

# Safflower

*Carthamus tinctorius*

# Origin

- Belongs to the Asteraceae family
  - Daisy, Cosmo, Marigold, Dahlia
- Humanity's Oldest Crop
- Ancient Egyptian textiles date the plant to the Twelfth Dynasty
- Originally cultivated in South Asia and Egypt
- Grown chiefly in India
- Has been introduced as an oil crop into the United States, Australia, Israel, Turkey, and Canada



# Morphological Description

- Flowers come in colors or red, orange, and yellow
- Safflower fruits are achenes, usually called "seeds", surrounded by a thick fibrous hull
- Each stem bears a terminal inflorescence
- The leaves are sessile, arranged in a rosette from the base, 4–20 cm long
- Upper leaves bear many sharp spines
- Height of the plant is about 3 ft
- Plants are covered in stiff spines
- Taproots grow out 2-3m



# Cultivation

- Grows best in full sun
- Ideal growing temperatures: about 20° to 30° C
- Long, dry hot summers
- Resistant to drought and will not tolerate cold
- To grow successfully they need an annual precipitation of 15 inches per year
- Prefers soil that is well-drained with high levels of nitrogen and phosphorus
- Make sure to plant the plant in a permanent spot because it does not transport well
- Flowers are cross-pollinated but if absent, flowers will self-pollinate

# Plant Uses

- Four main uses
  - Medicinal
  - Oil
  - Dyes
  - Decorative
- Medicinal
  - Used in traditional Chinese medicine to alleviate pain, increased circulation, and reduce bruising
  - In India it is used as a laxative and diaphoretic properties, and are also used for children's complaints of measles, fevers and eruptive skin conditions
- Oil
  - In culinary use, safflower oil compares favorably with other vegetable oils with its high smoke point.



# Plant Uses cont.

- Dyes
  - Classified as a Quinone-type dye
  - Most common colors include Yellow, Mustard, Olive, and Khaki
- Decorative
  - Ancient Egyptians found the flower pleasing to the eye and included it in garlands placed on mummies



# Health Benefits

- High in Vitamin E
- High in unsaturated fats
- Low in saturated fats
- Contains Omega-6 fatty acids to help burn calories
- Does not contain any cholesterol
- When applied to skin, it is known to help smooth and moisturize skin
- Has not been proved by doctors or tests but it has shown to alleviate the symptoms of coronary heart disease, Type 2 Diabetes, high blood pressure, and arteriosclerosis



# Facts

- Safflower is also known as false saffron
- Safflower has been found in Egyptian tombs dating back to 3500 B.C.
- In the nineteenth century it was also known as Carthamine
- Rabbits love Safflower
- Two types of Safflower:
  - White Safflower
  - Red Safflower

