Depth of holes, fertiliser, type of seeds and spacing: One must get it right from onset, writes **Lominda Afedraru.**

Easy ways of planting groundnuts

Groundnuts also known as peanuts are cultivated in the semi-arid tropical regions of nearly 100 countries north and south of the equator.

It is an important legume grown and consumed globally particularly in sub-Saharan African countries.

For people in many developing countries, groundnuts are the principal source of digestible protein containing 25 - 34 per cent.

Dr David Kalule Okello, who majors in groundnut breeding heading the programme in Oil crops at the National Semi Arid Resources Research Institute (NaSARRI), in Serere, explains the best practices farmers growing the crop should adhere to in order to get bumper harvest and below are the excerpts.

Land preparation

Dr Okello explains that land should be prepared early before the rains start so that sowing can take place early when the rains fall.

A uniform seedbed with sufficient planting depth and spacing is good for germination, weed control and good moisture retention. Land can be tilled using a hand hoe or ox plough but commercial farmers may use tractors.

Planting, sowing seed and seed varieties

With the current weather changes globally, the planting date is difficult to standardise.

However, farmers should plant as soon as there is adequate and consistent moisture in the ground to ensure good germination and subsequent plant growth.

Timely planting dates should take advantage of periods of higher rainfall and avoiding end of the season drought effects.

Farmers are advised to sow groundnut seeds in rows and one seed per hole with the right spacing.

For groundnut varieties which grow upright farmers should plant Serenut 6R, the spacing is 45cm by 7.5cm and those which spread on the ground as they grow are spaced 45cm by 10cm.

These varieties include Serenut 5R, 8R, 9T, 11T and 14R. R stands for the red colour and T stands for white tan. The improved Serenut varieties 5T and 6R mature early taking approximately 90 - 100 days while Serenut 8R, 9T, 11T and 14R mature between 100 - 110 days.

It is important to dig the hole 6cm deep for efficient germination. Seeds that germinate slowly as a result of deep planting take longer to emerge and a substandard plant will be produced.

Shallow planting of seeds of less than 5cm can only be considered when enough moisture is available and the climate is moist.

Generally, 150,000 plants per acre are recommended for dry land production and for irrigated land 300,000 plants.

Farmers are expected to plant 80 kilogrammes of ground seed per hectare and this applies to small seeded plants but for those with bigger seeds 100 kilogrammes are planted per hectare.

Weeding

Farmers are expected to weed the farms twice or three times depending on the weed capacity.

The first weeding is done after two weeks from planting and the next should be before the plants flower.

Dr Okello Kalule (red cap) explains the agronomy of groundnuts. PHOTO BY LOMINDA AFEDRARU

150,000

NUMBER OF PLANTS RECOMMENDED PER ACRE

Hand weeding is recommended to avoid damaging of flowers to cause abortion. It is important for farmers to scout for pests and diseases. Plants which are affected must be removed.

Remove spotty infestations by hand hoeing or spot spraying to prevent spreading weeds, rhizomes, tubers or roots. This is particularly important for perennial weed species.

It is important to clean all tillage equipment before moving to the next field to avoid disease spread.

Farmers are advised to use herbicides to remove initial weed prior to planting to ensure a weed-free seedbed.

Early maturing small seeded varieties require 300 - 500 mm while medium to late maturing large seeded varieties need 1000 - 1200 mm rainfall.

Soil type

All soils other than very heavy ones are suitable for growing groundnut, but the best are deep, well drained sandy, sandy loam or loamy sand soils. Groundnuts will not grow well or fix nitrogen in acidic soils.

Fertiliser requirement

Groundnuts respond better to residual fertility than to direct fertiliser application. A soil test is the best way to determine whether fertiliser or lime is required in groundnut growing.

Liming is necessary only when the soil pH is below 5.8. However if soil test results are not available, the general fertiliser recommendation is: NPK kg /ha: 25 kg of N - 50 kg of potassium.

Do not apply potassium fertilisers when the groundnuts have emerged. Foliar sprays of nutrients can be applied in case of diseases.

Harvesting and storage

Groundnuts usually give an indication when to harvest. In order to determine the correct harvest time, the development of the plant must be considered.

The groundnuts should be harvested when 75 per cent of the pods have reached maturity. Harvesting at the right time gives the farmer the maximum yield and grade.

When the plant is left to over stay in the field the plants will germinate.

Farmers can know harvest indicators as pods mature and the inside becomes brown to black, while immature pods retain a fresh white appearance.

Once farmers observe this by uprooting three to five plants at different spots of the field, they can start harvesting.

Farmers are advised to remove the soil on the pods and dry under sunshine on polythane papers for about 10 days.

Proper storage is encouraged to avoid incidences of aflatoxin which is on the increase due to negligent post handling practices.

A farmer who follows the right agronomy will be in position to harvest 1,000 kilogrammes per hectare.

CROP ROTATION

A well planned, crop rotation system can ensure good yields of high quality. In order to reduce risk in the farming system, groundnuts should be grown in rotation with other crops such as maize.

To avoid buildup of pests and diseases, groundnut should not be grown continuously on the same land. A rotation of three years or longer usually reduces disease burden.

PETS AND DISEASES

The common diseases of groundnuts are the Rosette Virus and leaf spot which usually destroys the leaves and stems causing yield loss of up to 70 per cent

Farmers can control it by spraying the whole plant with insecticides, such as dimethoate for two weeks measuring a mixture of 5mls per two litres of water.

Others are ground leaf rust and pests such as rodents, mites, Aphids and leaf minors which can be avoided through crop rotation.