity, ornamental qualities.

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