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## **ACHIEVEMENTS AND PROSPECTS FOR THE DEVELOPMENT OF FRUIT GROWING IN THE REPUBLIC OF MOLDOVA**

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The development of the fruit growing in the Republic of Moldova has always been based on advanced researches. Scientific studies have been carried out which led to the development of physiological and technological foundations for the intensification of the cultivation of fruit plants. The objectives of this study were focused on the development of principles and methods for optimizing the parameters of the orchard structure, which depend on the vigour of the variety, the rootstock used, the fertility and moisture of the soil, the system of tree care and pruning as the main productivity factors.

The studies were carried out in the field using physiological, biochemical and biometric analyses. Analysis, synthesis, tabular, comparative and graphical methods were used in order to interpret the scientific results. The results have been published in scientific and methodological and didactic works, including patents, books, manuals and monographs, which demonstrate all scientific and technical aspects related to the growth and fruiting of fruit trees.

The scientific research programs were focused on fundamental and practical research aimed at solving complex problems of modernizing the technology of growing trees in orchards, creating and operating intensive and super-intensive orchards of apple, cherry and other fruit trees, namely: optimizing the optimal parameters of the garden structure, including optimal distances between trees depending on the crown size, determined by the growth vigour of the variety and rootstock, soil fertility and moisture, tree care system and pruning; the development and implementation of modern technologies for growing apple and sweet cherry trees in an intensive and super-intensive growing system.

The development of fruit growing involves planting orchards in the most favorable environmental, economic and production conditions; the growing of orchards of virus-free, highly productive varieties with a shortened operating cycle; the implementation of sustainable, integrated growing systems; the introduction of advanced methods of fruit production, in order to improve the quality and competitiveness of fruits on the market and to achieve high economic efficiency while reducing traditional energy consumption.

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