

INFLUENCE OF FRUIT LOAD THINNING METHOD ON SPECIFIC PRODUCTIVITY OF APPLE TREES

Calestru Oleg, Peșteanu Ananie

Technical University of Moldova, Chisinau, Republic of Moldova

E-mail: oleg.calestru@gmail.com

Tree specific productivity is the fruit yield in relation to crown canopy area, crown productive volume and cross-sectional area of the trunk. The researches were carried out in the orchard of the company LLC „Codru ST” in the period of 2014-2017, age of trees 9-12 years, varieties Gala Must, Golden Delicious Reinders, Idared, grafted on M9, planting distance 3.5x1.2 m, crown shape improved slender spindle. As methods of fruit load regulation, control variant without thinning, hand thinning variant and chemical thinning of fruit were used. For chemical thinning 3 growth regulators with different treatment basis were used: Geramid New (1.2; 1.5; 2.0 l/ha), Dirager (0.2; 0.3; 0.4 l/ha) and Gerba 4LG (2.0; 2.5; 3.0 l/ha).

The absolute values of this indicator contain information about the degree of use of the projection area, which must be in favor of fruit production. The specific fruit yield is in direct correlation with the biological particularities of the variety and the method of regulation of the fruit load used during fruit thinning. Higher values of fruit production were obtained in the Idared variety, where the fruit load was higher and the parameters of plant structure and cross-sectional area of the trunk lower. Gala Must and Golden Reinders varieties characterized by lower yield values and higher values of plantation structure had lower results.

The method of regulation of the fruit load has considerable influence on the indices taken in the study. In the variants with chemical thinning, similar values of the indices studied with the manual thinning variant in the variety Gala Must were recorded in the variants treated with the products Geramid New, 1.2 l/ha; Dirager, 0.3 l/ha; Gerba 4LG, 2.5 l/ha. For Golden Delicious Reinders, priority was given to the variants where the growth regulators Geramid New, 2.0 l/ha; Dirager, 0.4 l/ha and Gerba 4LG, 2.5 l/ha were applied. In the case of Idared, which is considered to be an easy to cool cultivar, higher values of specific productivity were recorded when the dose of the product applied to the treatment was minimal (Geramid New, 1.2 l/ha, Dirager, 0.2 l/ha, Gerba 4LG, 2.0 l/ha).

The specific productivity of the trees is in direct correlation with the bioconstructivi parameters of the varieties, the method of regulation of the fruit load and the applied dose of product per unit area.

Keywords: area, projection, specific production, thinning, volume.