

Growth and Development of Groundnut

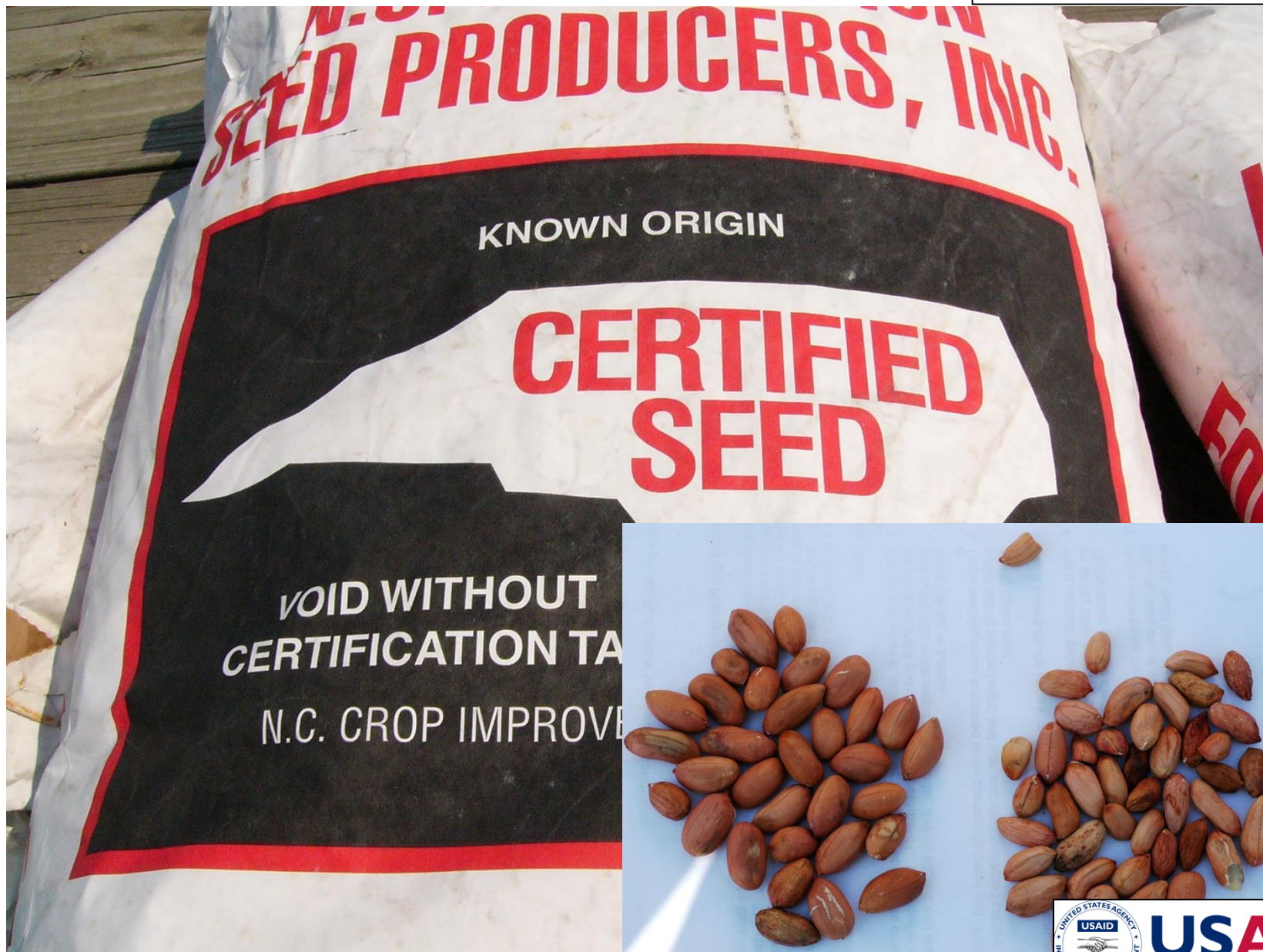
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Table 10-1. Peanut Growth Stages and Descriptions

Approximate Number of Days After Planting*	Growth Stage	Description
7	Emergence	Seedling "cracking" the ground and cotyledons visible
45	Flower (R1)	One-half of the plants with a bloom
55	Beginning Peg (R2)	First visible peg
70	Beginning Pod (R2)	Peg tip swollen to twice the peg diameter
75	Full Pod (R4)	Fully-expanded pod, to dimensions characteristic of the variety
80	Beginning Pod-Fill (R5)	Pod in which seed is visible in cross-section
90	Full Size Seed (R6)	Seed is filling the pod cavity
130	Beginning Maturity (R7)	Pods having interior hull color and orange to brown mesocarp
150 – 160	Harvest Maturity (R8)	70% of harvestable pods have an orange, brown, or black mesocarp (scrape pod saddle with knife) and interior hull color (crack pod open)
165 – 170	Over-mature (R9)	Kernels in oldest pod develop tan-brown seed coat and pegs may have deteriorated; over-mature pods have coal-black mesocarp color.

*Based on average of 30 Virginia market type peanut varieties planted on May 1 at Tidewater AREC. The numbers of days after planting increase for earlier and decrease for later plantings. If June is dry, these numbers are bigger from R1 through R4 and smaller afterwards.











Examples of Planting Date

US, NC – soil is cooler in early May
and much warmer in early June

Malawi – soil is warm throughout
December

Planted May 2

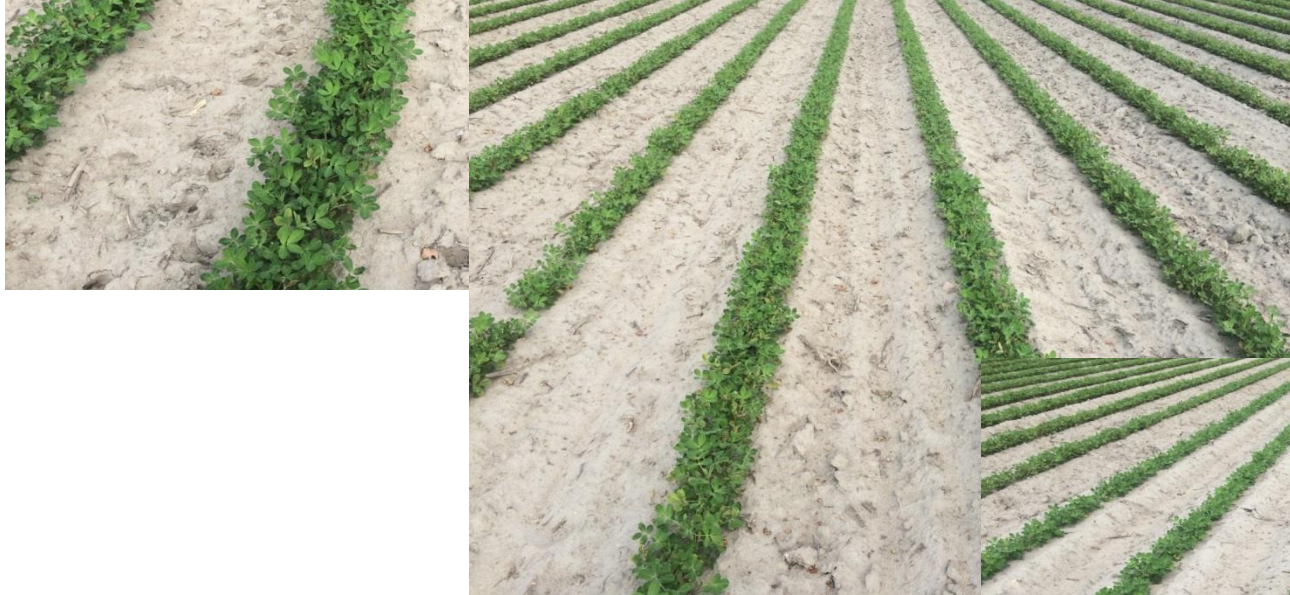
Planted May 19

Planted May 28

Image taken June 5



Planted May 2



Planted May 19



Planted May 28

Image taken June 19



Planted May 2

Planted May 19



Planted May 28



Image taken July 14

Planted May 2

Planted May 19

Planted May 28

Image taken August 3



Planted May 2

Planted May 19

Planted May 28

Image taken July 14

Planted May 2

Planted May 19

Planted May 28

Image taken August 3

Most mature pods on plant



Image taken August 3

Planted May 28

Planted May 19

Planted May 2



Image taken August 14

Vines of peanut planted May 2 with image recorded August 14



Vines of peanut planted May 19 with image recorded August 14



Vines of peanut planted May 28 with image recorded August 14



Peanut Maturity

Hull-scrape will be discussed in more detail in another section

Optimum maturity in 14 days

NC COOPERATIVE EXTENSION
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A large pile of small, dried, yellowish-brown, elongated objects, likely dried corn cobs or similar agricultural products, scattered on a light-colored surface. The objects are irregular in shape, some showing a distinct ribbed texture. They are piled together in the center-left of the frame, with a few scattered to the right. The background is a plain, light-colored surface, possibly a table or floor, with some faint lines and a small green object visible in the upper left corner.

A photograph showing a large quantity of small, light-brown, elongated objects, likely corn cobs, spread out on a surface. The objects are arranged in a grid-like pattern, with some rows appearing darker than others. The background is a light-colored surface with a grid pattern.





Image on Sep 18, planted May 2

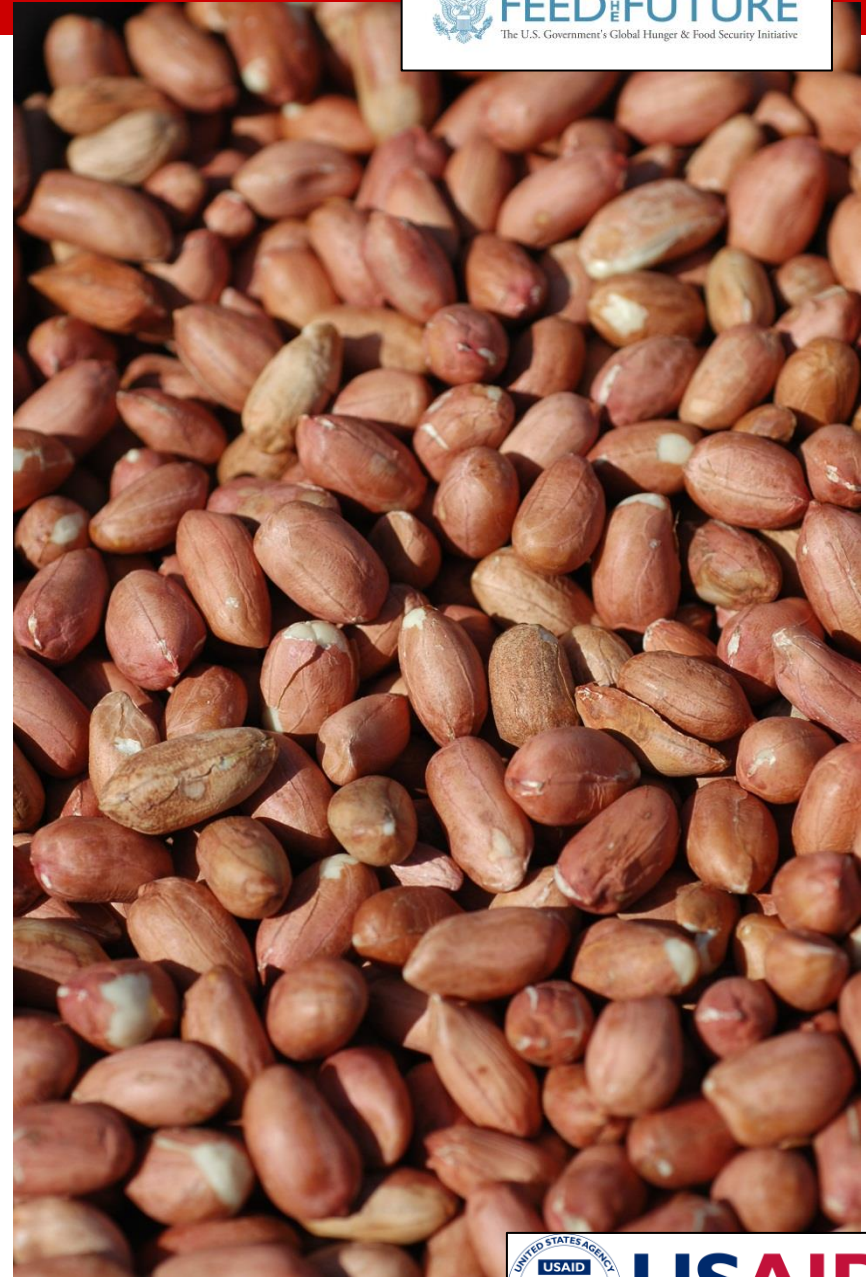
Image on Sep 18, planted May 19



Image on Sep 18, planted May 28









Limited soil water

Groundnut Sensitivity to Limited Soil Water

Growth stage	Plant indicator	Susceptibility
Germination (1-2 weeks)	Planting to emergence	High
Vegetative growth (5-6 weeks)	Emergence to flowering/pegging	Low
Pod development (8-9 weeks)	Flowering/pegging to pod formation	High
Maturation (5-6 weeks)	Pod formation to harvest	Moderate

Reasons for Farmer Success

- Long rotations
- Suitable soils
- Improved varieties (yield, quality, pests)
- Availability of plant protection products
- Management
- Climate and weather