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## ADAPTATION OF THE AGRICULTURAL INDUSTRY TO CHANGES OF CLIMATIC CONDITIONS IN THE STEPPE ZONE OF UKRAINE

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### ABSTRACT

Management of production processes of growth and development of agricultural plants requires constant attention and systematic improvement. After all, the climatic conditions, water-physical properties of soils, their provision with basic nutrients, etc. In the arid conditions of the Southern Steppe of Ukraine, the level of crop yield in addition to technological measures determine the reserves of soil moisture and the amount of precipitation of the growing season. First of all, in cultivation technologies, it is necessary to develop elements that enhance plant resistance to drought, temperature changes, contribute to economical water consumption and, regardless of the year, ensure constant productivity. The second place after moisture is the nutrition of plants. In addition, it is necessary to select drought-resistant crops, even their varieties or hybrids, which under adverse conditions of vegetation are able to form a high yield. These include millet, oil linen, beautiful safflower, rice, sorghum, sorghum and others. These plants in the Southern Steppe of Ukraine provide yield not lower than sunflower, including can successfully compete with it and the level of profitability. In addition, they less deplete the soil on nutrients and moisture. Many years of research conducted with a number of drought-resistant plants have determined the value of optimization of nutrition in the formation of productivity. In addition to the positive impact on the level of yield and quality of crops, providing their main elements allows for 35-42% more economical use of moisture regardless of the conditions of the year. The expediency of using resource-saving elements in technologies of nutrition of



agricultural crops is established. These approaches are based on the use of by-products that remain after harvesting predecessors, biodestructors of stubble, low "starting" doses of mineral fertilizers, on the background of which foliar feeding with modern biological preparations and regulating substances is carried out. The high efficiency of pre-sowing treatment of seeds with biological preparations and trace elements is also determined, which complements and improves plant nutrition.

**Keywords:** Climate change, drought-resistant plants, elements of technology, optimization of nutrition