

EFFECT OF AGROCHEMICAL BACKGROUND OF CHERNOZEM TYPICAL AND FERTILIZERS ON MINERAL NUTRITION OF BUCKWHEAT PLANTS

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Knowledge of the basic regularities of plant nutrition allows regulating their nutritional profile. By changing the chemical composition of substances that are supplied in the plants, their number and time, it is possible to increase yield, enhance growth, improve the chemical composition and quality of the resulting products and increase plant resistance to adverse environmental conditions. In this context, the aim of our study was to investigate the influence of agrochemical background of chernozem typical on mineral nutrition of buckwheat plants in the main phases of ontogenesis in the conditions of growing experience. *Methods.* After growing experiment in plant samples were determined nitrogen and phosphorus by wet ashing. *Results.* It was determined by research that on all investigated agrochemical backgrounds the most intense absorption of nitrogen was observed at variants of nitrogen fertilizer application (var. N_{90} , $N_{90}P_{90}$ and $N_{90}P_{90}K_{90}$). Mineral fertilizers on agrochemical backgrounds played a significant role in changing the phosphorus content in buckwheat plants during the growing season, but the greatest impact was the application of phosphorus fertilizer (var. P_{90}), which increased the accumulation of macronutrients in the green mass. It was found that the largest increase in yield of buckwheat green mass, which amounted to 81% (compared to control), defined in option $N_{90}P_{90}K_{90}$ on the agrochemical background with the application of phosphate fertilizers in stock. *Conclusions.* The data indicate positive impact effect of agrochemical background on mineral nutrition of buckwheat plants by the effect of recent application fertilizer.

Key words: fertilizers, chernozem typical, agrochemical background, nitrogen, phosphorus, ontogeny of buckwheat plants.

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ВЛИЯНИЕ АГРОХИМИЧЕСКОГО ФОНА ЧЕРНОЗЕМА ТИПИЧНОГО И НЕПОСРЕДСТВЕННО ВНЕСЕННЫХ УДОБРЕНИЙ НА МИНЕРАЛЬНОЕ ПИТАНИЕ РАСТЕНИЙ ГРЕЧИХИ

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В условиях модельного вегетационного эксперимента исследовали особенности динамики усвоения растениями гречихи основных элементов питания из удобрений и влияние удобрения на формирование зеленой массы растений и вынос питательных элементов. Растения выращивали на трех искусственно созданных в поле (путем многолетнего запасающего и систематического внесения органических и минеральных удобрений) агрохимических фонах, на которых в условиях вегетационного эксперимента непосредственно внесены удобрения (пять вариантов). Исследовали особенности поглощения и выноса азота и фосфора растениями гречихи в течение вегетации. Наиболее интенсивное поглощение азота констатировали в вариантах с непосредственным внесением азотных удобрений (N_{90} , $N_{90}P_{90}$ и $N_{90}P_{90}K_{90}$), а на изменения содержания фосфора в зеленой массе растений наибольшее влияние имело применение фосфорного удобрения (P_{90}).

Ключевые слова: удобрения, чернозем типичный, агрохимический фон, азот, фосфор, онтогенез растений гречихи.