

SESSION II - HORTICULTURE, FORESTRY AND PLANT PROTECTION

Subsection - 2.1 Horticulture

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THE IMPACT OF THE PRUNING TIME ON THE YIELD AND SIZE OF THE FRUIT OF SWEET CHERRY TREES OF THE STELLA AND SKEENA VARIETIES GRAFTED ON MAXMA 14

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The pruning of trees in early autumn is very important, as the main branches and sub branches that thicken the crown are clearly visible, and favorable conditions are created for the differentiation of fruit buds. In spring, new well-developed shoots appear on the pruned branches, which, in turn, produce fruiting branches. The research has aimed at evaluating the maintenance and the fruiting pruning of sweet cherry trees of the Stella and Skeena varieties, grafted on the MaxMa 14 rootstock, both during the rest period and the vegetation period. Between the years 2019 and 2021, in the central area of the Republic of Moldova, the impact of the pruning period of the sweet cherry trees (*Prunus avium* L.) of the Stella and Skeena varieties, grafted on MaxMa 14, which were planted in 2012 at a distance of 5x3 m was evaluated. The trees had naturally improved reduced volume crowns. The pruning during the rest period and the vegetation period was studied, namely: the pruning during the rest period (the control group); the pruning during the blossoming period; the pruning after harvest (in July); the pruning in early autumn (the first decade of September). Blossoming and fruit ripening time, trunk cross-sectional area (TCSA), and the yield and distribution of fruit according to their diameter were also studied. The time of the tree pruning did not have any impact either on the blossoming time or the harvest time. The pruning period influenced the yield per tree and per unit area, and the yield of sweet cherries of the Stella and Skeena varieties, grafted on MaxMa 14, was high. The pruning done in early autumn contributed positively to the harvest volume, fruit diameter and diameter distribution, while reducing the number of fruits per tree. The positive impact was manifested by an increase in the number of fruit (15.8-34.2%) with a diameter of 28 mm or more, as well as a decrease in the proportion (4.4-4.5%) of fruit with a diameter of 24 mm and smaller, without affecting the overall yield. The results showed that the pruning period had a significant impact on fruit quality and yield increase. The pruning done in early autumn reduced the number of small fruit and increased the number of fruits over 28 mm in diameter. Further research is needed to assess the effect of pruning time on yield and, in particular, on the diameter, weight and distribution of marketable fruit.

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