CZU: 634.22:631.541.11(478)

PERSPECTIVE OF CULTIVATION OF GRAFTED PLUM VARIETIES ON MIROBOLAN 29C IN THE SOUTHERN AREA OF THE COUNTRY

Cumpanici Andrei, Peșteanu Ananie

Technical University of Moldova, Chisinau, Republic of Moldova E-mail: andrei.cumpanici@tpa.utm.md

The researches were carried out in a plum plantation during 2021 established in 2015 in the southern part of the country, SRL "Agroparc Management". In the research, the Stanley (control), Top Star, Blue Free, President and Tophit varieties were grafted on the Mirobalan 29C rootstock, and the Stanley and President varieties on the corcodus biotype. The planting distance of the trees between the rows is 5.0 m, and between the trees in a row 3.0 m.

A smaller number of fruit formations were formed by the President variety - 605 pcs/tree, and the largest by the Tophit variety - 915 pcs/tree. To the group of medium varieties, weighing between 30-40 g, the Stanley variety is assigned, whose average weight was 39.7 g. The Top Star variety (41.3 g) is assigned to the group of those with large fruits, whose weight fall within the values of 40-50 g. The varieties with very large fruits include Blue Free (51.2 g), President (51.3 g) and Tophit (62.2 g), whose average fruit weight was greater than 50 g.

According to the weight of the stone in the fruit, the plum varieties studied can be divided into 2 groups. To the group of varieties with the weight of the stone in the fruit up to 5.0%, the Blue Free (4.2%), Tophit (4.5%) and President (4.6%) varieties are attributed, and the Stanley varieties (5.6%) and Top Star (5.8%), recorded a higher share of the stone in the fruit, placing themselves in the group from 5.0 to 6.0%. Lower values of the number of plums in the crown of the trees on the Mirobalan 29C rootstock was formed within the Tophit variety - 214 pcs/tree. Next, the varieties Top Star - 310 pcs/tree, President - 370 pcs/tree, Blue Free - 410 pcs/tree were placed on the increase. The Stanley variety recorded higher values, constituting 605 pcs/tree. Smaller fruit production from a tree on the Mirobalan 29C rootstock was recorded for the Tophit variety - 13.3 kg/tree, then the Top Star varieties - 14.4 kg/tree, President - 19.0 kg were placed /tree, Blue Free – 21.0 kg/tree and Stanley (m) – 23.7 kg/tree. Higher values of fruit production per surface unit were obtained in the Stanley variety - 15.8 t/ha, and lower in the Tophit varieties - 8.9 t/ha and Top Star - 9.6 t/ha. The President and Blue Free varieties recorded average values, constituting 12.7 and 14.0 t/ha, respectively.

Acknowledgments: This study was supported by the NARD of the Republic of Moldova, project 20.80009.5107.04 "Adaptation of sustainable and ecological technologies of fruit production under quantitative and qualitative aspect according to the integrity of the culture system and climate changes". Project director, Doctor Habil., university professor Valerian BALAN.

Keywords: fruit, plum, production, varieties.