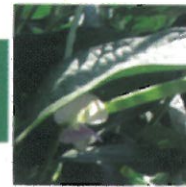


The attributes of Cowpea



The trading of seeds and processed foods from cowpea provides both urban and rural opportunities for earning regular income. The aboveground plant parts of cowpea, except the pods, are utilized for animal fodder.

Beyond its importance for food and feed, the spreading indeterminate or semi-erect bushy cowpea varieties provide ground cover, thus suppressing weeds and providing some protection against soil erosion.

The role of the crop in soil fertility restoration as well as its compatibility with many crop mixtures, has made it a common component of most cropping systems of the savanna zone of tropical Africa. The roots and root nodules decay to enrich the soil for the benefit of the subsequent crop. As a result of this, cowpea forms an important component of most cereal-legume cropping systems.

Another important feature of cowpea is that it fixes atmospheric nitrogen through symbiosis with nodule bacteria (*Bradyrhizobium* spp). In so doing, it provides 80-90% of its own nitrogen requirements, and allows adequate yields in nitrogen deficient soils where non-nodulated crops such as cereals fail.

Besides, cowpea is a drought-tolerant crop, capable of producing reasonable yield where other legumes and cereals fail.

Origin of cowpea

There is a lot of controversy surrounding the origin of cowpea. Some people believe that cowpea originated from West Africa, because both wild and cultivated species abound in the region. Others believe that it originated from Southern Africa. Its production has spread to East and Central Africa, India, Asia, South and Central America.

Production level and land area under cultivation

Based on information available from Food and Agriculture Organization (FAO), it was estimated that over 3.3 million tonnes of cowpea was produced worldwide in 2000 from at least 12.5 million hectares. Cowpea production is widely distributed throughout the tropics, but Central and West Africa account for over 64% of the area with about 8 million hectares, followed by about 2.4 million hectares in Central and South America, 1.3 million hectares in Asia and 0.8 million hectares in East and Central Africa. Cowpea can be regarded as the fulcrum of sustainable farming in semi-arid lands. The major producing countries in West Africa are Nigeria, Niger, Senegal, Ghana, Mali and Burkina Faso. Cowpea production in Nigeria was about 2.1 million tonnes in 1999.

In Southern Africa, cowpea is at present planted primarily for fodder, although it is also used for grain production, green manure, weed control in forestry plantations and as a cover crop for erosion control. Yield level from farmers who are using local varieties is less than 1 t/ha. However, improved varieties with higher yield potentials ranging 2 - 4 t/ha are available at the addresses indicated in this pamphlet. The main cowpea producing areas in South Africa are Limpopo, North West, Mpumalanga and KwaZulu-Natal provinces.

Soil requirements

Cowpeas are grown on a wide range of soils but prefer sandy soils which are less restrictive of root growth. This adaptation to lighter soils is coupled with tolerance of drought through reduced leaf growth and water loss. Cowpea thrives in well-drained soil and less on heavy soils. It requires soil pH between 5.6 and 6.0.

Constraints to cowpea production

In South Africa, constraints to cowpea production include diseases and insect pests which include aphids, pod-sucking bugs, blister beetles and bruchids. Other factors limiting yield include nematodes, extreme temperatures, low soil fertility, lack of good seed and improved varieties as well as bad cultural practices.

Viral diseases seem to be very important in South Africa. Twelve viral diseases known to attack cowpea have been identified. The prevalence of viral diseases in South Africa is attributed to high incidence of vectors transmitting the viruses.

