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AGROBIOLOGICAL FEATURES OF ST. JOHN'S WORT (HYPERICUM PERFORATUM L.)

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St. John's wort (*Hypericum perforatum* L.) is a perennial rhizome herbaceous plant up to 100 cm high with erect dihedral stems. In nature it is found in meadows, gaps, near the forest. St. John's wort leaves are opposite, sessile, from oval to oblong-linear, with many small glands that shine in the sun and are filled with essential oil [7].

The flowers are collected in broadly paniculate corymbose inflorescences. The flowers are free, regular, with a five-petalled calyx and a five-petalled corolla. The fruit is a triangular box. Seeds numerous, small, dark, elongated.

St. John's wort grows almost throughout Europe, except the northern countries, is found in forest and forest-steppe zones. Propagated mainly by seeds. It begins to germinate at 5-6 °C. The optimum temperature for their germination is 20 °C. Seed germination and germination energy are high (65-100% and 45-65%, respectively), no stratification is required [4]. There is information about the possibility of reproduction of St. John's wort in tissue culture [3]. A promising way is to grow seedlings [8, 10].

St. John's wort seedlings are small and develop slowly, so the crops of the first year of the growing season require timely care. The plant reaches full development in the second year of life. In the first year of the growing season the plant does not bloom, in subsequent years it grows well after harvest and can give 2 slopes. In the pregenerative period of ontogenesis, plants with two or three low (3-8 cm) shoots are formed. In the second year, the plants form a bush with several shoots 70-80 cm high, most of which bloom. In the third year the bush grows, the shoots reach 100 cm, and their number is 5-10 pieces. [4]. Despite the fact that St. John's wort is most common in arid areas, experience shows that cultivation in such areas without irrigation is not appropriate [5]. Both heavy and light soils are suitable for growing. But when sowing directly into the soil, it is desirable to use soils of medium or light mechanical composition because the seeds are very small can not withstand moisture or crust in the spring. Places with a high level of groundwater are suitable for growing. St. John's wort is a hardy plant and a little picky about environmental factors.

Analysis of geographical and ecological areas shows a wide plasticity of the species. After studying 38 populations in the Botanical Garden of the Russian Academy of Sciences (Novosibirsk), the Chemal population was separated. A high-yielding introductory population was created by the method of individual and mass selection [10], which will then be registered as a variety "Zolotodolinsky". This variety

is characterized by high productivity (20 q/ha of dry aboveground mass), resistant to lodging, pests and diseases [1, 9].

On the basis of populations a more perfect variety population B-93 was created, which in comparison with the variety "Zolotodolynsky" had the best indicators of bush height - 73.3 cm (65.1 cm in the standard variety "Zolotodolynsky"), yield – 35.2 q/ha (+ 3.5 q/ha to the standard) [6].

In the conditions of Ukraine in the spring regrowth begins in the second or third decades of April. It depends on the timing of the spring growing season. Biennials begin to bloom in 60-70 days from the beginning of regrowth, the seeds ripen in 95-110 days.

The flowering period is quite long. Both unbloomed flowers and ready-made boxes can be registered on the plant at the same time. Flowering lasts up to 1.5-2 months, and the maturation of the boxes up to two months. Flowering is observed in July-August. Full ripening of seeds in September. From the fourth to the fifth year, the plantation begins to die (fall out). In case of untimely harvesting of seeds or incorrect technology, a significant part of the seeds crumbles and clogs the fields and subsequent crop rotations [2].

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