## Annotation

## Bakhmat N.O., Kravchenko V.S., Prus L.I.

## Yield and adaptability of the potential of soybean varieties under the conditions of the Foreststeppe of the Western

The article reviews the latest research of scientists on the importance of growing soybeans to ensure food security of the population, improving soil quality indicators, the best precursor for cereals, as a highly effective component of crop rotation and a highly profitable crop.

The technological model of measures aimed at optimizing the growth, development and productivity of soybean varieties, the system of organic nutrition of soybean plants, the technology of inoculation of soybean seeds before sowing with rapidly growing and slowly growing strains of nodule bacteria, the method of spraying crops during the growing season with growth-regulating preparations of microbial origin. The zonal biological technology of cultivating soybean varieties of various ripeness under conditions of sufficient moisture has also been improved.

The complex of elements of the technology of soybean cultivation - syderal fertilizers, seed inoculation and spraying of crops by the Hetomik - contributed to an increase in the height of the studied varieties: Legend - 14 cm, Angelica - 15 Xenia - 17 and Dahlina - 18 cm.

By inoculation of seeds with strain 634b - without siderata and spraying - the yield of soybean varieties Legend and Xenia were respectively 2.47 and 2.79 t / ha, and strain 614a - in the variety of Angelica and Georgina - respectively 2.71 and 2.75 t / ha. In the variant of the syeral fertilizer and inoculation of the seeds with strain 634b, the yield increased in the Legend to 2.73 t / ha, Ksenia - up to 3.01 t / ha, and with inoculation with the 614a strain against the background of the syeral fertilizer with spraying of the crops with Hetomik, Angelica 2.95 t / ha, Dahlia - 3.04 t / ha.

*Key words:* soybean, seed inoculation, sideral fertilizers, leaf surface area, microbiological preparations, productivity, quality.