

THE DEVELOPMENT STAGES AND CULTIVATION TECHNIQUES OF CULTIVATED FLAX (*L.USITATISSIMUM*)

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Annotatsiya: *Maqolada madaniy zig'ir (*L.usitatissimum*) o'simligining rivojlanish va biologik xususiyatlari haqida ma'lumotlar keltirilgan. Bundan tashqari yetishtirish texnologiyasi haqida ham ma'lumotlar berilgan.*

Kalit so'zlar: *o'simlik moyi, maysalanish, archa holati, shoxlanish, gullash, pishish, barg, ildiz, ekish chuqurligi, harorat, tola, namlik.*

Аннотация: *В статье приведена информация о развитии и биологических характеристиках промышленного льна (*Linum usitatissimum*). Кроме того, также предоставлена информация о технологии выращивания.*

Ключевые слова: *Растительное семя, прорастание, удлинение стебля, ветвление, цветение, плодоношение, лист, корень, глубина посадки, температура, урожай, солома, влажность.*

Annotation: *The article provides information about the development and biological characteristics of industrial flax (*Linum usitatissimum*). Additionally, details about cultivation techniques are also included.*

Key words: *Plant seed, germination, stem elongation, branching, flowering, fruiting, leaf, root, planting depth, temperature, yield, straw, moisture.*

Entry. With the increase in the world population, the need for food and clothing is growing day by day. Since ancient times, people have been utilizing plants and animals for their own benefits. Besides animal products, plant seeds have also been used as food. From such plant seeds as flax, hemp, rapeseed, sesame, sunflower, and mustard, oil is extracted. Among the oil plants cultivated in irrigated areas, the importance of flax in agriculture is significant, as flax cultivation requires less labor and investment. Therefore, the main task facing our scientists is to create fast-growing, high-yielding, and disease-resistant varieties and to develop agro-technology for their cultivation. Stages of development. During the growth period of flax (*Linum usitatissimum*), the following stages of development occur: germination, stem elongation, branching, flowering, and fruiting.

Germination period. Normally, the flax seedling emerges from the ground in 6-7 days. During this period, the plant forms two cotyledons and develops a growing point between them. The plant grows slowly during this period, but the root system develops rapidly. Stem elongation period. When the plant reaches a height of 6-10 cm in 18-20 days, it produces 5 pairs of leaves, and this stage is called the stem elongation period. In

both of these developmental stages, the plant grows slowly, but the elongation of the stem is faster, and the stem takes shape during this period.

Branching period. During this period, rapid growth of the plant begins, with an increase of 3-5 cm in one day. Branching continues for 12-20 days from the beginning of branching. During this period, the formation of branches begins. Subsequently, the branching of the plant slows down, and at the end of the flowering period, branching stops.

Flowering period. After the buds are formed, flowering begins and lasts for 40-50 days.



Flowering period of cultivated flax (*L.usitatissimum*)

Fruiting period. It is divided into green, medium yellow, yellow, and full ripening periods. After flowering, the green fruiting period begins and lasts for 35-40 days. Then, the yellow fruiting period starts after several days and is followed by the full ripening period.

Water demand. Flax requires a lot of water. Insufficient moisture in the soil from sowing to early yellowing negatively affects its growth. During the growing season, 400-430 mm of water is required to produce organic matter.

Light requirement. Flax is a long-day plant. It grows well on sunny days, and the process of photosynthesis is active. Strong light may cause rapid branching, affecting the quality of the plant.

Nutritional requirement. Due to the fact that the root system develops slowly, flax requires nutrients from the soil in a form that can be easily absorbed. Excessive nitrogen leads to excessive growth of leaves, lodging, and poor quality of stems. Nitrogen is required from the branching period to the flowering period.

At the beginning of the growing season, phosphorus is in high demand. If there is sufficient potassium, the quality of the stems is high, and lodging is prevented.

According to the recommendation of scientists, the ratio of nitrogen, phosphorus, and potassium should be as follows: nitrogen 90%, potassium 60%, phosphorus 20%.

Soil requirement. For flax, fertile soil and a suitable air system are acceptable. Podzol soil in the areas where flax is grown is the most suitable for flax. Soils close to neutral are also suitable.

Cultivation technique. The root system of flax develops less vigorously compared to other crops, so it absorbs fewer nutrients from the soil and thrives well in fertile soils. Flax is usually planted after crops with high annual rotation. Flax is sown in areas freed from cereal crops. Flax with a complete rotation is sown in the same place after 5-6 years. Flax is considered a main precursor for many crops. Flax is a demanding plant in terms of nutrients. For long-term flax, 180-200 kg of nitrogen, 80-100 kg of phosphorus, and 120-160 kg of potassium are applied per hectare. Flax requires soil to be plowed to a depth of 22-25 cm. The planting depth is 12-13 cm, and during cultivation, flax is treated with boron. Various herbicides and pesticides are used against weeds and harmful pests. The ripening stage of the crop is divided into green, light yellow, yellow, and full ripening periods. During the ripening period, the plant is harvested with special combines and then laid out to dry in rows for 3-4 weeks, after which it is separated from the stems using special machines and bundled into 3-4 bundles. Flax straw is separated at a temperature of 36-38°C using a retting method.

In conclusion, flax is considered a long-day plant in terms of cultivation, and it thrives well in areas with sufficient moisture. However, it is also possible to obtain a good yield of flax in irrigated areas. By adhering to agrotechnological principles in flax cultivation, high yields can be achieved.

REFERENCE:

1. R.O.Oripov, N.X.Xalilov, "O'simlikshunoslik" O'zbekiston faylasuflari milliy jamiyati nashriyoti, -Toshkent.2007.-335-b.
2. "Lalmikor yerlarda moyli ekinlar yetishtirish texnologiyasi", Sh.Oripov, B.Haydarov. Jizzax "Ziyo"-2017.
3. Omonov M., Ismoilova R.R. Linum usitatissimum L ning bioekologik xususiyatlari. Talqin va tadqiqotlar ilmiy-uslubiy jurnali//2022-yil N-4
4. Jumanova B.B., Jo'rayev S.T., "Zig'ir o'simligining rivojlanish davrlari va biologik xususiyatlari", "Pedagogs" international research journal, volume-33, Issue-2, May-2023
5. www.agro.uz