

ASSESSMENT OF THE ADAPTIVE CAPACITY AND STABILITY OF EARLY RIPENING CORN HYBRIDS

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Information on adaptive capacity and stability plays an important role in the cultivation of early maturing corn hybrids in various ecological zones. The article presents study results of the adaptive ability and stability of early maturing corn hybrids based on the “grain yield” of the FSBSI ARRSI of corn breeding at two ecological points: FSBSI ARRSI of corn (Pyatigorsk) and FSBSI “RIA of Crimea” (Klepinino village, Krasnogvardeisky district, Republic of Crimea) in 2018-2019. According to the research results, hybrids are divided into 3 groups: intensive – RM 15087, RM 16007, RM 18004, RM 16002, RM 18003, RM 16004, plastic – Nur, Uralskiy 150, RM 15006 and homeostatic – Kubanskiy 101 SV, RM 15001, RM 15020, RM 16001, RM 16003, RM 18001. Early maturing hybrids of practical value were identified: RM 15001 (FAO 130), RM 15087 (FAO 160) and RM 16007 (FAO 190). These hybrids provide maximum yields in a variety of growing conditions. On two points of testing, hybrids PM 15087 and PM 16007 were more productive by 0.83 (23.0%) and 0.56 t/ha (15.4%) respectively. Early maturing intensive hybrids RM 15087 and RM 16007, which exceeded the standard Nur in terms of grain yield, general adaptive ability and genotype selection value, can be suitable for growing in more favorable conditions of the North Caucasus region.

Keywords: corn, early ripening hybrids, adaptive ability, stability, plasticity, grain yield.

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