

Features of the Construction of Bushes

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ABSTRACT

Mulberry bushes are a quick method of producing leaves from mulberry trees and play a major role in establishing the cocooning food base in a short period of time. In Uzbekistan, the experience of establishing bush tutzors was first implemented in 1928 by the Central Asian Scientific Research Institute of Sericulture, and it was put into production since 1930. Site selection and soil preparation for bush tussocks are similar to tall tussocks. At present, 98% hybrid sprouts and seedlings are planted in the bushes. One-and-a-half-year-old hybrid sprouts of fertile varieties or substandard hybrid seedlings are planted in the bushes.

Introduction: In order for the bushes to start harvesting quickly and produce abundant leaves, it is advisable to organize them from seedlings grafted with regionalized varieties and from cuttings that have been propagated directly. Shrubs are narrow-rowed and wide-rowed. Between the rows of the mulberry tree, it is desirable to plant annual crops suitable for hay demand and mulberry care (cotton, potatoes, beets, etc.). In the first 1-3 years of growth of the narrow-row bushes, crops are planted every year between the wide rows.

Table 1. Placement of seedlings in bushes and the amount of seedlings in 1 hectare of land

The bush is a type of mulberry	Scheme of planting mulberries, at the expense of m	The number of seedlings per hectare, in units	Recommended year	Recommended by the author
Narrow row	1x0,5	20000	1928	SANIISh
- “” -	3x0,5	6666	1928	- “” -
- “” -	2,5x0,5	8000	1979	- “” -
Wide row	6x0,5	3333	1952	M. Bigashev
- “” -	9x0,5	2222	1975	- “” -

In all three schemes (2.5 x 0.5, 3 x 0.5 and 4 x 0.5 m) of the narrow-row shrubbery, it is possible to plant 8 rows of intermediate crops with a width of 60 cm between the rows. In this case, a distance of 0.5 m is left between the mulberry row and the outermost row of intermediate crops in the 4x0.5 and 3x0.5 m schemes, and 0.35 m in the 2.5x0.5 scheme. However, in the 3x0.5 and 4x0.5 m schemes,

intermediate crops should be planted for 2-3 years, and for one year in the 2.5x0.5 scheme. In the following years, the mulberry branches overshadow the intercrops due to their vigorous growth. Since this phenomenon does not occur in wide rows of bushes, as we said above, intercrops are planted every year. In the next method, the distance between rows of mulberry seedlings is 6 or 9 m, and the distance between bushes is 0.5 m. A distance of 0.6x0.9 m is left between the bush and the intermediate crops in a row, and they are planted in 8 rows.

Main part: As a result of annual planting of intercrops between the rows of bush mulberries and agrotechnical measures used in its care, abundant harvest of mulberry and intercrops is obtained. Due to the widespread use of mechanization in the care of mulberries, manual labor is very little.

The rows of the bush must be in the direction of water. The rows are determined by the width of the rows in the intended planting scheme with the help of a plan opener installed on the tractor, such as a high-body harrow, and the distance between the bushes is determined by a stick 0.5 m long.

Due to the improvement of agrotechnics of growing mulberry from cuttings, the establishment of special mother mulberry groves, and the development of popularization techniques since the 1960s, this method was introduced into development, and the possibility of directly establishing food mulberry groves was created.

Selection of land for planting cuttings, preparation for planting, planting technique, timing and maintenance work will be similar to the arrangement of the mother tutzor for the preparation of cuttings described above. If the orchard has a 4x0.5 m scheme, 2800 30-40 cm long cuttings are planted per ha, 3700 in a 3x0.5 m scheme, 1850 and 1020 cuttings in 6x0.5 and 2x0.5 schemes, respectively.

Before planting the cuttings in the fence, the position of the rows in the direction of the water flow of the field is determined with the help of a plan opener, and a furrow is drawn at a height of 30-35 cm from there. This event is carried out on a hoe or with the help of floor levelers marked PR-0.5, KBN-0.3A or KZU-0.3A. The bush is soaked and watered as soon as the cuttings are planted and divided. Root seedlings are irrigated 8-9 times in the first growing year, and 17-23 times in the first growing year, and 6-7 times in both the second and subsequent years.

As soon as the planting of seedlings is completed, the first watering is given separately to the wide rows of bushes, and the next ones are supplied with water placed on the plants planted between the rows.

Results and Discussions: Organic and mineral fertilizers are applied to narrow rows of 4.3 and 2.5 m wide bushes with the same amount and duration as tall trees. If plants are planted between the mulberries for several years, during this period, without giving separate fertilizers for mulberries, the fertilizers applied to the crops between the rows are enough.

Special fertilizers are not applied to mulberry bushes in wide rows, because mulberry is also used from the fertilizers given to the plants planted between the rows.

The inter-rows of the bush are plowed to a depth of 25-28 cm in autumn, the inter-rows are softened with a hoe 3-4 times during the growing season, the inter-rows are worked with a disk harrow or chisel two to three times per season at a depth of 18-20 cm. It is necessary to make extensive use of the mechanisms used in the tall tussocks when processing bush tussocks, fertilizing, furrowing and other agrotechnical activities.

Table 2. Intercrop, mulberry leaf and cocoon yield in bush mulberry plantations planted in different schemes

Year of use of the leaf	Product grown on 1 hectare					
	Intermediate crop, ts		Mulberry leaf, ts		Cocoon, kg	
	6,0 x 0,5 M	3,0 x 0,5 M	6,0 x 0,5 M	3,0 x 0,5 M	6,0 x 0,5 M	3,0 x 0,5 M

1	20	18	3	6		
2	18	15	9	15	50	75
5	12		60	49	300	250
7	10		80	53	400	275

In the transition of cocooning to an industrial basis, in the development of its food base on the basis of rapid technology, it is necessary to provide the worms with sufficient quality leaves, taking into account the feeding of worms several times a season.

The use of mulberry leaves includes the timing, methods and techniques of pruning mulberry branches depending on the age of the silkworm, the number of times the worm is fed per season, and the corresponding mulberry tree care measures.

If the branches of mulberries are cut prematurely, they will not produce enough and become sick and weak. If mulberry trees are planted later than this period, less leaves will be harvested from the trees in the first year of use, as the tree will branch in several orders as it begins to grow. The more branches a tree branches, the smaller the leaves on it.

For example, when the leafy branches of a mulberry bush are cut for the first time for worm feeding. The leaf yield from one bush was 0.56 kg, in the third year - 1.20 kg, and in the fourth year - 0.93 kg.

Conclusion: The use of mulberry leaves includes the age of the silkworm, the timing of pruning mulberry branches, methods and techniques, and the care of mulberry trees accordingly.

If the leaves of the mulberry tree are used correctly, they will have a long life and a high yield. It is necessary to understand what is meant by correct use, that is, regardless of whether the mulberry is planted as a tall or short body, it is necessary to know what year to use their leaves and cut the branches.

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