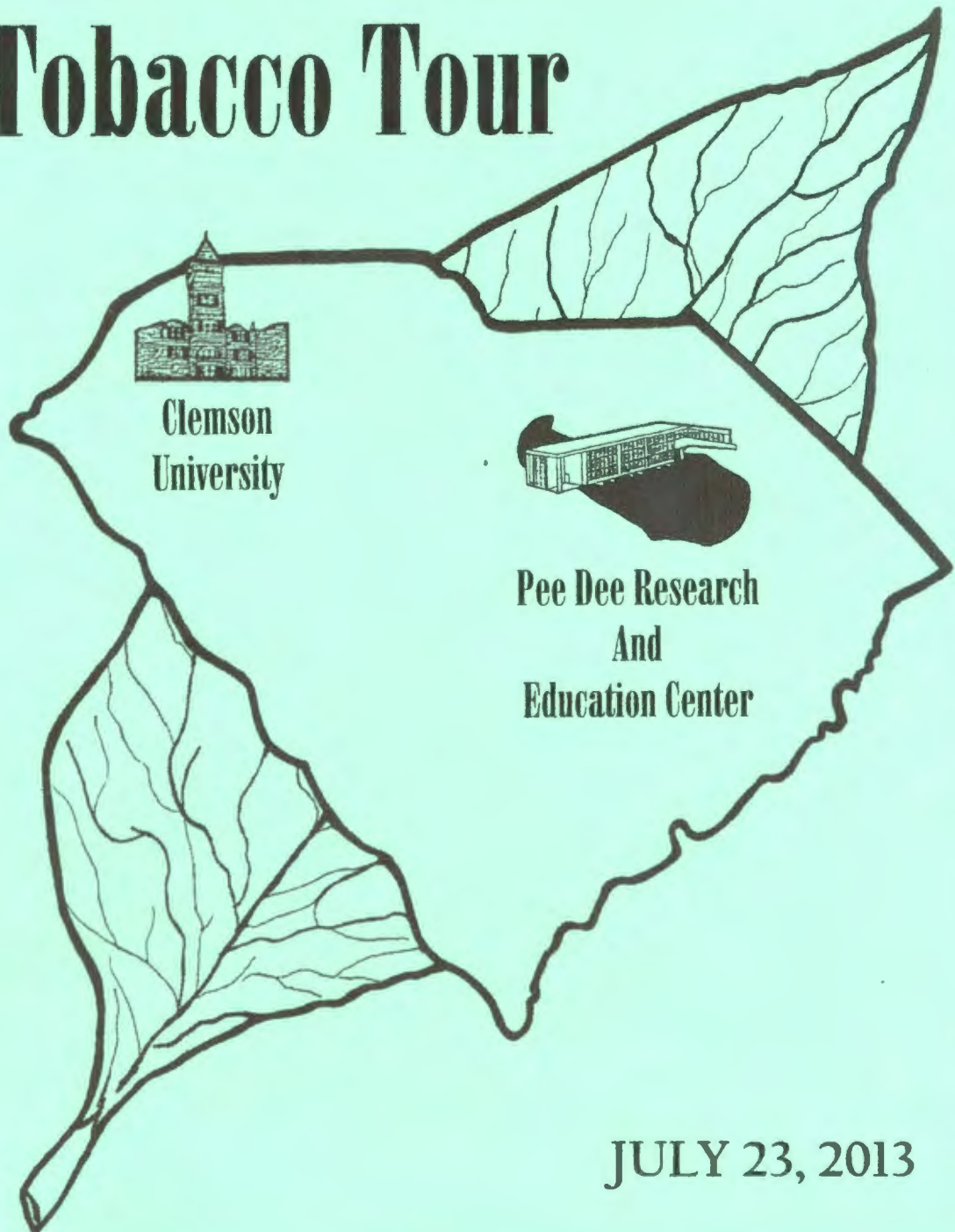
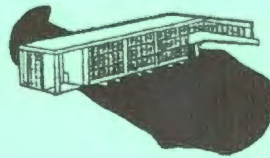


Clemson University Tobacco Tour



**Clemson
University**



**Pee Dee Research
And
Education Center**

JULY 23, 2013

2013 CLEMSON TOBACCO TOUR

JULY 23

(1)	8:15 AM	Registration	Pee Dee REC (Meet at Tobacco Facility in Back)
	8:30 AM	Welcome	Dr. Chris Ray, Interim Director, Pee Dee REC
	8:40 AM	Solar Curing	Dr. Bruce Fortnum, Russell Henderson
	8:50 AM	Agronomy	Dr. Dewitt Gooden
	9:30 AM	Curing Study and Irrigation	Mr. Russell Henderson- Graduate Student
	10:10 AM	Entomology	Dr. Francis Reay-Jones
	10:40 AM	Diseases	Dr. Bruce Fortnum, Dr. Paul Peterson
	12:00 PM	Lunch	Thunderbird Country Buffet and Restaurant
(2)	2:30 PM	Wood Curing System Ricky Rabun Farm	Rick Jones—Biomass Energy Systems William Hardee—Horry County Agent
	3:30 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 (west). Go to end of road and turn left. PDREC is about 1 mile on right. Tour starts at Tobacco Facility at rear of PDREC.
- (2) Lunch: Thunderbird Country Buffet and Restaurant- After leaving PDREC, turn right on I-95 South. Take exit 164. Cross over US-52 as the Thunderbird is straight ahead.
- (3) Ricky Rabon Farm - Leave the Thunderbird and turn right on access road to stoplight. Turn left and take I-95 N for 6 miles to exit 170. Turn right to SC 327 and go about 5 miles to US 76. Turn left on US 76 follow to SC 576 and US 501 to Aynor. In Aynor turn left on SC 319 go approximately 5 miles and turn left onto Nichols Hwy. Go about 3 miles turn right on Truluck Johnson Road. Ricky Raven's farm is about one mile on the right. Look for Hurst Boiler Unit.

2013 PEE DEE REC TOBACCO AGRONOMIC DATA

Soil Type: Norfolk loamy sand

Previous Crop: Corn

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

Preplant: 4/23/13 8 oz Spartan, 1qt Command, 2qt Lorsban.
Materials sprayed on knocked down bed and incorporated.

Transplant water treatment (TPW): 8 oz Ridomil Gold, 6 oz Corogen

Tobacco Transplanted: 4/25/13 (general crop-NC 196).

Soil Test: pH= 5.6, P = H- (66), K = L+(55), Mg = L+ (32)

Fertility: 750 lbs 6-6-18 at planting.
200 lbs of 15.5 (Cal-nitrate) ---76 lbs nitrogen total
5 lbs of 12-48-8 (starter fertilizer) in TPW
Adj. fertility on -6/3/13---100 lbs 6-6-18
6/19/13---Added 20 lbs nitrogen- sprayed on 5.5 gal (30%-N) in 75 gal of H2O. OVT, 1st 3 reps RFT and 1st 2 rep of RGR.

Insect Sprays: Tracer--- 6/4/13, 6/28/13, Orthene---6/13/13, 7/9/13

Rainfall since transplanting: 4/25/13- April- 5+” May 2.83”
June 7.9” July 8.0” through 7/16/13

Irrigation: .4” on 6/20/13(wash off N)

Harvest Dates: 7/11/13

Sucker Control: 1st Contact 7/5/13, 4%, 2nd Contact 7/9/13, 3rd Contact 7/16/13

Sucker Counts:

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

2013 TOBACCO TOUR SPONSORS

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DOW AGROSCIENCES

DREXEL CHEMICAL COMPANY

DUPONT CROP PROTECTION

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R J REYNOLDS

S C FARM BUREAU FEDERATION

VALENT CORPORATION

2013 Tobacco Agronomy - Pee Dee Research & Education Center

Canal

		Regional Small Plot																												RGR	
R3		55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	91	92	
R2		28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	93	94	
R1		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	95	96	
		8	23	24	20	11	25	19	21	22	27	7	3	26	4	1	16	13	18	12	15	9	14	10	5	17	6	2	97	98	
		14	4	13	26	21	9	27	23	6	25	22	15	5	7	20	2	12	1	3	18	17	24	16	11	10	19	8	99	100	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	101	102	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	103	104	

		Regional Growth Regulator															Regional Farm Test														
R3		33	34	35	36	37	38	39	40	41	42	43	44	45	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	
R2		18	19	20	21	22	23	24	25	26	27	28	29	30	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	
R1		3	4	5	6	7	8	9	10	11	12	13	14	15	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	
		11	2	13	10	14	15	4	6	1	8	7	5	3	13	16	5	10	4	14	11	12	7	9	15	8	6	3	2	1	
		8	11	10	13	1	3	12	14	2	15	4	6	5	16	10	8	12	14	3	15	5	13	4	7	9	2	11	1	6	
		3	4	5	6	7	8	9	10	11	12	13	14	15	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	
		3	4	5	6	7	8	9	10	11	12	13	14	15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	

		Official Variety Test																															
R1		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
R2		48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
R3		95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
		25	21	41	22	35	42	6	11	12	13	47	9	44	34	29	37	23	7	45	28	5	16	43	15	10	18	14	8	19	20	17	46
		9	36	47	34	18	19	25	44	33	42	24	11	20	6	12	5	8	28	22	15	45	31	29	23	32	4	35	7	1	41	14	21

		Official Variety Test															Regional Farm Test															
R3		33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
R2		80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
R1		127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
		33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		32	40	2	30	3	1	24	4	26	31	36	32	27	39	33	6	4	9	5	16	14	11	13	15	12	3	2	7	10	8	1
		2	46	27	3	13	40	43	37	16	17	30	26	39	38	10	8	7	15	6	1	16	4	5	14	3	12	9	10	13	2	11

Field Road

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			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.j/R			CC
30	CC 35	2007	Hybrid	R	R		M.j/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 118 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.j/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.j/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

¹Resistance: 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	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	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.aren	TMV/PVY	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.aren	TMV/PVY	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.aren	TMV/PVY	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.aren	TMV	Rickard	
27	GF 164	F1	Hybrid	R			R			GF	

¹Resistance; H - High; M - Moderate; L - Low; R - Resistance; T - Tolerant; Su - Susceptable

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 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

¹Resistance; 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

Test: Drought Stress Curing Study 1 – Drip Irrigation Trial

Location: Pee Dee REC

Variety: NC 196

Purpose: Collect curing data on drought stressed tobacco

Transplanted: 5/13/2013

Treatment List:

1. Conventional
2. Normal N rate, normal irrigation
3. Additional 23 lbs N, normal irrigation
4. Normal N rate, deficit irrigation
5. Additional 23 lbs N, deficit irrigation

2012 Drought Stress Curing Study 1 Plot Plan

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

Treatments 2-5 grown under plastic mulch and drip irrigated

Study conducted by R.D. Henderson, B.A. Fortnum, & D.T. Gooden

Test: Drought Stress Curing Study 2 – Center Pivot Irrigation Trial

Location: Pee Dee REC

Varieties: NC 196 for observation, K 346 for block borders

Purpose: Collect curing data on drought stressed tobacco under variable rate irrigation

Transplanted: 5/10/2013

Treatment List:

Fertility – 750 lbs of 6-6-18 at TP

Irrigation

A. 65 lbs N

X. 0”

B. 75 lbs N

Y. 0.5”

C. 85 lbs N

Z. 1”

D. 95 lbs N

2013 Drought Stress Curing Study 2 Plot Plan

Rep 4	Irrigation	0"								0.5"								1"																						
	lbs N	K	K	85	75	65	95	K	K	K	K					K	K	K	K	65	85	95	75	K	K	K	K					K	K	K	K	95	75	85	65	K
Rep 3	Irrigation	0.5"								1"								0"																						
	lbs N	K	K	85	75	65	95	K	K	K	K					K	K	K	K	65	85	95	75	K	K	K	K					K	K	K	K	95	75	85	65	K
Rep 2	Irrigation	1"								0"								0.5"																						
	lbs N	K	K	85	75	65	95	K	K	K	K					K	K	K	K	65	85	95	75	K	K	K	K					K	K	K	K	95	75	85	65	K
Rep 1	Irrigation	0"								0.5"								1"																						
	lbs N	K	K	85	75	65	95	K	K	K	K					K	K	K	K	65	85	95	75	K	K	K	K					K	K	K	K	95	75	85	65	K

K = K 346, 75 lbs N applied

Study conducted by R.D. Henderson, B.A. Fortnum, & D.T. Gooden

Evaluation of Insecticides for Tobacco Hornworm and Tobacco Budworm Control on Tobacco

Francis Reay-Jones

Greenhouse tray drench, transplant water

Coragen (DuPont): Chemical class: Anthranilic diamide
 Active ingredient: Chlorantraniliprole (Rynaxypyr)

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

Foliar applications

Belt (Bayer): Chemical class: Phthalic Acid Diamide
 Active ingredient: Flubendiamide

Coragen (DuPont): Chemical class: Anthranilic diamide
 Active ingredient: Chlorantraniliprole (Rynaxypyr)

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

Blackhawk (DowAgroSciences) Chemical class: Naturalyte
 Active ingredient: Spinosad (36%)

Besiege (Syngenta): Chemical class: Anthranilic diamide + pyrethroid
 Active ingredients: Chlorantraniliprole + lambda-cyhalothrin

Map of tobacco insecticide trial, Pee Dee REC, 2013

Rep 4	A	N	H	M	V	G	L	B	K	S	Q	P	R	F	T	E	I	O	U	J	C	D
Rep 3	V	K	R	D	J	E	U	B	H	G	P	O	I	S	L	F	Q	C	N	M	T	A
Rep 2	V	I	R	M	U	B	K	G	A	F	L	S	P	Q	O	T	N	H	E	J	D	C
Rep 1	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	S	T	U	V	R

Planted 4/24/2013

		<u>GREENHOUSE</u>	<u>TRANSPLANT</u>	
1	Y	A Cyazypyr 0.176 lb/ac	-	BLACKHAWK 2oz/ac
2	Y	B Cyazypyr 0.176 lb/ac	CORAGEN 5oz/ac	BLACKHAWK 2oz/ac
3	Y	C -	Cyazypyr 0.176 lb/ac, CORAGEN 5oz/ac	BLACKHAWK 2oz/ac
4		D Cyazypyr 0.176 lb/ac, ADMIRE 10oz/ac	-	BLACKHAWK 2oz/ac
5		E Cyazypyr 0.176 lb/ac, ADMIRE 10oz/ac	CORAGEN 5oz/ac	BLACKHAWK 2oz/ac
6	Y	F ADMIRE 10oz/ac	CORAGEN 5oz/ac	BLACKHAWK 2oz/ac
7	Y	G ADMIRE 10oz/ac	CORAGEN 7oz/ac	BLACKHAWK 2oz/ac
8	Y	H -	-	UNTREATED
9	Y	I ADMIRE 10oz/ac	-	BELT 2oz/ac
10	Y	J ADMIRE 10oz/ac	-	BELT 3oz/ac
11	Y	K ADMIRE 10oz/ac	-	CORAGEN 3.5oz/ac
12	Y	L ADMIRE 10oz/ac	-	CORAGEN 5oz/ac
13	Y	M ADMIRE 10oz/ac	-	CORAGEN 7oz/ac
14	Y	N ADMIRE 10oz/ac	-	BLACKHAWK 1.5oz/ac
15	Y	O ADMIRE 10oz/ac	-	BLACKHAWK 2oz/ac
16	Y	P ADMIRE 10oz/ac	-	BESIEGE 6oz/ac
17	Y	Q ADMIRE 10oz/ac	-	BESIEGE 9oz/ac
18	Y	R ADMIRE 10oz/ac	-	DIPEL 0.5 lb/ac
19	Y	S ADMIRE 10oz/ac	-	DIPEL 1 lb/ac
20	Y	T ADMIRE 10oz/ac	-	UNTREATED
21	Y	U ADMIRE 10oz/ac	-	UNTREATED
22	Y	V ADMIRE 10oz/ac	-	UNTREATED

Bacterial wilt- MH harvesting/field trials 2013

Treatment list:

1. Left /right inoc
2. MH 1.5 gal/A Spray Conv/spray
3. MH 1.0 gal/A Spray Conv/spray
4. MH 0.5 gal/A Spray Conv/spray
5. MH 1.5 gal/A Paint/spray
6. MH 1.0 gal/A Paint/spray
7. MH 0.5 gal/A Paint /spray
8. Check

Inoculated with *R. solanacearum* 0 days after treatment

Rep 4	Trt	3	8	1	7	5	2	6	4
	Plot	25	26	27	28	29	30	31	32

Rep 3	Trt	5	7	4	6	2	8	3	1
	Plot	17	18	19	20	21	22	23	24

Rep 2	Trt	4	8	5	6	1	2	7	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

Conveyor on the left (two row plot)

Paint = spray to stripped stem

Spray = course spray to run down stem

Inoc 2×10^6

Bacterial wilt- MH/C10 harvesting/field trials 2013

Treatment list:

Left /right inoc

1. Left /right inoc
2. 8% C10 left/ inoc check
3. 16 % C10/ inoc check
4. 8% C10 left/ non-inoc check
5. 16 % C10/non- inoc check
6. Non-inoc / non-inoculated
7. MH spray/inoc
8. MH spray noninoc

Inoculated with *R. solanacearum* 0 days after treatment

Rep 4	Trt	3	8	1	7	5	2	6	4
	Plot	25	26	27	28	29	30	31	32

Rep 3	Trt	5	7	4	6	2	8	3	1
	Plot	17	18	19	20	21	22	23	24

Rep 2	Trt	4	8	5	6	1	2	7	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

Inoc 2×10^6

2013 Bacterial Wilt Plot Plan

FRONT OF FIELD

S 2	S 19	V 13	V 14	V 15	R 10	S 1	V 17	V 18
V 10	V 2	V 25	V 27	R 7	V 26	V 33	V 11	S 5
S 23	V 41	V 40	V 39	R 8	S 4	V 12	V 21	V 24
R 11	V 1	V 19	S 22	S 15	V 38	V 37	R 6	S 25
S 14	V 3	R 3	R 4	S 21	S 26	V 31	V 4	V 46
V 20	V 22	S 6	V 7	S 9	V 42	V 43	V 44	R 5
S 24	V 30	V 28	V 23	R 12	S 8	V 9	S 7	V 8
S 27	V 6	V 16	V 45	V 29	S 10	R 15	S 11	V 5
V 35	S 13	S 17	V 32	V 34	S 18	S 20	R 13	R 2
R 16	S 3	S 16	R 14	V 36	V 47	S 12	R 1	V 1
V 47	V 46	R 4	S 7	S 6	V 27	V 40	V 9	V 2
R 12	V 18	V 42	V 3	S 15	S 21	R 1	V 22	V 41
V 17	V 19	V 5	V 43	R 9	S 23	S 17	V 44	V 45
V 14	V 30	R 8	S 22	S 16	V 31	V 26	V 12	V 13
S 1	V 29	V 4	V 15	R 11	R 7	S 2	V 16	S 5
V 20	V 6	V 39	V 25	R 10	S 3	S 18	R 5	V 36
V 35	S 14	R 15	S 27	S 13	V 32	V 24	V 23	V 11
R 16	S 9	S 10	V 37	S 8	R 14	S 4	V 8	V 35
V 38	V 28	S 20	S 19	R 13	S 11	V 7	S 25	S 24
S 26	S 12	R 3	V 10	V 21	R 6	R 2	V 34	V 33
V 40	S 18	V 15	V 16	S 24	S 25	R 4	V 2	V 3
V 9	R 2	S 12	S 1	R 9	V 17	V 18	V 42	V 43
S 11	V 11	V 10	R 14	S 23	S 22	S 10	S 16	V 6
R 3	S 6	S 5	V 47	V 34	V 24	V 23	R 13	S 8
V 45	S 4	V 33	V 46	S 3	R 15	V 21	V 22	S 26
V 29	V 38	V 5	V 20	V 31	S 13	R 6	V 32	V 19
R 11	S 7	V 44	V 41	V 8	R 5	V 7	S 27	S 9
R 10	S 21	S 20	S 19	V 39	V 12	V 1	S 2	R 1
V 26	R 7	V 36	V 28	V 30	S 14	R 12	V 13	V 14
V 27	V 37	S 15	S 17	V 25	R 16	R 8	V 4	V 27
V 24	V 23	R 16	S 12	V 7	V 8	S 6	S 8	V 12
R 1	R 2	S 9	S 7	V 22	V 37	V 11	V 13	V 14
S 24	V 43	V 44	R 10	V 15	V 6	S 22	S 23	R 13
S 19	V 46	V 18	S 15	S 16	R 11	V 19	V 16	S 2
V 21	V 20	V 39	V 38	R 14	S 18	R 15	S 17	V 5
S 13	S 3	V 41	V 40	V 26	V 25	S 21	R 12	V 45
V 36	V 29	V 9	V 1	S 25	S 26	R 8	R 7	R 6
V 4	V 10	R 3	S 4	S 27	S 14	S 5	V 35	V 34
R 4	V 42	V 32	V 3	S 11	S 10	R 5	V 28	V 31
V 2	V 47	V 30	R 9	S 20	R 9	V 17	S 1	V 33