

AGRICULTURAL SCIENCE

CLASS _____ SSS 1

TOPIC _____ CULTIVATION OF LEGUMES

WEEK _____ 5

LEGUMES are usually grown agriculturally, primarily for human consumption, for livestock forage and silage and as soil enhancing, green manure examples alfalfa, clover, beans, peas, chickpeas, lentils, lupine, mesquite, carob, soybeans, peanut, and tamarind.

Many farmers understand the value of growing legumes along with their main crops, or between harvests. They also provide a cover for the soil to help protect it from heavy rains and strong winds. The root of the legumes plants holds the soil in place.

COWPEA (VIGNA UNGUICULATA)

DESCRIPTION___ Cowpea is a member of the pulse or legumes.it belongs to the family leguminosae.It is rich in protein, the fruit is called pods.

VARIETIES_____ Erect type, creeping type, Ife brown, Ife bimpe.

LAND PREPARATION_____ Clearing the land and making ridges either manually or mechanically.

CLIMATIC REQUIREMENT_____ The temperature of 27-35 degree centigrade .rainfall of 60- 125cm per annum.

METHOD OF PROPAGATION_____ By seeds

PLANTING DATE_____ April to September, depending on the ecological zone.

PLANTING_____ Planting can be done manually or mechanically.

SEED RATE_____ 20-25KG per hectare at 2-3 seeds

SPACING _____ Erect type-30x75cm,creeping type 25x90cm.

CULTURAL PRACTICES_____ Supplying, thinning, weeding, fertilizer application, control of pest and diseases.

MATURITY PERIOD_____ 9-12weeks after planting depending on varieties.

HARVESTING _____ Hand picking of matured brown pods.

PROCESSING_____ sun drying, threshing and winnowing.

USES_____ a source of cover crop, serves as a forage legume, it is used for making green manure

STORAGE _____ seeds are stored in jute bags or the seeds, silo or airtight containers after proper drying. Seeds should be treated with insecticides and the store fumigated to prevent weevil attack.

GROUNDNUT (ARACHIS HYPOGAEA)

Groundnut is a dual-purpose crop. It serves as an oil crop as well as a pulse or leguminous crop. However, it is grown mainly for its oil. The seeds give about 40-45% of excellent edible oil.

VARIETIES: Bunch or erect type, creeping type, Kano local, Kano 50.

LAND PREPARATION: Clearing the land making ridges either manually or mechanically.

CLIMATIC REQUIREMENT: The temperature of 25 degree centigrade to 30 degree centigrade, rainfall of 70- 100cm per annum.

SOIL REQUIREMENT: Coarse textured sandy loamy soil which is slightly acidic and rich in calcium and phosphorus for pod formation.

METHODS OF PROPAGATION: By seeds.

PLANTING DATES: South-march/April, North May/June.

PLANTING: The planting can be done manually or mechanically at 2-3 seeds per hole.

SEED RATE: 30-35kg per hectare.

SPACING: Erect type 60x15cm creeping types- 60x20cm.

CULTURAL PRACTISES: Supplying, thinning, weeding, and control of pest and diseases. Groundnut does not need fertilizer application except on very poor soil.

MATURITY: 3-4 Months after planting.

HARVESTING: It is ready for harvest when the leaves turn yellow and begins to wilt. It is done by uprooting the plant manually or mechanically and allowing drying for easy removal of pods.

PROCESSING: Sun drying, removal of seeds from the pods by slightly pounding in a mortar or using decorticating or shelling machines.

USES: It is used for making oil, for making cake to feed man and farm animals, for making groundnut butter.

STORAGE: Dried groundnut seeds are stored in silos or rhombus unshelled pods are stored in jute bags.

