

Research paper on fava seeds

[Religion](#), [Bible](#)



Seeds are fertilized ripe plant ovules that contain embryos and are used either for sowing or for consumption. They can also be defined as units of reproduction of flowering plants that develops into other plants. Seeds come from ripe ovules of gymnosperm (naked seeds) and angiosperm (enclosed seeds) plants after fertilization while others come from the mother plant (Bewley and Black, 1994). Seeds are formed to complete the reproduction process and also to help in the spread of flowering plants. They also help in the spreading or dispersal of plants. When seeds are mature, they are sown while others are used for human consumption. When Fava beans mature, they are sown or used for human consumption. Fava beans contain sperm cells and embryo cells (Cronquist, 1981).

There are three structures of a seed namely;

1. Embryo.

This is the immature plant on which the new plant will develop to a seedling

2. Seed coat

This is the outer covering of a seed and it helps protect the embryo from drying out and from mechanical injury.

3. Supply of nutrients for the embryo

It stores food for that facilitates the growth of the seedling.

Scarification is important to a fava bean seed because it helps to break the seed physically and it also softens the seed coat. This increases the germination rate because water and gases penetrate the seed easily since the coat has been broken. The exterior coating is removed either by parboiling to loosen it or frying causing the skin to split open.

The nutritional contents of fava beans are protein, phosphorus, carbohydrates, copper, manganese and they are also rich in dietary fiber. In addition, it has no cholesterol and it is low in saturated fats and sodium. Fava bean not only helps to improve the sugar level, it maintains a stable blood sugar level thus helps diabetes patients control their sugar level. In addition, its fiber content also helps to regulate blood sugar levels in the body.

Scarification of fava seeds increases its fiber content that helps reducing blood pressure by regulating blood sugar levels in the body.

Germination is a process where an embryonic plant grows into a seedling. Germination rate is the percentage at which seeds grow and fava beans germinate within 10-14 days. They take 85-120 days of cool weather to produce pods. The plants are to be watered at soil level earlier in the day to speed up the germination rate. Fava seeds have high plant hardiness and it resists harsh climates especially when the temperatures are cool. They fix nitrogen into the soil thus preventing soil erosion. Fava beans are grown as cover crops.

Elkoca et al et al states that chick pea beans have nutritional benefits. They are low in fats and have a helpful source in zinc, protein and polate (2007)

Lima bean com is a virtual fat-free source of high quality protein and also an excellent source of dietary fiber. Weber et al asserts that, Lima bean contains soluble fiber which helps regulate sugar (1995).

Edamane beans are rich in carbohydrates, dietary fiber, protein and micronutrients.

References

Elkoca, E., Haliloglu, K., Esitken, A., Ercisli, S. (2007). Hydro- and Osmo-priming improve Chickpea germination. *Acta Agriculturae Scandinavica: Section B. Soil & Plant Science*, 57, 193–200.

Weber, H., Borisjuk, L., Heim, U. and Buchner, P., and Wobus, U. (1995). Seed coat-associated invertases of fava bean control both unloading and storage functions: cloning of cDNAs and cell type-specific expression. *The Plant Cell*, 7, 1835–1846.

Cronquist, A. (1981). *An Integrated System of Classification of Flowering Plants*. New York: Columbia University Press.

Bewley, J. and Black, M. (1994). *Seeds physiology of development and germination: The language of science*. New York: Plenum Press.