Soya Bean Growers' Guide
National Agricultural Research Organization (NARO)

1994

Introduction

Soya bean was introduced in Uganda between 1908 and 1913 while research on the crop started in the 1960'5. Through such work Kabanyolo I was developed and has been the most widely grown soya bean variety by farmers up to 1990.

Soya bean has exceptionally high protein content of up to 40%. As an oil crop the average oil content ranges from 18-24% depending on variety; it is the world's major source of edible vegetable oil and high protein feed for livestock. Soybean has been described as a "miracle crop" of many uses. Some of the soy bean products found on Ugandan markets include: soy flour, baked products, soy beverages, snacks, animal feeds and some vegetable oil. There are however only a few locally explored alternatives concerning soy bean utilization.

Varieties

Two new soy bean varieties Nam I and Nam 2 have been released for commercial production. The main attributes of these varieties include: High yields (2-3.0 tons/ha), resistance to shattering, lodging and bacterial pustule. With proper drying the two varieties have improved longevity (storability). Nam 2 has high pod clearance (greater than 10 cm) and nodulates freely in some plates.

Land Preparation

A fine seed-bed is required to ensure proper growth. Fertile loam soils are best. Soya bean is more tolerant to acid soils than beans.

Seed rate

30 kg/ha of seed is required.

Planting

Done early in the first or second rains. Germination is often poor, especially if old. The seed should therefore be tested for germinatability.

Seed should be inoculated. The use of soyabean innoculant, Bradyrhizobium japonicum has been found to improve yields by 30-50%. The innoculant is particularly important in maintaining soil fertility since it enables the soyabean to fix its own nitrogen.

Yields as high as 2740 kg/ha have been obtained after inoculation of Nam. I with Rhizobium compared to 1670 kg/ha of uninoculated seed.

The optimum spacing is 60cm x 5 cm, giving a plant population of 330,000 plants per hectare.

Weeding

Weeding early should suppress later weeds.

Fertilizer Application

150 kg/ha of SSP applied to seedbed before planting and 150 kg/ha of C.A.N. applied one month after planting.

Maturity

Soyabean takes 100-130 days to mature.

Harvesting and Storage

Harvest before drying is complete to avoid shattering. Dry and store well. For prolonged storage treat the seeds with Actellic 20% dust.

Pests

Birds: Can be a problem by removing seed from the soil.

Leaf Eaters: May cause serious defoliation. Use Dimecron or Nemacron to control them.

Diseases

Bacterial Pustule, leaf spots and Mosaic Virus occur. Crop rotation and field sanitation can minimise incidences to low levels.