



# Research Into the Impact of Different Paywandtini on Fruit Quality for Intensive Gardens

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## ABSTRACT

In this article, in order to study the effect of different grafts for intensive orchards on fruit quality and to study and determine the photometric indicators and biometric classification of apple trees, the following indicators are the height of the stem, the thickness of the trunk, the size of the branches The average and total length of growth of annual branches is studied, the ideas about its methods are illuminated.

## Keywords:

Soil, climate, combinations of intensive horticultural varieties, grafting methods, growth and fruit formation, biometric characteristics.

The 21st century is a time of great environmental problems in the world

Due to environmental problems, various natural problems are on the rise today, which is why it is affecting agriculture. Today, the following problems are mainly encountered in agriculture: global warming, increasing demand for water resources, various damage to crops by sunflowers, varying degrees of excessive salinization of lands, erosion of fertile soils, as well as various other problems. The main reason for this is the excessive and inefficient use of natural resources by people. In Uzbekistan, the level of productivity of annual crops varies. To prevent this, it would be advisable to establish gardens and vineyards on some relatively low-yielding soils, rather than occupying the land with one type of crop.

It should be noted that today the President of Uzbekistan Sh. Mirziyoyev

Action Strategy for the five priority areas of development of the Republic of Uzbekistan for 2017-2021 This document provides for the optimization of agricultural

land use in 2017 for the rational use of land and water resources. more than 48.5 thousand new jobs in vegetable production areas Priorities have been set to increase the number of people employed in these crops to 75.6 thousand, to double the volume of fruit and vegetable exports, and to increase the production of export-oriented fruits and vegetables on the world market. [1]

One of the great things about Intensive Gardens is that they are easy to use

The use of modern types of irrigation, especially drip irrigation, is very convenient and highly efficient. In addition, it is possible to plant melons among the trees, which is an additional source of income. In addition, the benefits of intensive gardening include:

- The level of productivity is high;
- Quickly cover expenses incurred;
- Ease of application of agro-technical works;
- High quality of the crop (is an exportable product);
- Long shelf life of orchards;

Job creation when processing enterprises are built;

Irrigation water savings when using modern irrigation methods, etc. Today, one of the reasons why the Republic pays great attention to the creation of long-term orchards is that it is very convenient to export the harvest from orchards to foreign countries. Unlike wire, high yields can be achieved every year if agro-technical works are carried out in a timely manner.

As with anything, intensive gardening has its drawbacks:

- Creating intensive gardens requires investment:

- Failure to produce the desired yield if agro-techniques are not followed;

- Excluded varieties can be cold in winter, various diseases in summer and so on. Although there are some shortcomings in the organization of intensive gardens, the creation of intensive gardens is one of the most promising plans.

being tested in test sites.

Intensive horticulture aims to dramatically increase fruit production, radically improve quality and reduce costs, mainly by creating new intensive orchards and growing high-quality apples from existing orchards. Intensive (accelerated) seed and grain orchards are being built in Uzbekistan. Although the methods and levels of pruning have been studied, the methods and levels of pruning and grafting methods for the 3-4 year cycle of fruit-bearing branches, depending on the age of the trees, taking into account the biological characteristics of varieties and grafts soil-climatic conditions, including in Bukhara region, have not been studied in detail on the basis of science. The task of the research is to study the dependence of the method and level of pruning on the process of pruning the growing branches of fruit trees, to determine the impact of basic phytometric and biometric indicators on growth, development and productivity. The study of the formation and location of generative organs in the tree trunk, their impact on yield and quality, and the evaluation of the cost-effectiveness of fruit production.

Pruning is one of the most important agro-technical methods in horticulture, and its effect on fruit trees depends on a number of reasons. First of all, it depends on the specific method and level of pruning, its timing, tree age, biological characteristics of grafts and the condition of fruit trees, soil and climatic conditions and other agro-technical methods. when the method and levels of complex pruning are used, it is possible to regulate the harvest over the years and get a continuous harvest. Method and level of pruning - the time of entry of fruit trees into the crop, the size and quality of the crop has a positive effect. Regulation of growth and yield, control of periodicity, increase of winter hardiness] is also one of the most important decisive tasks performed by the cutting activity. Location and methodology of the experiment. Scientific research works in 2009-2016 in Bukhara was held at the Amin Hayot Boghi farm in the district. The farm is located in an irrigated area, where soil formation takes place in hot and dry climates, and the climate is sharply continental. Warm sunny days last up to 240 days. The hottest days on the Amin Life Garden farm are in the summer, and the average humidity is average. 40-60%. The humus content of the topsoil is 0.8-1.4% and the nitrogen content is 0.06-1.2%. The total amount of phosphorus is 0.11-0.18% and the amount of exchangeable potassium is 1.5-3.0%. From the data of Bukhara metrological station in the analysis of metrological conditions This farm is located close to this meteorological station, it should be noted that during the research years, the weather conditions are suitable for the maintenance of fruit trees, intensive apple varieties and high and quality yields from them [1,3,5].

**Research results.** In order to study and determine the phytometric parameters and biometric classification of apple trees, the following parameters were studied: stem height, tree trunk thickness, branch size, average and total length of annual branch growth. Grown up shortening of branches proves to be an effective factor in activating the growth processes of fruit trees and providing

profound physiological changes. Depending on the method of pruning and the degree of shortening of the apple tree, different levels of exposure were observed, i.e., the development of skeletal branches in the growth of branches, as well as changes in other elements in the trunk of the branch, thickening of the trunk, horn -branches thickened and leaf surface growth was observed [2,4,6,13]

In the variants of three- to four-year cyclic rejuvenation and standardized cuttings used to replace the growing from the formed branches, the size, growth and development of the branches along the row and trans versely , under the trunk projections Area utilization is the norm and is the norm for modern industrial gardens of the accelerated type [7,8]

The characteristics of a tree species and generation are constant depending on its reaction to the external environment. Gardeners need to know effective and new technological methods of care, depending on what method and level of pruning they use, the growth and development of fruit trees in accordance with objective laws, and experts know exactly how each method affects the individual tree and accordingly the yield increases and the quality improves. Annual increase in the length of the first-order branches in the regionalized varieties of apples grafted to the middle-growing grafts fruit seedlings in the first years after transplanting was 39-47 cm by variety, which is a requirement for the apple tree [11,12].

From the results of the experiment it was found that in all years of research, rejuvenating branches that have been planted for 3–4-year cycle, leaving a substitute horn, and when cut at a moderate level, thick, fruiting branches up to 9-31% compared to the numerical control option decreased. In the structure of fruit formation in all studied varieties 59-62% are dominated by rings, 9-13% by fruit hivich. Thus, as a result of rejuvenation of the fruit-bearing branches, a decrease in the number of rings was observed, which is 21.1% in the Golden Delishes variety. Renet Smirenko and Pervenets Samarkand decreased by 19.8% and 15.6%, respectively.

Conclusion. In order to form a permanent crop of high quality fruit, it is necessary to cultivate the maximum number of possible three-year-old branches per year in the trunk branches during the application of winter-spring normative pruning measures. Fructiferous high-quality complex agro-technical measures for the care of trees will allow to grow the planned fruit and get a high yield by timely implementation of all methods and methods of pruning and levels.

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