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THE INFLUENCE OF FERTILIZERS ON FORMATION OF PHOTOSYNTHETIC AND GRAIN PRODUCTIVITY OF SOYA IN THE CONDITIONS OF THE WESTERN FOREST-STEPPE

The article contains three years experimental researches of fertilizers influence on the formation of photosynthetic and grain productivity of soya variety Ustya and qualitative indices of grain.

According to our researches the increase of fertilizers rates influences on the lowering of field germination and the increase survival of plant-soya variety Ustya. It was established that the maximum survival was in variant of the experiment variant N_{90} P_{90} K_{90} – ammonium niter (N_{45}) + carbamid (N_{45}) + $MgSO_4$ (5 %) + Ecolyst Standart (3 л/га) + Ecolyst Standart (3 л/га) and was 90,8 %, which is 8,0 % higher than the control variant. Density of plants for this amounted to 57,9 pc./m^2.

At application of fertilization at the rate of N_{90} P_{90} K_{90} – ammonium niter (N_{45}) + carbamid (N_{45}) + $MgSO_4$ (5 %) + Ecolyst Standart (3 l/ha) + Ecolyst Standart (3 l/ha) in soya variety Ustya is formed maximum area of leaf surface – 44,0 ths m^2/ha (periods of budding–flowering); the maximum index of photosynthetic potential – 2,89 mln. m^2/ha x days (period of flowering–grain filling); the highest index of net productivity of photosynthesis – 6,19 g/m^2 per day (period of sprouts–budding) and occured the accumulation of the most quantity of dry matter – 17,4 g/plant (period of flowering–grain filling). At the same variant the maximum yield was obtained – 3,15 t/ha (increase thus amounted 0,96 t/ha or 43,8 %) and the highest contents of protein – 42,2 %).

It was established that the application of microfertilizers provided the increase the protein contents in grain of soya variety Ustya up to 40,1 %.