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## **M. M. KULESHOV AND THE PRECONDITIONS OF ORGANIZATION OF THE NATIONAL PLANT GENETIC RESOURCES BANK OF UKRAINE**

### **Summary**

The goal is to reveal the value of the person and work of N.N. Kuleshov for the development of crop science in Ukraine and the former Soviet Union.

Methods of research - historical and biographical.

Conclusions.

MM Kuleshov was born December 5, 1890. In 1909 graduated from high school with honors, in 1913 - the Agricultural Department of Kyiv Polytechnic Institute, also with honors, and received a diploma Agronomist of First Class. Since 1913, he worked at the Kharkiv Breeding Station, trained at the Moscow Agricultural Institute and the Bureau of Applied Botany (St. Petersburg), where he studied at D.L. Rudzynskiy and met with MI Vavilov. Since 1915, at the invitation of V.Ya. Yuryev, starts to work in the Kharkiv Breeding Station as Head of the Laboratory for Physiology of the Breeding Department. In 1918, he was approved in the position of Director of the Kharkiv Seed Control Laboratory (since 1920 Central Station for Seed Control). Since then, N.N. Kuleshov devoted himself completely to seed control and directed its creation and organization not only in Ukraine but all over the USSR.

During this period, he developed a draft decree on the seed control business, explores and offers a range of techniques that were later adopted as the standard for the study of seeds.

Since 1922, N.N. Kuleshov was elected simultaneously head of the Department of Special Agriculture (now – Crop Science) of the Kharkov Agricultural Institute. In 1924, he took part in the International Congress on Seed Control Business in Cambridge (UK); visited Holland, Denmark, Sweden, Germany, Poland where he learned the state of seed control and agricultural research business. In 1926, MM Kuleshov, continuing management Department, teaching at the Kharkiv Agricultural Institute and management of seed control business in Ukraine, at the invitation of N.I. Vavilov, organizes and heads the Ukrainian Division of All-Union Institute of Applied Botany and New Crops (VIPBNK - later VIR), which was located near the village Lytvynivka, Valky district, Kharkiv region. The Division launched a full-scale introduction the world's plant genetic resources, their study and implementation in crop breeding of Ukraine. Since, 1926 N.N. Kuleshov moved to VIPBNK, leading the section of maize and sorghum along with leading the Ukrainian Division. In the institute, N.N. Kuleshov initiated and organized the Department of Seed Science. He headed later the Sector of World Plant Resources. In 1925, 1927 and 1929 he was headed and conducted expeditions to Central Asia, which resulted in attracting to the collections of the VIPBNK and its Ukrainian Division a large variety of crops, including alfalfa resistant to wilt. In the 1926 was carried out the expedition to Azerbaijan which collected more than 3,000 specimens, including cultural forms Transcaucasian sainfoin, winter flax.

In 1928, he participated in the International Congress on Seed Control Business in Rome. After the Congress – learning of research and seed business in Italy, Austria, France, Hungary and Czechoslovakia. In the 1930-1931 – travel to the USA to study advances in plant breeding, seed production and research work. In the late 20s of XX century, he summarizes the researches of world maize diversity and issues the paper "Geographical allocation of maize varietal diversity on the Globe". In it, there was first given a new diagnosis of maize botanical subspecies – waxy,

described the Central Asian type of flint maize which is valued by drought hardiness, expressed reasonable hypothesis about the origin of maize not from Central but from South America – Peru and Bolivia. N.N. Kuleshov conducted one of the first work on interline hybridization of maize.

During eight years of work in VIPBNK and after that in the VIR, he published more than 30 scientific works, organized translation and editing of valuable foreign papers. In 1933, during the dictatorship of Stalin, N.N. Kuleshov was arrested on trumped-up charges and tortured. After his release, November 17, 1933 he was deported to Irkutsk. Here he worked as head of the research group of Seed Control Lab; in 1934, headed the Department of Crop Production of the the East Siberian (Irkutsk) Agricultural Institute. In 1938, he was awarded the degree of Doctor in Agricultural Sciences and approved at the rank of professor. From 1939 to 1945 he managed the Department of Crop Production Omsk Agricultural Institute.

Since June 1945, N.N.Kuleshov returned to Ukraine, Kharkiv. He is Head of the Department of Crop Production, Kharkiv Agricultural Institute named after V.V. Dokuchayev. June 2, 1948 N.N. Kuleshov was elected member of the Academy of Sciences of Ukraine, and May 19, 1951 – a full member (academician). In 1956, N.N. Kuleshov organized and headed the Department of Agroecology and Plant Resources of the Ukrainian Research Institute for Crop Production, Breeding and Genetics, which resumed work on plant genetic resources. More than 10,000 samples of crops: winter and spring wheat, barley, oats, corn, beans, chickpeas were collected, studied and transferred for use in breeding. This gene pool became further the basis for creating collections of the National Bank of Plant Genetic Resources of Ukraine, the creation of which began in 1991.

N.N. Kuleshov died on January 19, 1968, buried in Kharkiv, Ukraine.

Personality of N.N. Kuleshov, his human intelligence and charm attracted to him the staff and students. He has been characterized by profound knowledge in the science directions in which he worked, broad general erudition, fluency in English, German, French, Italian and also Latin and ancient Greek. During his incarceration he wrote a poem "Bibi Khanum" and many poems, so it shows his poetic talent.

Heritage of N.N. Kuleshov lives and continues to serve to humanity, present and future scientists and farmers.

**Keywords:** *N.N. Kuleshov, seed control, plant genetic resources, mayze, agricultural education.*