

WORLD COLLECTION OF CUCUMBER VIR IS A SOURCE OF NEW VALUABLE INITIAL MATERIAL FOR BREEDING

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The world collection of cucumber genetic resources at the N. I. Vavilov VIR includes representatives of 24 varieties grouped into 10 convarieties according to the classification of V. I. Pyzhenkov. The first accessions entered the collection in 1922 from breeding companies in the USA, France and Germany. In 1924–1929, the collection was expanded with local varieties from the collecting missions of N. I. Vavilov (Afghanistan, Syria, Palestine, Jordan, Western China), N. M. Zhukovsky (Türkiye), V. V. Markovich (Japan, India), E. N. Sinskaya (Japan). Currently, the cucumber collection includes 3,571 accessions from 83 countries around the world. The purpose of this work was to study cucumber samples from the world VIR collection, to determine correlations between important breeding characteristics and to allocate the initial material to use in breeding. The passport database and the collection accessions served as the object of these studies. Correlation analysis showed a high relationship between total yield and precocity ($r = 0.83$) as well as between precocity and productivity ($r = 0.81$). A high opposite relationship was found between the length of the fruiting period and the phenophases «seedling – beginning of flowering» ($r = -0.73$) and «seedling – beginning of fruiting» ($r = -0.75$). High yield in the first month of fruiting was noted in 17 accessions. The most precocious were hybrids from the Netherlands: Britanos F1, Proscore F1, Kibriya F1, Subaru F1 and Atik F1. They were also distinguished by early maturity and female or predominantly female type of flowering. Significant variation ($CV = 26.3$) of accessions by the yield feature was noted. The group of high-yielding hybrids that exceeded the standard by 20–80% included 10 accessions, of which the most productive were Britanos F1, Normando F1, Proscore F1 and Kibriya F1.

Keywords: *Cucumis sativus* L., correlation of features, productivity, precosity, female type of flowering.