

The World Vegetable Center

- **Introduction:** Cowpea (*Vigna unguiculata*) is one of the most ancient crops known to man with its center of origin being Africa. It is a warm season crop and tolerant to drought due to its tendency to form a deep tap root. Known as Kunde in Kiswahili it is an annual crop with determinate bush types and indeterminate

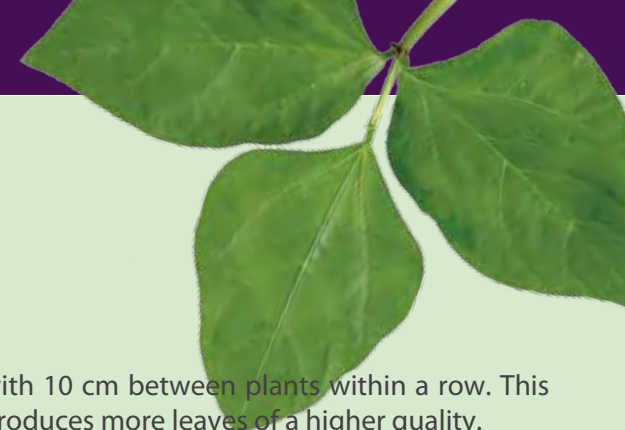


vining types. Seeds remain viable for several years. In tropical Africa, cowpea is grown either intercropped or in relay with maize, cassava, groundnuts, sorghum or pearl millet. Leaves and young pods are consumed as vegetables while seed are used as a side dish either cooked alone or mixed with other vegetables mostly in sauces. Seeds have different colors including cream, white and brown.



- **Soils:** Cowpea grows better in well drained and deep fertile soils. Avoid salt affected areas where the soil can form a hard crust when dry or stay wet for long periods.
- **Land preparation:** Land should be well ploughed and weed free.
- **Sowing times:** Cowpea does not perform well during the cold period and should only be grown during the warm seasons. If water is available, the crop can also be grown during the dry seasons. Humid conditions encourage disease problems while high temperatures will favor insect attacks.
- **Sowing:** Seed can be sown on ridges or flat beds at a depth of 5 cm. During the dry season when water is scarce, sunken or flat beds are used while raised beds are better during the rainy season. Use high quality seeds with a germination percentage of 85% or more. Germination percentage can easily be assessed by soaking the seed in a little water for 3-5 days and counting the number of germinating seeds. If there is poor emergence it is better to resow to ensure a high plant density, which will help provide good weed control later on.

For spreading types use rows 50-60 cm apart with 15 cm between plants within a row. For erect types use 15-30 cm between rows and 10 cm between plants within a row. Where ridges are used, sowing should be done on both sides of the ridge using a spacing of 60 cm between ridges. When the crop is being grown mainly for its leaves, sow on 1 m wide beds with six rows spaced 15 cm apart and



with 10 cm between plants within a row. This produces more leaves of a higher quality.

- **Crop management:** Early weeding is necessary to avoid weed competition with plants. Several diseases occur on cowpea and most pests affect both seed and leaf production. Watering is important to establish the crop well and to ensure good leaf and seed production. Rainfall will improve production.





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- **Harvest and cooking:** Cowpea leaves are harvested once a week starting from when the crop is well grown, either about five weeks after sowing under warm conditions or seven weeks after sowing when it is cool. Harvesting can be continued for up to 12 weeks after sowing. The more leaf harvests that are done, the lower will be the seed yield as well as the seed size.



Several recipes involving onion, tomato, coconut milk and cooking oil have been developed by the World Vegetable Center and are available as leaflets. The cooking time does not exceed 25 minutes. Cowpea leaves are rich in proteins, carotenoids, calcium, iron, phenols, antioxidants, and vitamins including vitamin C.



- **Seed production:** For seed production a spacing of 30 cm between rows and 15 cm between plants is recommended. Mature dried pods are threshed on a clean hard dry surface to remove the seeds from the pods. All debris is then removed and the clean seed dried again for long safe storage. Generally 4-6 days of sun-drying in the dry season or 8-10 days in the rainy season are needed to ensure proper drying. Completely dried seed can be recognized by its hardness while crushing it between the teeth. Well dried seed will break easily. Seed packing can then take place. If storage pests are expected to be a threat, seed can be treated with authorized insecticides including Actelic Super Dust.



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How to Grow COWPEA

Nutritious leaves
as well as seeds

