

Contact:

Independent Institute for Environmental Issues (UfU)

German Office:
Greifswalder Str. 4
10405 Berlin, Germany
fabian.stolpe@ufu.de
www.ufu.de

Hanoi Office:
VINACOMIN Tower
Room 1102, 11th Floor
03 Duong Dinh Nghe,
Yen Hoa, Cau Giay, Hanoi, VN

MANIHOT ESCULENTA (CASSAVA)



Cassava in Lam Dong 2021 (CTR)

Cassava (*Manihot esculenta*) is an erect shrubby perennial crop in the family of *Euphorbiaceae*. It is native to South and Central America and grows up to heights of 1.5-5 meters.

Cassava can be propagated from stem parts and produces yields even on low-fertility soils.

It is predominantly cultivated for the production of bioethanol from its starchy roots. These can be harvested at any time of the year, but can also stay in the ground up to three years. Older roots show a higher degree of lignification making them more difficult to process.

SITE CONDITIONS

Height:	0-2,000 m
Temperature tolerance:	10-35 °C
Temperature preferendum:	20-29 °C
Precipitation tolerance:	500-5,000 mm
Precipitation preferendum:	1,000-1,500 mm
Dry resistance:	yes

Soil type: tolerates: barren and acidic light to heavy soils, low fertility
optimum: deep medium to light soils, medium fertility, low salinity (<4 dS/m)

pH: tolerates: 4.0-9.0
optimum: 5.5-8.5

Profundity: 50-150 cm

CULTIVATION

Cassava is propagated by planting stem sections before the rainy season. It is usually the last member of a crop rotation because it can produce yield on nutrient-poor soils. Accordingly, cassava requires a minimum amount of care.

HARVEST

Harvest method: The harvest is not constrained to any season of the year. Starch content in the root is highest between the 12th and 15th month after planting. Cassava is harvested by cutting away the stem and pulling the roots out of the ground. The roots have to be processed within 48-72 hours after harvest to prevent deterioration.

Expected yields: 10-23 tDM/ha

UTILIZATION

Energetic:

Bioethanol: The ethanol yield depends upon the starch content (cassava with 30% starch content corresponds to 280 litres of ethanol/t)

Combustible Material: The rest of the plant material can be used for combustion

Material:

Starch for the fermentation industry, bioplastics and laundry starch.