

**2013**

# **Georgia - Florida Tobacco Tour**



**The University of Georgia**

**College of Agricultural & Environmental Sciences**

**The University of Georgia  
College of Agricultural and Environmental Sciences  
Cooperative Extension  
Tifton, Georgia**



## EXTENSION OFFICES IN COUNTIES WITH TOBACCO PRODUCTION

<u>County</u>	<u>Phone No.</u>	<u>FAX No.</u>	<u>County</u>	<u>Phone No.</u>	<u>FAX No.</u>
Appling	912-367-8130	912-367-1184	Jeff Davis	912-375-6648	912-379-1091
Atkinson	912-422-3277	912-422-6223	Lanier	229-482-3895	229-482-2654
Bacon	912-632-5601	912-632-6910	Lowndes	229-333-5185	229-333-5188
Ben Hill	229-426-5175	229-426-5176	Pierce	912-449-2034	912-449-8005
Berrien	229-686-5431	229-686-7831	Tattnall	912-557-6724	912-557-3332
Brantley	912-462-5724	912-462-5464	Telfair	912-868-6489	912-868-2773
Brooks	229-263-4103	229-263-5607	Thomas	229-225-4130	229-225-4183
Candler	912-685-2408	912-685-6614	Tift	229-391-7980	229-391-7999
Coffee	912-384-1402	912-389-4007	Toombs	912-526-3101	912-526-1012
Colquitt	229-616-7455	229-616-7033	Treutlen	912-529-3766	912-529-3767
Cook	229-896-7456	229-896-7457	Ware	912-287-2456	912-287-2499
Echols	229-559-5562	229-559-9436	Wayne	912-427-5965	912-427-5967
Irwin	229-468-7409	229-468-9838	Worth	229-776-8216	229-776-8216

UGA Tobacco Home Page

<http://www.georgiatobacco.com>

### TOBACCO EXTENSION SCIENTISTS

(see web site for email addresses)

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Paul Bertrand, Extension Pathologist (Retired)	229-386-7495	229-386-7415
David Jones, Extension Entomologist (Retired)	912-681-5639	912-681-0376
William D. Givan, Extension Agricultural Economist (Retired)	706-542-2632	706-542-4131
Keith D. Kightlinger, Extension Economist - Farm Management (Retired)	229-386-3512	229-386-3440
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Glendon H. Harris, Extension Agronomist - Environmental Soil and Fertilizer	229-386-3194	229-386-7308

### TOBACCO RESEARCH SCIENTISTS

Alex Csinos, Plant Pathology, CPES, Tifton (Retired)	229-386-3373	229-386-7285
Steve LaHue, Bowen Farm Research Coordinator	229-388-6492	229-386-7293
Lara Lee Hickman, Plant Pathology, CPES, Tifton	229 386 3163	229-386-7285

Physical / Postal Address: 4604 Research Way / 2360 Rainwater Rd, Tifton, Georgia, 31793-5766, USA

**THE GEORGIA EXTENSION TOBACCO TEAM EXPRESSES  
APPRECIATION TO THE FOLLOWING FINANCIAL SUPPORTERS OF THE**

**2013 GEORGIA TOBACCO TOUR**

**Agri Supply**

**Statesboro, Tifton & Valdosta**

**Dupont**

**FMC**

**Ag South Farm Credit**

**Statesboro & Douglas**

**F.W. Rickard Seeds, Inc.**

**Alliance One International**

**Georgia Tobacco Commission**

**Bayer Crop Science**

**Gold Leaf Seed Co.**

**BFD Tobacco Equipment Co.**

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**Carolina Soil Company, Inc.**

**SQM**

**Chemtura AgroSolutions**

**Syngenta**

**Cross Creek Seed, Inc.**

**Universal Leaf N.A.**

**Dow AgroSciences**

**U.S. Tobacco Cooperative**

**Drexel Chemical Company**

**YARA North America**

## **GEORGIA - FLORIDA TOBACCO TOUR**

# **RULES OF THE ROAD**

- **Headlights should ALWAYS BE ON when participating in the tour.**
- **Follow close enough to the next vehicle to show that you are a part of the tour, but far enough back to avoid a collision.**
- **Be cautious at intersections but promptly follow the directions of law enforcement assisting the tour.**
- **Always “fuel-up” the night before. The Tour will depart as sheduled.**
- **Wait until the Tour has “left you” rather than trying to “leave the tour”. THOSE BEHIND YOU WILL FOLLOW YOU!!!**



THE UNIVERSITY OF GEORGIA

# COOPERATIVE EXTENSION

Colleges of Agricultural and Environmental Sciences & Family and Consumer Sciences

2360 Rainwater Rd, Tifton, GA 31793 ph:229-386-3006 fax:229-386-7308 cell: 229-392-6424

## SCHEDULE - 2013 GEORGIA-FLORIDA TOBACCO TOUR

### Monday, June 10, 2013

5:00 pm - Check-in Quality Inn, Waycross PH: 912-283-4490

6:30 pm - Social - Mixon's Pond - Hwy. 82, Waresboro, Ware Co.

31 15'20.54N, 82 27'39.15W

7:00 pm - Supper - Mixon's Pond - Hwy. 82, Waresboro, Ware Co.

### Tuesday, June 11, 2013

7:30 am - Leave Holiday Inn parking lot.

8:15 am - Arrive Jay Davis Farm - Pierce County 31 24.40.55' N, 82 21.39.13' W  
(NCSU Black Shank Variety Trial)

- James Jacobs, Pierce County Extension Coordinator
- J. Michael Moore, Extension Agronomist - Tobacco

9:35 am - Arrive Wayne McKinnon Farm - Coffee Co. 31 29'02.78"N, 82 50'22.51"W  
(TSWV Management Trial)

- Mark von Waldner, Coffee County Extension Agent
- J. Michael Moore, Extension Agronomist - Tobacco

10:15 pm - Arrive Rob Smith Farm - Irwin Co 31 34'03.46 N, 83 05'47.67 W  
(NCSU Black Shank Variety Trial)

- Mark von Waldner, Coffee County Extension Agent
- Phillip Edwards, Irwin County Extension Coordinator
- Paul Bertrand & J. Michael Moore, UGA Tobacco Specialists

11:10 pm - Arrive Ricky Tucker Farm - Berrien County 31 24'47.70 N, 83 18'39.15 W  
(TSWV Management Trial) Plot: Firetower Rd, Enigma, GA

- Eddie Beasley, Berrien County Extension Agent
- Paul Bertrand, Extension Pathologist, Retired

**12:15 am - SPONSORED LUNCH -**  
***Courtesy of the Georgia Tobacco Commission***  
**- Tifton Campus Conference Center**  
**(15 RDC Rd. off Hwy 41 at I-75, Exit 64)**

**Tuesday, June 11, 2013 (continued)**

1:30 pm - Leave UGA Tifton Campus Conference Center, 15 RDC Rd, Tifton, GA  
31 28'48.20N, 83 31'20.21W

1:45 pm - Arrive UGA Black Shank Nursery - Rainwater Road, Tifton, GA

Alex Csinos, Pathologist

Lara Lee Hickman, Research Professional

- Evaluation of Tobacco Cultivars with Reported Resistance to  
Both Race 0 and Race 1 of Black Shank

2:20 pm - Arrive UGA Bowen Farm -

133 Goat Rd, Tifton, GA

31 28'40.81N, 83 26'26.52W

Paul Bertrand, Pathologist

- Timing Actigard Field Sprays

Alex Csinos, Pathologist

Lara Lee Hickman, Research Professional

- Evaluation of MCW-2 for Control of Nematodes on Susceptible  
and Tolerant Cultivars of Tobacco

- Evaluation of Tobacco Cultivars for tolerance and/or Resistance  
to Nematodes

Steve LaHue, Research Coordinator

Regional Variety Small Plot Test

Georgia Official Variety Test

Regional Sucker Control Test

J. Michael Moore, Extension Agronomist - Tobacco

Sidedress Nitrogen Fertilizer Source Demonstration

Transplant Water Fertilizer Demonstration

Tobacco Budworm & Sucking Insect Control Demonstrations

Tobacco Sucker Control Alternative Nozzle Arrangements

Rajagopalbabu Srinivasan (Babu), Entomologist

Tobacco Entomology Research Projects

4:30 pm - Arrive Brian Lanier Farm - Berrien County (229-507-4042) 31°09'04.90N

Home: 50 Lanier Lane, Nashville, GA 31639 83°08'10.97W

(Released Variety Demonstration) Plot: 584 Avera Cemetery Rd

- Eddie Beasley, County Extension Coordinator

**Wednesday, June 12, 2013 ( On Next Page)**

**Wednesday, June 12, 2013**

7:30 am - Leave Hampton Inn parking lot.

8:40 pm - Arrive Damon & Roger Deas Farm - Hamilton County, FL  
(Florida Tobacco Production)  
- Keith Wynn, County Extension Agent

9:50 pm - Arrive Sidney & Jackson Lord Farm - Suwannee County, FL  
(Florida Tobacco Production)  
- Elena Toro, County Extension Agent

10:30 pm - Arrive Kenneth Dasher Farm - Suwannee County, FL  
(Florida Tobacco Production)  
- Elena Toro, County Extension Agent

11:30 pm - Arrive Roosevelt and Travis Dicks Farm - Columbia County, FL  
(Released Varieties Demonstration)  
- Mace Bauer, Columbia County Extension Agent

**THIS IS THE END OF  
THE 2013 GEORGIA-FLORIDA TOBACCO TOUR  
HAVE A SAFE TRIP HOME !**

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## DIRECTIONS FOR 2013 GEORGIA-FLORIDA TOBACCO TOUR

### Monday, June 10, 2013

<u>Mileage</u>	<u>Directions (* - indicates traffic assistance needed)</u>
	<b>To Social and Dinner at Mixon's Pond</b>
*	Left out of Quality Inn onto Hwy 82 West and through Waycross
10.2	Right into Mixon's Pond drive 31 15'20.54N, 82 27'39.15W

### Tuesday, June 11, 2013

<u>Mileage</u>	<u>Directions (* - indicates traffic assistance needed)</u>
	* Left out of Quality Inn onto Hwy 82 West and bare right on MEMORIAL DR/US-1 N/US-23 N/GA-4 N toward US-82/GA-520/CORRIDOR Z/S GEORGIA PKWY. Continue to follow MEMORIAL DR.
1.3	Turn RIGHT onto PLANT AVE/US-1 BR/US-84/GA-38. Continue to follow US-84/GA-38.
9.4	Turn LEFT onto GA-121/GA-15/GORDON ST. in Blackshear
0.1	Turn LEFT onto GA-203/BLACKSHEAR HWY
0.4	Turn RIGHT onto GA-203/BLACKSHEAR HWY/HENDRY ST. Start out going NORTHWEST on GA-203/BLACKSHEAR HWY /HENDRY ST toward MARION ST.
3.3	Bear LEFT at Jot'em Down Store Continue to follow BLACKSHEAR HWY.
5.2	Turn RIGHT to stay on BLACKSHEAR HWY at stop sign.
1.9	Turn LEFT onto MILLBRANCH RD.
1.0	Left into Jay Davis Farm. Plot behind house at end of drive.

### **Jay Davis Farm – Pierce County 31 24.40.55' N, 82 21.39.13' W**

	Left out of Jay Davis Farm onto Millbranch Rd.
0.8	Right on Daniel Rd.
1.2	Right on Smart Road
1.0	Left on BLACKSHEAR HWY
1.4	BLACKSHEAR HWY becomes RADIO STATION RD.



**Tuesday, June 11, 2013 (continued)**

**Mileage      Directions (\* - indicates traffic assistance needed)**

- 10.4      Right onto US-1/US-23/GA-4
- 0.1      Left onto GA-4 ALT
- 0.6      Left onto GA-32/W 16<sup>th</sup> St
- 0.4      Left onto W 12<sup>th</sup> St/GA-32
- 21.2      Left at traffic light onto Bowen Mill Rd SE/US-221/GA-135  
Cross Railroad Crossing
- 1.2      Cross Hwy 158  
Cross McDonald Rd at traffic light
- 0.4      Left onto Brantley Blvd at the Sonic Restaurant  
Tobacco demonstration on the right

**Wayne McKinnon Farm - Coffee Co. 31 29'02.78"N, 82 50'22.51"W**

- Continue to Pinecrest Drive
- Right onto Pinecrest Drive
- 0.6      Right onto US 221
- 0.6      Left onto Bowens Mill Rd SE/GA-135 / US-221
- 3.4      Left onto Ocilla Rd / W Highway 32 / GA-32
- 14.8      Left onto Lotus Rd
- 1.6      Left into field drive, park under trees

**Rob Smith Farm - Irwin Co                      31 34'03.46 N, 83 05'47.67 W**

- Left onto Lotus Rd.
- 1.0      Right at stop sign onto Satilla Rd
- 2.4      Cross Cornflower Rd. Satilla Rd changes to Clover Rd
- 4.8      Right on Lax Hwy / Hwy 90
- 1.7      Left onto Hwy 129 in Ocilla
- 13.6      Right onto Hwy 82
- 4.5      Right onto Firetower Rd at large water tank
- 0.3      Left into drive and park under pecan trees. Tobacco next to trees

**Ricky Tucker Farm - Berrien County 31 24'47.70 N, 83 18'39.15 W**

- Right onto Firetower Rd
- 0.3      Right onto Main St S/US-41/GA-7/GA-125.  
Left onto 20<sup>th</sup> St at McDonalds  
Left onto RDC Rd.
- 0.1      Left into the University of Georgia Tifton Campus Conference Center

**Tuesday, June 11 (continued)**

**Mileage                      Directions (\* - indicates traffic assistance needed)**

**Sponsored Lunch-Compliments of The Georgia Tobacco Commission**  
**Tifton Campus Conference Center, Tifton**

0.1                      Left out of Tifton Campus Conference Center  
Cross RR Tracks  
Left at stop sign onto Moore Hwy  
0.1                      Right onto Rainwater Road  
0.1                      Left onto Entomology Drive, follow drive through fence to Black Shank Nursery  
**- Arrive UGA Black Shank Nursery - Rainwater Road, Tifton, GA**  
                             - Eddie Beasley, UGA Plant Pathology Graduate Research Assistant  
                             Tobacco Black Shank Variety Trial

                             Right out of Entomology Drive onto Rainwater Road  
0.1                      Right onto Moore Hwy  
0.05                     Left onto 20th Street  
Cross RR Tracks  
0.9                      Cross Tift Avenue at light  
0.9                      Left at stop light onto Old Omega Road  
0.2                      Right at light onto Kent Road  
1.1                      Cross New River Church Road at stop sign onto Arnett Mill Road  
0.6                      Left onto Hwy 319 toward Omega at the stop sign  
1.1                      Right onto Goat Road  
0.6                      Left into UGA Bowen Farm

**- Arrive UGA Bowen Farm - 133 Goat Rd, Tifton, GA**

                             Right out of Bowen Farm  
0.6                      Left onto Hwy 319  
1.9                      Left onto New River Church Road  
1.2                      Left onto Hwy 82  
26.6                     Right onto Hwy 135 in Willacochee  
12.8                     Right onto Hwy 168  
2.1                      left onto Mt Pleasant Church Rd.  
0.6                      Left onto Mudd Creek Rd.  
0.07                     Right onto Mt. Pleasant church Rd  
0.8                      Right onto Ethridge Lancaster Rd  
0.6                      Left onto Avera Cemetery Rd  
Plot on left

**- Brian Lanier Farm - Berrien County      31 09'04.90N 83 08'10.97W**

Return to Tifton for the evening

**Wednesday, June 15, 2011 (continued)**

**Mileage      Directions (\* - indicates traffic assistance needed)**

- Exit Hampton Inn onto Hwy 319
- Left on Omega Rd
- 0.2      \* Right onto I-75 S
- 68.0      Right on St Rd 143 in Jennings at first exit in FL
- 3.0      Cross through at caution light at CR 152
- 2.6      \* Left onto CR 146
- Field on Right

**Deas Brothers Farm, Hamilton County, Florida**

**30° 32' 39.81" N, 83° 10' 46.79" W**

- Right on State Hwy 146 from field.
- Right on State Hwy 146 at stop sign.
- Left on State Hwy 146.
- 4.25      Right onto CR 141
- Left onto NW 63 Ave
- Cross FL 6 onto CR 751 / Hwy 249
- Cross Stagecoach Rd / Hwy 132
- Cross I-10
- Right onto Houston Ave NW
- Right on 11<sup>th</sup> St SW
- 0.25      Around traffic circle and follow 51
- 11.5      Left onto farm road

**Sidney & Jackson Lord Farm      N 30° 13' 00.15" W 83° 04' 50.90"**

- Left out of farm on 51
- 0.6      Left onto 165<sup>th</sup> Rd
- 2.5      Left onto CR 252
- 1.5      Cross 349
- 5.0      Right on CR 252
- 1.2      Left on CR 252
- 2.4      Left into farm after cemetery

**Kenneth & Kevin Dasher Farm      N 30° 09' 34.12" W 82° 55' 43.17"**

- Left onto CR 252
- 2.2      Cross 49
- 3.9      Right on CR 137

- 7.2 Left on CR 216<sup>th</sup> Street / CR 240
- 1.7 Cross 247 (flashing light)
- 5.8 Cross SR 47
- 3.5 Right on Tustenuggee Ave. (CR 131)
- 6.5 Left into Dicks Farm

**Roosevelt & Travis Dicks Farm - Released Varieties Demonstration**  
**N 29° 58' 41.79" W 82° 38' 35.11"**  
5821 SW Tustenuggee Ave, Lake City, FL

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**Evaluation of Flue-Cured Breeding Lines for Susceptibility  
to Black Shank Under Georgia On-Farm Conditions**

**Ramsey S. Lewis, North Carolina State University**  
**Katherine Drake, NCSU Crop Science Research Assistant**  
**J. Michael Moore, UGA**  
**Paul Bertrand, UGA**  
**James Jacobs, Pierce County Extension Coordinator**  
**Jay Davis, Pierce County Grower**

<b>Entry</b>	<b>Genotype</b>
1	K326 + WzWz; BC5F3 Line 1
2	K326 + WzWz; BC5F3 Line 2
3	K326 + WzWz; BC5F3 Line 3
4	K326 null segregant Line 1
5	K326 null segregant Line 2
6	NC1071
7	K326 + Wz--; Hybrid 1
8	K326 + Wz--; Hybrid 2
9	K326 + Wz--; Hybrid 3
10	Cms K326 + Wz--; Hybrid 1
11	Cms K326 + Wz--; Hybrid 2
12	Cms K326 + Wz--; Hybrid 3
13	K326 + Wz-- + Php--; Hybrid 1
14	K326 + Wz-- + Php--; Hybrid 2
15	K326 + Wz-- + Php--; Hybrid 3
16	K326 (certified)
17	K346 (certified)
18	NC 196 (certified)
19	NC 71 (certified)
20	NC 95
21	NC 2326
22	Beinhart 1000
23	KT 209
24	KT 206

Twenty four candidate breeding lines and standard varieties were planted in a randomized complete block on the edge of Coffee and Irwin counties. The Pierce County plot is a randomized complete block with four replications.



WAYNE McKINNON FARM  
COUNTY AGENT: Mark Von Waldner

### MONITORING SPOTTED WILT IN UNTREATED PLANTS

Spotted wilt in untreated tobacco is being evaluated at 27 locations in Georgia. The data is used to test the relationship between spotted wilt incidence and weather. This is accomplished by planting four trays of untreated plants at each location and evaluating spotted wilt every two weeks beginning two weeks after transplant continuing until 12-14 weeks after transplant.

Treated tobacco in adjacent rows is also evaluated on the same schedule. This data provides a continuous record of the effectiveness of treatments recommended for spotted wilt management.

The incidence of spotted wilt in untreated tobacco at 18 of the 27 test locations is shown in Table 1. The relative effectiveness of treatment here at the McKinnon farm is shown in Table 2.

Table 1: SPOTTED WILT IN UNTREATED PLANTS

County	Date	Variety	% Spotted Wilt	
			6 weeks	8 weeks
Berrien	28 March	NC-196	0.9	2.1
Berrien	03 April	NC-196	5.4	11.1
Coffee	03 April	NC-196	12.4	18.9
Berrien	05 April	K-326	2.3	9.3
Berrien	08 April	NC-71	3.8	10.4
Tift	09 April	NC-71	0.7	2.1
Coffee	10 April	NC-71	10.6	17.9
Coffee	10 April	K-326	10.8	19.5
Coffee	11 April	NC-71	5.5	12.6
Coffee	12 April	NC-71	12.6	27.5
Berrien	12 April	K-346	3.5	10.3
Coffee	16 April	NC-71	9.2	-
Coffee	17 April	NC-71	4.3	-
Jeff Davis	18 April	NC-71	11.7	-
Coffee	19 April	NC-196	22.9	-
Jeff Davis	22 April	Sp-70	20.5	-
Coffee	22 April	NC-71	12.3	-
Coffee	23 April	NC-71	2.6	-

**Table 2: EFFECT OF ACTIGARD + ADMIRE PRO TREATMENT FOR REDUCING SPOTTED WILT AT THE MCKINNON FARM**

TREATMENT	% Spotted Wilt			
	2 WEEKS	4 WEEKS	6 WEEKS	8 WEEKS
A+A <sup>1</sup>	0.0	0.7	2.2	7.3
Untreated	0.4	5.5	10.8	19.5

<sup>1</sup> A+A is Actigard 50 WG @ 1.0 oz/100,000 seedlings applied 7-10 days before transplant + Admire Pro @ 0.8-0.9 oz/1,000 tray cells applied as a spray on/rinse off drench 3-4 days before transplant.

## **Evaluation of Flue-Cured Breeding Lines for Susceptibility to Black Shank Under Georgia On-Farm Conditions**

**Ramsey S. Lewis, North Carolina State University**  
**Katherine Drake, NCSU Crop Science Research Assistant**  
**J. Michael Moore, UGA**  
**Paul Bertrand, UGA**  
**Mark von Waldner, Atkinson/Coffee Co. Extension Agent**  
**Phillip Edwards, Irwin County Extension Coordinator**  
**Rob Smith, Grower**

<b>Entry</b>	<b>Genotype</b>
1	K326 + WzWz; BC5F3 Line 1
2	K326 + WzWz; BC5F3 Line 2
3	K326 + WzWz; BC5F3 Line 3
4	K326 null segregant Line 1
5	K326 null segregant Line 2
6	NC1071
7	K326 + Wz--; Hybrid 1
8	K326 + Wz--; Hybrid 2
9	K326 + Wz--; Hybrid 3
10	Cms K326 + Wz--; Hybrid 1
11	Cms K326 + Wz--; Hybrid 2
12	Cms K326 + Wz--; Hybrid 3
13	K326 + Wz-- + Php--; Hybrid 1
14	K326 + Wz-- + Php--; Hybrid 2
15	K326 + Wz-- + Php--; Hybrid 3
16	K326 (certified)
17	K346 (certified)
18	NC 196 (certified)
19	NC 71 (certified)
20	NC 95
21	NC 2326
22	Beinhart 1000
23	KT 209
24	KT 206

Twenty four candidate breeding lines and standard varieties were planted in a randomized complete block on the edge of Coffee and Irwin counties. The Irwin County plot is a randomized complete block with six replications.

### **FIELD HISTORY**

2011: Tobacco (Spt-168) heavy loss from black shank  
2012: Peanuts  
2013: Black shank evaluation trial.

**2013 Evaluation of Tobacco Cultivars with Reported Resistance to  
Both Race 0 and Race 1 of Black Shank (*Phytophthora nicotianae*)  
Black Shank Nursery - Tifton, Georgia**

607	608	603	604	601	606	605	602
502	506	501	507	505	504	503	508
405	404	408	403	406	402	407	401
303	307	302	305	308	301	304	306
206	201	204	207	202	205	208	203
108	103	106	101	104	107	102	105

**Plot Set-up-** single row plots

**Plot Size-** Each row, 37 feet long, 10 foot alleys between reps

**Replications:** six

**Cultivar**

1. PXH9
2. PXH13
3. PVH1452
4. SP 225
5. SP 236
6. K 326
7. K346
8. NC 71

**Data to be collected:**

- Stand counts every two weeks, scouting for symptoms of Black shank (*Phytophthora nicotianae*) infested tobacco plants and TSWV symptomatic plants. Beginning 4 weeks post-plant
- Vigor ratings at 2, 4, 6, and 8 weeks post plant
- Plant height (centimeters) at 6 weeks post plant
- Yield (pounds/acre)

File name:TobCultBSRace0\_1\_2013PP.wpd 04/24/2013



2013 ACTIGARD FIELD SPRAY TRIAL

SEEDLING TREATMENT: GROWN & TREATED BY CLAUDE CARVER (5 REPS)

AD - ADMIRE PRO @ 0.8 oz/1,000

AA = ACTIGARD 50WG @ 1.0 oz/100,000 + ADMIRE PRO @ 0.8 oz/1,000

CK = UNTREATED

FIELD SPRAY TREATMENTS: MARKED WITH FLAGS (5 REPS)

1. = ORANGE = UNTREATED CHECK

2. = YELLOW = ACTIGARD 50WG @ 0.5 oz/acre

EVERY 7 DAYS; BEGIN AT TRANSPLANT (8 APPS)

3. = GREEN = ACTIGARD 50WG @ 0.5 oz/acre

WHEN TSWV FIRST SEEN IN CK PLANTS (3 APPS)

4. = WHITE = ACTIGARD 50WG @ 0.5 oz/acre

@1300 DEGREE DAYS FROM INOV. 2012 (3 APPS)

IN THE MAP EACH ROW OF \*\*\*\*\* = 2 ROWS OF TOBACCO

----- WEST ----->

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GUARD *****
(AA) ***** 1 ***** ***** 2 ***** ***** 3 ***** ***** 4 *****
(AD) ***** 1 ***** ***** 2 ***** ***** 3 ***** ***** 4 *****
(CK) ***** 1 ***** ***** 2 ***** ***** 3 ***** ***** 4 *****
GUARD *****
(AD) ***** 3 ***** ***** 1 ***** ***** 4 ***** ***** 2 *****
(AA) ***** 3 ***** ***** 1 ***** ***** 4 ***** ***** 2 *****
(CK) ***** 3 ***** ***** 1 ***** ***** 4 ***** ***** 2 *****
GUARD *****
(AD) ***** 2 ***** ***** 4 ***** ***** 1 ***** ***** 3 *****
(CK) ***** 2 ***** ***** 4 ***** ***** 1 ***** ***** 3 *****
(AA) ***** 2 ***** ***** 4 ***** ***** 1 ***** ***** 3 *****
GUARD *****
(AA) ***** 4 ***** ***** 3 ***** ***** 2 ***** ***** 1 *****
(CK) ***** 4 ***** ***** 3 ***** ***** 2 ***** ***** 1 *****
(AD) ***** 4 ***** ***** 3 ***** ***** 2 ***** ***** 1 *****
GUARD *****
(AD) ***** 1 ***** ***** 3 ***** ***** 2 ***** ***** 4 *****
(AA) ***** 1 ***** ***** 3 ***** ***** 2 ***** ***** 4 *****
(CK) ***** 1 ***** ***** 3 ***** ***** 2 ***** ***** 4 *****
GUARD *****
    
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NOTE 1. VARIETY: NC-71

NOTE 2. TOBACCO TRANSPLANTED: 09 APRIL, 2013

NOTE 3. FIRST TSWV IN CK PLANTS SEEN: WEEK 3

NOTE 4. 1300 DEGREE DAYS REACHED: WEEK 5

**2013 Evaluation of MCW-2 for Control of Nematodes on Susceptible and Tolerant Cultivars of Tobacco  
Bowen Farm-Tifton, Georgia**

604-1	604-2	603-2	603-1	605-1	605-2	608-2	608-1	606-1	606-2	607-2	607-1	609-1	609-2	601-2	601-1	602-1	602-2
507-1	507-2	503-2	503-1	508-1	508-2	502-2	502-1	504-1	504-2	501-2	501-1	505-1	505-2	506-2	506-1	509-1	509-2
405-1	405-2	401-2	401-1	406-1	406-2	407-2	407-1	402-1	402-2	409-2	409-1	403-1	403-2	404-2	404-1	408-1	408-2
309-1	309-2	302-2	302-1	304-1	304-2	303-2	303-1	308-1	308-2	306-2	306-1	307-1	307-2	305-2	305-1	301-1	301-2
201-1	201-2	204-2	204-1	207-1	207-2	205-2	205-1	209-1	209-2	202-2	202-1	206-1	206-2	208-2	208-1	203-1	203-2
108-1	108-2	106-2	106-1	103-1	103-2	101-2	101-1	104-1	104-2	109-2	109-1	105-1	105-2	102-2	102-1	107-1	107-2

<u>Treatment</u>	<u>Rate</u>	<u>Application*</u>	<u>Plot Set-up:</u> Split plot design, 2 rows per treatment <u>Row-1:</u> NC-71 (Susceptible variety), <u>Row-2:</u> CC35(Tolerant variety)
1. MCW-2	2pt/A	7 day PPI	<b>Plot size:</b> Each row, 37 feet long w/ 10 foot alley between reps  <b>Replications:</b> six  <b>Data to be collected:</b> -soil samples for nematode quantification: pre-plant, 45-60 days post planting, and at final harvest -Vigor ratings, weekly beginning at two weeks post plant -Root gall ratings (Zeck's Scale 0-10) 45-60 days post plant (5 plants/plot) and 'At Final Harvest' (10 plants per plot) -Plant height (centimeters) at 6 weeks post plant -Yield (lbs/acre)
2. MCW-2	3pt/A	7 day PPI	
3. MCW-2	4pt/A	7 day PPI	
4. MCW-2	5pt/A	7 day PPI	
5. MCW-2	6pt/A	7 day PPI	
6. MCW-2	7pt/A	7 day PPI	
7. Temik	20lb/A	7 day PPI	
8. Telone	6 gal	14-21 days PPI	
9. Non-Treated Control	----	-----	

**\*Applications to be made before transplanting. Incorporate into soil and form bed afterward.**

**2013 Evaluation of Tobacco Cultivars for tolerance and/or Resistance to Nematodes  
Bowen Farm- Tifton, Ga**

604	605	608	601	607	606	602	603
508	502	504	506	505	503	501	507
401	407	403	402	408	404	406	405
303	304	301	305	306	302	307	308
207	208	206	204	201	205	203	202
102	101	105	107	103	108	104	106

**Plot Set-up-** single row plots

**Plot Size-** Each row, 37 feet long, 10 foot alleys between reps

**Replications:** six

<u>Cultivar</u>	<u>Treatment</u>	<u>Application</u>	<u>Rate/A</u>
1. XHN 52	-----	-----	-----
2.XHN 55	-----	-----	-----
3. PVH 2340	-----	-----	-----
4. CC 33	-----	-----	-----
5. CC 35	-----	-----	-----
6. CC 65	-----	-----	-----
7. NC 71	-----	-----	-----
8. NC 71	Telone II	2-3 weeks pre-plant	6 gal/A

**Data to be collected:**

- Soil samples for nematode quantification pre-plant, 45-60 days post plant, and At final harvest
- Vigor ratings at 2, 4, 6, and 8 weeks post plant
- Plant height (centimeters) at 6 weeks post plant
- Root gall ratings at mid-season (45-60 days post plant) and At final harvest
- Yield (pounds/acre)

File name:TobCultBS2013PP.wpd 02/11/2013

### 2013 Tobacco Variety Tests

#### Regional Small Plot Test

- |               |               |
|---------------|---------------|
| 1. NC 2326    | 2. NC 95      |
| 3. K 326      | 4. RJR 217    |
| 5. NC EX 57   | 6. XHN 55     |
| 7. NC EX 54   | 8. CU 208     |
| 9. NC EX 56   | 10. GL EX 309 |
| 11. NC EX 40  | 12. CU 203    |
| 13. CC EX 22  | 14. NC EX 55  |
| 15. XHN 54    | 16. CC EX 18  |
| 17. NC EX 36  | 18. CU 204    |
| 19. CC EX 52  | 20. PXH 16    |
| 21. RJR 215   | 22. CU 170    |
| 23. PXH 18    | 24. CU 45     |
| 25. GL EX 394 | 26. XHN 61    |
| 27. GF 164    | 28. NC 71     |

#### Official Variety Test

- |                 |              |
|-----------------|--------------|
| 1. K 346        | 2. NC 72     |
| 3. NC 92        | 4. NC 196    |
| 5. NC 297       | 6. NC 925    |
| 7. NC 938       | 8. NC 939    |
| 9. CC 13        | 10. CC 27    |
| 11. CC 33       | 12. CC 35    |
| 13. CC 37       | 14. CC 67    |
| 15. CC 700      | 16. CC 1063  |
| 17. PVH 1452    | 18. PVH 2110 |
| 19. PVH 2254    | 20. PVH 2275 |
| 21. Speight 168 | 22. GL 338   |
| 23. GL 362      | 24. GL 395   |
| 25. GF 157      | 26. GF318    |

6

<b>Rep 3</b>	10	16	28	14	2	8	20	12	24	5	4	18	6	26	20	16	6	14	25	23	2	7	12	24	5	11	4	<b>Rep 3</b>
	25	21	23	7	11	15	3	17	22	27	9	19	13	1	18	1	13	9	19	21	10	22	17	26	3	8	15	
<b>Rep 2</b>	17	9	5	19	27	12	1	23	13	3	26	11	25	7	3	24	9	12	8	20	18	2	25	4	11	22	16	<b>Rep 2</b>
	6	24	14	21	8	28	18	4	15	22	16	10	20	2	14	5	19	7	26	23	10	6	15	13	17	1	21	
<b>Rep 1</b>	28	27	26	25	24	23	22	21	20	19	18	17	16	15	26	25	24	23	22	21	20	19	18	17	16	15	14	<b>Rep 1</b>
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	1	2	3	4	5	6	7	8	9	10	11	12	13	

Road

**2013 Regional Farm Test**  
Field 6632

- |              |               |
|--------------|---------------|
| 1. NC 2326   | 2. NC 95      |
| 3. K 326     | 4. CU 171     |
| 5. AOV 212   | 6. CU 186     |
| 7. CU 159    | 8. NC EX 61   |
| 9. GL EX 398 | 10. PXH 1     |
| 11. NC EX 60 | 12. GL EX 328 |
| 13. NC EX 59 | 14. PXH 7     |
| 15. NC EX 58 | 16. PXH 13    |

Rep 3&6	12	12	10	10	4	4	16	16	8	8	3	3	6	6	11	11
	14	14	9	9	1	1	7	7	13	13	2	2	15	15	5	5
Rep 2&5	6	6	4	4	15	15	10	10	16	16	8	8	12	12	3	3
	13	13	7	7	5	5	9	9	2	2	14	14	11	11	1	1
Rep 1&4	16	16	15	15	14	14	13	13	12	12	11	11	10	10	9	9
	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8

Road



2013 FLUE-CURED REGIONAL FARM TEST										
GEORGIA, SOUTH CAROLINA, NORTH CAROLINA, AND VIRGINIA										
Trt. No	Variety or Line	Generation or Year of Release	Pedigree	BS	GW	FW	RK	Bn. Sp.	Virus	Sponsor
1	NC 2326	1965	(Hicks X 9102)(Hicks)(Hicks)Hicks)	L	Su	M				NC
2	NC 95	1961	(C-139 X Bel. 4-30)X(C-139 X Hicks)	L	H	M	R			NC
3	K 326	1981	McNair 225(McNair 30 X NC 95)	L	L		R			GL
4	CU 171	F1	Hybrid							SC
5	AOV 212	F1	Hybrid	R					TMV	AO
6	CU 186	F1	Hybrid							SC
7	CU 159	F1	Hybrid							SC
8	NCEX61	F1	Hybrid							NC
9	GLEX 398	F1	Hybrid	R	R		R			GL
10	PXH 1	F1	Hybrid	R	R					Rickard
11	NCEX60	F1	Hybrid							NC
12	GLEX 328	F1	Hybrid	R	R		R		TMV	GL
13	NCEX59	F1	Hybrid							NC
14	PXH 7	F1	Hybrid	R		R	M.inco	M.ar	TMV/PVY	Rickard
15	NCEX58	F1	Hybrid							NC
16	PXH 13	F1	Hybrid	R	R		M.inco			Rickard

<sup>1</sup>Resistance; H - High; M - Moderate; L - Low; R - Resistance; T - Tolerant; Su - Susceptible  
Diseases: BS - Black Shank; GW - Granville Wilt; FW - Fusarium Wilt; RK - Root Knot; Bn. Sp. - Brown Spot;  
TMV - Tobacco Mosaic Virus; PVY - Potato Virus 'y'; TSMV - Tomato Spotted Wilt Virus;  
TCN - Tobacco Cyst Nematode; TEV - Tobacco Etch Virus; M.j. - Meloidogyne javanica

2013 NORTH CAROLINA FLUE-CURED SMALL PLOT TEST										
GEORGIA, SOUTH CAROLINA, NORTH CAROLINA, AND VIRGINIA										
Trt. No	Variety or Line	Gen or Year of Release	Pedigree	BS	GW	FW	RK	Bn. Sp.	Virus	Sponsor
1	NC 2326	1965	(Hicks X 9102)(Hicks)Hicks)Hicks)	L	SU	M				NC
2	NC 95	1961	(C-139XBel.4-30)x(C-139XHicks)	L	H	M	R			NC
3	K 326	1981	McNair 225 (McNair 30 X NC95)	L	L		R			GL
4	RJR 217	F1	Hybrid	R	R		R			RJR
5	NCEX57	F1	Hybrid	R	R		R			NC
6	XHN 55	F1	Hybrid	R		R	M.inco	M.ar en	TMV/P VY	Rickard
7	NCEX54	F1	Hybrid	R	R		TCN/R			NC
8	CU 208	F1	Hybrid							SC
9	NCEX56	F1	Hybrid	R	R		R			NC
10	GLEX 309	F1	Hybrid	R	R		R			GL
11	NCEX40	F1	Hybrid	R	R		TCN/R			NC
12	CU 203	F1	Hybrid							SC
13	CCEX 22	F1	Hybrid	R	R		R			CC
14	NCEX55	F1	Hybrid	R	R		R			NC
15	XHN 54	F1	Hybrid	R		R	M.inco	M.ar en	TMV/P VY	Rickard
16	CCEX 18	F1	Hybrid	R	R		R			CC
17	NCEX36	F1	Hybrid	R	R		TCN/R			NC
18	CU 204	F1	Hybrid							SC
19	CCEX 52	F1	Hybrid	R	R		R			CC
20	PXH 16	F1	Hybrid	R	R		M.inco			Rickard
21	RJR 215	F1	Hybrid	R	R		R			RJR
22	CU 170	F1	Hybrid							SC
23	PXH 18	F1	Hybrid	R		R	M.inco	M.ar en	TMV/P VY	Rickard
24	CU 45	F1	Hybrid							SC
25	GLEX 394	F1	Hybrid	R	R		R			GL
26	XHN 61	F1	Hybrid	R	R	R	M.inco	M.ar en	TMV	Rickard
27	GF 164	F1	Hybrid	R			R			GF

<sup>1</sup>Resistance; H - High; M - Moderate; L - Low; R - Resistance; T - Tolerant; Su - Susceptible  
Diseases: BS - Black Shank; GW - Granville Wilt; FW - Fusarium Wilt; RK - Root Know; Bn. Sp. - Brown Spot;  
TMV - Tobacco Mosaic Virus; PVY - Potato Vius 'y'; TSMV - Tomato Spotted Wilt Virus;  
TCN - Tobacco Cyst Nematode; TEV - Tobacco Etch Virus; M.j. - Meloidogyne javanica

2013 NORTH CAROLINA FLUE-CURED TOBACCO VARIETY TEST										
Commercial Varieties										
Trt. No	Variety or Line	Generation or Year of Release	Pedigree	BS	GW	FW	RK	Bn. Sp.	Virus	Sponsor
1	NC 471	2003	Hybrid	R	R				TMV	Raynor
2	CC 700	2005	Hybrid	R	R		TCN/R			CC
3	Speight 168	1996	Coker 371G X Spt. G 118	H	H		R			SPT
4	GL 338	2009	Hybrid	R	R					GL
5	K 346	1988	McNair 926 x 80241	H	H		R			GL, Rickard
6	GL 368	2009	Hybrid	R	R					GL
7	PVH 2254	2011	Hybrid	R	R				TMV	Rickard
8	NC 291	1997	Hybrid	R	R		TCN/R		PVY/TEV	CC
9	NC 297	1998	Hybrid	R	R		R		TMV	GL
10	NC 95	1961	(C-139XBel.4-30)x(C-139XHicks)	L	H	M				NC
11	PVH 2110	2005	Hybrid		R		M.inco			Rickard
12	Speight 225	2003	(SP 168 X K 346)(SPA-95 X (SPA-95 X SP 168)	R	R		R			SPT
13	NC 72	1996	Hybrid	H	L		R			Rickard
14	PVH 1452	2006	Hybrid	R	R		TCN/R			Rickard
15	CU 124	2012	Hybrid							SC
16	PVH 2275	2010	Hybrid		R		R1		PVY/TEV	Rickard
17	NC 925	2010	Hybrid	R			R		c	NC
18	CU 144	2012	Hybrid							SC
19	Speight 227	2003	(SP 151X K 346)(SP 202 X K 346)	R	R		R			SPT
20	CC 901	2011	Hybrid	R	R		R			CC
21	GL 395	2010	Hybrid	R	R		R			GL
22	NC 71	1995	Hybrid	H	M		R			Rickard
23	CC 67	2008	Hybrid	R	R		TCN/R		TMV	CC
24	CU 110	2010	Hybrid							SC
25	CC 143	2012	Hybrid	R	R		R			CC
26	CC 1063	2011	Hybrid	R	R		R			CC
27	PVH 2248	2010	Hybrid		R		R1			Rickard
28	CC 27	2003	Hybrid	R	R		TCN/R		TMV	CC
29	CC 33	2008	Hybrid	R	R		M./R			CC
30	CC 35	2007	Hybrid	R	R		M./R			CC
31	K 326	1981	McNair 225 (McNair 30 x NC 95)	L	L		R			G,C,R,R
32	PVH 1118	2004	Hybrid	R	R		TCN/R			Rickard
33	NC 2326	1965	(Hicksx9012)(Hicks)Hicks)Hicks)	L	Su	M				NC
34	Speight 220	2002	(K-346 X SP 117)(SP 116 X K 346)	R	R		R			SPT
35	NC 299	2001	Hybrid	R	R		TCN/R			CC
36	CC 304	2010	Hybrid	R	R		R		TMV	CC
37	NC 196	2002	Hybrid	R	L		R			GL
38	GF 157	2011	Hybrid	R	R		R			GF
39	CC 13	2005	Hybrid	R	R		M./R			CC
40	GF 318	2008	Hybrid	R	R		R			Raynor
41	NC 92	2007	Hybrid	R	R		TCN/R			Rickard
42	NC 606	1998	NC 729 X NC 82	R	R		R			Raynor
43	Speight 236	2005	(SP 168 X SP 196)(SP 179 X SP 177)	R	R		R			SPT
44	CC 37	2006	Hybrid	R	R		TCN/R	M./R	TMV	CC
45	NC 938	2012	Hybrid	R	R		R		TMV	NC
46	NC 939	2012	Hybrid	R	R		TCN/R			NC
47	GL 362	2012	Hybrid	R	R		R		PVY	GL

<sup>1</sup>Resistance; H - High; M - Moderate; L - Low; R - Resistance; T - Tolerant; Su - Susceptible

Diseases: BS - Black Shank; GW - Granville Wilt; FW - Fusarium Wilt; RK - Root Knot; Bn. Sp. - Brown Spot;

TMV - Tobacco Mosaic Virus; PVY - Potato Virus 'y'; TSMV - Tomato Spotted Wilt Virus;

TCN - Tobacco Cyst Nematode; TEV - Tobacco Etch Virus; M.j. - Meloidogyne javanica

2013 Regional Flue-Cured Tobacco Sucker Control Test

Final Treatment List

Trt. No.	Early. button	Elong. Button	3rd contact	Prior to first harvest	After first harvest
1		Topped Not Suckered			
2	FA 4%	FA 5%	FA 5%	RMH-30 + Flupro (1.5 gal + 2 qt/ac)	----
3	FA 4%	FA 5%	FA 5%	Flupro (2 qt/ac)	RMH-30 (1.0 gal/ac)
4	FA 4%	FA 5%	Flupro (2 qt/ac)	RMH-30 + Flupro (1 gal + 1 qt/ac)	----
5	FA 4%	FA 5%	FA 5% + Flupro (2 qt/ac)	FA + RMH-30 + Flupro (5% + 1 gal + 1 qt/ac)	----
6	FA 4%	FA 5% + Flupro (2 qt/ac)	FA 5%	FA 5% + Flupro (1 qt/ac)	----
7	FA 4%	FA 5%	FA 5% + Flupro (2 qt/ac)	FA 5% + Flupro (1 qt/ac)	----
8	FA 4%	FA 5% + Flupro (1 qt/ac)	FA 5%	FA 5% + Flupro (2 qt/ac)	----
9	FA 4%	FA 5%	FA 5% + Flupro (1 qt/ac)	FA 5% + Flupro (2 qt/ac)	----
10	FA 4%	FA 5%	FA 5%	Flupro (2 qt/ac)	Flupro (1 qt/ac)
11	FA 4%	FA 5%	FA 5%	FA 5% + Flupro (2 qt/ac)	FA 5% + Flupro (1 qt/ac)
12	FA 4%	FA 5%	FA 5%	Flupro (2 qt/ac)	FA 5%
13	FA 4%	FA 5%	FA 5%	Flupro (2 qt/ac)	FA 2% + Flupro (1 qt/ac)
14	FA 4%	FA 5%	FA 5%	Flupro (2 qt/ac)	(X-77) 0.25%+ Flupro (1 qt/ac)
15	FA 4%	FA 5%	FA 5%	FA 2% + Flupro (1 qt/ac)	FA 2% + Flupro (1 qt/ac)

FA = RoyalTac-M

**TITLE:** Cyazypyr(TM) TRAY DRENCH Control of early season tobacco pests (flea beetles, thrips, aphids, lep) and TSWV suppression  
**OBJECTIVE:** Cross-spectrum control of early season pests (flea beetles, thrips, aphids) and extended lep control, with suppression of tomato spotted wilt virus using Verimark +/- Admire applied in the float house followed by Coragen as a transplant water treatment.

**TRIAL SUB TYPES**

SYSTEMI = SYSTEMIC SYSTEMIC

**TIMINGS**

00 = UNTRCHK, UNTREATED  
 01 = PRETRA, FLOATHOUSE  
 02 = ATTRAN, TRANSPLANT WATER APPLICATION

\*\* At-plant application methods are listed under application timing. Focus is on transplant water (setter water) application and transplant tray drench/soak. \*\*

TRT	TREATMENT COMPONENT	LOT #	FORMULATION	RATE	UNIT	TIMING
1	HGW86 20SC 10.2 ZMA floathouse					
1 A	>DPX-HGW86 20 SC		SC 200.00 GL	0.176	LAA	01 PRETRA
2	HGW86 20SC 10.2 ZMA floathouse fb Cora					
2 A	>DPX-HGW86 20 SC		SC 200.00 GL	0.176	LAA	01 PRETRA
2 B	>CORAGEN (SC 1.67 LG)		SC 1.67 LG	5.00	ZMA	02 ATTRAN
3	HGW86 20SC 10.2 ZMA + Coragen ATTRAN					
3 A	>DPX-HGW86 20 SC		SC 200.00 GL	0.176	LAA	02 ATTRAN
3 B	>CORAGEN (SC 1.67 LG)		SC 1.67 LG	5.00	ZMA	02 ATTRAN
4	HGW86 20SC 10.2 ZMA + Admire Floathouse					
4 A	>DPX-HGW86 20 SC		SC 200.00 GL	0.176	LAA	01 PRETRA
4 B	ADMIRE PRO (4.6SC)		SC 4.60 LG	10.00	ZMA	01 PRETRA
5	HGW86 20SC 13.5 + Admire fb Coragen					
5 A	>DPX-HGW86 20 SC		SC 200.00 GL	0.176	LAA	01 PRETRA
5 B	ADMIRE PRO (4.6SC)		SC 4.60 LG	10.00	ZMA	01 PRETRA
5 C	>CORAGEN (SC 1.67 LG)		SC 1.67 LG	5.00	ZMA	02 ATTRAN
801	Admire Float fb Coragen 5 oz ATTRAN					
6 A	ADMIRE PRO (4.6SC)		SC 4.60 LG	10.00	ZMA	01 PRETRA
6 B	>CORAGEN (SC 1.67 LG)		SC 1.67 LG	5.00	ZMA	02 ATTRAN
802	Admire Pro fb Coragen 7 oz ATTRAN					
7 A	ADMIRE PRO (4.6SC)		SC 4.60 LG	10.00	ZMA	01 PRETRA
7 B	>CORAGEN (SC 1.67 LG)		SC 1.67 LG	7.00	ZMA	02 ATTRAN
999	UNTREATED CHECK					
8 A	UNTREATED CHECK		NA 0.00 NA	0.00	NA	00 UNTRCHK

> = SUPPLEMENTAL CHEMICAL

Make sure Actigard is not used on any of the plants used for this study.

**RATE UNITS**

LAA = POUNDS ACTIVE / ACRE  
 NA = NOT APPLICABLE  
 ZMA = OZ (FLUID) MATERIAL / ACRE

Bowen Farm Dupont Entmology Test							
408	407	406	405	404	403	402	401
301	304	303	302	308	306	307	305
206	203	205	207	201	202	208	204
101	102	103	104	105	106	107	108



**Evaluation of Two Nozzle Arrangements With and Without Conveyors for Sucker Control  
 UGA Bowen Farm, 133 Goat Road  
 Tifton, GA 31794  
 2013**

**J. Michael Moore, Extension Agronomist  
 Steve LaHue, Bowen Farm Manager**

<b>3</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>

**Treatments**

Appl 1	Sucker Plucker	2 gal	4%	Pre Top
Appl 2	Sucker Plucker	2.5 gal	5%	PreTop
Appl 3	SP + Drexalin Plus + SSstuff	2 gal +.5 gal + .66 gal	4% + 0.6lbs + 1.0 lbs	At Top

- 1. Wide three nozzle arrangement (TG 3-TG5-TG3) with 11" nipples**
- 2. Wide with Conveyors**
- 3. Narrow three nozzle arrangement (TG 3-TG5-TG3) with 4" nipples**
- 4. Narrow with Conveyors**

**Two row plots the length of the field.**

**Compare sucker weights and counts from 10 random plants prior to the final harvest.**

**Compare MH Residues by stalk position (4) 24 hours after MH application and at normal harvest time.**

**First contact, 4%, 5/31/13**

**Second contact 5% 6/6/13**

**Third application 6/10/13**

**Evaluation of New Drexel Product, DCCPP (Plucker Plus), for Sucker Control  
UGA Tifton Campus Bowen Farm, 133 Goat Road  
Tifton, GA 31794  
2013**

**Adam Mitchell  
J. Michael Moore, Extension Agronomist  
Steve LaHue, Bowen Farm Manager**

<b>TRT</b>	<b>Product</b>	<b>Rate / Ac</b>	<b>AI / Acre</b>	<b>Timing</b>
1	Sucker Plucker Sucker Plucker Sucker Plucker + Drexalin Plus Sucker Plucker + Drexalin Plus	2 gal 2.5 gal 2 gal + .5 gal 1 gal + .25 gal	4% 5% 4% + 0.6 lbs 4% + 0.3 lbs	Pre Top Pre Top At Top 7-10 DATop
2	Sucker Plucker Sucker Plucker DCCPP DCCPP	2 gal 2.5 gal 2.5 gal 1.25 gal	4% 5% 4% + 0.6 lbs 2% + 0.3 lbs	Pre Top PreTop At Top 7-10 DATop
3	Sucker Plucker Sucker Plucker DCCPP + Super Sucker Stuff DCCPP	2 gal 2.5 gal 2.5 gal + .66 gal 1.25 gal	4% 5% 4% + 0.6lbs + 1.0 lbs 2% + 0.3 lbs	Pre Top PreTop At Top 7-10 DATop
4	Sucker Plucker Sucker Plucker DCCPP DCCPP	2 gal 2.5 gal 2.5 gal 2.5 gal	4% 5% 4% + 0.6lbs 4% + 0.6 lbs	Pre Top PreTop At Top 7-10 DATop
5	Sucker Plucker Sucker Plucker Drexalin Plus Drexalin Plus	2 gal 2.5 gal .5 gal .5 gal	4% 5% 0.6 lbs 0.6 lbs	Pre Top Pre Top At Top 7-10 DATop
6	<b>Topped, Not Suckered</b>			
7	Sucker Plucker Sucker Plucker SP + Drexalin Plus + SSstuff	2 gal 2.5 gal 2 gal +.5 gal + .66 gal	4% 5% 4% + 0.6lbs + 1.0 lbs	Pre Top PreTop At Top
8	Sucker Plucker Sucker Plucker Prime+ Prime+	2 gal 2.5 gal .5 gal .5 gal	4% 5% 0.6 lbs 0.6 lbs	Pre Top Pre Top At Top 7-10 DATop

**DCCPP (Plucker Plus) – Drexel’s Latest Sucker Control Product – 2013 Registration Pending  
Super Sucker Stuff = 1.5 lb MH / gal (Sucker Stuff = 2.25 lb/gal) (Sucker Stuff - 0.45 gal =1.0 lb MH)**

**Evaluation of New Drexel Product, DCCPP (Plucker Plus), for Sucker Control  
 UGA Bowen Farm, 133 Goat Road  
 Tifton, GA 31794  
 2013**

**Adam Mitchell, Student Intern  
 J. Michael Moore, Extension Agronomist  
 Steve LaHue, Bowen Farm Manager**

108									
101	104	206	203	302	304	301	405	404	408
102	105	201	205	207	306	307	403	401	406
103	106	107	202	204	303	305	407	402	308
208									
	Rep I		Rep II		Rep III		Rep IV		

2 row plots x 58' long

<<<North<<<

Compare sucker weights and counts from 10 random plants prior to the final harvest.

First application 5/31/13

Second application 6/5/13

Third application 6/10/13

## Evaluation of new management options for thrips and *Tomato spotted wilt virus* in Tobacco

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*Tomato spotted wilt virus* (TSWV), transmitted by thrips, remains one of the major constraints for tobacco production in Georgia and in the Southeastern USA. Additionally, unlike other crops, cultivated tobacco has no genetic resistance against thrips and/or TSWV. This has made management of thrips and/or TSWV extremely difficult. Over the last few years, TSWV incidence has been relatively low. However, when conditions are right, the incidence could very well go up. For instance, this year, the incidence of TSWV is higher than at least last four years in the Bowen farm trials in Tifton. This reiterates that management of TSWV is still very critical. Growers typically rely on one insecticide (imidacloprid) and a resistance-boosting chemical (Actigard<sup>®</sup>) for thrips and spotted wilt management. Although these chemicals have been useful in reducing TSWV incidence in tobacco, sustainability is a big concern. Thrips have an extraordinary ability to develop resistance against insecticides. In fact, the western flower thrips has already developed resistance to several insecticides. Therefore, it is vital to identify alternatives that are both viable and sustainable.

Besides insecticides, we also evaluated different planting dates and their impact on thrips populations as well as on TSWV incidence. This research is both continuous and ongoing. Last year's trials (that tested at least four insecticides) indicated that spinetoram and cyantraniliprole were both effective in suppressing thrips populations. In general, the TSWV incidence was very low in 2012. As a consequence, the impact of these insecticides on reduction of TSWV incidence was not estimable. This year (2013), the two best performing insecticides (based on thrips suppression) were selected, and their effects are being assessed in conjunction with different planting dates. The trial is currently in progress at the Bowen Farm, University of Georgia, Tifton Campus. But some preliminary findings are provided below. We will also be conducting these evaluations in the greenhouse after the completion of the field season to monitor the insecticide resistance status of thrips.

Both tobacco thrips (*Frankliniella fusca*) and Western flower thrips (*Frankliniella occidentalis*) are known to transmit TSWV efficiently. However, *F. fusca* incidence on tobacco later in the season is known to have the most impact on TSWV incidence. Preliminary findings indicate that tobacco plants planted early in the season (March 25<sup>th</sup>) had fewer *F. fusca* than on tobacco plants on other planting dates (Fig. 1). Other thrips, which included *F. occidentalis*, *F. tritici*, *F. bispinosa* and immatures were also all found in lower numbers on tobacco plants planted early in the season than on tobacco plants planted later (Fig. 2). Also, early season planting resulted in reduced TSWV incidence than mid and late season tobacco plantings (Fig. 3).

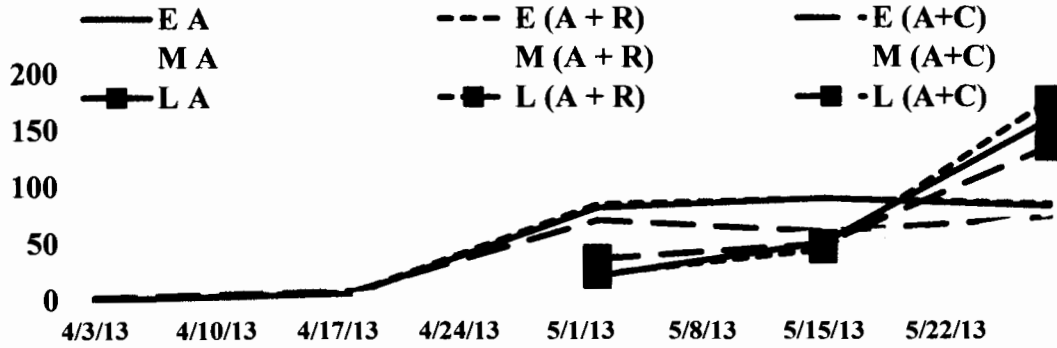


Fig. 1. Effects of various planting dates and insecticides on tobacco thrips populations. E- indicates early planting; M and L indicate mid and late planting, respectively. A-indicates Actigard, and R and C indicate Radiant and Cyazypyr, respectively.

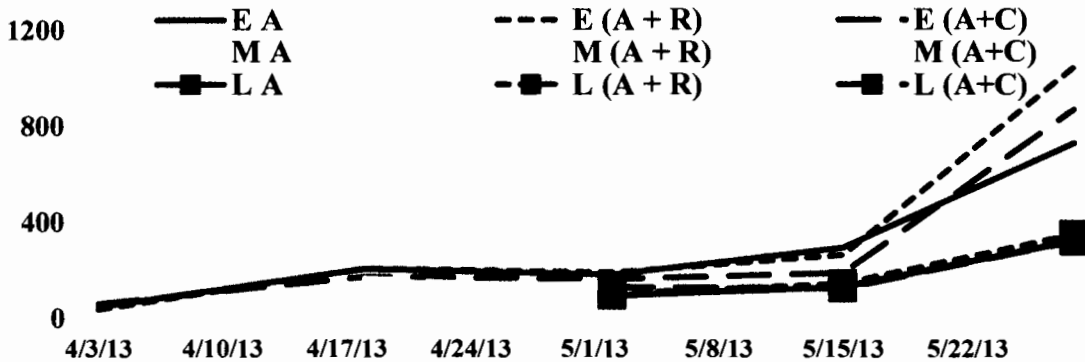


Fig. 2. Effects of various planting dates and insecticides on other thrips populations. E- indicates early planting; M and L indicate mid and late planting, respectively. A-indicates Actigard, and R and C indicate Radiant and Cyazypyr, respectively.

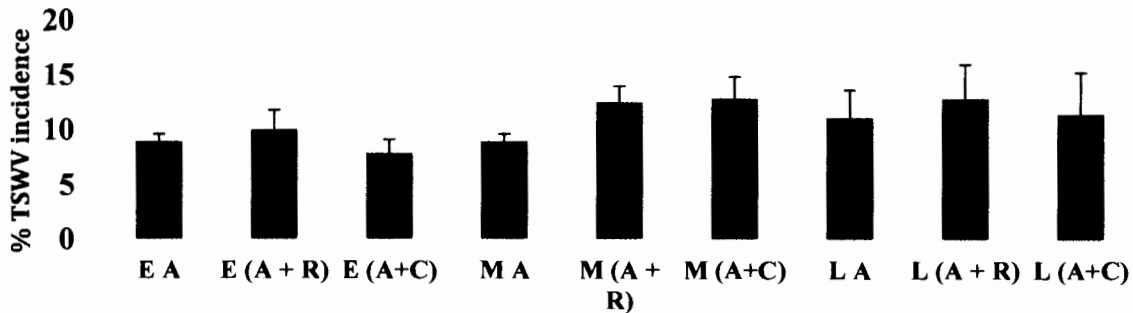


Fig. 3. Effects of various planting dates and insecticides on TSWV incidence. E- indicates early planting; M and L indicate mid and late planting, respectively. A-indicates Actigard, and R and C indicate Radiant and Cyazypyr, respectively.

**Table 1. Variety, Pedigree, Sponsor and Disease Resistance of the 2013 Released Variety Test (commercially available varieties), Brian Lanier Farm, Berrien County, Georgia. 31°09'04.90 N, 83°08'10.97 W**

Trt No	VARIETY	PEDIGREE	SPONSOR	Disease Resistance					
				BS	GW	FW	RK	BSp	Virus
1.	GL 338	F1 Hybrid	Gold Leaf Seed Co	R	R				
2.	GL 395	F1 Hybrid	Gold Leaf Seed Co	R	R		R		
3.	NC 196	F1 Hybrid	Gold Leaf Seed Co	R	L		R		
4.	GF 318	F1 Hybrid	Raynor	R	R		R		TMV
5.	CC 13	F1 Hybrid	Cross Creek Seed	R	R		MjR		
6.	CC 35	F1 Hybrid	Cross Creek Seed	H	L		R		
7.	CC 33	F1 Hybrid	Cross Creek Seed	M	L		R		
8.	CC 700	F1 Hybrid	Cross Creek Seed	R	R		TCN /R		
9.	NC 92	F1 Hybrid	F.W. Rickard	R	R		TCN /R		
10.	NC 71	F1 Hybrid	F.W. Rickard	H	R		R		
11.	PVH 2275	F1 Hybrid	F.W. Rickard	H	L		R		TMV PVY
12.	NC 925	F1 Hybrid	F.W. Rickard	R	R		MjA		

<sup>1</sup>Resistance: H - High; M - Moderate; L - Low; R- Resistant; T - Tolerant; SU – Susceptible Diseases: BS - Black shank; GW - Granville Wilt; FW - Fusarium Wilt; RK - Root Knot; R1&3-*Meloidogyne Incognita* Race1 & Race3; Bn. Sp. - Brown spot; TMV - Tobacco Mosaic Virus; PVY - Potato Virus 'Y'; TSWV – Tomato Spotted Wilt Virus; TCN - Tobacco Cyst Nematode; TEV - Tobacco Etch Virus;  
 Sponsor: AOI-Alliance One; Clemson-Clemson University; CC-Cross Creek Seed Co; GL-Gold Leaf Seed Company; Gwynn Farms; NCSU-NC State University; RJR- RJ Reynolds Tobacco Company; Rickard-F.W. Rickard Seed Co; SPT-Speight Seed Farms; ULT-Universal Leaf Tobacco Co

Seeded: 1/22/13

**Table 1. Variety, Pedigree, Sponsor and Disease Resistance of the 2013 Released Variety Test (commercially available varieties), Roosevelt & Travis Dicks Farm, Columbia County, Florida. N 31o 30' 4.4" W 83o 31' 11.1"**

Trt No	VARIETY	PEDIGREE	SPONSOR	Disease Resistance					
				BS	GW	FW	RK	BSp	Virus
1.	GL 338	F1 Hybrid	Gold Leaf Seed Co	R	R				
2.	GL 395	F1 Hybrid	Gold Leaf Seed Co	R	R		R		
3.	NC 196	F1 Hybrid	Gold Leaf Seed Co	R	L		R		
4.	GF 318	F1 Hybrid	Raynor	R	R		R		TMV
5.	CC 13	F1 Hybrid	Cross Creek Seed	R	R		MjR		
6.	CC 35	F1 Hybrid	Cross Creek Seed	H	L		R		
7.	CC 33	F1 Hybrid	Cross Creek Seed	M	L		R		
8.	CC 700	F1 Hybrid	Cross Creek Seed	R	R		TCN /R		
9.	NC 92	F1 Hybrid	F.W. Rickard	R	R		TCN /R		
10.	NC 71	F1 Hybrid	F.W. Rickard	H	R		R		
11.	PVH 2275	F1 Hybrid	F.W. Rickard	H	L		R		TMV PVY
12.	NC 925	F1 Hybrid	F.W. Rickard	R	R		MjA		

<sup>1</sup>Resistance: H - High; M - Moderate; L - Low; R- Resistant; T - Tolerant; SU – Susceptible Diseases:  
 BS - Black shank; GW - Granville Wilt; FW - Fusarium Wilt; RK - Root Knot; R1&3-*Meloidogyne Incognita* Race1 & Race3; Bn. Sp. - Brown spot; TMV - Tobacco Mosaic Virus; PVY - Potato Virus 'Y';  
 TSWV – Tomato Spotted Wilt Virus; TCN - Tobacco Cyst Nematode; TEV - Tobacco Etch Virus;  
 Sponsor: AOI-Alliance One; Clemson-Clemson University; CC-Cross Creek Seed Co; GL-Gold Leaf Seed Company; Gwynn Farms; NCSU-NC State University; RJR- RJ Reynolds Tobacco Company; Rickard-F.W. Rickard Seed Co; SPT-Speight Seed Farms; ULT-Universal Leaf Tobacco Co

Seeded: 1/22/13

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1. Observe all directions, restrictions and precautions on pesticide labels. It is dangerous, wasteful and illegal to do otherwise.
2. Store all pesticides in original containers with labels intact and behind locked doors. **"KEEP PESTICIDES OUT OF THE REACH OF CHILDREN."**
3. Use pesticides at correct label dosage and intervals to avoid illegal residues or injury to plants and animals.
4. Apply pesticides carefully to avoid drift or contamination of non-target areas.
5. Surplus pesticides and containers should be disposed of in accordance with label instructions so that contamination of water and other hazards will not result.
6. Follow directions on the pesticide label regarding restrictions as required by State or Federal Laws and Regulations.
7. Avoid any action that may threaten an Endangered Species or its habitat. Your county Extension agent can inform you of Endangered Species in your area, help you identify them, and through the Fish and Wildlife Service Field Office identify actions that may threaten Endangered Species or their habitat.

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