

## Saffron Harvesting to Optimize Yield and Quality

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Saffron, *Crocus sativus* L., is generally planted in August and September and blooms 6-8 weeks later from October to November. Exact blooming times may vary depending on the climate and soil conditions. Saffron blooms for around 2-3 weeks, and each flower lasts only a day or so, depending on the weather. Saffron flowers and stigma threads are delicate and should be handled carefully throughout harvest and processing to maintain quality. Saffron quality depends on the level of three chemical compounds mainly concentrated on red-colored stigma threads, i.e. crocin for color, picrocrocin for flavor, and safranal for aroma. Thus, the addition of any other parts of flower or external materials other than the red stigma part during processing/packaging decreases saffron quality. For more information on saffron quality see Saffron Types and Quality Indicators (KSU-CEP-FAC-0090)



### Identifying flowers that are ready to Harvest:

- Generally, flowers should be picked when they are slightly opened or beginning to open.
- To maintain high quality, try to harvest flowers every day that they are ready to be picked.
- If flowers are picked too soon, stigma threads may not be fully developed, which can reduce yield.
- Flowers should be picked before withering/wilting because they become difficult to pick and it will be harder to separate the stigma threads from the flower.

### When to harvest

- The best time to harvest flowers is midmorning after the evaporation of dew and before the sun is fully out.
- Harvesting saffron later in the day may result in higher saffron stigma length and weight; however, it decreases quality by reducing crocin, picrocrocin, and safranal levels.
- Exposure to the sun may reduce saffron quality as it reduces the level of chemical compounds present in stigma threads.
- If there is rain or snow, wait until precipitation stops and the flowers are dry. Harvesting wet flowers may make processing difficult and may also reduce quality.
- You may not want to delay harvesting more than 1-2 days after flowering to prevent loss of quality.

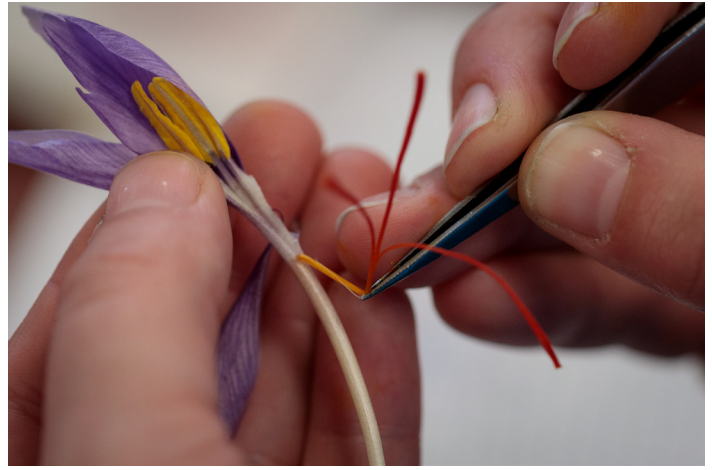
### How to harvest

- Saffron is generally harvested by hand. Some mechanical harvesters have been introduced in Iran and Spain, however, few farmers use them.
- Slightly twist the floral tube at the base using fingernails to cut the tube.
- Collect the harvested flowers in a bucket or basket and take them to the processing center. Generally, farmers process saffron indoors.



## How to Process

- Make sure your hands and the processing area are clean and well sanitized.
- Separate the stigma threads as soon as possible after harvesting. If not possible, store flowers in a dark, cold, clean place or a refrigerator.
- Separate the red colored stigma threads from the flower by hand, or, if needed, with the help of tweezers.
- Based on the proportion of red stigma threads and yellow style parts, saffron quality and market value changes as the desired part is the red colored stigma threads.
- While separating stigma parts and cutting off the yellow part, try to keep the three strands of red stigma together (presents a good appearance and may add market value)



## References:

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