

# Chickpea

## *Cicer arietinum*

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# Chickpea

Genus: *Cicer*

Species: *Cicer arietinum*

Family: Fabaceae

❖ Also known as

- ❖ Bengal gram
- ❖ Garbanzo bean
- ❖ Egyptian pea
- ❖ Ceci

❖ One of the earliest cultivated legumes with 7,500 year old remains found in the Middle East.

❖ Relatives are beans, peas, soybeans, and alfalfa.





## Geography

- ❖ Chickpeas originated in Turkey and Greece in the late Neolithic period around 3500 BC.
- ❖ Spread throughout the Mediterranean region, West Asia, Indian subcontinent, and Australia through trade.
- ❖ Came to U.S. through immigration.
- ❖ Grown in tropical, subtropical, and/or temperate regions.



# Morphology

- ❖ Herbaceous annual plant, similar to a small shrub
- ❖ Flowers are white with blue, violet or pink veins and are bisexual
- ❖ Self-pollinated
- ❖ Fruits are a legume
- ❖ Roots are classified as a taproot system with 3-4 rows of lateral roots. Roots typically grow 1.5-2 m deep.
  - ❖ Rich in starch
- ❖ The stem is erect, branched and hairy
- ❖ Leaves are compound, obovate, and are pubescent.
  - ❖ Margins are serrated



# Two Kinds of Chickpea



Kabuli

Desi

- ❖ Small, dark, have a rough coating
- ❖ Earliest variety
  - ❖ Most closely resembles seeds from archaeological sites
- ❖ High in fiber
- ❖ Origin: Turkey



- ❖ Lighter in color, has a smoother coating
- ❖ Found in Mediterranean, South Europe, North Africa, and South America
- ❖ Introduced to India in 18<sup>th</sup> Century
  - ❖ Green varieties



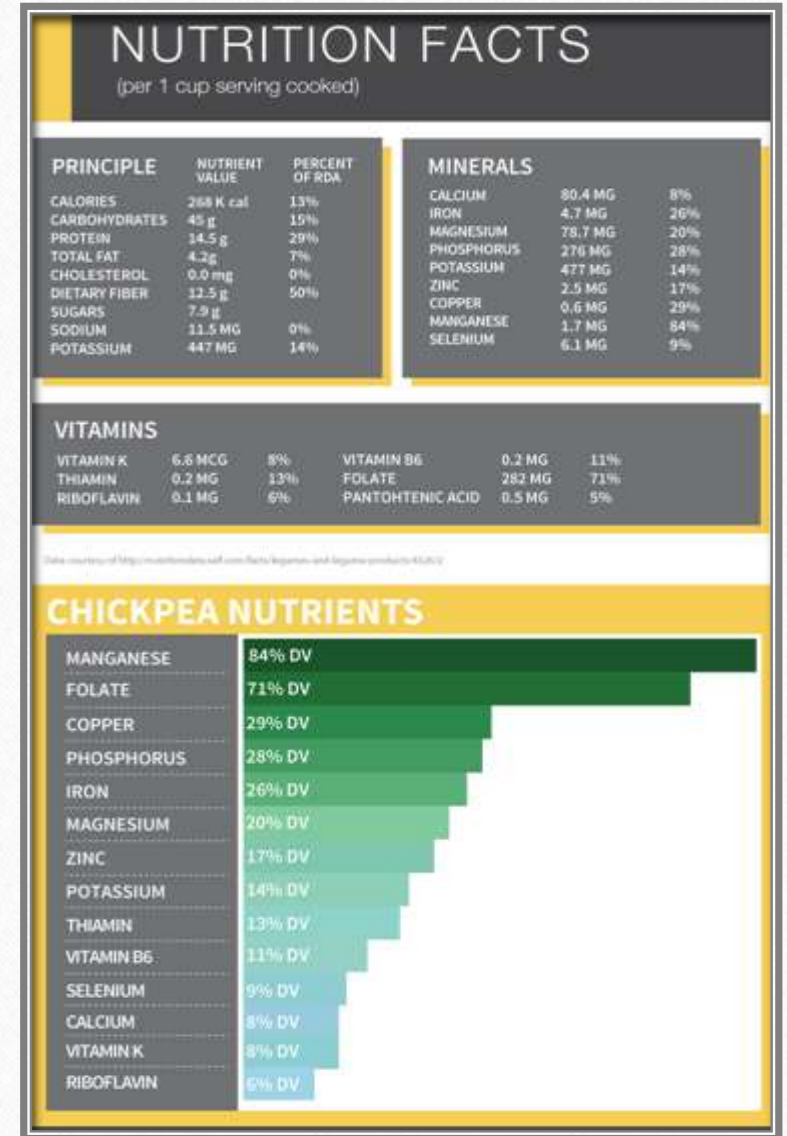
# Cultivation

- ❖ Grown in Mediterranean, West Asia, Indian subcontinent, Australia, Great Plains
  - ❖ India is the largest producer and Australia is the second
- ❖ It is an annual, with a long growing season requiring 100 days until harvest
- ❖ Prefers full sun, can be planted in partial sun, however the yield will decrease
- ❖ Likes warm temperatures  $\sim 70-80^{\circ}\text{F}$
- ❖ Potassium and phosphorus should be added to the soil
- ❖ Susceptible to blight, mosaic virus, fungi, and anthracnose
- ❖ May be machine harvested



## Plant Uses

- ❖ There are few references regarding medicinal uses, but have been noted for having diuretic effects.
- ❖ They are high in nutrients, especially manganese, iron, phosphorus, copper, dietary fiber, and folate
- ❖ Traditionally chickpeas are used as food and can be found in a variety of dishes
  - ❖ Salads
  - ❖ Stews
  - ❖ Flour
  - ❖ Hummus
  - ❖ Roasted as a snack
  - ❖ Some varieties are popped like popcorn





# History

- ❖ In the Bronze Age, chickpeas became a staple in Greece and Italy.
- ❖ The Roman “Apicius” has several recipes
  - ❖ Ancient recipe book
- ❖ In ancient times, chickpeas were associated with the planet Venus as it was once thought to increase sperm and provoke menstruation.
- ❖ During World War I chickpeas were roasted and then ground to be used as a coffee substitute.





# Use in North America

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- ❖ Chickpeas were brought to North America through immigration.
- ❖ Indian dishes such as hummus made chickpeas popular due to the flavor and the health benefits
- ❖ California, Idaho, Montana and Washington are the main producers in the United States



# Fun Facts

- ❖ The Latin name *Cicer arietinum* means “small ram” as the shape of the seed may resemble a ram's head.
- ❖ Stems, leaves, and pod shell have compounds that have aphrodisiac properties.
- ❖ Leaves are used to manufacture blue/indigo dyes.





# References

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- ❖ <http://en.wikipedia.org/wiki/Chickpea>
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