GA Peanut Commission Project Report – 2019 Brooks County Applied Research Projects

# 1. Evaluation of host plant resistance in peanut cultivars to peanut burrower bug – Two Brooks County peanut producer/cooperators in two commercial field locations.

**Objective**: Determine if there is a benefit, which includes decreased burrower bug population/activity, with planting of specific peanut cultivars, in Brooks County commercial peanut field with history of burrower bug activity/damage.

The specific objectives/protocol of this study included:

-Field One - Planted variety trial on May 9<sup>th</sup>, four replications of **seven** peanut varieties. Cultivars planted for evaluation, in terms of susceptibility to peanut burrower bug damage, included;

GA-O6G GA-12Y GA-18RU GA-14N GA Green FL297 FL331

-Dug peanuts on September 14<sup>th</sup> and harvested on September 17<sup>th</sup>.

-Peanut samples collected at harvest for evaluation and/or presence of burrower bug damage.



**Results**:

-Field Two – Plan variety trial on May 15<sup>th</sup>, four replications of **nine** peanut varieties. Cultivars planted for evaluation, in terms of susceptibility to peanut burrower bug damage, included;

GA-06G GA-12Y GA-18RU GA-14N GA Green GA – 16HO Tif NV HiOL FL297 FL331 -Dug peanut

-Dug peanuts on September 14<sup>th</sup> and harvested on September 17<sup>th</sup>.

-Peanut samples collected at harvest for evaluation and/or presence of burrower bug damage.

#### **Results**:



### 2. Improving Insect Control Through Optimized Application Methods

**Objective**: Determine if there is a benefit, of increased insect control, if you decrease tractor speed, while subsequently increasing insecticide spray coverage, gallons of water/acre.

The specific objectives of this study were:

-Spray peanut field, with existing worm pressure and/or caterpillar threshold levels, with insecticide applied at 2 different tractor ground speeds: 8 mph and 15 mph, with two different spray tips, TTJ60-11006 and TTJ60-11003.

- Evaluate spray coverage obtained, at varying speeds and with different applicator tips, and the corresponding spray volume (increase speed-decrease volume and decrease speed-increase volume), with placement of spray cards.

-Collect efficacy data (worm control) based upon the three field treatments:

60 PSI	60 PSI	60 PSI
14.5 gpa	14.5 gpa	7.3 gpa
TTJ60-11006	TTJ60-11003	TTJ60-11003
Results:		



# 3. Evaluation of twin row peanut seeding rate

**Objective**: Determine if there is a benefit of increased peanut seed rate as it relates to resulting peanut stand, plant vigor, and net yield.

Seeding Rate for both twins

- 1. 6 seed/ft (3 seed/ft per twin)
- 2. 8 seed/ft (4 seed/ft per twin)
- 3. 10 seed/ft (5 seed/ft per twin)
- 4. 12seed/ft (6 seed/ft per twin)

# **Results:**



### 4. Evaluation of Myco Endo Prime as In furrow Treatment

**Objective**: Determine if there is a benefit, with application of Myco Endo Prime as an infurrow peanut treatment at planting, as it relates to resulting peanut stand, plant vigor, and net yield.

#### **Results:**





