

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



Photo: Kathy Lopez/ IITA

Groundnut is one of the widely grown grain legumes in Malawi. The crop has potential to contribute to food and income security, but farmer yields are well below 1 t/ha. The low yields are due to a number of factors:

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

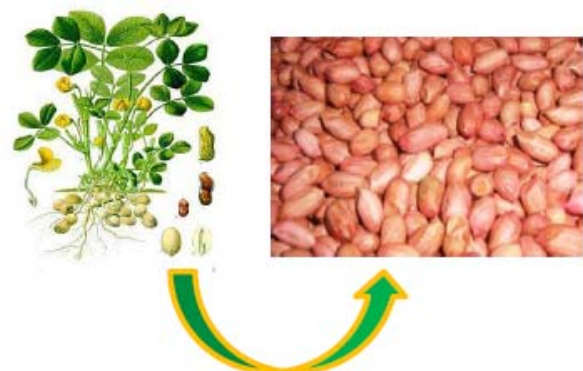
Benefits of growing groundnuts

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

- Improved family nutrition.
- Increased market sales and incomes.
- Improved soil fertility—being a leguminous crop, groundnuts enrich the soil with nitrogen through biological nitrogen fixation and are therefore valuable in crop rotations with maize.
- Fewer crop diseases on farms with crop rotations involving groundnuts, maize and other crops.

Any fertilizer or rhizobia on groundnuts?

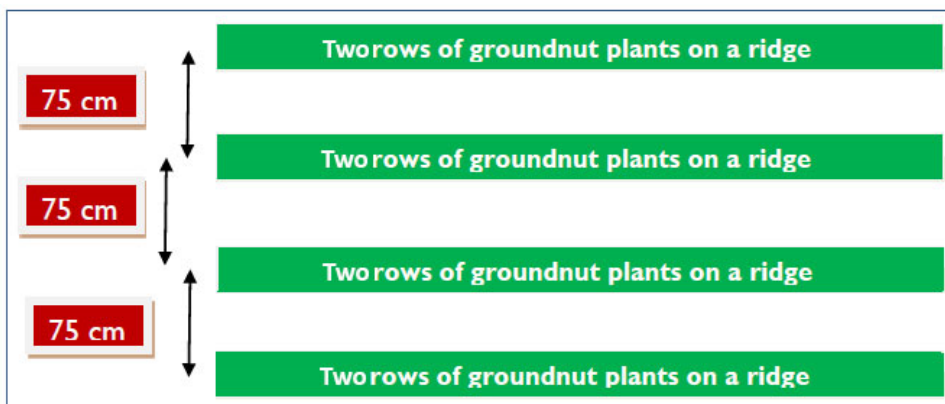
- Groundnut crop is efficient at utilizing residual fertility. Therefore, on previously fertilized soils, there is no need to apply fertilizer.
- Gypsum is a special fertilizer for groundnuts that can be applied at pegging stage (when pods form) to produce good groundnut pods.
- Like soybeans, groundnuts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



Groundnut planting and management

Almost every farmer grows some groundnuts, but practices vary. 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 which are 75cm apart (as for maize and soybean), so the normal ridging system is not disrupted by groundnut production. Avoid ridges wider than 75cm as this wastes precious land.
- Plant two rows of groundnuts on either side of each ridge, about 5-8cm deep.
- If planted too shallow germination may be patchy as the surface soil may dry out if there is no further rainfall after planting. If planted too deep, germination may be delayed.
- Within each row, plant groundnut seeds 10-15cm apart. The use of double rows on each ridge and this seed spacing will ensure high plant populations (> 200,000 plants/ha), and good harvests.
- Seed requirements per hectare range from 80-100kg, depending on the groundnut variety and seed size.
- Keep fields weed-free by carrying out early weeding and subsequently pulling out other weeds by hand.



Plant two rows of groundnut on either side of each ridge and ensure the spacing between ridges is 75cm

Groundnut harvesting and residue management

- Groundnuts should be harvested when the inside of the kernels show dark markings, with seeds having colour characteristic of the variety involved.
- Premature harvesting of groundnut pods lowers the yield, oil content and the seed quality.
- Delay in harvesting after maturity can result in increased infection from organisms remaining in the soil.
- A disease called aflatoxin is indicated by groundnuts having a bitter taste. Such groundnuts are not suitable for consumption or 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 designed for heavy soils. Be careful not to destroy the plant as all pods will drop, causing the harvesting process to take more time.
- Harvested plants should be stacked in the field for a few days to dry. Afterwards, the pods can be plucked from the groundnut plants.
- The residues can be used to make good mulch or compost for the fields the following season.
- Never burn the residues after groundnut pod plucking—this would burn a good source of soil enrichment.



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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