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DECOMPOSITION OF LARGE DOLOMITE PARTICLES IN ACIDIC SOD-PODZOLIC SANDY LOAM SOIL; INFLUENCE OF LIMING AND DIFFERENT LEVELS OF WHEAT MINERAL NUTRITION ON CHANGES IN SOIL ACID-BASE PROPERTIES AND PLANT PRODUCTIVITY (ACCORDING TO LABORTORY EXPERIMENT DATA)

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Under the conditions of a laboratory experiment using a very strongly acidic sod-podzolic sandy loam soil with wheat plants, the gravimetrical loss of dolomite large particles applied as a lime fertilizer has been studied. It was revealed that for 30 days of the ameliorant - soil interaction, the decrease in the mass of the particles, depending on the treatment of the experiment, was from 0.025 to 0.031 g (1.23-1.58% of the applied amount). The pH_{KCl} value of the soil changed at the initial stage of wheat cultivation. The effect of mineral fertilizers, used in the experiment, on the dolomite dissolution was not revealed. The data on the productivity of wheat according to the experiment treatments, where various mineral fertilizers were used, are presented in the paper. The maximum yield of wheat green mass was recorded in the treatment with the full mineral fertilizer. The productivity of wheat in the treatments with nitrogen and potasium fertilizers was lower. According to the effect on the yield, the studied treatments form the following decreasing order: azophoska > KCl > NH_4NO_3 > control. In comparison with the control treatment, the total yield of wheat green mass in the teatments of the experiment with the fertilizers was, respectively, 1.49, 1.22 and 1.3 times higher.

Keywords: sod-podzolic soil, acid-base properties, wheat productivity.