

DETERMINATION METHODOLOGY OF LEAF SURFACE AREA IN APPLE TREES PLANTING

Balan V.

The Agrarian State University of Moldova, horticulture department,
MD-2049, Mircesti Street, 42, Chisinau

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SUMMARY

The evidence of growing dynamic of leaf surface area represents the main index which determines the productivity of the most important process of plants vital activity - photosynthesis. It is known that the determination of leaf surface area at the end of vegetation period using the method of A. A Niciporovici et al., doesn't represent significant difficulties. Considerably more complex is the leaf surface area determination during the vegetation period. That's why the goal of our study was the elaboration of determination method of leaf surface area in apple trees planting.

The investigations carried out in intensive orchard of experimental didactic station "Criuleni" planted with two-year saplings of the following varieties: *Slava peremozhtsiam*, *Kalvil snow*, *Golden delicious*, *Mantuanskoe*, grafted on M4 rootstock using the distance of planting 5 x 3 m. The experiment repetition is triple. For each variation there are 24 calculable trees. The trees were formed by the free growing palmette type. The leaf surface area was determined for all the calculable trees by the way of measuring and numbering. In order to determine the dimension of the assimilation surface was measured the entire annual shoot longer than 2-3 cm. Besides, the spurs on the multi annual wood were counted too. In the same time was determined the quantity of leaves on an annual shoot and on a spur. From the existing data, by estimations was calculated the leaf surface area on tree and on area unity. The elements of calculation technology are listed in the table.

Table: The leaf surface area in apple trees planting

Nr. crt	Indicators	Measuring unit	Nr. crt	Indicators	Measuring unit
1	The summary length of one annual increment.	m/tree	7	The leaves quantity on a spur	piece
2	The leaves quantity by running meter o one annual shoot	pieces	8	The leaves quantity on spurs	Piece/tree
3	The leaves quantity on shoot	piece/tree	9	The leaf surface on spur	cm ² .
4	The leaf surface on shoot	cm ² .	10	The leaves surface on spurs	m ² /tree.
5	The leaves surface on shoot	m ² /tree.	11	Leaves surface	m ² /tree.
6	Quantity of spurs	Piece/tree	12	Leaves surface	m ² /ha.

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