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Lavender is not just a Mediterranean plant

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Over the past year a real boom has been observed in the cultivation of lavender in Bulgaria. The price of lavender oil has reached 100 euro per kilogram, and almost 90% of Bulgarian lavender is exported to France, Japan and England. Those who missed planting their lavender plantations in the autumn after the end of vegetation, now is the time to try again. We once again offer to your attention this current article by Assoc. Prof. Dr. Ivan Yanchev from the Agricultural University, which was also the topic of issue 7/2015 of the journal "Plant Protection".

Planting

The highest yields are obtained when there are 2000 plants per decare – about 0.5 m2 feeding area per plant. The inter-row spacing is 100–120–140 cm, and the distance between plants in the row is 35–40 cm. Thickening of the plants in the row after the third year makes them dense and

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continuous, which facilitates mechanical harvesting of the inflorescences. Planting is carried out after the end of vegetation – October–November. Autumn planting generally provides a higher percentage of establishment than spring planting. In spring, unfavourable meteorological conditions may cause forced delay of transplanting and thus worsen rooting. Planting is carried out with transplanting machines, placing the cuttings 2–3 cm deeper than the root collar in open furrows. Corrective operations to observe the marking are carried out immediately. Immediately after planting, the plants are tamped and cleaned. In spring, after the plants start growing, the dried, non-established and damaged ones are replaced with healthy and fresh planting material.

In recent years, lavender has become established as the main essential oil crop in Bulgaria. The inflorescences contain essential oil, which finds wide application in the perfumery and cosmetic industry. Because of its pleasant specific aroma it is entering people's everyday life.

Bulgaria is one of the places in the world where lavender finds the most favourable conditions for cultivation. Its high productivity is combined with high oil quality. In the international perfumery sector it is known as Bulgarian lavender or Bulgarian lavender oil. With its high profitability as a permanent plantation without special pruning and economically important diseases, lavender quickly attracts the attention of people from different professions who wish to grow it in their spare time in order to improve their standard of living.

The high economic efficiency, generating a profit of 500–600 leva per decare, is the motivation for establishing lavender plantations. Ignored in the past among the strategic crops, left in the background in the foothill regions, today it is present both in the plains and in Dobrudzha. The fertile soils and high-quality Bulgarian cultivars make it possible to realise the productive potential of lavender and provoke considerable interest in its cultivation.

Lavender is a Mediterranean plant. In the wild it is found in the southern parts of Europe, North Africa and in some regions of the Arabian Peninsula. Its biological characteristics are demonstrated by the fact that it can be grown under various soil and climatic conditions and on sites with altitudes from 0 to 1000 m.

Lavender is a thermophilic and at the same time winter-hardy plant. Its affinity for heat is related to the bud formation – flowering stages, when high temperatures of 40–50 degrees in the sun increase oil synthesis, whereas in a dormant state during the cold months the shrubs withstand down to minus 30 degrees, which makes lavender a unique plant with high yield and high quality in the unique climate of Bulgaria. Lavender is a melliferous plant and the honeybee is its main pollinator, which affects its vegetative propagation, namely through rooting of cuttings from authentic Bulgarian cultivars. Anyone who has read or has been told about the possibilities of lavender asks themselves what is needed to establish a small lavender plantation of 5, 10 or 15 decares? And the answer is that they should own or lease for about ten years an area of similar size. The areas should be on flat or sloping terrains, not retain water and belong to the darker soil types, without deviations from the normal parameters such as salinity, acidity, etc. – for this a

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consultation with a specialist is necessary. What everyone can do is to clear the site from shrubs, stones, trees and other inert impurities, level the area and plough it twice – first to 20–25 cm and second to 30–35 cm. After the first ploughing, reserve fertilisation is carried out with phosphorus and potassium fertilisers at the rate of 50 and 20 kg/da respectively. Until planting, the areas are kept weed-free by cultivation or disking, depending on their moisture.

Of the seven Bulgarian cultivars, most plantations are established with Sevtopolis, Druzhba and Yubileyna due to their plasticity and high oil quality. The procurement of planting material must be ensured from a certified producer who can guarantee the authenticity of the cultivar and its purity. For greater assurance, express a wish to become acquainted with the mother plantation of the respective producer and, based on its size and condition, assess their capabilities. From one mother shrub, 150 quality cuttings can be obtained, and for one decare of plantation 2000 rooted cuttings are needed. In order to trade in planting material, the producer must produce from 300,000 to 400,000 cuttings for areas of 150–200 decares respectively, which means that it is mandatory to have about 3000 pruned mother shrubs with only one-year-old shoots. These are the potential capabilities of medium-sized sole producers.

The full text can be read in issue 7/2015 of the journal “Plant Protection” or here under the section “Topic”.