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**YIELD OF CHICK-PEA  
DEPENDING ON MINERAL NUTRITION**

The results of researches for study of the yield of chick-pea variety Pamyat in the conditions of sufficient humidification of the western Forest-Steppe of Ukraine are presented.

The research scheme included 8 variants: 1) control (without fertilizers),  $N_0P_0K_0$ ; 2)  $P_{20}K_{30}$ ; 3)  $P_{40}K_{60}$ ; 4)  $P_{60}K_{90}$ ; 5)  $N_{30}P_{20}K_{30}$ ; 6)  $P_{40}K_{60}$  + intermag legumes (3 l/ha) in the phase of budding start; 7)  $P_{40}K_{60}$  +  $MgSO_4$  (10 kg/ha); 8)  $P_{40}K_{60}$  + intermag legumes (3 l/ha) +  $MgSO_4$  (10 kg/ha).

Phosphorus and potassium fertilizers were applied in the form of superphosphate and potassium chloride in autumn under the plow, nitrogen ones in the form of ammonium nitrate under pre-sowing cultivation. Leaf application of microfertilizer and magnesium sulfate was carried out in the phase of budding start on the background of  $P_{40}K_{60}$ . Microfertilizer intermag legumes were applied at 3 l/ha, 5 % magnesium sulfate – 5 kg per 100 liters of water, or 10 kg/ha. On the 8<sup>th</sup> version microfertilizer and magnesium sulfate were applied in the same terms as in the case of their separate application.

The results of researches have shown that the application of phosphoric and potassium fertilizers essentially did not affect on the field germination and plants density in the phase of shoots. During the application of  $P_{40}K_{60}$  + intermag legumes +  $MgSO_4$  the plant density increased before harvesting by 7 pcs/m<sup>2</sup> compared to variant without fertilizers.

The number of beans per plant and the number of seeds in the bean did not change much under the influence of fertilizers. The mass of seeds from the plant increased from 6,97 on the control to 7,94 g at the application of macro- and microfertilizers and the mass of 1000 seeds – from 309,3 g to 322,1 g.

It was established that the highest yield of chick-pea (3,09 t/ha) is formed at the application of  $P_{40}K_{60}$  + intermag legumes +  $MgSO_4$ . Under the influence of fertilizers, the protein content increased to 26,3 %, ashes –

decreased from 4,3 to 3,5 %, and the content of fat and fiber remained stable.