



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

Optimizing Groundnut Yield and Minimizing Aflatoxin Contamination

Successfully Producing Groundnut

Select appropriate land
 Rotate with other crops
 Prepare land effectively
 Plant high quality seed
 Establish optimum plant populations
 Provide adequate fertility
 Protect from pest damage
 Promote plant health
 Lift and dry in a timely manner
 Effectively store and transport



Minimizing Aflatoxin in Groundnut

Plant when rains begin
 Plant viable seed 8 cm apart
 Establish optimum pH and fertility
 Apply calcium at peak flowering
 Promote plant health
 Protect from pest damage
 Dig or lift 7 days early if drought exists
 Dry pods as quickly as possible
 Store pods optimum moisture content
 Remove damaged pods and kernels

Groundnut Varieties in Malawi

Name	Type	Days to maturity
Chalimbana	Virginia	130-140
CG7	Virginia	130-150
Chitala	Spanish	90-120
Kakoma	Spanish	90-120
Nsinjiro	Virginia	120-149



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Relationship of Timing of Lifting and Pod and Kernel Maturity, Yield and Risk of Mold

Deciding when to dig or lift groundnuts is one of the most important management decisions farmers make. Pod yield and kernel quality and economic value improve as maturity increases. However, at some point pods will naturally shed from the plant or in the case of Spanish varieties seed can sprout. As groundnuts remain in soil after optimum maturity the risk of infection by mould (*Aspergillus flavus* and *A. parasiticus*) and contamination with aflatoxin increases. This chart provides information on how these factors interact and should be considered when deciding when to dig or lift groundnuts. The "shell out" method can be used to reveal color differences for the mesocarp pod layer. A darker mesocarp color indicates advanced maturity. The relationship of yield and distribution of pod mesocarp color for scenarios one might encounter is provided.



Darker pod color indicates advanced maturity



Split maturity
Dig Now



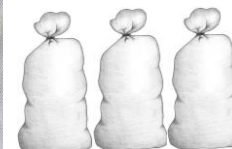
21 days early



Mould Risk
Low



14 days early



Mould Risk
Low to
Moderate



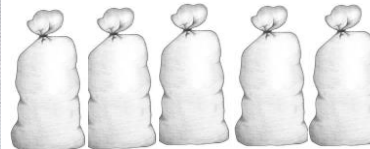
7 days early



Mould Risk
Moderate



Optimum maturity



Mould Risk
Moderate
to High



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