SUBJECT: SOME BIOLOGICAL CHARACTERISTICS OF CHERRY (HUPERISUM PERFORATUM L) PLANTED IN DIFFERENT CROP SCHEMES.

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Annotation. In the article, I.N. describes the seasonal development pattern of Huperisum perforatum L. It was studied using the methods of Beideman (1960, 1974) and the optimal method was recommended to plant 60x15 cm. The medicinal plant that we are studying is a perennial herb belonging to the Hupericaceae family, the height of which is 30-100 cm. The leaf is oppositely elliptic or oblong-ovate, entire-edged, sessile. There are many flowers, they are combined into a panicle-shaped or shield-shaped inflorescence. The flower is yellow. The fruit is an elongated egg-shaped pod, the seeds are small and brown.
Klyuchevye slova Rastenie, целительство, строинность, щитовидная железа, okaymlennye, udlinennye, цилиндрические, цветочные горщки, семена и тосы

Enter. In 2017-2021, the action strategy for the five priority directions of the development of the Republic of Uzbekistan defines the measures to be taken in the priority directions of modernization and rapid development of agriculture and the creation of the raw material base of the pharmaceutical industry.

It is important to recommend this document to study the biological properties, phytochemical composition, and the technology of their cultivation of promising medicinal plants growing and cultivated in our republic. This, in turn, leads to the formation of plantations that provide raw materials for the developing pharmaceutical industry.

The world of plants, including medicinal plants, is one of the incomparable treasures of nature. The properties of medicinal plants have been known to people since ancient times and they have been used in the treatment of various

diseases. It should be noted that nowadays there are people who claim to be doctors and without knowing the healing properties of plants, they pick them ruthlessly and cause the disappearance of some medicinal plants.

The number of tall plants growing wild in Uzbekistan reaches 4500. 1200 of them have healing properties. Despite the rapid development of chemical science, especially the production of new chemical compounds, including fast and well-acting medicinal substances obtained by synthesis, medicinal plants have not lost their value, on the contrary, their demand is increasing year by year. According to the health care organizations of medicinal preparations used in scientific medicine, about 60% of existing medicines are extracted or prepared from plants. Some valuable medicinal preparations, such as glycosides (cardiac glycosides) used in the treatment of heart diseases, have so far been obtained only from plants. Alkaloids, glycosides, flavonoids, coumarins, saponins, essential oils and other substances of great importance in medicine are also extracted from plants.

Various medicinal preparations and vitamin-rich concentrates are also prepared from medicinal plants.

Natural resources of medicinal plants are also limited, and their protection, study of bioecological properties, proper use of resources and development of scientifically based methods of reproduction are urgent problems. Therefore, in Uzbekistan, it is necessary to supply the needs of the pharmaceutical industry with raw materials of medicinal plants, to enrich the local flora with new introduced plant species, and to develop technologies for their cultivation[1,2,3,6].

Searching for such plants, studying their beneficial properties, determining their reserves, studying their bio-ecological properties and recommending them for production are currently the most urgent tasks of botanists.

Hypericum perforatum L It is a 30-100 cm tall perennial herb belonging to the field grass family. The stem is cylindrical, the upper part is branched, two-edged and hairless. The leaf is oblong-ovate, flat-edged, hairless, 0.7-3.5 cm long, 1.4 cm wide, and has point-shaped holes, so this plant is also called a hole-leaved field. The flower is straight, the calyx is deeply cut into five parts, the corolla is 5, golden color, oblong-elliptic, the upper part is curved and tooth-shaped, the paternity is numerous, the maternal node is three-digit, located above. The product has a fragrant smell, a bitter, slightly astringent taste[5,].

Phytochemical composition. Under the conditions of Uzbekistan, they conducted research on the products of secondary metabolism of the H. perforatum plant

and their biological activity. As a result, it was observed that the above-ground part of the plant contains 10-12% nutrients, 1% organic substances, 0.9-2% flavonoids, quercetin, quercitrin, hyperoside, rutin, anthocyanins and up to 0.22% essential oils [4].

Usage. Medicinal preparations of the product have an astringent, antiseptic and wound healing effect. In medicine, it is used in the treatment of gastrointestinal (colitis, diarrhea), oral cavity (gingivitis and stomatitis) and II and III degree burns, as well as for rinsing the mouth. The above-ground part of the plant has a bactericidal effect.

The tincture can be used to treat chronic gastrointestinal inflammation and ulcers. It should be used in men and women during menstruation or bleeding. In order not to lose its natural resources, it is necessary to arrange the areas where the plant is harvested, and to leave the bushes with seeds. Dalachoy can be easily propagated from seeds [7,8].

Research methods. The researches were conducted on the gray soil site of the "Sherzod, Sherkozi, Jamshid Rozievich" farm located in the Urgut district. In order to study the biological and morphological characteristics of the field, experiments were carried out in three different options, i.e. 30x15 cm, 45x15 cm and 60x15 cm planting methods. The experimental area was 16 m2, and each option was carried out in four replicates.

In the study of the seasonal development of the plant, I.N. The methods of Beideman (1960, 1974) were used and the following phases were observed every three days. Germination of seeds in the generally accepted method (beginning and general), intensive vegetation period, flowering (beginning, general), flowering (beginning, general), fruiting (beginning, general), regeneration of the plant from the second vegetation year were also taken into account [9].

Схема бўйича экилган (Hypericum perfaratum L)

Results and analysis The experiment was sown on September 15, 2016 at a depth of 0.5 cm with a row spacing of 30, 45, 60 cm and a root spacing of 15 cm in three rows at the rate of 180 seeds per 3 m2. The results of our experiments with different planting schemes are presented in Tables 1 and 2. The result of phenological observations shows that (see table)

Table №1

Morphological characteristics of (Huperisum perforatumL) during the first year of vegetation in different planting methods

Signs	30x15 sm	45 x15 sm	60 x15 sm
The height of the main stem.sm.	48±0.5	49±0.9	50±1.1
The length of the ball is sm	4.5±0.3	4.8±0.4	5±0.7
Size of mature leaf sm length width	1.5±0.4 0.6±0.05	2±0.5 0.7±0.05	2±0.5 0.7±0.05
Number of flowers per stem (pieces)	50±0.8	51±0.6	52±1.1
The number of branches is generative Vegetative	3±0.4 5±0.7	4±0.6 6±0.6	4±0.4 7±0.9
The length of vegetative branches cm 2nd order, 3rd order sm	30±0.5 17±0.5 2±0.5	32±0.6 18±0.5 3±0.5	34±0.7 19±0.8 4±0.5
The length of the generative rod is sm	46±0.8	50±0.9	51±0.5
2nd order	4±0.5	5±0.7	5±0.4
3rd order	3±0.7	4±0.6	5±0.5
4th order	1±0.4	1±0.5	1.5±0.4

Table №2

Hupericum perforatum L morphological characteristics during the second year of vegetation (2018-2019)

Indicators	Planting methods sm		
	30x15	45x15	60x15
Plant height sm	48±0.5	49±0.8	50±1.1
The number of regenerated branches (pieces in 1 bush)	10±0.8	11±0.9	12±1.2

The length of the regenerated stem is sm	20±0.8	23±0.9	24±0.9
The length of the rod of the second order, sm	13±0.7	14±0.7	14±0.8
Number of leaves on a branch (pieces)	48±0.8	50±0.5	52±1.1
The size of a mature stem leaf is sm LengthЕни	 2±0.4 1.2±0.05	 2±0.4 1.3±0.05	 2±0.5 1.4±0.05

We determined the biometric parameters of this (Huperisum perforatum L), i.e., the length of the main branches plus the size of the leaf, the length of the 1st, 2nd and 3rd order vegetative branches and the 2nd, 3rd and 4th order generative branches and the length of the inflorescence and the number of flowers in the flower. according to the data, it was found that there is a difference in the length of the main and generative branches in the length of the plant bush as the length of the row island increases in the 1st year during the vegetation period (Table 1). In particular, in the 30x15 planting scheme, the plant height was 48±0.5 cm, while in the last two options (45x15 and 60x15), this indicator was equal to 49±0.8 and 50±1.1 cm. In the 30x15 planting scheme, the length of vegetative branches of the 2nd order was 30x15 and the length of the vegetative branches of the 3rd order was 17±0.5cm. The length of the vegetative branches of the 3rd order was 2±0.5, 3±0.5, 4±0.5 cm according to the variants. 2nd, 3rd and 4th order generative branches were found to have sharp differences in length. For example, the length of the generative stem of the 2nd order in the 30x15 planting scheme was equal to 4±0.5 cm, the length of the 3rd order was 3±0.7, and the fourth order was 1±0.4 cm, while in the 45x15 scheme, these indicators were proportionally 5±0.7, 4±0.6 and 1±0.5 cm and in the 60x15 planting scheme, it was 5±0.4, 5±0.5 and 1.5±0.4 cm. In this case, the scheme of planting the longest vegetative and generative branches was returned in the 60x15 variant. In our observations on the size of the leaves formed on one plant, it was observed that there were differences according to the planting schemes.

For example, in the 1.5±0.4 version of the 30x15 cm planting scheme, the leaf length cm width was equal to 0.6 0.05 cm, while in the 45x15 and 60x15 schemes, this index was proportionally equal to 2±0.5, 0.7±0.05 cm. No differences were observed in the following two options when measuring leaf

length and width. When calculating the number of generative and vegetative branches in one plant, the number of vegetative branches formed in the 30x15 cm planting scheme was 5±0.7 generative branches 3±0.4, while this indicator was proportionally 6±0.6 and 4±0.6 in the 45x15 cm planting scheme and 60x15 cm planting scheme and it was equal to 7±0.9 and 4±0.4 cm. There were no significant differences in the length of inflorescences per plant. For example, this index was equal to 4.5±0.3 cm in the 30x15 cm planting scheme, 4.8±0.4 in 45x15 and .5±0.7 in 60x15. The number of flowers produced per plant was 50±0.8, 51±0.6 and 52±1.1 according to variants. It was observed that the number of flowers produced in the planting scheme 60x15 was 1-2 more flowers compared to the other options (30x15 and 45x15). According to our observations in the second year (2019), the number of regenerated branches per bush was 10±0.8 in the 30x15 planting scheme, 11±0.9 in the 45x15 planting scheme, and 12±1.2 in the 60x15 planting scheme. The highest number of recovered branches was observed in the 60x15 planting scheme. The length of the regenerated main branch was equal to 20±0.8 cm in the 30x15 planting scheme, this indicator was 23±0.9 in 45x15 and 24±0.9 cm in 60x15, so the longest branch was observed in the 60x15 planting scheme. The length of the branches of the second order formed by the main branch was equal to 13 ± 0.7, 14 ± 0.7 and 14 ± 0.8 cm according to the options. No sharp difference was observed here. When we observed the number of leaves on the branch and the size of the leaf, the following information was obtained in this area. The number of leaves formed on the stem was 48±0.8 in the 30x15 planting scheme, 50±0.8 in the 45x15 planting scheme, and 52±1.1 in the 60x15 planting scheme. No significant differences were observed in leaf size. In the planting scheme 30x15, the leaf length was 2±0.4 and the width was 1.2±0.05cm, while it was observed that these indicators were equal to 2±0.4cm, 1.3±0.05cm and 2±0.5, 1.4±0.05cm in the 45x15 and 60x15 planting schemes, respectively[10 ,11].

Conclusions

(Hupericum perforatumL) based on our experiments in the field of cultivation, we can come to the following conclusion.

1. During the first year of vegetation, the length of the main and secondary vegetative and generative branches was observed in large quantities in the 60x15 planting scheme.

2. The number of vegetative and generative branches is more. Determined in the 60x15 planting scheme.

3. The number of flowers produced per plant was relatively higher in the 60x15 planting scheme.

4. During the second year of vegetation, the number and length of regenerated branches were also observed in the 60x15 planting scheme. In the same way, the formed leaves of the samples and their size were also determined.

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