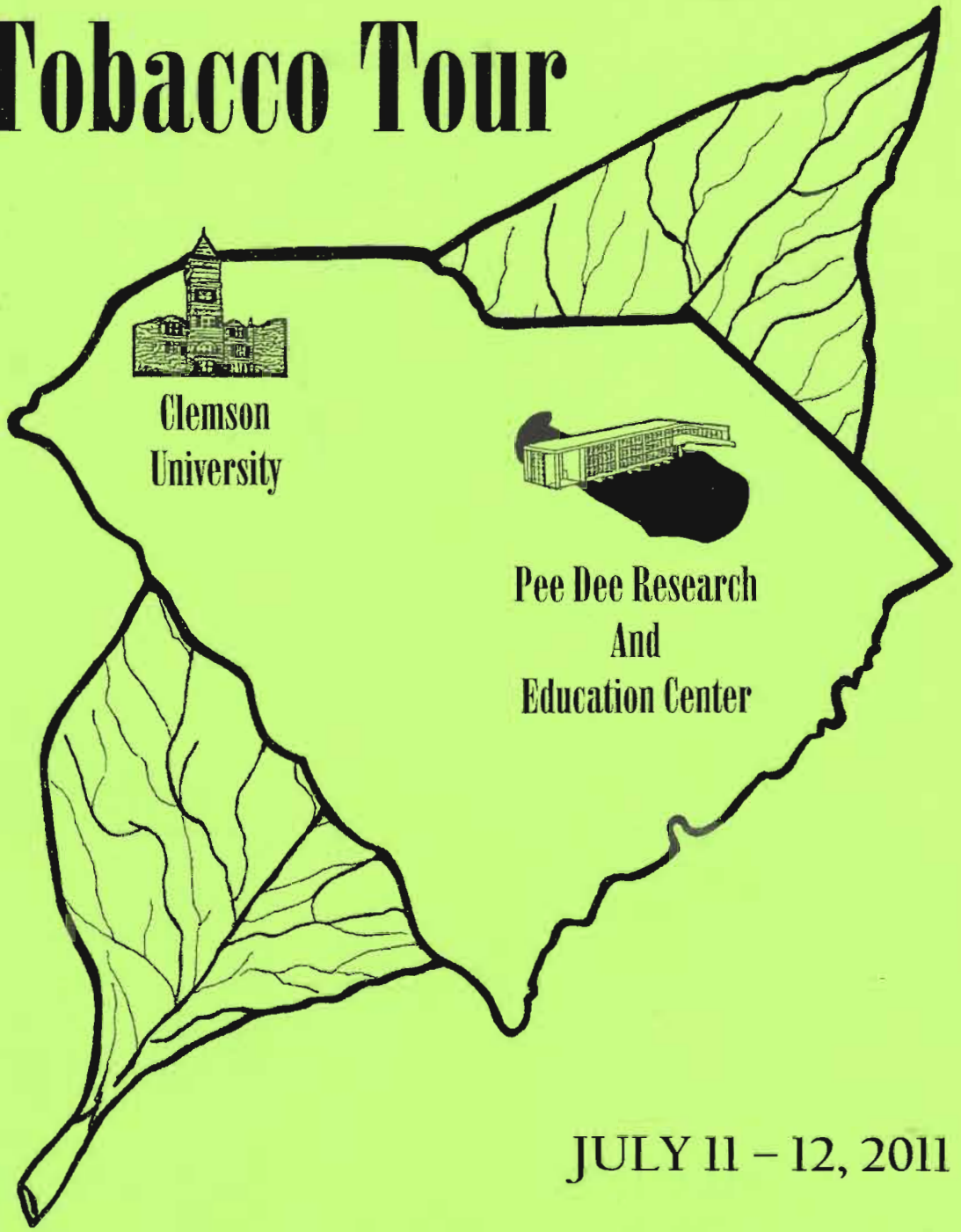
CLEMSON
UNIVERSITY

Clemson University Tobacco Tour



JULY 11 – 12, 2011

CLEMSON UNIVERSITY TOBACCO TOUR
JULY 11-12, 2011

JULY 11

	6:00 PM	Registration	PDREC (Meet in Main Building—Rm 279-282)
	6:30 PM	Social Time	PDREC (Rooms 279 & 282 in Main Building)
	7:00 PM	Dinner	PDREC –Caines BBQ

JULY 12

(1)	8:00 AM	Registration	PDREC (Meet at Tobacco Facility in Back)
	8:30 AM	Welcome	Dr. Bruce Fortnum, PDRC Director
	8:40AM	Agronomy (and Solar Barn)	Dr. Dewitt Gooden
	9:40AM	Entomology	Dr. Francis Reay- Jones; Dr Albert Johnson
	10:10 AM	Diseases	Dr. Bruce Fortnum, Dr. Paul Peterson
	12:15PM	Lunch	Backyard Restaurant-Sumter
(2)	1:00PM	Black Shank Nursery	Lee Newman Farm—Sumter County Randy Cubbage—County Agent
(3)	2:30PM	Curing Efficiency Studies	Baxley Farms—Marion County Bob Bett --County Agent
	3:00 PM	End of Tour	

DIRECTIONS TO TEST LOCATIONS

(1) Pee Dee Research and Education Center- From I-95 South take exit 169 and turn right. Go to end of road and turn left. PDREC about 1 mile on right.

(2) Lunch and Lee Newman Farm—After leaving PDREC, turn right to I-95 South for 29 miles to exit 135. Turn right to US 378 and go 12 miles to SC 763 and turn left. After a short distance turn left to Mims Road. After crossing railroad tracks turn left, Backyard Restaurant is a short distance on the right. After lunch continue on Britton's Road for about ¼ mile to Black Shank Nursery.

(3) Baxley Farms—Retrace route back to US 378 and I-95 North. Continue on I-95 for 46 miles to exit 181. Turn right towards Marion. Follow SC 38 to US 501 Bypass (approximately 10 miles from I 95) to CR 19 and turn left (at antique store) onto Bluff Road. Go about 2.5 miles and turn right on Thomas road. Go 1.25 miles and turn right on Troy Atkinson Road. Go .33 miles and turn right into Baxley Farms.

We would like to thank the following sponsors for their continued support of our tobacco educational programs in South Carolina:

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SYNGENTA

2011 PEE DEE REC TOBACCO AGRONOMIC DATA

Soil Type: Norfolk loamy sand

Previous Crop: Corn

Fumigation: C-17 (10.5 gal/a in row)

Preplant : 4/11/11 8 oz Spartan, 1qt Command, 2qt Lorsban, 6 oz Ridomil (TPW).

Materials sprayed on knocked down bed and incorporated.

Tobacco Transplanted: 4/13/11 (general crop-NC 196).

Fertility: 750 lbs 6-6-18 at planting.

178 lbs of 15.5 (Cal-nitrate) ---73 lbs nitrogen total

5 lbs of 5-45-15 (starter fertilizer) in TPW.

Insect Sprays: Coragen 6 oz in TPW

Tracer- 6/6/11

Orthene- 6/15/11

Coragen- 6/24/11

Lay-by Cultivation: 5/25/11

Sucker Control: Contacts 6/13/11, 6/17/11, 6/23/11

4th application to Regional Growth Regulator and Chemtura-6/30/11.

5th application to RGR: Tr# 4, 5, 6, 7, 13, 14 , 15 -7/8/11.

7/11/11- reapplied # 13, 14, and 15 due to wash-off.

6/29/11 --Royal MH and Flupro to general crop.

Rainfall since transplanting: 4/13/11 1.53" (.77" on 4/10/11)

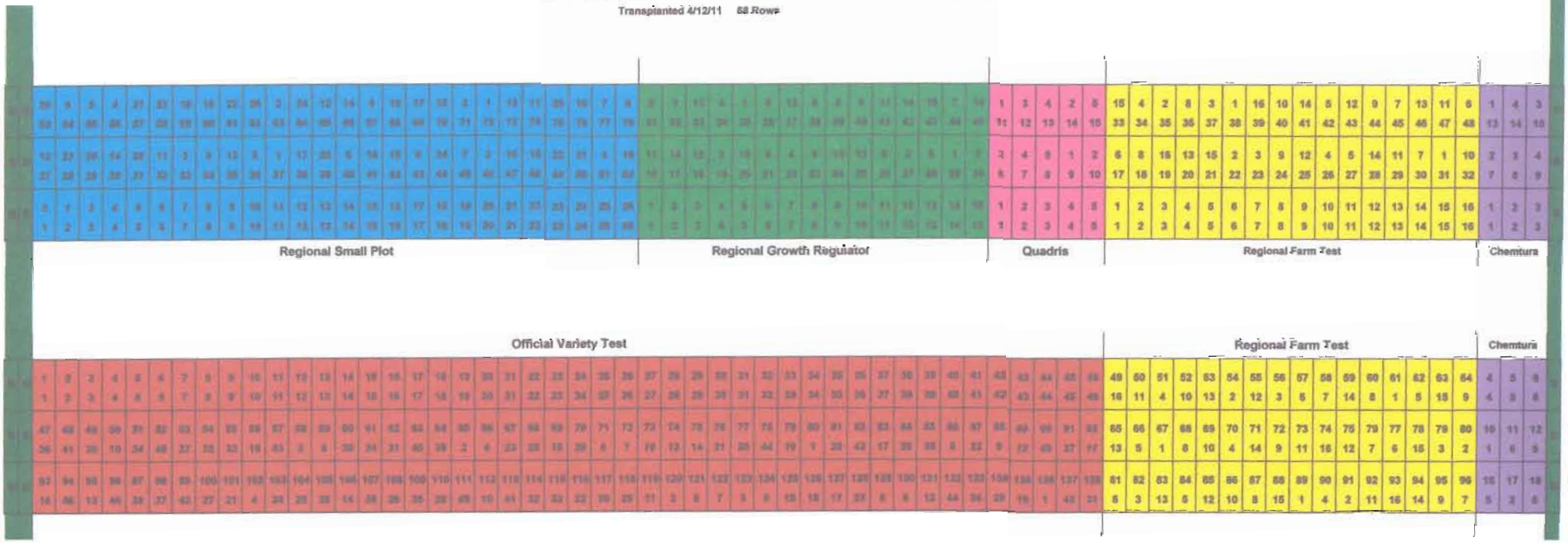
May 3.1" June 1.1" July .5"

Irrigation: 1.5" on 6/7/11 1.5" on 6/20/11

Harvest Dates: July 7

2011 TOBACCO AGRONOMY - PEE DEE RESEARCH & EDUCATION CENTER

Transplanted 4/12/11 68 Rows



2011 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	GL 395	2010	Hybrid	R	R		R			GL
2	Speight 225	2003	(Sp 168 X K 346)(SPA 95 X SP 168)	R	R		R			SPT
3	CC 33	2008	Hybrid	R	R		M.j/R			CC
4	NC 297	1998	Hybrid	R	R		R		TMV	GL
5	NC 92	2007	Hybrid	R	R		TCN/R			NC
6	NC 55	1994	(K 346 X DH 1220)X(K326 X Coker 371-Gold)	L	L		R		PVY/TEV	GL
7	RGH 51	1998	Hybrid	R	R		R			Rickard
8	Speight 227	2003	(SP 151 X K 346)(SP 202 X K 346)	R	R		R			SPT
9	CU 110	2010	Hybrid							SC
10	PVH 1452	2006	Hybrid	R	R		TCN/R			Profigen
11	NC 925	2010	Hybrid	R			R			NC
12	GL 368	2009	Hybrid	R	R					GL
13	CC 67	2008	Hybrid	R	R		TCN/R		TMV	CC
14	PVH 2277	2009	Hybrid	R	R					Profigen
15	CU 90	2009	Hybrid	R	R					SC
16	RG 17	1993	K 326 X K 399	L	M		R			Rickard
17	CC 65	2007	Hybrid	R	R		M.j/R			CC
18	Speight 168	1996	Coker 371G X Spl. G 118	H	H		R			SPT
19	K 346	1988	McNair 926 X 80241	H	H		R			GL
20	NC 71	1995	Hybrid	H	M		R			Rickard
21	NC 72	1996	Hybrid	H	L		R			Rickard
22	NC 606	1998	NC 729 X NC 82	R	R		R			Raynor
23	Speight 220	2002	(K-346 X Sp 117)(SP 116 X K 346)	R	R		R			SPT
24	K 326	1981	McNair 225 (McNair 30 X NC 95)	L	L		R			GL,CC,RA
25	NC 196	2002	Hybrid	R	L		R			GL
26	CC 27	2003	Hybrid	R	R		TCN/R		TMV	CC
27	GL 338	2009	Hybrid	R	R					GL
28	CC 700	2005	Hybrid	R	R		TCN/R			CC
29	PVH 1118	2004	Hybrid	R	R		TCN/R			Rickard
30	CC 13	2005	Hybrid	R	R		M.j/R			CC
31	GL 939	1992	McN 926 X 80241	R	R		R			GL
32	K 149	1988	([G-28X354]X[CB-139XF-105]X[G-28X354]) McNair 399	M	H		R			GL
33	CC 304	2010	Hybrid	R	R		R		TMV	CC
34	CC 37	2006	Hybrid	R	R		TCN/R	M.j/R	TMV	CC
35	K 399	1979	(C-139 X C-139) X NC 95							GL
36	PVH 2248	2010	Hybrid		R		R1			Profigen
37	GF 318	2008	Hybrid	R	R		R			GF
38	PVH 2275	2010	Hybrid		R		R1		PVY/TEV	Profigen
39	NC 299	2001	Hybrid	R	R		TCN/R			CC
40	NC 291	1997	Hybrid	R	R		TCN/R		PVY/TEV	CC
41	PVH 1596	2008	Hybrid	R	R		R			Profigen
42	NC 102	2001	Hybrid	R	R				TMV/PVY	Rickard
43	Speight 236	2005	(SP 168 X SP 196)(SP 179 X SP 177)	R	R		R			SPT
44	K 394	1983	Speight G-28 X McNair 944	H	M					GL
45	PVH 2110	2005	Hybrid							Profigen
46	NC 471	2003	Hybrid	R	R				TMV	Raynor

[1]Resistance; H - High; M - Moderate; L - Low; R - Resistance; T - Tolerant; Su - Susceptable
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 - Tobacoo Cyst Nematode; TEV - Tobacco Etch Virus; M.j. - Meloidogyne javanica

2011 NORTH CAROLINA FLUE-CURED REGIONAL SMALL PLOT 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-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	CC 143	F1	Hybrid	R	R		R			CC
5	CU 144	F1	Hybrid							SC
6	PXH 11	F1	Hybrid	R	R	R	R		TMV PVY	Rickard
7	CU 164	F1	Hybrid							SC
8	NCEX38	F1	Hybrid	R	R		R		TMV	NC
9	CU 124	F1	Hybrid							SC
10	GLEX 336	F1	Hybrid	R	R		R			GL
11	PXH 10	F1	Hybrid	R			R1&2		TMV PVY	Rickard
12	NCEX31	Advanced		R	R		R			NC
13	PXH 8	F1	Hybrid	R	R		R			Rickard
14	GLEX 367	F1	Hybrid	R	R		R			GL
15	NCEX39	F1	Hybrid	R	R		TCN/R			NC
16	NCEX43	F1	Hybrid	R	R		TCN/R			NC
17	CC 223	F1	Hybrid	R	R		R			CC
18	CC 142	F1	Hybrid	R	R		R			CC
19	CU140	F1	Hybrid							SC
20	NCEX41	F1	Hybrid	R	R		TCN/R		TMV	NC
21	GLEX 335	F1	Hybrid	R	R		R			GL
22	PXH 9	F1	Hybrid	R	R		R			Rickard
23	CU 141	F1	Hybrid							SC
24	GLEX 325	F1	Hybrid	R	R		R			GL
25	ULT 113 Exp.	F1	Hybrid						TMV PVY	ULT
26	NCEX42	F1	Hybrid	R	R		R		TMV	NC

[1]Resistance; H - High; M - Moderate; L - Low; R - Resistance; T - Tolerant; Su - Susceptable
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 - Tobacoo Cyst Nematode; TEV - Tobacco Etch Virus; M.i. - Meloidogyne javanica

2011 NORTH CAROLINA 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	XP 254	F1	Hybrid	R	R				TMV	Rickard
5	CC 1036	F1	Hybrid	R	R		R			CC
6	GLEX 328	F1	Hybrid	R	R		R		TMV	GL
7	CU 1361	F1	Hybrid							SC
8	GLEX 362	F1	Hybrid	R	R	R	R		PVY	GL
9	NCEX34	F1	Hybrid	R	R		TCN/R			NC
10	ULT 123	F1	Hybrid						TMV	ULT
11	PXH 1	F1	Hybrid	R	R					Rickard
12	RJR 901	F1	Hybrid	R	R		R			RJR
13	NCTG 156	F1	Hybrid	R	R		TCN/R1&3			NC
14	GF 157	F1	NC 81 X 2012	R	R		R			GF
15	NCEX24	F1	Hybrid	R	R		TCN/R			NC
16	ULT 143	F1	Hybrid	R	R				PVY	ULT

[1]Resistance; H - High; M - Moderate; L - Low; R - Resistance; T - Tolerant; Su - Susceptable
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 - Tobacoo Cyst Nematode; TEV - Tobacco Etch Virus; M.j. - Meloidogyne javanica

2011 Regional Sucker Control Test

1. TNS - Untreated Check

2. SUCKER PLUCKER 2.0 /2.5 GPA
   (SUPER SUCKER STUFF & PRIME+) TM (1.5 GPA & 0.5 GPA)
   STANDARD CHECK TREATMENT (TG3; TG5; TG3) 50 GPA

3. SUCKER PLUCKER 2.0 /2.5 GPA
   (SUPER SUCKER STUFF & PRIME+) TM (1.5 GPA & 0.5 GPA)
   CHECK TREATMENT FOR #2 (WITH CONVEYOR) 50GPA

4. **SUCKER PLUCKER 2.0/2.5/2.5 GPA (TG3; TG5; TG3) 50 GPA**
   (APPLY ADDITIONAL APPLICATIONS IF NEEDED)

5. **SUCKER PLUCKER 2.0/2.5/2.5 GPA (WITH CONVEYOR) 50 GPA**
   (APPLY ADDITIONAL APPLICATIONS IF NEEDED)

6. **SUCKER PLUCKER 2.0/2.5/2.5 GPA (TG3; TG5; TG3) 35 GPA**
   (APPLY ADDITIONAL APPLICATIONS IF NEEDED)

7. **SUCKER PLUCKER 2.0/2.5/2.5 GPA (WITH CONVEYOR) 35 GPA**
   (APPLY ADDITIONAL APPLICATIONS IF NEEDED)

8. **SUCKER PLUCKER 2.0/2.5/2.5 GPA (TG3; TG5; TG3)**
   PRIME+ 0.5 GPA (2011 FORMULATION (TG3; TG5; TG3) 50 GPA

9. **SUCKER PLUCKER 2.0/2.5/2.5 GPA (WITH CONVEYOR)**
   PRIME+ 0.5 GPA (2011 FORMULATION (WITH CONVEYOR) 50 GPA

10. **SUCKER PLUCKER 2.0/2.5/2.5 GPA (TG3; TG5; TG3)**
    SUPER SUCKER STUFF 1.5 GPA (TG3; TG5; TG3) 50 GPA

11. **SUCKER PLUCKER 2.0/2.5/2.5 GPA (WITH CONVEYOR)**
    SUPER SUCKER STUFF 1.5 GPA (WITH CONVEYOR) 50 GPA

12. SUCKER PLUCKER 2.0 /2.5 GPA
    PRIME+ 0.5 GPA (OLD FORMULATION WITH (TG3; TG5; TG3) 50 GPA

13. SUCKER PLUCKER 2.0/2.5 GPA
    PRIME+ / SUPER SUCKER STUFF 0.5 GPA/1.5 GPA sequential (TG3; TG5; TG3) 50 GPA
    MH APPLIED WITH CONVEYOR AFTER FIRST HARVEST

14. SUCKER PLUCKER 2.0/2.5 GPA
    PRIME+ / SUPER SUCKER STUFF 0.5 GPA/1.0 GPA sequential (TG3; TG5; TG3) 50 GPA
    MH APPLIED WITH CONVEYOR AFTER FIRST HARVEST

15. SUCKER PLUCKER 2.0/2.5 GPA
    PRIME+ / SUPER SUCKER STUFF 0.5 GPA/0.5 GPA sequential (TG3; TG5; TG3) 50 GPA
    MH APPLIED WITH CONVEYOR AFTER FIRST HARVEST

2011 CHEMTURA Tobacco Growth Regulator Test: One row plots, 3 replications -PDREC

	Formulated chemical (ml/1000 ml) (applications)				Spray method (applications)			
TREATMENTS	1st	2nd	3rd	4th	1st	2nd	3rd	4th
1. OST/OST/FP + Conveyer 2.0 GPA/2.5 GPA/.5 GPA	40	50	50	10		5DAYS	6 DAYS	7 DAYS
2. OST 85/OST 85/RMH+FP 2.0 GPA/2.5 GPA/(1.5 GPA+..5 GPA)	40	50	50	30+ 10		5 DAYS	6 DAYS	7 DAYS
3. OST 85/OST 85/RMH+FP + Conveyor 2.0 GPA/2.5 GPA/(1.5 GPA +.5 GPA)	40	50	50	30+ 10		5 DAYS	6 DAYS	7 DAYS
4. OST 85/OST 85/RMH + FP 2.0 GPA/2.5 GPA/(1.0 GPA + .5 GPA)	40	50	50	20+ 10		5 DAYS	6 DAYS	7 DAYS
5. OST 85/OST 85/RMH + FP + Conveyor 2.0 GPA/2.5 GPA/(1.0 GPA + .5 GPA)	40	50	50	20+ 10		5 DAYS	6 DAYS	7 DAYS
6. Sucker Plucker/Sucker Plucker/Drexalin Plus 2.0 GPA/2.5 GPA/ .5 GPA	40	50	50	10		5 DAYS	6 DAYS	7 DAYS
7. TOPPED AND NOT SUCKERED								

GPA = 50 gallons per acre; Equivalents based on 6000 plants per acre.

RMH 30 = 1.5 lb ai/gal; OST-85 = 6.01 lb ai/gal; Flupro = 1.2 lb ai/gal

Sucker Plucker = 6.01 lb ai/gal; Drexalin Plus= 1.2 lb ai/gal

1st contact 6/13/11

2nd contact 6/17/11

3rd contact 6/23/11

4th MH, FP and Drexalin: 6/30/11

QUADRIS FUNGICIDE –HARVEST MANAGEMENT

1. Treatment rate- 8 ozs/acre.
2. Timing: Apply Quadris 1 week before normal harvest (applied 6/30/11 in 50 gal solution with drop nozzles)

   Harvest 10 days after normal harvest (treat 1).

   Harvest 20 days after normal harvest (treat 2).

3. Apply Quadris 1 week before normal harvest and again 14 days later.

   Harvest 10 days after normal harvest (treat 3).

   Harvest 20 days after normal harvest (treat 4).

Check treatment- harvest at normal time (treat 5).

A total of 5 treatments!

Evaluation of New Insecticides for Tobacco Hornworm, Tobacco Budworm, and Tobacco Splitworm Control on Tobacco

Francis Reay-Jones

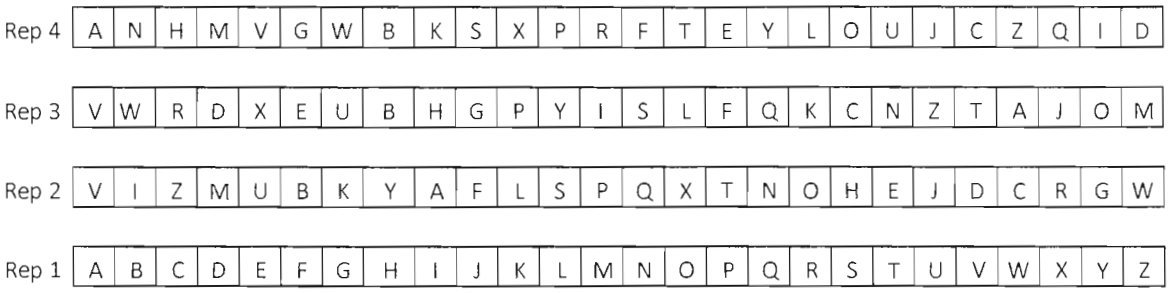
Greenhouse tray drench, transplant water

Coragen (DuPont):	Chemical class: Anthranilic diamide Active ingredient: Rynaxypyr
New DuPont insecticide: (Verimark, Exirel, Benevia):	Chemical class: Anthranilic diamide Active ingredient: Cyazypyr

Foliar applications

Belt (Bayer):	Chemical class: Phthalic Acid Diamide Active ingredient: Flubendiamide
Coragen (DuPont):	Chemical class: Anthranilic diamide Active ingredient: Rynaxypyr
New DuPont insecticide (Verimark, Exirel, Benevia):	Chemical class: Anthranilic diamide Active ingredient: Cyazypyr
Tracer (DowAgroSciences):	Chemical class: Naturalyte Active ingredient: Spinosad (44.2%)
Blackhawk (DowAgroSciences)	Chemical class: Naturalyte Active ingredient: Spinosad (36%)
Besiege (Syngenta):	Chemical class: Anthranilic diamide + pyrethroid Active ingredients: Rynaxypyr + lambda-cyhalothrin
Denim (Syngenta):	Chemical class: Avermectin Active ingredient: Emamectin benzoate
Javelin (Certis USA)	Chemical class: Bacterium Active ingredient: Bt

Map of tobacco insecticide trial, Pee Dee REC, 2011



		AI/product	Rate	Unit	Method
1	A	Cyazypyr	5.1	oz/ac	TRANSPLANT
2	B	Cyazypyr	6.8	oz/ac	TRANSPLANT
3	C	Cyazypyr	10	oz/ac	TRANSPLANT
4	D	Coragen	7	oz/ac	TRANSPLANT
5	E	Cyazypyr	0.7	oz/1000	GREENHOUSE
6	F	Cyazypyr	1	oz/1000	GREENHOUSE
7	G	Cyazypyr	1.5	oz/1000	GREENHOUSE
8	H	Tracer	2	oz/1000	FOLIAR
10	J	Untreated	-	-	-
11	K	Coragen	3.5	oz/ac	FOLIAR
12	L	Coragen	5	oz/ac	FOLIAR
13	M	Belt	2	oz/ac	FOLIAR
14	N	Belt	3	oz/ac	FOLIAR
15	O	Coragen	5	oz/ac	TRANSPLANT
17	Q	Coragen	5	oz/ac	LAYBY
18	R	Coragen	7	oz/ac	LAYBY
19	S	Coragen	7	oz/ac	FOLIAR
20	T	Besiege	7	oz/ac	FOLIAR
21	U	Besiege	9	oz/ac	FOLIAR
22	V	Denim	10	oz/ac	FOLIAR
23	X	Blackhawk	2.5	oz/ac	FOLIAR
24	Y	Blackhawk	3.3	oz/ac	FOLIAR
25	Z	Javelin	1	lb/ac	FOLIAR

TEST: Biological Control of Bacterial wilt

LOCATION: Pee Dee REC

SPECIALIST INVOLVED: Bruce Fortnum, Director, Professor, Pee Dee REC
Paul Peterson, Research Associate Professor
Lanier Johnson, Extension and Research Associate
Mark Pullen, Research Associate

VARIETY: K 346

CHEMICALS APPLIED: Telone C-17 was applied 10.5-gal/A in-row.

PURPOSE: Evaluate the effectiveness of the AVRa gene for suppression of bacterial wilt during flower removal.

TREATMENTS:

1. SC 10	10^6
2. SC06	10^6
3. Y3	10^6
4. SC10 + SC 11	$10^6 + 10^8$
5. SC10 + SC12	$10^6 + 10^8$
6. SC 10 + AW1	$10^6 + 10^8$
7. SC10 + SC14	$10^6 + 10^8$
8. SC06 + SC 11	$10^6 + 10^8$
9. SC06 + SC12	$10^6 + 10^8$
10. SC 06 + AW1	$10^6 + 10^8$
11. SC06 + SC14	$10^6 + 10^8$
12. Y3 + SC 11	$10^6 + 10^8$
13. Y3+ SC12	$10^6 + 10^8$
14. Y3 + AW1	$10^6 + 10^8$
15. Y3 + SC14	$10^6 + 10^8$
16. SC11	10^6
17. SC12	10^6
18. AW1	10^6
19. SC14	10^6
20. Hand topped	

TEST: Maleic hydrazide application at topping for bacterial wilt control

LOCATION: Pee Dee REC, Trial 1, 2

SPECIALIST INVOLVED: Bruce Fortnum, Director, Professor, Pee Dee REC
Paul Peterson, Research Associate Professor
Lanier Johnson, Extension and Research Associate
Mark Pullen, Research Associate

VARIETY: K 346

CHEMICALS APPLIED: Telone C-17 was applied 10.5-gal/A in-row.

PURPOSE: Evaluate the effectiveness of MH, applied at reduced rates, on the suppression of bacterial wilt during flower removal

Treatment list:

1. UT
2. 4 days pretrt MH 1.5 gal/A
3. 4 days pretrt MH 1.0 gal/A
4. 4 day pretrt MH 0.5 gal/A
5. Prime + 2 qt A

Inoculated with *R. solanacearum* 4 days after treatment

Rep 4	Trt	3	1	5	2	4
	Plot	16	17	18	19	20
Rep 3	Trt	5	4	2	3	1
	Plot	11	12	13	14	15
Rep 2	Trt	4	5	1	2	3
	Plot	6	7	8	9	10
Rep 1	Trt	1	2	3	4	5
	Plot	1	2	3	4	5

TEST: Maleic hydrazide application at harvest for bacterial wilt control

LOCATION: Pee Dee REC, Trial 1, 2

SPECIALIST INVOLVED: Bruce Fortnum, Director, Professor, Pee Dee REC
Paul Peterson, Research Associate Professor
Lanier Johnson, Extension and Research Associate
Mark Pullen, Research Associate

VARIETY: K 346

CHEMICALS APPLIED: Telone C-17 was applied 10.5-gal/A in-row.

PURPOSE: Evaluate the effectiveness of MH, applied at reduced rates, on the suppression of bacterial wilt during leaf removal

Treatment list:

1. UT
2. 4 days pretrt MH 1.5 gal/A stem application
3. 4 days pretrt MH 1.0 gal/A stem application
4. 4 day pretrt MH 0.5 gal/A stem application
5. 4 days pretrt MH 1.5 gal/A Foliar application
6. 4 days pretrt MH 1.0 gal/A Foliar application
7. 4 day pretrt MH 0.5 gal/ Foliar application
8. Prime + 2 qt A

Inoculated with *R. solanacearum* 4 days after treatment

Rep 4	Trt	3	7	1	8	5	2	4	6
	Plot	25	26	27	28	29	30	31	32
Rep 3	Trt	5	8	4	7	2	6	3	1
	Plot	17	18	19	20	21	22	23	24
Rep 2	Trt	4	8	5	6	1	7	2	3
	Plot	9	10	11	12	13	14	15	16
Rep 1	Trt	1	2	3	4	5	6	7	8
	Plot	1	2	3	4	5	6	7	8

TEST: Biological Control of Bacterial wilt using Phage

LOCATION: Pee Dee REC

SPECIALIST INVOLVED: Bruce Fortnum, Director, Professor, Pee Dee REC
Paul Peterson, Research Associate Professor
Lanier Johnson, Extension and Research Associate
Mark Pullen, Research Associate

VARIETY: K 346

CHEMICALS APPLIED: Telone C-17 was applied 10.5-gal/A in-row.

PURPOSE: Evaluate the effectiveness of phage for suppression of bacterial wilt during flower removal.

TREATMENTS:

1. Y3 10^6
2. SCP 3A 10^6
3. SCP 6A 10^6
4. SCP 8A 10^6
5. SCP 9A 10^6
6. SCP DILY 10^6
7. SCP 10A 10^6
8. SCP PDP 10^6
9. Y3 + SCP 3A $10^6 + 10^6$
10. Y3 + SCP 6A $10^6 + 10^6$
11. Y3 + . SCP 8A $10^6 + 10^6$
12. Y3 + . SCP 9A $10^6 + 10^6$
13. Y3+ . SCP DILY $10^6 + 10^6$
14. Y3 + . SCP 10A $10^6 + 10^6$
15. Y3 + . SCP PDP $10^6 + 10^6$
16. Y3 2×10^6
17. UTC
18. Hand topped

Phage Trial 2011

18	11	6	2	3	7	15	1			
12	13	8	17	9	14	10	5	4	16	
55	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**	**ROW NUMBER**
5	17	13	8	3	18	11	10			
6	1	15	9	4	16	12	7	14	2	
37	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**ROW NUMBER**
5	10	16	2	7	13	9	4			
11	15	6	14	3	12	18	1	8	17	
19	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**ROW NUMBER**
11	12	13	14	15	16	17	18			
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**ROW NUMBER**

2011 Bacterial Wilt									
	K 346	K 149	CU 141	NC2326	CC 143	CC 33	PVH2275	GLEX328	CC 13
	CC 304	NC 606	GLEX335	GL 338	NC 471	GLEX325	GLEX367	K 326	GL 939
	PVH1118	ULT 123	NC 71	ULT 113	SPT 225	ULT 143	GF 318	CU 124	PXH9
	PXH8	SPT 220	PVH1596	NCEX42	PVH2277	NC 102	NC 95	GLEX336	CC 700
	GF 157	PXH1	PVH1452	CC 223	SPT 227	GLEX362	PVH2248	GL 368	PXH10
	CC 142	PXH11	NC 55	CC 27	NCEX24	NC 299	NC 297	SPT 168	NCEX41
	CU 140	CU 90	XP 254	NCEX31	CC 67	NC 92	CU 144	NCTG156	NC 291
	CU 164	NC2326	K 326	RGH51	K 399	NC 72	RJR 901	SPT 236	CU 136
	CU 110	PVH2110	GL 395	K 326	CC 65	NCEX34	K 394	NC 925	NCEX43
	NC 102	NCEX38	NC 95	CC 1063	NC 196	CC 37	RG 17	NCEX39	K 399
	ULT 143	GF 318	PVH2248	NCEX43	SPT 168	NCEX41	CU 140	K 346	GL 395
	GLEX335	NCEX24	NC 471	CC 142	SPT 225	GF 157	PVH2110	CC 223	PVH2277
FRONT	NCTG156	PVH2275	SPT 227	NCEX42	CC 13	ULT 123	NC 95	RGH51	K 394
	CU 141	CU 90	CU 124	NC 95	SPT 236	NCEX34	CC 700	PXH8	CU 110
	ULT 113	NC 72	NC 291	RJR 901	PXH10	PVH1452	CC 37	GLEX336	GL 338
	CC 67	NCEX31	PVH1596	PXH1	GLEX325	NC 55	NC 71	GLEX362	NC2326
	CU 144	CC 65	CC 33	K 326	NC 297	CC 143	CU 136	K 326	NC 925
	NC 92	RG 17	CC 304	NCEX38	NC 196	GL 368	NC 2326	NC 299	GLEX328
	PXH9	PXH11	K 326	PVH1118	XP 254	SPT 220	GLEX367	GL 939	NCEX39
	NC 606	CU 164	CC 1063	K 149	CC 27	ULT 123	NC 471	PVH1452	NCEX42
	NC2326	K 394	NC 196	PXH8	RGH51	ULT 143	PVH2248	GL 395	NC2326
	GLEX325	SPT 225	SPT 236	NCEX24	K 399	NC 606	SPT 220	ULT 113	NC 95
	GL 338	PVH2110	GLEX367	GLEX328	NC 925	K 326	NCEX31	CU 141	GF 318
	CU 140	CC 33	PVH2275	NC 95	NCEX41	NC 297	PXH9	NC 299	CU 136
	CC 1063	CC 304	PXH10	CC 67	CC 143	K 326	NC 291	SPT 227	K 326
	GLEX335	GLEX336	CC 700	XP 254	NC 102	NCEX39	NC 55	CC 37	NC 92
	CC 142	PVH2277	CC 27	PVH1596	GLEX362	CU 144	GL 368	NC 71	GL 939
	NCEX43	NC 72	K 149	GF 157	CC 223	CU 110	CC 13	PXH1	K 346
	CU 164	RJR 901	CU 90	CU 124	NCTG156	PVH1118	SPT 168	NCEX38	PXH11
	CC 65	RG 17	NCEX34						

2011 Black shank			Lee Newman			Sumter County									
GL 338	CU 144	CU 90	CU 141	NCEX38	NCEX43	PXH 9	CC 700	NC 55	NCTG156	NC2326	GLEX367	NCEX43	NC 72	SPT 220	GL 338
CC 13	NC2326	PXH 1	GLEX325	PXH 9	PXH 8	PVH1118	NC 95	NC 297	GF 157	CC 143	PXH 8	NC 102	NC 71	CC 27	NCEX31
GL 939	XP 254	ULT 123	NC 606	CU 141	GLEX367	NC 102	GL395	RGH 51	ULT 143	NC 95	K 394	NC 299	NC 606	PXH 11	NC2326
K 149	NCEX38	CC1063	NC 55	GLEX325	CC 700	PVH2277	GL 395	PXH 8	RJR 901	CC 33	CU 140	K 399	K 346	CU 144	NC 291
NC 92	CU 164	PVH2277	RG 17	SPT 236	NCEX39	NC 291	CU 136	K 346	ULT 143	NC 297	PVH2110	PVH2248	SPT 168	CC 143	NC 95
SPT 225	CU 124	PXH 10	CC 65	NC2326	XP 254	GLEX362	PVH2248	CU 110	GF 157	NC 92	K 394	GLEX362	CC 65	K 326	CC 700
CC 27	NC 299	NC 471	SPT 168	NC 95	CC1063	NCEX34	K 399	SPT 227	CC 13	PXH 11	PVH1596	CU 136	GLEX335	GLEX336	NC 196
CC 37	NC 291	NCEX31	GLEX328	NC 471	GL 338	ULT 123	CC 37	CC 33	GL 939	CU 144	GF 157	GLEX328	CU 90	CU 164	PVH1118
SPT 220	PVH2275	NC 471	RJR901	K 326	ULT 113	SPT 168	GL 368	SPT 225	K 149	K 326	NCTG156	NCEX42	RG 17	NC 95	GF 318
K 326	RGH 51	K 394	NCEX42	GLEX328	CC 142	NCEX31	GLEX336	GL 395	PXH 1	NCEX41	RJR901	ULT 113	PXH 9	CU 124	NC2326
NC 95	CC 67	SPT 227	ULT 113	NC 196	NCEX42	NCEX43	NC 925	ULT 143	CU 124	CU 140	SPT 225	GLEX325	PVH2277	K 149	PXH 10
CC 304	PVH2248	PVH1452	NCTG156	CC 27	NC 606	PVH1596	PVH1452	NCEX24	CU 136	CC 142	GL 395	CU 141	NC 925	GL 939	K 326
CU 110	K 399	NC 925	NCEX41	K 326	CC 223	NC 299	PXH 10	NC 72	CC 304	PXH 1	RGH51	CC 223	CC 1063	PVH2275	
NC 196	SPT 236	GLEX336	CU 140	SPT 220	GLEX367	CC 65	K 326	GL395	CU 164	ULT 143	NCEX24	PVH1452	XP 254	NCEX38	
K 326	PVH1596	CC 142	GLEX335	GLEX335	NC 72	CC 67	GLEX362	PVH2275	NC2326	GL395	ULT 123	SPT 227	GL 368	CC 37	
PXH 11	GF 318	NCEX39	NC 71	NCEX41	K 346	RG 17	NCEX34	GF 318	PVH1118	NC 471	NCEX34	NC 55	CC 67	CC 13	
GL 368	NC 102	CC 223	CC 143	NC 471	NC 71	CU 90	NC 297	NC 92	CC 33	SPT 236	NCEX39	CU 110	K 326	CC 304	
							FRONT								

Stop # 3: Curing Efficiency Demonstrations

Location—Baxley Farms

Marion County--- Agent in Charge—Bob Bett

Things to See!

Automatic Damper Controls: Can save 35% or more on fuel usage!

Adding additional insulation to old barns: Can save up to 30%!

Humidity Control System: To be evaluated: Clark Rast—Marco Equipment Company!