

Groundnut Production in Malawi: The cash 'cow' and butter that nourishes families



Photo: Kathy Lopez/ IITA

The Challenge

Groundnut is one of the widely grown grain legumes in Malawi. The crop has potential to contribute to food and income security, but yields on farmers' fields are well below 1t/ha. The low yields are due to a number of factors:

- Too low plant populations due to too wide ridges
- Delayed planting
- Seed that has been recycled for many, many years
- Yields reduced by weed competition for water and soil nutrients
- Poor soil fertility in fields where groundnuts are usually grown

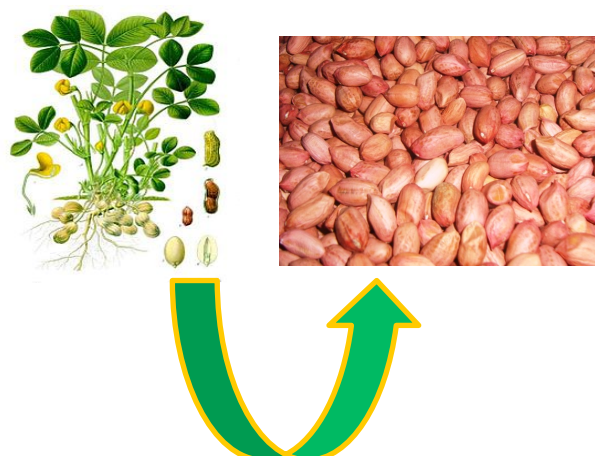
Benefits of Growing Groundnuts

Groundnut is one of the most important food legumes in Malawi's smallholder farming communities. Cultivating groundnut offers the following benefits for the families:

- Improved family nutrition
- Bigger market sales and more Kwachas to the family
- Improved soil fertility – Being a leguminous crop, groundnut enriches the soil with nitrogen through biological nitrogen fixation and are therefore valuable in crop rotations with maize
- Less crop diseases on your farm with crop rotations involving groundnuts, maize and other crops

Any fertilizer or rhizobia on groundnuts?

- Groundnut crop is efficient at utilizing residual fertility. Therefore, on previously fertilized soils, there is no need to apply fertilizer
- Gypsum is a special fertilizer for groundnuts that can be applied at pegging stage (when pods form) to get very good groundnut pods
- Like soyabeans, groundnuts also form many nodules on the roots (what we want to refer to as the small UREA fertilizer factories)
- These factories form easily without inoculation. This is one of the biggest differences with some soyabean varieties. There is therefore no need to apply urea on groundnuts



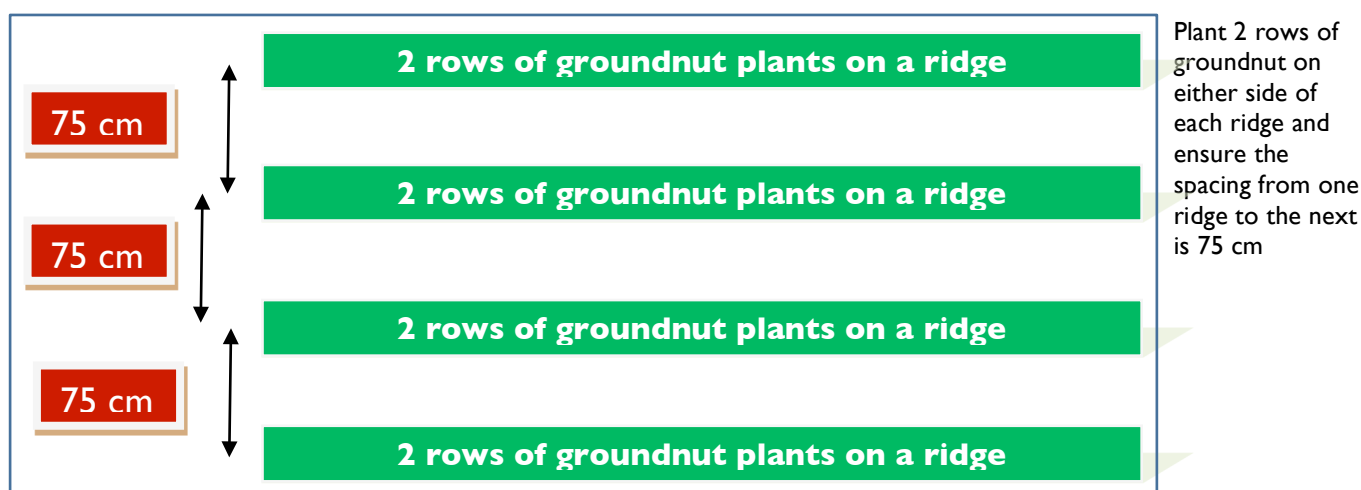
Groundnut planting and management

Almost every farmer grows some groundnut but practices are different. The following are some best practices followed by champion groundnut farmers:

- If maximum yields are to be realized, crops must be planted early, with the first effective rains - a delay in planting will cause a marked drop in yield
- Make ridges that are 75 cm apart (just as for maize and soyabean), so that the normal ridging system is not disrupted by the production of groundnuts. Avoid ridges wider than 75 cm as this is wasting our precious land
- Plant 2 rows of groundnut on either side of each ridge, at about 5-8 cm depth. Too shallow planting will result in patchy germination as the surface soil can dry out if there is no further rainfall after planting. Too deep planting will delay germination
- Within each row, plant groundnut seeds at 10-15 cm apart. Double rows on each ridge and using this seed spacing will ensure high plant populations (> 200,000 plants/ha), and good harvests
- Seed requirements per hectare range from 80-100 kg, depending on the groundnut variety and seed size
- Keep fields weed-free by early weeding and pulling off late weeds by hand from the field

Groundnut harvesting and residue management

- Groundnut should be harvested when the inside of the kernels show dark markings, with seeds having color characteristic of the variety involved
- Premature harvesting of groundnut pods lowers the yield, oil content, and quality of seeds
- Delay in harvesting after maturity can result in increased infection with organisms that stay in soils
- A disease called Aflatoxin is indicated by groundnuts having a bitter taste. Such groundnuts are not suitable for consumption and marketing
- Delay in harvesting results in many pods being left in the soil due to weakening of the pegs
- At maturity, first loosen the soil by digging with a hand hoe for heavy soils. Be careful not to destroy the plant as all pods will drop and this will make the harvesting process to demand more working hours
- Harvested plants should be stacked in the field for a few days for air and sun drying. Thereafter, the pods can be plucked from the groundnut plants
- The residues can make a good mulch or composted for application to the fields in the following season
- Never burn residues after groundnut pod plucking - you will be burning a good source of enriching your soil



The Africa Research In Sustainable Intensification for the Next Generation (Africa RISING) program comprises three research-for-development projects supported by the United States Agency for International Development as part of the U.S. government's Feed the Future initiative.

Through action research and development partnerships, Africa RISING will create opportunities for smallholder farm households to move out of hunger and poverty through sustainably intensified farming systems that improve food, nutrition, and income security, particularly for women and children, and conserve or enhance the natural resource base.

The three projects are led by the International Institute of Tropical Agriculture (in West Africa and East and Southern Africa) and the International Livestock Research Institute (in the Ethiopian Highlands). The International Food Policy Research Institute leads an associated project on monitoring, evaluation and impact assessment.

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