COWPEA

Vigna unguiculata subsp. unguiculata Fabaceae

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Deskripsi

Vigna unguiculata is a grain legume that originates in Africa. Attributes such as vine shape (climbing, prostrate, or semi-erect), seed color (shades of white, pink, brown, and black) and seed maturation time (60 to 240 days) vary with variety. Pods appear in V-shaped pairs.

The practice of cereal-cowpea intercropping and crop rotation coupled with effective soil fertility management can increase yields of cereals succeeding cowpea. Cowpea can fix up to 88 kg N/ha (Fatokum; et.al. 2000:pp. 301-318); in an effective cowpea-rhizobium symbiosis, more than 150 kg/ha of N is fixed, which can supply 80-90%of plants' total N requirement.

Penggunaan

V. unquiculata is a versatile crop grown as an annual. It is an important source of edible, dry seeds. Immature/green pods, seeds and leaves are also eaten. It makes an excellent green manure/cover crop and can be fed to livestock as hay, silage, or cut and carry forage. Best varieties for small-scale agriculture are usually those with spreading vines (for ground coverage/animal fodder) and high pod production (for human/livestock consumption). Early-maturing types are suited to short rainy seasons.

Nama Umum

- Inggris
  - Cowpea
  - Black Eyed Pea
  - Crowder
- Spanish
  - Caupi (Cowpea)
  - Caraota de ombligo negro
  - frijol de rienda
  - frijol de vara
  - habichuela china
  - judía de careta
- Prancis
  - niébé
  - pois yeux noirs dolique mongette
- Hindi
  - लोबया
- Malay
  - kacang bol
  - kacang merah
  - kacang toongga

Penanaman

- **Elevation –** up to 2000 m
- **Rainfall –** 300-4100 mm (500-1500 optimal); tolerates drought but not flooding
- **Soil Types –** wide range; prefers well-drained soils with pH of 6 to 7; intolerant of salinity
- **Temperature Range –** 15-40°C (25-35°C optimal)
- **Day Length Sensitivity –** ˂12 (short-day varieties) to 12-14 (day-neutral varieties) hours
- **Light –** prefers full sun but tolerates some shade (important for intercropping)

Time seed sowing (2.5-5 cm deep in the soil) so that pods mature before the end of the rains. Plant 2-3 seeds/hole, thinning to 1-2 seedlings/hole 2 weeks after planting. If grown alone, aim for a plant spacing of 20-50 cm (in row) X 50-75 cm (between row), allowing more space for spreading than erect types. When intercropped, adjust spacing and planting time to minimize crop competition. *V. unquiculata* derives much of its nitrogen from the air but still benefits from modest fertility inputs. Keep *V. unquiculata* weed free until the plants are established.

Pemanenan dan Produksi Benih

For pulse (dry seed) production, harvest the pods as they mature and dry. Dry pods will turn yellow or brown. Multiple harvests may be needed, especially for spreading types. Remove seeds from the pods and keep them cool and dry. For leaf production, harvest young tender leaves every 1-2 weeks starting 1 month after seedling emergence until flowering. For fresh pods or "peas," harvest pods about 2 weeks after flowering.

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Hama dan Penyakit

Integrated pest management is important, as *V. unquiculata* is adversely affected by insects, parasitic weeds, root-knot nematodes, fungal diseases, and viruses.

Memasak dan Gizi

V. unguiculata is a good, low-fat source of vegetable protein and carbohydrates. Dried seeds can be ground into a protein-rich flour, or cooked and added to many traditional foods. Soaking, germination, and boiling reduce antinutrients. Fresh leaves and pods/seeds are used as a cooked vegetable. Leaves can be preserved by drying in the sun.

Referensi

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