



SEEDS FOR YOUR SUCCESS

Groundnuts – *Arachis hypogaea*

Groundnut is a self-pollinating, indeterminate, annual, herbaceous legume. The fruit is a pod with one to five seeds that develops underground within a needle like structure called a peg. The groundnut plant can be erect or prostrate (20–60 cm tall or more) with a well-developed taproot and many lateral roots and nodules. The first flowers appear at four to six weeks after planting and maximum flower production occurs six to ten weeks after planting. Eight to fourteen days after pollination, aerial pegs will grow 5 cm to 8 cm into the soil and then turn to a horizontal orientation to mature into a peanut pod. Pods reach maximum size after two to three weeks in the soil, maximum oil content in six to seven weeks, and maximum protein content after five to eight weeks. The crop matures after seven to nine weeks in the soil, which is indicated by maximum levels of protein, oil, and dry matter, and the presence of darkened veining and brown splotching inside the pod. Groundnuts usually require a minimum of 100 to 150 days from planting to maturity, depending on the variety planted.

Groundnuts require 500 to 700 mm rainfall per annum for good production.



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Soil requirements

Groundnuts grow best in well-drained, red-coloured, yellow-red and red, fertile, sandy to sandy loam soils with a pH range of 5, 5 to 7, 0. Saline soils are not suitable because groundnuts have a very low salt tolerance.

Soils with more than 20% clay and stones will result in poor yield and make harvesting difficult. Shallow and compacted soils are not preferred as the taproot of groundnuts can penetrate to the soil to a depth of about 2 m.

Planting

The planting date for groundnuts in South Africa should be as soon as enough rain has fallen and minimum temperatures are met, usually from mid-October to mid-November. Late planting (from December onwards) results in lower yields. Planting should occur during favourable soil and weather conditions. Planting depths of 5 cm to 7, 5 cm are preferred for better germination when soil temperature is 18 oC or above. The correct planting depth of 5 cm to 7, 5 cm ensures that the plant develops and produces optimally.

The preferred population density is 150 000 plants per hectare under dryland and 300 000 plants per hectare under irrigation. The best spacing between rows under rainfed conditions should be 90 cm with a spacing of 4 cm to 7 cm between the plants; and 30 cm to 35 cm under irrigation. The ideal intra row spacing is between 50 to 75 mm for all available cultivars.

Grading

There are five classes of groundnuts, namely Class A, Class B, Class C, Class D and Class E.

Specifications for classes

A consignment of groundnuts is classified as:

Class A - if it contains at least 97% of the Red Spanish type of groundnuts (for example Harts)

Class B - if it contains at least 97% of the Spanish type of groundnuts (for example Natal Common, Selection 5, Sellie, Agaat, Jasper, Robbie, **Akwa, Kwarts** and Anel)



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Class C - if it contains groundnuts that cannot be classified in accordance with the same standards and requirements as for Class A, Class B, Class D or Class E groundnuts 13

Class D - if it contains at least 97% of the runner-type of groundnuts (for example Norden)

Class E - if it contains at least 97% of the Virginia runner-type of groundnuts (for example Selmani)

The grades for the different classes of groundnuts are:

- Choice grade
- Standard grade
- Machine-cleaned choice grade
- Machine-cleaned standard grade
- Machine-cleaned crushing 100/130
- Machine-cleaned splits
- Hand-cleaned splits
- Crushing grade
- Sundry machine-cleaned 80/100
- Sundry hand-cleaned 80/100
- Crushing hand-cleaned 100/130
- Pods hand-cleaned
- Grade other

Akwa & Kwarts

Growth Season	± 150 days
Growth Habit	Erect, Spanish bunch type
Yield	Irrigated >± 3 ton/ha
	Dryland >±2ton/ha

* Yields are dependent on environmental and management factors

Kernel grading	Irrigated	Choice grade >70%
	Dryland	Choice grade >60%

Kernels are round and tan coloured

Tolerant to black pod rot

Kwarts is tolerant to pod nematode

It is recommended to apply fungicides for leaf diseases such as early and late leaf spot, web blotch and rust.

Resources

1. <http://www.daff.gov.za/docs/Brochures/groundnuts.pdf> www.arc.agric.za/arc-gci/Fact%20Sheets%20Library/Groundnut%20Production.pdf

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