WINTER WHEAT BREEDING FOR DISEASE RESISTANCE

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Creation of new cultivars of winter wheat with group resistance against main pathogens is becoming more relevant and important. Growing wheat cultivars being resistant against diseases is one of the effective, environmentally friendly, and safe methods of protection. Our research aims to create new genetically diverse breeding material with resistance against main the most harmful diseases for use in breeding process when creating modern winter wheat cultivars. The research was carried out during 2001-2016 on the experimental fields of the Plant Protection Department at the V.M. Remeslo Myronivka Institute of Wheat. During 2001-2016 2,491 combinations of crossings were carried out, 1,309 donors of resistance were used. 25,716 hybrid populations F_1–F_4 were studied with 160,670 samples of which being selected and analyzed. In breeding nurseries 4,346 constant lines with group resistance against diseases were studied, 784 lines of them were transferred to Winter Wheat Breeding Laboratory. With participation of

breeding material with group resistance to diseases and with our co-authorship the cultivars Ekonomka, Monotyp, Myrliena, Myronivs'ka storichna have been developed. In 2016, the variety MIP Dniprianka developed with participation of the resistant against powdery mildew line Lutescens E.g.134 / 2000 was transferred to the State variety testing.

Key words: winter wheat, resistance, pathogens, cultivars, breeding material, artificial infectious backgrounds.