

"Sirma" - Bulgarian plum variety, created at the Institute of Fruit Growing - Plovdiv

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Abstract

"Sirma" is a plum cultivar from the Institute of Fruit Growing - Plovdiv, part of the Agricultural Academy. A major advantage of this cultivar is its early ripening period, which for the Plovdiv region is around July 20th. The cultivar provides high-quality fruits and is suitable for diversifying the range of cultivars grown in plum orchards in the country.

Results

Plum (*Prunus domestica* L.) is a traditional fruit crop for our country. According to the Agro-statistical Handbook (MAF, 2024), in terms of the area occupied, it ranks second with 12,271 ha, surpassed only by walnut. In 2024, plums had the largest relative share of the produced fruit quantities - 30%. This crop is highly adaptable and develops successfully in different regions of the country, contributing to high yields. The great interest in plum cultivation is due to the qualities of the fruit production, which is suitable both for fresh consumption and for processing.

Globally, the main producing countries of plums of the species *Prunus domestica* L. are Serbia, Romania, Germany, and Bulgaria. These countries develop extensive breeding programs with common main objectives such as: high productivity, good fruit quality, resistance or tolerance to the Plum pox virus disease.



At the Institute of Fruit Growing - Plovdiv, breeding programs are also being developed to create new cultivars of the main fruit species for our country. The most important breeding goals have

always been related to fruit quality and good cultivar adaptability, which includes resistance to diseases, pests, and abiotic stress. The breeding program for creating new plum cultivars at the Institute of Fruit Growing – Plovdiv started in 1987. As a result of modern breeding activities, the cultivar "Sirma" was registered. It was obtained as a result of the long-term work of breeders Prof. Dr. Valentina Bozhkova, Assoc. Prof. Dr. Pencho Iliev, and Chief Expert Leyda Todorova.

A significant advantage of "Sirma" is its early ripening period, which for the Plovdiv region is around July 20th. "Sirma" was obtained from open pollination of the standard and most widely distributed plum cultivar in the world, "Stanley". The tree is vigorous with a moderately dense, globular crown. The scaffold branches are well furnished with fruiting wood. "Sirma" is a highly productive cultivar. The main fruit-bearing wood is the May bouquet spurs. Blooming is mid-early and the phenophase begins 2-3 days before the bloom of the standard "Stanley".



"Stanley", "Čačanska lepotica", and "Yoyo" are good pollinators for "Sirma". Its fruits are large - averaging about 45 g, oval in shape, symmetrical with a shallow ventral suture. The fruits are dark violet-blue in color, with a waxy bloom present. The fruit flesh has an attractive golden-yellow color. The stone is medium-sized, elliptical, and separates completely from the fruit flesh. Fruiting is regular and abundant. In 2023, an average of 60 kg/tree was obtained from 10-year-old trees grown with a free-growing crown form. The fruits are particularly suitable for fresh consumption,

thanks to their good appearance, balanced taste, and pleasant aroma. Dry matter content is about 16° Brix. The fruits contain acids, but their taste is well-balanced and pleasant. It is important to mention that the cultivar is tolerant to Plum pox virus, i.e., symptoms have been observed only on the leaves, but this does not lead to fruit drop and yield losses.

"Sirma" won an excellent 1st place in the Innovations Competition, section "Varietal Seeds and Planting Material" at the International Agricultural Exhibition "AGRA 2026". Planting material with guaranteed varietal authenticity can be purchased from the Institute of Fruit Growing – Plovdiv.
