

Theobroma cacao

Tiliaceae

South America

Common names: **English:** Cocoa.

Ecology: A small understorey tree from the rain forest of northern South America where several species grow in the deep rich soils. Cacao is a local name and *theobroma* means "food of the gods" for the beans have been used and highly valued from ancient times. Today, the crop is a major export from West Africa and grows best in a narrow belt north and south of the equator. In Uganda, it grows in Bundibugyo District under *Maesopsis eminii* and in Mukono District with banana and coffee or in forest on farmers' land. It needs to be protected from both sunlight and strong wind.

Uses: Food (cocoa from the beans), drink.

Description: An evergreen tree to 15 m if unpruned but in cultivation kept to 6 m or less. It has characteristic branching of two types bearing different leaf arrangements. At 90-150 cm above the ground the terminal bud stops growth and a "fan" of 3-5 branches grows out. Suckers below this are not used. The first leaf "fan" dies down and is replaced by a new one. **LEAVES: large, simple, 17-30 cm, often smaller, hang down, red-brown when young, wider towards the pointed tip.** **FLOWERS:** on short shoots like "cushions" on the trunk and woody branches; small and yellow-white about 1 cm across. The ovary has 5 sections which contain 2 rows of ovules. **FRUIT:** the ovary develops into a **ribbed pod 15-20 cm long** with rows of beans, green at first like a cucumber. The fleshy pulp around 20-50 oval seeds is white at first, ripening red-brown. The thin **fruit shell becomes shiny red-purple-brown.**

Propagation: Seedlings (sow seed in pots), cuttings, direct sowing on site (guard against being eaten by rodents). First raise cuttings in a nursery.

Seed: Collect pods from healthy trees, crack open, then dry the seeds,

treatment: not necessary.

storage: store for not more than 3 months spread out on a cement floor to prevent damage by rodents. Add ash to reduce insect damage.

Management: Grows best in neutral to acid well-drained soils. The long taproot will not grow down into shallow or rocky soils. Prepare deep holes and space plants 3 m apart. Pruning. Seedlings need shade.

Remarks: There are several varieties, some bearing fruit in 3-5 years. The pulp in the pods is edible when ripe. Chocolate and cocoa are made from the beans. Seeds are allowed to ferment for 6 days when the bitter pulp decays away. The washed and dried beans are exported. In processing, the outer shells are removed and the seeds roasted. They contain over 50% cocoa butter and half of this is removed in manufacturing cocoa powder. Cocoa has a high food value and also contains an alkaloid stimulant—theobromine. It could be grown successfully in a number of areas in Uganda.

