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APPLE-TREE CROWN LIGHT EXPOSURE DEPENDING ON THE METHOD AND THE TERM OF THE PRUNING

The thesis being presented is a comprehensive study on anatomic and morphological changes caused different methods and terms pruning on crown lighting and the chlorophyll content in the leaves. The study scientifically substantiated and proved that light different parts of the crown in the first place foremost depends on a methods and terms of crown pruning.

It was established that uneven enough sunlight flowing – from a complete light stream above crowns to the substantial shading in central and lower part of trees, it influences on activity puff device substantially, including photosynthetically active pigments content in the leaves.

Research trees were pruning in winter, or in winter and in an early summer period (for 10 leaves on growth), one of the followings method is traditional (manually), contour with forming of fruit wall of 80 cm width in a lower part and 50cm in a top part, annual shortening increment on the periphery of crown, and contour with the manual work.

The results establish after of contouring irrigated crop planting apple varieties Golden Delicious and Dzhonaveld on the rootstock M9 (with the manual work) the light exposure of crown is smaller. Its the lowest level is fixed in a lower part of the crown to the underbody of crown (16 – 35% from complete), with a gradual increase to the top (38 – 80%).

The contour pruning is caused with thickening, on the half worsening the crowns lighting, by comparison to the traditional pruning manually, and on the third – from contour with a manual work.

However the light level is not substantially depended on the term of pruning, with a some higher value of the combination of the winter pruning from the early summer pruning.

At the contour pruning in a leaf is higher total content of chlorophyll "a" + "b", although between the probed sorts an index does not differ substantially. While the pruning transference to an early summer period causes a reducing the chlorophyll mass in comparing to the winter term of its execution.

Key word: pruning, chlorophyll, light, apple.