PLANT FACT SHEET

Vigna unguiculata (L.) Walp.

GENUS *Vigna* **FAMILY** Fabaceae

COMMON NAMES Cowpea, Black-eyed pea

EDIBLE PARTS AND USES

Edible parts: Seeds, Leaves, Pods, Tuberous root, Vegetable, Tuber

The young leaves, young pods and ripe seeds are all eaten. They can be steamed, boiled, stir-fried etc. The leaves can be dried and stored.
The dried seeds are used in soups and stews. They are ground into flour or fermented.
The seeds are also used for bean sprouts.
Roasted seeds are used as a coffee substitute.

DESCRIPTION

A creeping bean type plant with straight firm pods. Both cover crop types (leafy) and grain types occur. There is a deep tap root and many branches occur from it in the surface of the soil. The root nodules are large and round. They can be 5 mm across. The leaves have 3 leaflets. The end leaflet can be 12-16 cm long. This leaflet is larger than the side leaflets. The side leaflets are assymetrical. The stipules at the base of the leaf are large and with spurs at their base. Flowers occur often in pairs on the end of long flowering shoots. This stalk can be 2 cm to 30 cm long. Only 2-4 flowers in each stalk produce pods. Flowers are white, yellow or blue. They are large and showy. The standard petal is 2-3 cm across. The pods are about 15 cm long. The seeds are white except for a dark scar.

HABITAT

It grows in tropical and subtropical climates. It grows from sea level to 1800 metres altitude in the tropics. In Ethiopia it grows between 500-2,000 m above sea level. Plants can stand high temperatures. Some kinds can tolerate drought. They are sensitive to cold and killed by frost. Plants germinate with a temperature between 11.5-15.5°C. The best growth is between 20-35°C. They can grow on a range of soils providing they are well drained. They are a short day plant. They do well in the semiarid tropics. It will not tolerate acid or alkaline soils. It grows in areas with an annual rainfall between 280-410 mm. It can grow in arid places. It can tolerate shade so is good for inter-cropping.

PRODUCTION

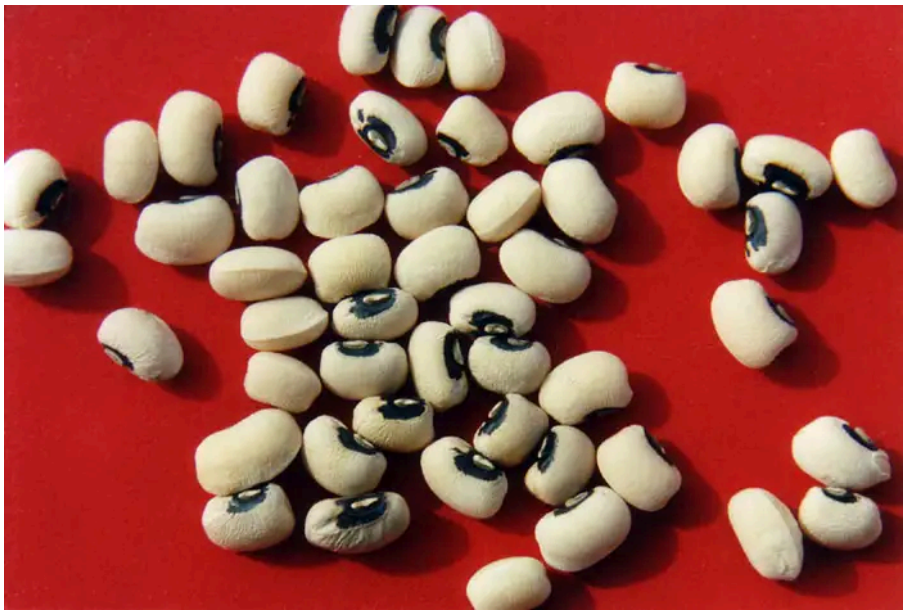
Cultivation

It is grown from seeds. Seed collection is easy. Seeds remain viable for several years if carefully stored. A seeding rate of about 20 kg per ha is suitable and seed are sometimes broadcast then thinned. Cowpeas mostly inbreed giving pure lines.

NOTES

Chemical composition: Protein (crude) = 28.0% (dry). Fat = 1.4% (dry). Fibre (crude): 3.1% (dry). Ash (insoluble) = 3.4% (dry). Carbohydrate (soluble): Starch = 33.4% (dry). Sucrose = 6.8% (dry). D-glucose = 0.2% (dry). D-fructose = 0.4% (dry). Amino acids (g [16g N]-1): Aspartic acid = 13.1g. Threonine = 4.2g. Serine = 4.8g. Glutamic acid = 17.5g. Proline = 3.7g. Glycine = 4.2g. Alanine = 4.7g. Valine = 6.1g. Cysteine = 0.8g. Methionine = 1.4g. Isoleucine = 5.0g. Leucine = 8.3g. Tyrosine = 3.6g. Phenylalanine = 6.4g. Lysine = 8.2g. Histidine = 3.5g. Arginine = 8.9g. Minerals: Sulphur = 0.16% (dry). Potassium = 0.47% (dry). Magnesium = 0.15% (dry). Calcium = 0.08% (dry). Na = 0.01% (dry). K = 1.43% (dry). Zinc = 28mg/kg-1 (dry). Iron = 90mg/kg-1 (dry). Manganese = 20mg/kg-1 (dry). Copper = 6mg/kg-1 (dry).There are about 150 Vigna species. They are mostly in the tropics.

PICTURES



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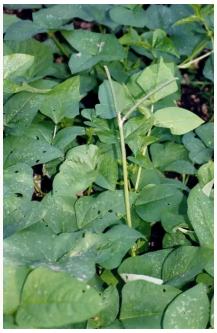

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