

## Handling Peanut Seed: A Sensitive Issue



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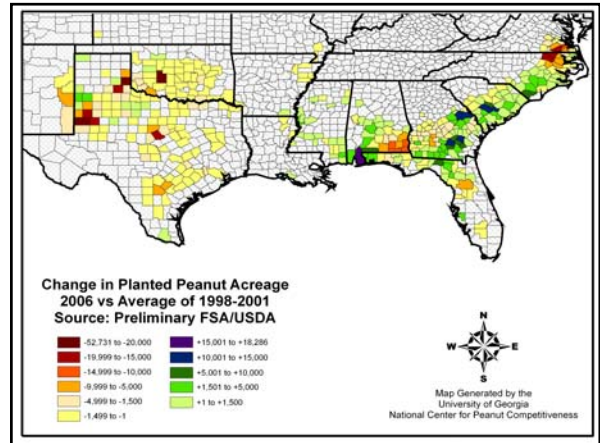
## Introduction

- *Arachis hypogaea* L.
- Fabaceae (Legume) family
  - is in the pea family, is not a nut
- Native of South America
  - center of origin near Bolivia, Uruguay, and Paraguay
- Four market types
  - Virginia (VA, NC, SC)
  - Runner (GA, AL, FL, MS)
  - Spanish (TX, OK)
  - Valencia (NM)

## Planted Acres of Selected U.S. Crops

Crops	2005	2006
Corn	81,759,000	78,561,000
Soybean	72,032,000	75,565,000
Wheat	57,229,000	57,344,000
Cotton	14,245,400	15,281,000
Sunflower	2,709,000	1,984,000
Peanut	1,657,000	1,242,000

Source: USDA – National Agricultural Statistics Service



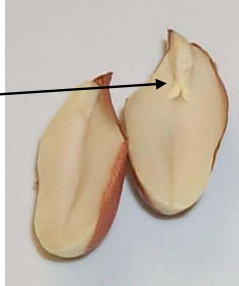
	Planted Acres	
	2005	2006
Georgia	755,000	580,000
Texas	265,000	155,000
Alabama	225,000	160,000
Florida	160,000	130,000
North Carolina	97,000	85,000
South Carolina	63,000	60,000
Oklahoma	35,000	23,000
Virginia	23,000	17,000
New Mexico	19,000	16,000
Mississippi	15,000	16,000
USA total	1,657,000	1,242,000

**Peanut seed lot uniformity and quality may change during harvest, curing, storage, shelling and conditioning, and handling**



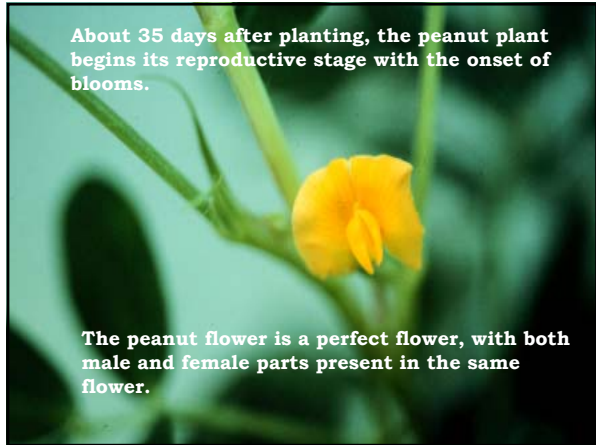
## PEANUT SEED

- Made up of two cotyledons & embryo
- Embryo
  - plumule
  - hypocotyl
  - primary root



About 35 days after planting, the peanut plant begins its reproductive stage with the onset of blooms.

The peanut flower is a perfect flower, with both male and female parts present in the same flower.

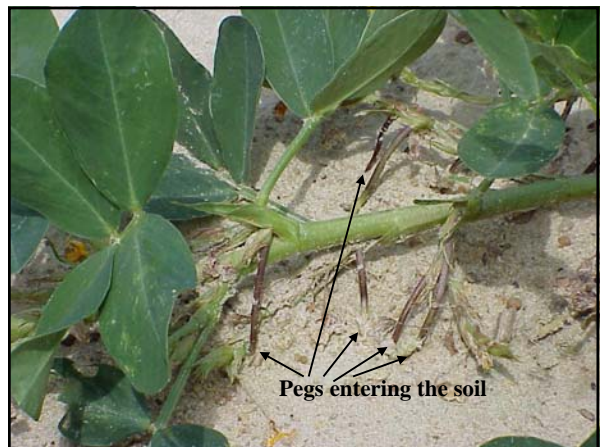


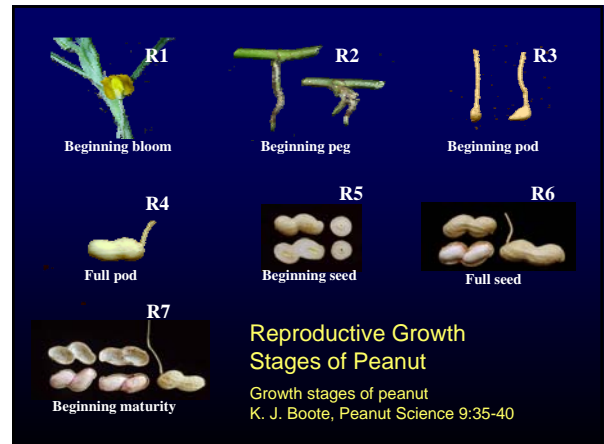
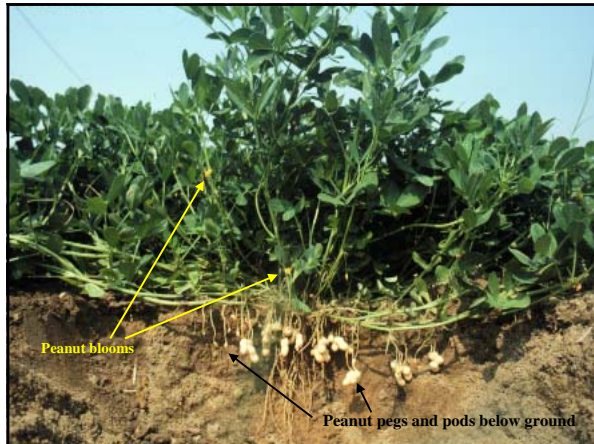
At the base of the peanut flower are the ovaries.

Pollen grains shed in the petals and attach to the stigma. The first pollen grains that mature and travel down the pollen tube, fertilize the ovaries.





- The fertilized ovary is referred to as a peg.
- The peg grows toward the soil surface and pushes 1 to 3 “ into the soil.
- The tip of the peg takes in water and nutrients, and swells to become the peanut pod.








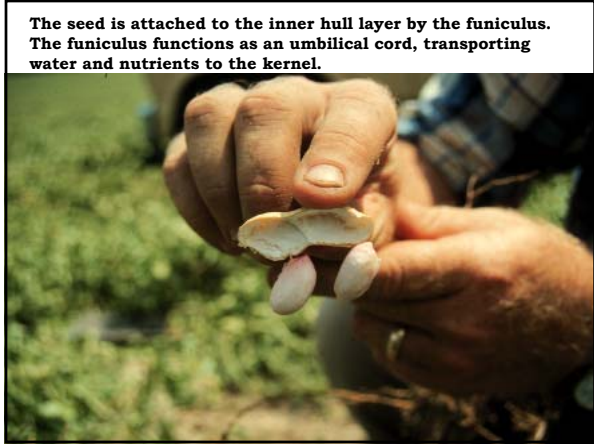
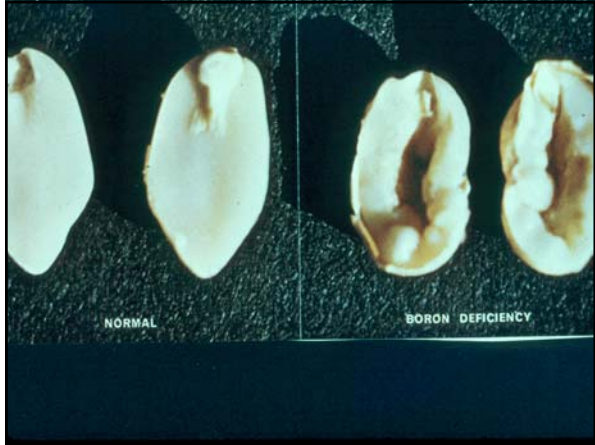
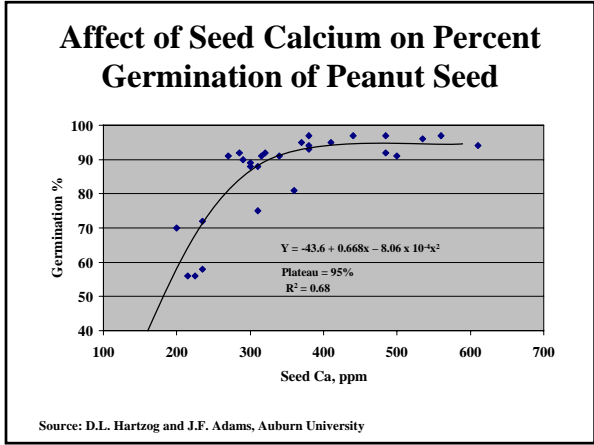
## Nutritional Concerns

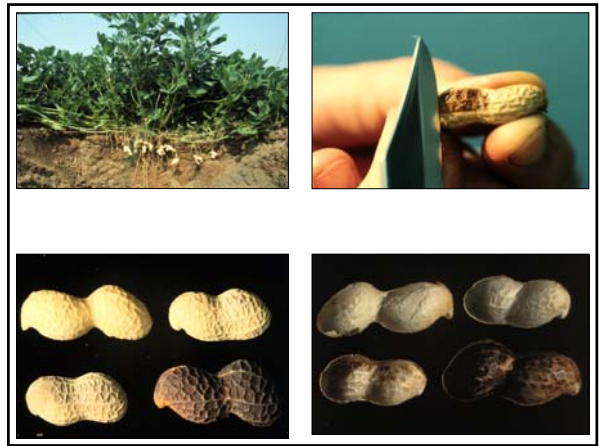
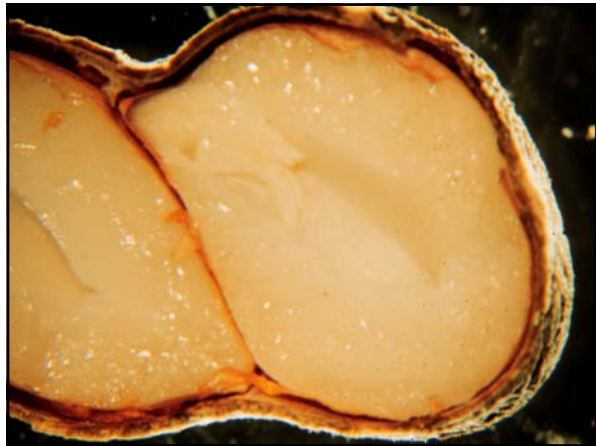
-  **Calcium**
-  **Boron**

## UGA Calcium Requirement

-  **Runner peanuts – commercial trade**
  - 500 lbs/A of Ca based on Pegging Zone test
  - 3:1 ratio of Ca to K
  - Apply 160-200 lbs/A of Ca as gypsum if either of these conditions are not met
-  **Virginia peanuts**
  - Apply 320-400 lbs/A of Ca as gypsum
-  **Peanuts grown for seed**
  - Apply 320-400 lbs/A of Ca as gypsum









### Weed Control




Weeds, such as bur gherkin, that produce fleshy fruit create pockets of excess moisture In trailers of farmer stock peanuts






**Managing for Quality Seed Production  
in Farmer Stock Peanuts**



Level peanuts in trailer

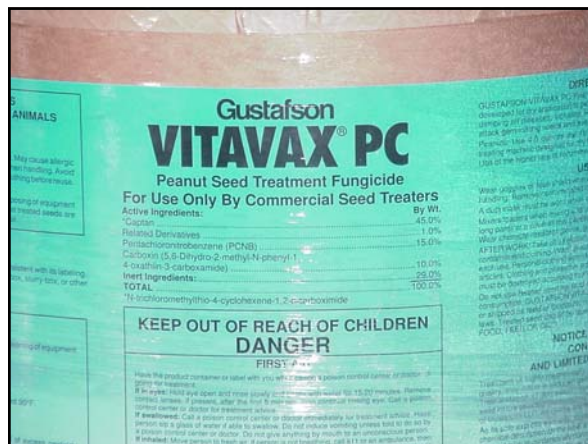


Dry to 10% moisture or less immediately following harvest

- ✓ Follow proper curing and storage recommendations
- ✓ Maintain safe moisture levels during handling and storage




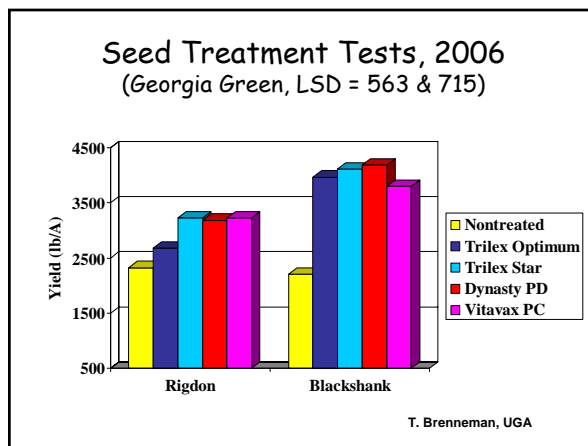
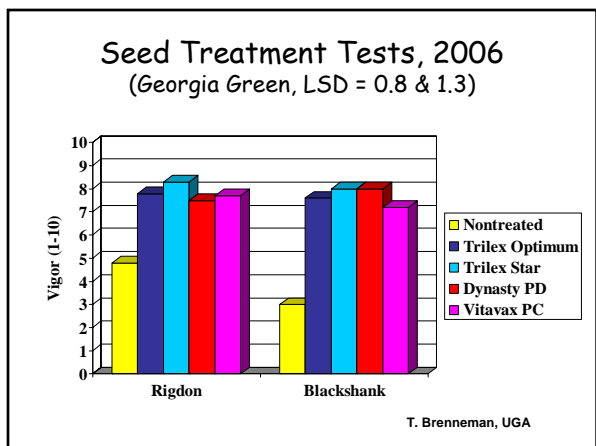
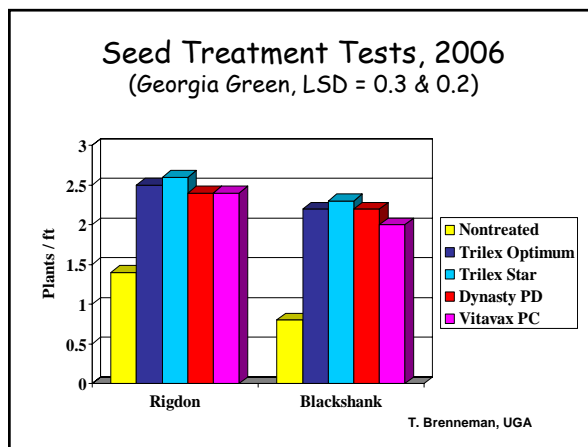




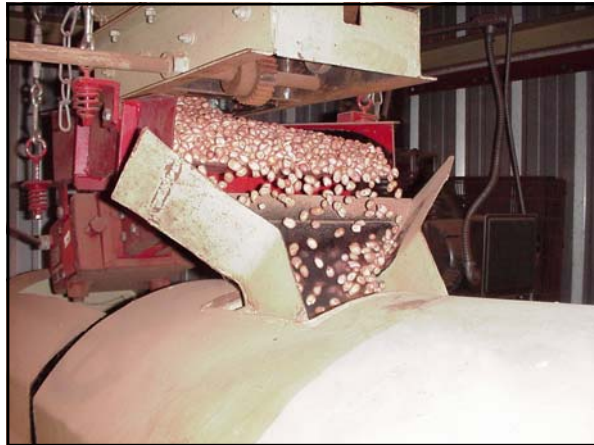
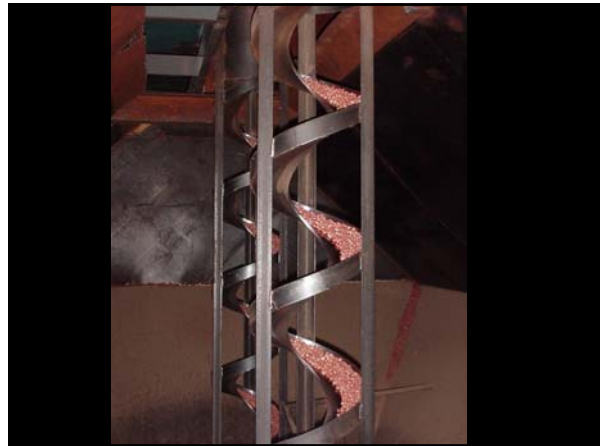


### Peanut Seed Treatments

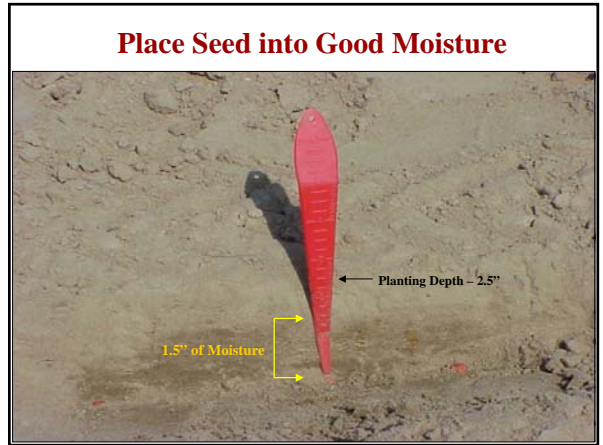
- **Vitavax PC**
  - Captan/PCNB/Carboxin
- **Dynasty PD**
  - Azoxystrobin
  - Fludioxonil
  - Mefenoxam
- **Trilex Optimum**
  - Trifloxystrobin
  - Metaxalyl
  - Captan
- **Trilex Star**
  - Trilex Optimum + Topsin

*Cylindrocladium parasiticum* – *Cylindrocladium* black rot









**Sometimes You Just Scratch Your Head!!**

Lot #	Percent Germination	
	February	May
205	94	72
214	91	75
220	86	79
230	87	78
235	90	81

**University of Georgia**

**PEANUT**

**Research and Extension**

[www.ugapeanuts.com](http://www.ugapeanuts.com)