

Saffron Cultivation in India

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INTRODUCTION

Scientific name : *Crocus sativus* L.

Origin : Greece.

Family : Iridaceae

It is a sterile triploid, with $2n=3x=24$



Saffron or Kesar plant is one of the expensive spice in the world and known for its aroma and colour. The word Saffron is derived from the Arabic word Zafran which means yellow. It is a flowering plant. In India, saffron cultivation is mostly done in Himachal Pradesh and Jammu & Kashmir. In India, this high value aromatic spice is called KumKum and Kesar in Sanskrit and in Kashmiri, it is called as Koung. The saffron is also called as a Golden crop because of its extreme high cash value and low volume and this great economical activity is known as 'Golden Zest' in Indian Agriculture. The colour, flavour and aroma of saffron are mainly due to crocin, picrocrocin and safranal, respectively. Due to its rich aroma and very high crocin content, the Kashmir saffron is well known worldwide and fetches a more price than the saffron available from Spain or Iran.

Uses of Saffron or Kesar

- In India, saffron is mainly used for colouring and flavouring purposes in many deserts.
- It is also used as an ayurvedic remedies in arthritis, infertility, liver enlargement and fever.
- Saffron is also used commercially in medicinal, pharmaceutical and cosmetic industries.

- It is also assumed that if a pregnant woman drinks saffron milk properly, it can result in good health and fair complexion of the baby to be born.

Climatic conditions and requirement:

Photoperiod and temperature exerts a profound influence on the flowering of saffron. The commercial cultivation of saffron requires a long photoperiod *i.e.*, 12 hrs and the climatic area at the height 2000 meter from mean sea level. The flowering of the saffron crop is adversely affected by low temperature coupled with high humidity during flowering season. Rain during the spring season boosts the production of new corms. Saffron Corms are grown in the months of June and July as well as August and September in some areas of India. In October, it begins to flower. In the summer, it requires intense heat and dryness, while in the winter, it requires extreme cold. Winters in areas of Karnataka, Himachal Pradesh, and Jammu & Kashmir provide the best conditions for its development.

Land preparation

Make the soil loose and friable before planting saffron seeds by ploughing the land thoroughly. Incorporate the 20-25 tonnes of cow dung, 90 kg of nitrogen, 60 kg of phosphorus and 60 kg of potassium per hectare before final ploughing, and plough it thoroughly.

Propagation: Propagation is done through corms *i.e.*, compressed underground stems.

Cultivation of Saffron:

Planting Material for Saffron Farming:

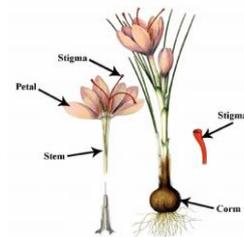
Saffron cultivation is done through the corms. There are three varieties of saffron cultivated in India *i.e.*, Aquilla Saffron, Creme Saffron and Lacha Saffron especially for Kashmir.

Soil: Like other spices crops, saffron or Kesar farming is highly based on soil type. Saffron requires well drain, fertile, sandy loam soil, and rich in organic matter, having the optimum soil pH range of 6-8. Heavy clay soil is not suitable for its cultivation. The well drained soil prevents corms from rotting or getting infected during periods of wet weather. Saffron is a legendary crop of Jammu and Kashmir because ideal climatic conditions are available for good growth and flower production in this area.

Irrigation requirement: The saffron plant does not require very wet soil. The soil should be slightly damp but not completely dry. Irrigation should apply on a weekly interval of time and 283 m cubic per acre of water during the cultivation period.

Harvesting of Saffron

Harvesting of saffron is laborious, time consuming and so expensive because it requires high care. Harvesting of flowers



must be done in the early morning because the flowers bloom at dawn and wilt as the day progress. To be more precise about saffron's harvesting, the saffron flowers must be plucked between the sunrise and 10 am. Saffron flowers come out in autumn and are harvested for the red stigmas that are known as “saffron threads”, from which the spice is derived. Each flower yield three stigmas and they are carefully picked up by hand. The flowers must be harvested before noon time because they wither easily. This process is tedious, time consuming and meticulous. This shows why saffron spice is so expensive and precious and called as “red gold”.