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CHIA SEED CULTIVATION



➤ Introduction:



Salvia hispanica is the scientific name for Chia seeds, and is commonly known as China, and it is a flowering plant from the mint family, Lamiaceae, which is native to central and southern Mexico and Guatemala. It is considered a pseudocereal, mainly cultivated for its edible, hydrophilic Chia seed, grown and commonly used as food in several countries of western South

America, western Mexico, and the southwestern United States.

Chia seeds are one of the nutrition and healthy food items nowadays. Chia seeds are edible in several ways. There are a lot of Chia recipes you can discover yourself. There are many more recipes that you can experiment yourself. Chia grows well in tropical and subtropical regions; it is optimally established from 400 to 2500 m a.s.l., but the areas below 200 m elevation are not good for Chia cultivation). Chia crop is intolerant to freezing at the early stages of growth.

It can grow it successfully at altitudes up to 3200 ft. It thrives light soil, and benefits from good nutrition. It is a hardy plant, which makes organic farming a great success. Yields of Chia seeds are around 2880 kg per acre are common. Harvesting and processing depend on the location and the size of the farm, but the commercial farms would harvest with a combine harvester and then process it similar to guinoa, wild rice etc.

Chia seeds vary in size, the sizes of the seeds depend on the moisture available there and its range. Chia plants grow up to 3 cm to 4 cm under dry environmental conditions and up to 60 cm, if grown in optimal growth conditions.

The leaves of the plant are thick and wrinkled and are dark green in color. The leaves are deeply lobed with a thin cover of fine, soft, grayish hairs are available on its upper surface. The plants have many stems which emerge from the base of the plant. The flowers of the plants have with two lips in pale blue to deep blue. Each flower has 13 tiny flat seeds which is 1.5-2 mm in length and is gray to light brown in colors.

Cultivation:

The minimum and maximum growth temperatures for Chia seed crops are 11° and 36 °C, respectively, with an optimum temperature range of 16-26 °C.

Chia plants are short-day plants with a threshold of 12-13 h, its period of growth and fruiting depend on the latitude where it grows.

In Northern Hemisphere Chia begins to flower in October and in the Southern Hemisphere in April.

At higher latitudes, the maturity rate of crops is very low, since plants die due to early frosts.

Efforts to induce Chia to flower with day lengths greater than 12 h have failed, with the idea of widening the cultivated area to temperate zones.



Sowing period is an extremely relevant variable, since it determines the duration of the development period of the crop due to variations in environmental temperature and day length. Above growing climate is mostly responsible for the potential yield and seed quality. Like many types of vegetable seeds grow at temperatures ranging from 20 °C degrees to 25 °C, Chia seeds grow well in slightly warmer temperatures. You can use a space heater or special heating system to maintain a temperature of 20 to 25 °C degrees around the Chia seeds during the germination and growth period.

Species:

There are mainly two different kinds of Chia seeds one is black Chia seeds and another is white colored seeds, which belongs to the family of mint plants. Both the variety if Chia plants, flowers, and yield tiny, healthy seeds. And each variety of Chia seeds have different nutritional values.

Chia plants that produce purple flowers will yield brown seeds. These brown colored seeds are called "Black Chia", though each seed Is a variety of different colors of brown, mottled together in a unique pattern. Chia Plants which produce white flowers will produce only white seeds. White Chia seeds are a marbled mixture of white, gray and yellowish.

> Harvesting:



The harvesting period depends on the days required to separate the seeds from flowers, some farmer store dried flower heads in a large calico bag till next seed separating session. A Successful collection of Chia seeds will take a lot of time. For mass harvesting you do it manually or by using a harvester. You should wait until the flower head turns brown; you risk losing the seeds. You can start harvesting your Chia seeds, as soon as most of the petals have fallen off the flower. Cover the flower buds with paper bags or on a drying rack. Do not hang the plants upside down.

Economics of One Acre Chia Seeds Cultivation

Expenditure:

| Distance (in acre) | Seeds (in land) | Cost of Seeds (per kg) | Total | Other Expenses (As Per Require- ment) | Cost of cultivation | |
|-------------------------|--------------------|------------------------------|---------------------|--|---------------------|--|
| 6inchX2 ft | 3 kg | 1500 Rs | 1500X3= 4,500 /- | Fertilizers Land preparation Labor expenses etc. | 4,500/- | |
| Total Expenses: 4,500/- | | | | | | |

Income:

1) Income From Seeds:

| Income of year | Seeds (in 6 months) | Company buy-back (per kg) | Total |
|--------------------------|------------------------|------------------------------|----------------------|
| In 6 th month | 1000 kg | 100 Rs | 1000X100= 1,00,000/- |

Total Income From Seeds: 1,00,000/-





> Technical Support And Services:

We also provide technical support for farming. Our Service Department with technically qualified staff provide after sales service and farmers' advisory services to our customers to get better plant establishment and faster growth of Herbal and Horticultural plantations.

We have largest network of employees who deliver Plants to customers at their door steps. Free technical services to customers on planting method, management practices and plant protection measures. Our teams of Agricultural Experts periodically visit and supervise the plantations and suggest necessary guidelines to get better growth and higher returns. Services:

- This includes Supervision, consultancy, guidance, Transportation cost first year.
- First production starts after 6th month.
- Buy back agreement of Chia Seeds.
- For 1 Acre plantation the cost of Plants is Rs. 4,500/-, out of which has to be paid before the cultivation and the remaining half after the planting is done.
- The income expenditure indicated by the company is an approximated figure, as it also depends on the nature and hard work of the farmer



("Look deep into nature, and then you will understand everything better")

THANK YOU

For More Information Contact Us

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