P-45 (93)
THE EFFICIENCY OF RESEARCH ON THE STONE FRUIT CROPS BREEDING IN THE NIKITA BOTANICAL GARDENS

Dr. Larisa Komar-Tyomnaya, Nikita Botanical Gardens, Yalta, Russian Federation; larissadkt@mail.ru (Presenting author)
Dr. Valentina Gorina, Nikita Botanical Gardens, Yalta, Russian Federation; valgorina@yandex.ru

The cultivars which do not fully meet the modern requirements are often grown in the industrial gardening on south of Russia. The main method of a new cultivars creating is intraspecific and distant hybridization, and the key to success of selection is a source material. In the Nikita Botanical Gardens a lot of attention has been paid to the formation of fruit crops collections. The aim of this research was to study the gene pool of some stone fruit crops, to reveal sources of valuable biological and economic characteristics for use them in hybridization. 350 genotypes of apricot, 180 of cherry plum, 93 of ornamental peach were included in the study. 27 sources of winter hardiness, spring frosts and drought resistance, late flowering, early ripening, weak susceptibility to brown rot and shot-hole disease, large fruit and high fruit quality, self-fertility and yield were selected for apricot. 16 sources of winter hardiness, late flowering, very early ripening, weak growth, weak susceptibility to shot-hole disease, large-fruited, good taste, quality, appearance and pleasant aroma of fruits, dark color of fruits and pulp, gristly pulp, anthocyanin color of leaves and high yield were of interest for cherry plum. 9 late-flowering cultivars, 4 winter-hardy, 3 resistant to the main fungal pathogens, 10 with a weeping crown, 3 with a pillar-type crown, and 2 dwarfs were selected for peach from the gene pool of ornamental peach with a different geographical origin. The breeding work with the participation of these cultivars has been initiated to improve the assortment of fruit crops. Involvement of selected promising sources of valuable economic and biological characteristics in the breeding process contributes to the successful selection of initial cultivars pairs and increases the efficiency of crosses.

Keywords: apricot, plum cherry, peach, sources of traits, cultivars.

This study was funded by the research grant № 14-50-00079 of the Russian Science Foundation.