NOVATEUR PUBLICATIONS
INTERNATIONAL JOURNAL OF INNOVATIONS IN ENGINEERING RESEARCH AND TECHNOLOGY [IJIERT]
ISSN: 2394-3696 Website: ijiert.org
VOLUME 7, ISSUE 12, Dec.-2020

BIOECOLOGY AND MEDICINAL PROPERTIES (SENNA ANGUSTIFOLIA DEL)

RAVSHANOVA UMIDA BAKHRIDDINOVNA
Termez State University, teacher of botany

ABSTRACT
The morphological features of senna angustifolia - an holly herbaceous plant, flowering dynamics, the relationship with environmental factors were studied in the city of Termez, Surkhandarya region. Under conditions of introduction, senna angustifolia is recommended for cultivation under conditions of introduction, taking into account the ability to multiply by seeds, resistance to high and low temperatures, resistance to diseases and pests, and medicinal properties.

KEYWORDS: senna angustifolia, introduction, flower, flowering dynamics, medicinal plant, phenological, morphological, biometric, statistical.

INTRODUCTION

The peoples of the world have been using medicinal plants since ancient times. Even today, in South Asia and Africa, medicinal plants are still the main means of treatment. Great importance is attached to the development of science around the world, including in our Republic. As a result, we can see a growing variety of medications in our pharmacies. Among them you can find a lot of herbal remedies and dried organs, which are gaining more and more ground. That is, in recent years, synthetic drugs are being replaced by natural medicinal plants.

The development of medicinal plants in Uzbekistan, the effective use of promising medicinal plants in medicine, the natural distribution of plants, their role in the vegetation cover, morphobiology, ecology, the quality and quantity of medicinal substances in plants, as well as their comprehensive study.

As a result of a thorough study of medicinal plants, a lot of scientific and practical work is being carried out in the field of creating local medicinal plants. Currently, the pharmaceutical industry's demand for plant raw materials is being met to the maximum extent. It should be noted that from the medicinal plants existing in the country for the treatment of human diseases, their prevention, various preparations or extracts from them are prepared. [1].

There are 10-12 thousand species of medicinal plants on Earth. The chemical, pharmacological and medicinal properties of more than 1000 plant species have been studied. There are 577 species of medicinal plants in Uzbekistan. Of these, 250 species are currently used in scientific medicine [2].

By the decision of the Cabinet of Ministers of the Republic of Uzbekistan, 8 specialized farms for the cultivation of medicinal plants were created. In addition, cultivation is carried out in the republican forestry, some farms, dekhkan farms and household plots. One of these medicinal plants is senna angustifolia, an holly-leaved herb, widespread in tropical and subtropical climates, mainly in Ukraine, Belarus, Moldova, the Baltic countries, the European part of Russia and the forest-desert zone of Western Siberia, the Caucasus and Central Asia. Fabaceae Lindl. the genus Senna-Senna (former name Cassia-Cassia) belongs to the family and is widespread in the tropics, the Far East, Africa, Asia, as well as in Europe, South and East America, there are 427 species. Medicinal varieties of this category have long been used all over the world as a valuable drug in medicine. In some tropical countries the Senna variety is cultivated over large areas. In the aerial parts of the plant, mainly antroglycosides are preserved, tinctures from seeds are used as a means of cleansing and softening the stomach and intestines (Takhtadzhyan, 1982; Wolf et al., 1962). In the literature, atlases and pharmacognosy data, species of medicinal plants belonging to the genus Senna are listed as medicinal plants. Great work has been done to cultivate the Senna variety in large numbers in India and China, and in the Transcaucasian and Arab countries, this species is well adapted to growth. In this regard, local residents call it “Hind Sanosi” in India and “Makkai Sanno” in Arabia (Cherepanov, 1995). Abu Raikhan al-Biruni skillfully used the Meccan dignity and said that this plant can be grown in the conditions of Central Asia to obtain a rich harvest and use its valuable medicinal properties. [1,3].

The leaves of the holly plant Sano contain 6.17% antriglycosides in fruits (Sennozid-A, sennozid-V, Rein). In addition, there is isoramentin, camferol flavonoids, as well as salicylic and other organic acids, resins, and a very small amount of alkaloids. The fruit does not contain resin. According to Amonturdiev (2003), the branches at the base of Sano's stem grow long, crawling along the ground. The compound leaves on the stem are 10-12 cm long, 9 cm wide, consist of 5-8 pairs of leaves, the leaves are opposite each other, the leaves growing from the stem are arranged in a row in a short strip. On average, there are 4-6 stems in one ball, all these stems have 1000-1250 leaves, 730-830 days of seeds, 180-195 flowers. From 1 ha of soil you can get 18 t / ha of wet mass and 7-8 t / ha of seeds [2,3].

Acute leafy sanno Senna angustifolia Del. in field conditions growing seedlings. For the preparation of sledge holly seedlings according to the experimental system, the seeds are prepared from a substrate mixture of soil, sand and vermicompost in a ratio of 1: 1: 1. Prepared seedlings of sustra are placed in plastic bags (cups), the seeds are soaked for two days, treated with solutions that accelerate seed germination, and the stratification of the seeds is sand-treated and placed in different varieties. Water daily with a water spray to allow seeds to germinate. The sown seeds begin to germinate after 6-8 days. (May 22-24) Seed germination is presented in table 1..

Table-1 Sharp-leafed senna in field conditions Germination rate of Senna Angustifolia Del seeds (%) (data for the preparation of seedlings)

Plant name	Options	The day the seeds are sown	Observation days					
			24.04	30.04	03.05	05.05	08.05	10.05
Senna angustifolia Del	Sow seeds for two days	22.04.2016	-	5%-	11%-	34%-	61%-	73%-
	Seed stratification (with sand)		-	2%-	14%-	45%-	68%-	81%-

If the plant is dense, it is made separately and 10 plants are left for 1 measure. In the first year, the plant is watered 10-12 times, the aisles are loosened 4-5 times by cultivation, 3-4 times the interval is weeded by hand. During growth, 40 kg of nitrogen and 30 kg of potash fertilizers are applied per hectare. Plant feeding is done before watering. At the end of July, when the hyacinth is already fully blooming, the leaves approaching its aerial part are harvested and the raw materials are quickly dried in special devices. After the first harvest, the sleds are fed with ammophos fertilizer at the rate of 60-80 kg per hectare of sown area for good plant development. After 30-40 days, you can harvest the second crop (leaves, seeds).

Sano medicinal plant uses leaves and stems that have medicinal properties, therefore, the leaves and stems of this plant are collected, leaving 15-20 cm.In the experiment, to determine the blue mass of the medicinal plant, 10 plants in each variant were weighed during May-June-August 40 plants in four replicates (collected 1-2 harvests). When determining the yield, the number of whole numbers in the stems of each plant is increased to 7–10.

The sano plant is used for gastrointestinal diseases, for the treatment of helminthic diseases and for diarrhea. The number of children registered with enterobiasis, ascariasis, hymenolepiasis in children under 14 years old living in the Surkhandarya region is 83.4% [7]. Especially in the regions of Sariosiya, Uzun and Denau, the incidence of pathological disorders in children and adults is 3 times higher than the regional average due to a sharp deterioration in the environmental situation [8, 9]. This indicates that the demand for hyacinth is increasing from year to year, but nevertheless it is clear that the natural reserves of this species of plants have decreased significantly today.

CONCLUSIONS

1. In the Surkhandarya region, Senna angustifolia goes through all stages of ontogenesis. The influence of temperature affected the time of the beginning of the growing season. Due to the onset of budding and its duration, flowering and fruiting are observed simultaneously on the scales of the bush.

2. The germination rate of Senna angustifolia seeds, planted on a Petri dish, was 99% after one month of storage. In seeds stored for one year, the rate was 90%, and after three years - 70%. Ripe seeds also lose their bienniality over time**.**

3. The success of the introduction of Senna angustifolia was estimated at 65 points, which makes it a promising species in the conditions of Termez.

REFERENCES

1) On measures for the further development of the system of medical and pharmaceutical education and science // Decree of the President of the Republic of Uzbekistan // May 6, 2019 PP-4310
2) Sattarov A.S., Begmatov A. M. Bioecology of melissa officinalis plant In Introduction conditions. The American Journal of Agriculture and Boimedical Engineering. Volume 2 Issue 10, 2020. -P. 69-73.
3) Ashurmetov O. A., To'xtaev B. E.. History, problems and prospects of introduction of medicinal plants // Introduction of plants: problems and prospects: Republican scientific-conference materials.-Khiva: XMA, 2003. - B. 12-15.
4) Бегматов А.М. Биоэкологические особенности Steviarebaudiana Bertoni при интродукции в условиях Сурхандарьинской области. Дис. … канд. биол. наук. –Ташкент: АН РУз. 2012.- С. 20.
5) Бегматов А.М., Рахматова М.У. Биоэкологические особенности Glycyrrhiza L.//Современные научные исследования и разработки, №3(20). Москва, 2018. –С. 110-113.
6) Begmatov A.M., Sharipov A.E., Rakhmatova M.U. Bioecological features of Stevia rebaudiana Bertoni in the conditions of Surkhandarya region // Integration of fundamental science and practice: problems and prospects materials of the republican scientific-practical conference. - Tashkent, 2018.– Б. 156-157.
7) Jalilov J.J., Raxmatova M.U., Khudoyberdieva S.A., Aliev Z. Z. Indications And Causes Of Helminthosis In Children (On Materials Of Surkhandarya Region) // The American Journal of Medical Sciences and Pharmaceutical Research. Vol 2. P 76-81.
8) Jalilov J.J. The role of medical workers and scringing centers in preventing the birth of children with disabilities in the Surkhandarya region // New day in medicine // International scientific journal 2019.26.12. P. 28-32.
9) Jalilov J.J. Reasons and indicators of childhood disability in Surkhandarya region // Infection, immunity and pharmacology // P.d. 2020. I.4. P. 71-78.