

SAFFRON: HISTORY AND HUSBANDRY

Margaret Moss - 2025

ABOUT SAFFRON

- Saffron comes from the bright red stigmas of the saffron crocus (*Crocus Sativus*). It is the most expensive spice in modernity and can only be hand-harvested.
- There are many crocus species, both wild and ornamental, but the saffron crocus differs from its close relatives in several key ways:
 - Other crocuses bloom in late winter - January, February, and March. They are among the first flowers to bloom in the garden. The saffron crocus blooms in fall.
 - Other crocus species can reproduce sexually and produce seeds. The saffron crocus does not produce seeds. It is sterile (a triploid organism, with three copies of each chromosome) and is entirely human-propagated.
 - Other crocus species do not taste good, and in fact many are poisonous!
 - Of special note: the autumn crocus, which blooms at the same time as the saffron crocus. It is not a true crocus, it is a member of the lily family and all parts of the plant are toxic to humans and animals if ingested!
- Saffron is a clonal plant. The corms it produces as it grows are its only means of reproduction, and they are genetically identical to the parent plant. This means that the saffron we grow and use today is exactly the same as what humans used thousands of years ago!
- Despite its expense, saffron is easy to grow and harvest. Its high price is due to the labor involved in processing it. And due to its potency as a flavoring, it is possible to grow enough saffron for a family's use in a small to medium sized patch.
- Saffron is also used as a colorant. Unmordanted saffron stigmas produce a rich yellow dye; the petals and stamens can be used to produce shades of green, red, and gray through the application of various mordants.
- The yellow-gold of saffron was used as a dye for cloth, cosmetics, hair, and ink
- In the Middle Ages, saffron was ascribed medicinal properties and was believed to have sedative, expectorant, stimulant, antispasmodic, antihysterical, and aphrodisiac properties. Overdoses have narcotic properties, and there are documented cases of saffron being used as an abortifacient, with several fatalities resulting.

SAFFRON HISTORY

Based on chemical analysis of prehistoric cave paintings in modern Iraq, crocus-based pigments have been in use for 50,000 years. The domestication of what can properly be considered saffron crocus is more recent. Early signs of domestication and cultivation appear in Greece beginning in 1700 BCE, with appearances in ancient Greek frescoes and writings indicating its prevalence. Modern genetic testing also points to Greece as the most likely origin; the closest wild ancestor of saffron crocus, *Crocus cartwrightianus*, is native to the region.

While no remains of corms have been found at the site, frescoes depicting the harvesting of saffron have been found at multiple Minoan excavations. From there, saffron spread throughout the Mediterranean via trade networks, reaching as far afield as Egypt by 1380 BCE. Ancient Egyptian art depicts trade between themselves and Crete, where a thriving textile industry existed. Saffron-dyed textiles have been recovered from ancient Egyptian tombs but are absent from other sites, and no evidence of saffron cultivation has been discovered in the archaeological record. This suggests that saffron-dyed textiles were exclusively a trade-acquired good for the elite, and not accessible to the average Egyptian during the period.

Saffron reached the Indian subcontinent sometime prior to around 500 BC, at which point it is referenced as an ingredient in the prescriptions of medical practitioners. The Kashmir region is specifically referenced as a commercial center of saffron production in books from the 700s AD.

While the Roman Empire trafficked heavily in saffron, it disappeared from much of the European continent until it was reintroduced to Spain via Moorish conquest and trade. This began in the 700s AD, and by 921 AD, the saffron crocus was well established in Spain. By 1200 it was being cultivated in France, and it became established across Europe soon after. The city of Nuremburg in Germany became a central bastion of the saffron trade and enacted stringent quality controls to prevent the adulteration of saffron with cheaper materials like safflower, marigold, and horsehair.

In England, the town of Chepyng Walden established a dye works in 1359 and produced cloth dyed with saffron grown on the town's outskirts. The town renamed itself to Saffron Walden to reflect this, and Henry VIII granted the town a charter decorated with images of the saffron crocus in 1514. Henry VIII also enacted sumptuary laws prohibiting the Irish from wearing cloth dyed with saffron.

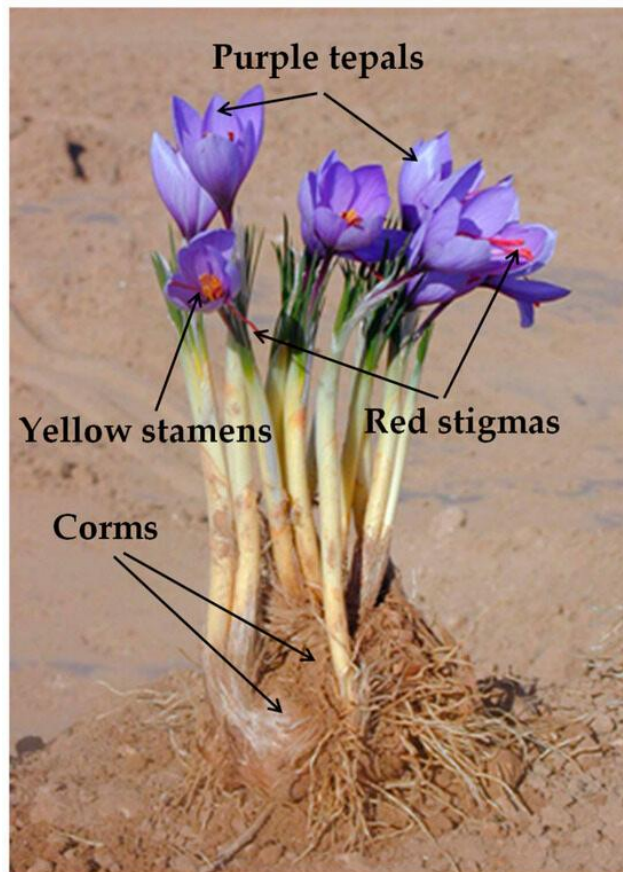
CULTIVATION

- As is evident from its history and distribution, saffron can grow in a wide range of climates and conditions.
- Saffron crocus is a perennial plant, and only needs to be planted once to enjoy several years of harvest. Established saffron patches will grow larger over time.
 - In fall, the flowers of the saffron crocus emerge. The long red stigmas can be harvested. If timed correctly, it is possible to harvest saffron the same year that your patch is planted.
 - Once the flowers have bloomed, long, grasslike leaves begin to emerge. These leaves will persist throughout winter, gathering energy for the plant.

- Underground, the plant grows roots and corms. Each corm will become a new plant. Corms can either be harvested to start a new patch or left in place to expand the patch.
 - In summer, the plants go dormant. Foliage dies back, and it looks as though the plant has disappeared, but it will be back in fall with a fresh round of blooms.
- Saffron needs full sun to partial shade (at least six hours of daily sun). It can be grown under deciduous trees in hot climates; by the time the trees are fully leafed and shading the saffron, the plant will be ready to die back naturally.
- Saffron thrives in sandy, well-draining, nutrient-poor soil. In heavy clay, the corms are prone to rotting.
 - If you have clay soil, it can be amended with organic material (don't add sand as this will make your soil like concrete.) Mix six to twelve inches of leaves, grass clippings, or wood chips into the clay and top dress with additional organic matter, then leave it to decompose. It will take time, but will drastically improve the drainage of the soil.
 - You can also opt to grow saffron in a raised bed or well-draining large containers.
- Other Mediterranean natives are great choices to grow near saffron crocuses. Rosemary, oregano, thyme, lavender, sage, and tarragon are all perennial herbs that thrive in the same sunny, sandy, nutrient-poor, and dry conditions that saffron crocuses need!
- Plant saffron corms in the late summer to early fall, six to eight weeks before the first frost. Space each corm three to four inches apart, and plant six inches deep.
- After planting, water the corms thoroughly and apply a layer of mulch. If squirrels are a problem, consider covering the area with barrier cages (I use wire trashcans and plastic grid laundry baskets).
- Don't water the corms again after planting. They thrive in dry conditions and will rot if watered too much. They also don't need to be fertilized.
- In fall, as the flowers emerge, keep an eye on the weather. Rain can spoil the saffron crop, so if heavy rains are expected, it's a good idea to cover the flowers.
- Harvest saffron in the morning, when the flowers are fully open. You can pick the entire flower and then harvest the stigmas, or harvest the stigmas *in situ* while leaving the flowers on the plant. Both work equally well but I like to leave the flowers so I can look at them for a few days.
- Spread the stigmas on a clean, dry surface and let them dry for several days away from direct sunlight. Once brittle, store them in an airtight container in a cool, dark place. They will keep for up to two years.



"The Saffron Gatherers," Minoan fresco. Greece, 1700 - 1500 BCE.



Anatomy of *Crocus sativus*.



1200s manuscript with saffron pigment.

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- Telling saffron crocus apart from its relatives/lookalikes:
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- Saffron is a clonal plant. The corms it produces as it grows are its only means of reproduction, and they are genetically identical to the parent plant.
- Saffron is also used as a colorant. The unmordanted stigmas produce a rich golden yellow that was used as a dye for cloth, cosmetics, hair, and ink.
- Saffron was also ascribed medicinal properties - stimulant, antispasmodic, abortifacient

SAFFRON HISTORY

- Pigments containing crocin, the pigment found in saffron, have been found in 50,000 year old cave paintings in Iraq.
- First clear domestication record in Greece; depicted in frescoes dating to 1700 BCE
- Genetic testing identifies *Crocus cartwrightianus* as the closest wild relative of saffron
- Spread throughout the Mediterranean via trade networks, arrival in Egypt was documented by 1380 BCE
- Artistic depictions of trade in saffron-dyed textiles between Egypt and Crete; luxury goods for the wealthy, found in ancient Egyptian tombs
- Saffron reached Persia and the Indian subcontinent around 500 BC; Iran and the Kashmir region of India are still important sites of modern commercial saffron production
- Saffron disappeared from much of Europe following the fall of the Roman Empire but it was reintroduced to Spain via trade with the Moors in the 700s AD. Cultivation established by 921 AD and persists to the present day.
- Spread to France by the 1200s and the rest of Europe soon after; Nuremberg, Germany was a key center of saffron testing and quality control
- English town of Saffron Walden ran a commercial dyeworks starting in 1359; Henry VIII granted the town a charter decorated with images of the saffron crocus in 1514
- Henry VIII's sumptuary laws forbade the Irish from wearing saffron-dyed textiles

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