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THE PLACE AND IMPORTANCE OF THE SUNFLOWER PLANT ON A GLOBAL SCALE

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A B S T R A C T

This article presents an insightful exploration into the paramount role and significance of the sunflower plant on a worldwide platform. It intricately examines the historical origins and expansive geographical presence of sunflower cultivation, shedding light on its remarkable adaptability to diverse climates and soils, positioning it as a key agricultural asset with a global footprint. A central focus of the article lies in highlighting the economic prowess of the sunflower plant. It delineates its multifaceted contributions across various industries, underscoring its pivotal role as a primary source of oilseed for culinary and industrial applications. Additionally, the article accentuates its relevance in livestock feed and its burgeoning potential as a vital component in the emergent biofuel sector. Furthermore, the article delves into the environmental benefits inherent in sunflower cultivation. It emphasizes the plant's capacity for soil rejuvenation, biodiversity promotion, and its role as an environmentally sustainable rotational crop, amplifying its significance in fostering ecological balance. Through a comprehensive lens, this article offers an encompassing view of the sunflower plant's far-reaching impact, emphasizing its multi-dimensional importance in global agriculture, economic sustainability, and environmental conservation.

K E Y W O R D S

Raw silk, silk thread, mating, blown silk, crepe fabric, steaming, rewinding, carding, weaving, finishing.

Introduction

Sunflower is grown primarily for its oil, ranking 3rd in world countries in terms of consumption after palm as well as soybean oil. According to indicators in 2019, 50 million tons of sunflower seeds were grown worldwide, while 20 million tons of it were produced as vegetable oil. Russia and Ukraine are the leading countries in the world for the cultivation and export of sunflower, for these countries its share is 50% of the world's output. Statistics (disambiguation statista.com)according to the 2022-2023

crop year, Russia reached the peak of sunflower seed production. During that period, Russia produced 16.5 million tons of sunflower seeds. Currently, as a result of the ongoing war between Russia and Ukraine, the demand for this vegetable oil is growing in many other countries that import sunflower oil from these countries [1-4].

A clear example of this is Germany and the United States. Due to a number of restrictions caused by the war, Germany imported less than 2% of its domestic demand for vegetable oil in 2020. In the US, however, this figure increased by almost 2 times in 2023 to 7,000 tons, compared to 335,000 tons in 2022.

The top 10 countries that import Bulgaria, Turkey, Georgia, Germany, Finland, the Netherlands, the Czech Republic, Italy, Iraq, Romania, Belgium and Mexico. Various products are obtained from the sunflower plant. Among these, vegetable oil is the main product that is produced in the first place. Another main product obtained from sunflower seeds is sunflower halva. Also for consumption confectionery sunflower has its place all over the world [5-9].

Confectionery sunflower seeds are added to bakery products, as well as an addition to the surface of healthy snacks, sunflower bark is used in the production of wooden panels in the construction industry, sunflower bark is used as a mulch-biochemical preparation, sunflower bark is allelopatk, that is, it is recommended to use to prevent the growth of plants around sunflower seeds unless they produce chemicals. Sunflower seed husks can be used as feed for feeding animals – ruminants, including cattle and sheep. Shells: composed of ash, raw protein, lipid substance, reversible sugar and carbohydrates. Although low in Protein and nutritional value, the high fiber and carbohydrate content of the shell makes them suitable for animal feed when mixed with ingredients with high nutritional value. Sunflower seed husks are used as a fuel source for heating. The 1kg Shell has a thermal value of 19.2 megajoules [10-15].

Sunflower seed husks are less environmentally friendly than burning wood, and are usually cheaper than heating with mined fuel. For example, Barnesville high school in Minnesota, United States, uses sunflower shells for heating. The school uses 450 to 600 tons of sunflower husks in one heating season. As can be seen from the above data, the demand for sunflower seeds and oil is increasing on the world market.

There have also been several examples of the use of this plant for various purposes on an industrial scale. Uzbekistan also has a high demand for this plant. According to the statistical agency in Uzbekistan, in January - October 2023, enterprises produced 46.9 thousand tons of vegetable oil, which increased by 1.6 times compared to 2022. Statistics for 2021 (oec.world) where Uzbekistan exported US $ 1.09 million of sunflower seeds, while it also imported US $ 50,000. It is necessary to understand the need to expand the areas where the sunflower plant is grown in the conditions of Uzbekistan based on these resources.

This is the same provision for the growing development of sunflower, with the main part of the land of Uzbekistan being mainly rich soils. Through this, we can bring great benefits to our economy, not only by meeting the demand that our domestic market and thus those products are experiencing in the world.

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