# Managing peanut varieties

#### Barry L. Tillman



# **Outline of Topics**

- Plant stand
- Varieties for 2018- what's available
- Variety Performance
- "Newer Varieties"
  - TUFRunner '297', TUFRunner '511', Georgia-12Y, Georgia-13M, Georgia-14N
- Varieties on the horizon
  - ✓ TifNV-High O\L, Georgia-16HO, FloRun '331', AU-NPL 17
- Managing varieties
  - ✓ Disease resistance / susceptibility
    - Can we reduce costs?
    - Disease management
      - Cultural practices
      - Fungicides



## **Plant Stand and Replanting**

## Yield usually maximized at 2.5 plants/ft



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# With high germination (90%+), between 65% and 75% of seed will survive to a healthy plant



## Plant stand and germination

#### Germination ≠ plant stand

- i.e., 90% germ. ≠ 10 seed to get 9 plants
- At <u>best</u> 90% germination = about 7 plants per 10 seeds planted
- 6 seeds/foot ≈ 4 plants/ft @ 67% total efficiency (includes dead seed)
- Why?
  - Soil conditions wet, cool, dry
  - Seed vigor- production, storage, shelling, etc.
  - Cultivar- some better than others

### Minimum germination for seed certification is 75%

## Plant stand and replanting

#### 1<sup>st</sup> priority- get adequate stand on first planting

- Avoid risky situations
  - Cool soils, wet soils, dry soils
  - Planting ahead of/after cold front
  - Cool irrigation water
- Replant if stand less than 2.0 to 2.5 plants/ft
  - Depends on uniformity
  - Large skips = more likely replant pays
- Complete replanting usually lower yield
  - Unless complete or near complete stand failure
- Replant within 3 weeks of initial planting
  - Add seed proportional to initial stand for supplemental replanting

## **Seed Availability**

## **Varieties available based on Sheller survey**

Variety	Birdsong	Brooks	Damascus	Forrester	Golden	McClesky	Cunningham	Sessions	Total Certified Acreage
AU-NPL 17			In Founda	tion proc	duction i	n 2017			30
FloRun 107				Limit	ed				128
FloRun 331			In Founda	tion proc	duction i	n 2017			200
Georgia Greener				Limit	ed				213
Georgia-06G									148,629
Georgia-07W				Limit	ed				173
Georgia-09B									12,347
Georgia-12Y	Limited					Limited		Limited	1,657
Georgia-13M				Limit	ed				72
Georgia-14N									3,680
Georgia-16HO	Limited				Limited	Limited	Limited		397
Tifguard									7,703
TifNV-High O/L	Limited				Limited				155
TUFRunner 297									2,058
TUFRunner 511									2,173

### Certified Seed Production, AL, FL, GA 2017



## Seed Production in 2017 for 18 crop

- Plenty of Georgia-06G, Georgia-09B
- Moderate supply/On the Increase
  - Tifguard
  - Georgia-14N
  - TUFRunner 511
  - TUFRunner 297
  - Georgia-12Y
- Limited supply of (150-400 acres)
  - FloRun 331
  - Georgia-16HO
  - TifNV-High O/L
- Seed Increase of (30 acres)
  - AU-NPL 17

## **Variety Performance**

## University of Florida SWVT



## University of Florida SWVT



## University of Georgia SWVT



## Auburn University VT



## **Disease Resistance**

#### Peanut Rx 2018 Version

Variety <sup>1</sup>	Spotted Wilt	Leaf Spot	White mold
Florida-07	10	20	15
FloRun™ '107'	20	25	20
FloRun™ '331'	15	20	15
Georgia-06G	10	20	20
Georgia-07W	10	20	15
Georgia-09B	20	25	25
Georgia-12Y	5	15	10
Georgia-13M	10	30	25
Georgia-14N	10	15	15
Georgia-16HO	15	25	20
Tifguard	10	15	15
TifNV-HiOL	10	15	15
TUFRunner™ '297'	10	25	20
TUFRunner™ '511'	20	30	15





## **Spotted Wilt**

#### 2016 UGA Disease Evaluations- Dr. Brenneman

#### **MULTI-STATE DISEASE EVALUATION, 2016**

	<b>TSWV</b> <sup>1</sup>	LEAF SPOT <sup>2</sup>		WHITE MOLD <sup>3</sup>		Percent <sup>4</sup>	YIELD
GENOTYPE	31-Aug	21-Sep	11-Oct	NO ZEROES	ALL	Zeroes	(LB/A)
FloRun™ '331'	27.5	2.6	6.9	27.7	25.1	8.3	5389
TIFNV HIO/L	10.0	2.4	4.6	27.8	26.5	8.3	5348
Georgia-12Y	4.2	2.6	6.5	28.1	30.8	8.3	4833
TUFRunner' 297'	19.1	3.4	7.8	49.6	44.6	8.3	4271
Georgia-14N	16.7	2.8	5.3	22.7	21.5	8.3	4247
TUFRunner ' 511'	24.1	5.1	9.5	56.7	54.2	8.3	3766
Georgia-13M	15.0	4.6	9.0	57.5	57.5	0.0	3497
Georgia-06G	19.1	2.9	7.8	54.0	54.0	0.0	3465
LSD (P<0.05)	10.4	0.7	1.1	21.2	21.8	11.7	916

#### 2017 UGA Disease Evaluations- Dr. Brenneman

#### Multi-State Disease Evaluations, 2017

	TSWV <sup>4</sup>	Leaf Spot <sup>3</sup>		White Mold <sup>2</sup>		Percent <sup>1</sup>	Yield
Entries		14-Sep	4-Oct	No Zeroes	All	Zeroes	(lb/A)
Georgia-12Y	10.3	5.3	6.9	38.4	31.9	16.7	4158
TIFNV HI O/L	6.9	3.9	5.4	27.2	20.8	25.0	4058
FloRun 331	10.9	5.9	7.6	29.0	26.3	12.5	3678
Georgia-16HO	15.3	5.1	7.7	49.3	46.5	12.5	3606
Georgia-14N	12.2	4.3	6.6	24.8	22.7	12.5	3219
Georgia-17SP	12.3	4.4	5.9	33.3	25.0	33.3	3025
TUFRunnner 297	15.9	4.8	7.8	76.3	76.3	0.0	2473
Georgia-06G	12.8	5.9	8.3	90.4	90.4	0.0	2386
Georgia-13M	9.1	8.0	9.1	83.8	83.8	0.0	2210
AU-NPL 17	16.3	3.4	5.3	26.0	21.7	20.8	2178
LSD (P<0.05)	8.5	4.7	1.0	25.2	24.9	19.7	925

## **Spotted Wilt**



## **Spotted Wilt**

Thimet (TH) compared to no Thimet (NT) Tifton, GA 2017, Dr. Albert Culbreath, UGA



## **White Mold**



#### White mold tests sprayed with Bravo 7-8 times

#### 2016-2017 University of Florida White Mold Tests



### Leaf spot tests- 0, 4, and 8 sprays

2016 -17 University of Florida Leaf spot tests



## **Disease Resistance**

### Peanut Rx 2018 Version

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Florida-07	10	20	15
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Georgia-07W	10	20	15
Georgia-09B	20	25	25
Georgia-12Y	5	15	10
Georgia-13M	10	30	25
Georgia-14N	10	15	15
Georgia-16HO	15	25	20
Tifguard	10	15	15
TifNV-HiOL	10	15	15
TUFRunner™ '297'	10	25	20
TUFRunner™ '511'	20	30	15

				White mold program		
Variety	Planting	Thimet	Twin Rows	Early season	Mid season	Leaf spot program
Georgia-06G	– May 1-31	if planting earlier than May 10	Yes, especially if planting before May 10	Yes, especially if planting early	May need more than folicur if weather conditions warrant: Convoy, Elatus, Fontelis, Alto+Abound, Evito, Provost,etc.	Bravo and Folicur (or generic equivalents) are okay espeically if rotation is 2 years or more
Georgia-12Y	April 15- May 31	if planting earlier than May 10	Probably not needed for spotted wilt control	May not be needed	Okay with Bravo and Folicur (or generic equivalents), especially if rotation is 2 years or more	Bravo and Folicur (or generic equivalents) are okay especially if rotation is 2 years or more

				White mo	old program	
Variety	Planting	Thimet	Twin Rows	Early season	Mid season	Leaf spot program
Georgia-09B	May 10- 31	use on all plantings	Yes, especially if planting before May 10	Yes, especially if planting early	Will likely benefit from Convoy, Elatus for WM control	Will likely benefit from fungicides with better activitiy on LS: Priaxor, Elatus, Alto+Abound, Fontelis, Evito, Provost, etc.
Georgia-13M	April 15- May 25	if planting earlier than May 10	Yes, especially if planting before May 10	Yes, especially if planting early	Will likely benefit from Convoy, Elatus for WM control	Need to use fungicides with better activitiy on LS: Priaxor, Elatus, Alto+Abound, Fontelis, , Evito, Provost, etc

				White mo	old program	
Variety	Planting	Thimet	Twin Rows	Early season	Mid season	Leaf spot program
TUFRunner 511	- May 10- 25	use on all plantings	Yes, especially if planting before May 10	Probably needed only if high risk of white mold	Probably okay with Bravo and Folicur (or generic equivalents), especially if rotation is 2 years or more	Need to use fungicides with better activity on LS: Priaxor, Elatus, Alto+Abound, Fontelis, Evito, Provost, etc
TUFRunner 297	May 1-25	if planting earlier than May 10	Yes, especially if planting before May 10	Probably needed only if high risk of white mold	Probably okay with Bravo and Folicur (or generic equivalents), especially if rotation is 2 years or more	If risk is high, will benefit from fungicides with better activity on LS: Priaxor, Elatus, Alto+Abound, Fontelis, Evito, Provost, etc. If risk is low, may be okay with Bravo, Folicur or

				White m	nold program	
Variety	Planting	Thimet	Twin Rows	Early season	Mid season	Leaf spot program
Georgia-14N	May 1- May 31	if planting earlier than May 10	Yes, especially if planting before May 10	Probably needed only if high risk of white mold	Probably okay with Bravo and Folicur (or generic equivalents), especially if rotation is 2 years or more	Bravo and Folicur (or generic equivalents) are okay espeically if rotation is 2 years or more
Tifguard	May 1- May 31	if planting earlier than May 10	Yes, especially if planting before May 10	Probably needed only if high risk of white mold	Probably okay with Bravo and Folicur (or generic equivalents), especially if rotation is 2 years or more	Bravo and Folicur (or generic equivalents) are okay especially if rotation is 2 years or more

				White m	nold program	
Variety	Planting	Thimet	Twin Rows	Early season	Mid season	Leaf spot program
FloRun <sup>TM</sup> '331'	May 10- May 31	if planting earlier than May 10	Yes, especially if planting before May 10	Probably needed only if high risk of white mold	Probably okay with Bravo and Folicur (or generic equivalents), especially if rotation is 2 years or more	Bravo and Folicur (or generic equivalents) are okay especially if rotation is 2 years or more, but will benefit from stronger fungicides
TifNV-HiOL	May 1- May 31	if planting earlier than May 10	Yes, especially if planting before May 10	Probably needed only if high risk of white mold	Probably okay with Bravo and Folicur (or generic equivalents), especially if rotation is 2 years or more	Bravo and Folicur (or generic equivalents) are okay especially if rotation is 2 years or more

## Peanut Field Day- Marianna August 23, 2018