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EXPERIMENTAL FIELDS AS A SCIENTIFIC AND ORGANIZATIONAL FORM OF AGRICULTURAL MANAGEMENT IN THE LATE 19TH – EARLY 20TH CENTURIES

Summary

The purpose of the article is to analyze the activities of experimental fields, particularly those established on the initiative of agricultural societies, to meet the needs of scientific support for the agricultural sector in the Ukrainian governorates in the late nineteenth and early twentieth centuries. The material is organized according to regions, which makes it possible to outline the activities of experimental fields in the Poltava, Kyiv, Kharkiv, Podillia, Kherson, Volyn, Chernihiv, and Katerynoslav governorates, as well as in the Don Cossack Host Region, and to identify the key directions and programs under which they operated.

The research methodology is based on the principles of historicism, systemacity, and objectivity.

It has been established that the most widespread area of scientific activity of experimental fields was field experimentation, through which their own conclusions on agricultural practices were formed. As for individual branches of crop production, experiments in arable farming predominated, and their programs often also included studies in meadow farming, including grass sowing and the cultivation of fodder crops. It is emphasized that several experimental fields (namely the Verkhnodniprovs'k and Poltava fields) also conducted experiments in animal husbandry, mainly concerning the use of feed and livestock fattening.

It has been proven that during the specified period experimental fields played an important role in the formation of scientific principles of domestic crop rotations as a leading component of agriculture in the European context; in the search for rational measures to improve the culture of agricultural management; in the organization and methodology of conducting field experiments on the rational cultivation of crops within crop rotations; and in the application of effective crop rotations in farms under various natural and climatic conditions. Over time, these

measures contributed to increased yields of cereal crops, sugar beets, flax, and others, and ensured stable high profits. Attention is drawn to the fact that agrarian scientists (S. M. Bohdanov, V. H. Rotmistrov, A. Ye. Zaikevych, S. L. Frankfurt, B. P. Cherepakhin, and others) developed an effective structure of sown areas, scientifically substantiated the alternation of agricultural crops, and addressed issues of soil cultivation and fertilization in crop rotations.

Keywords: *agricultural societies, agricultural experimental research, experimental fields, arable farming, agriculture, crop rotations, soil cultivation, plant breeding.*