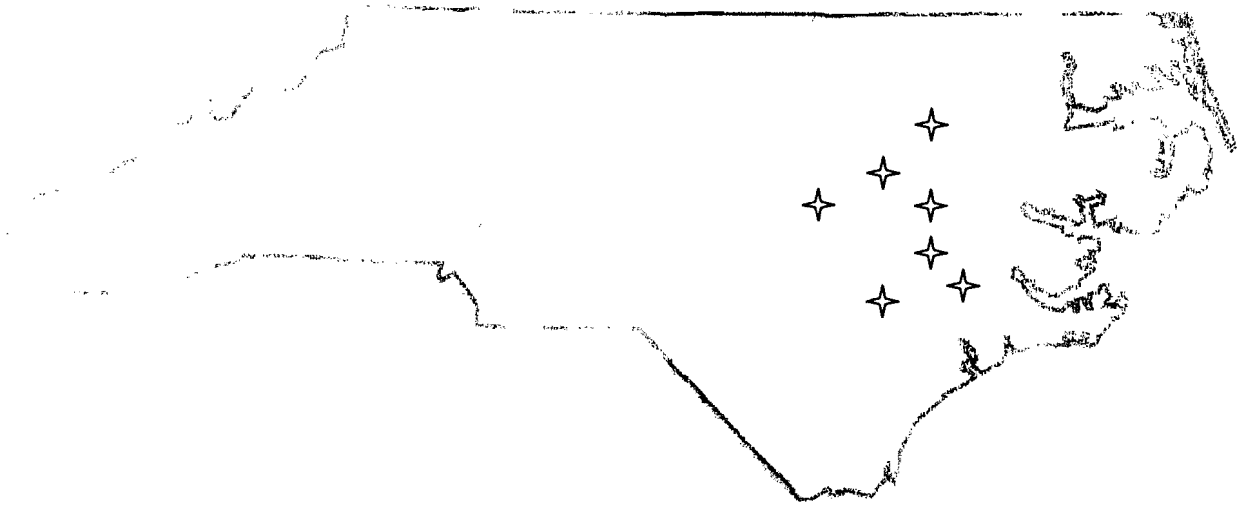
North Carolina Combined Flue-Cured and Burley Tobacco Tour

July 21-23, 2008



North Carolina Cooperative Extension Service

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ACKNOWLEDGEMENTS

The Extension-Research Tobacco Program as currently conducted would not be possible without support from a number of sources beyond state and federal appropriations. The 2008 programs are being supported, in part, by the following:

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Bayer CropScience
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Tour refreshments (The Chuckwagon), Tour Flags & Tour Books

NORTH CAROLINA COMBINED FLUE-CURED & BURLEY TOBACCO TOUR 2008

Mina Mila
Plant Pathology

W. David Smith
Crop Science

Loren R. Fisher
Crop Science

Grant Ellington
Biological & Agricultural Engineering

Hannah J. Burrack
Entomology

Technical Support: Plant Pathology:
John Radcliff, Jane Dove Long, Melanie Katawczik

Crop Science:
Ken Barnes, Joe Priest, Scott Whitley,
Laura Massengill, Glenn Tart

Entomology:
Anna V. Chapman, Alan Stephenson

Special Thanks: Graduate Students:
Kat Cherry, Zach Taylor, Mariah Boch

Postdoctoral Researchers:
Shannon Morsello

Summer Technicians:
Brandon Poole, Aaron Speaks, Micou Browne,
Charles Pierce Combs, Elizabeth Jones

NORTH CAROLINA STATE UNIVERSITY, RALEIGH, N.C.

Published by

THE NORTH CAROLINA COOPERATIVE EXTENSION SERVICE

July 2008

TABLE OF CONTENTS

2008 TEST LOCATIONS

The field programs for this year include tests scattered throughout the tobacco area. Listed below are the various types of tests in the field, their location, cooperating growers, extension agents and station personnel who are responsible for them.

Location	Cooperator	Test Supervisor

Plant Pathology

Black Shank Variety Evaluation

Yadkin	Hassel Brown	Nancy Keith
Martin	Sutton Edmundson	Al Cochran
Iredell	Ralph & Richard Renager	Mike Miller

Granville Wilt Variety

Caswell	Harrell & Butch Blackard	Rickey Williams
Franklin	Rickey May	Cedric Jones
Edgecombe	Jeff Lancaster	Art Bradley
Johnston	Don Holloman	Bryant Spivey

Granville Wilt Variety x Fumigant

Duplin	Gerald Bell	Curtis Fountain

OVT/RSP

UCPRS		Lewis Pitt

Black Shank Chemical Tests

Forsyth	Tim Weavil	Tim Hambrick
Rockingham	Bobby Baker	Scott Shoulars
Rockingham	Mike Herbin	Scott Shoulars
Johnston	Randy Edwards	Bryant Spivey
Surry	Chad & Terry Badgette	Joanna Radford
UCPRS		Lewis Pitt

Tomato Spotted Wilt Virus (Chemical control)

Duplin	Warren Sloan	Curtis Fountain
Sampson	Glenwood Fryar	Tray Bridgers
Craven	David Parker	Mike Carroll
Beaufort	Midge Tankard	Gaylon Ambrose

Tomato Spotted Wilt Virus (Evaluation of breeding lines)

Duplin	Warren Sloan	Curtis Fountain

Tomato Spotted Wilt Virus (Phytotoxicity)

UCPRS		Lewis Pitt

Nematode Control

Yadkin	Hassel Brown	Nancy Keith

Blue Mold

Oxford Research Station		Fred Smith

Entomology Locations

Actigard Timing

Craven County	Gary Amerson	Mike Carroll Clyde Sorenson
Jones County	Phillip Howard	Shannon Morsello George Kennedy Hannah Burrack Clyde Sorenson
Jones County	Joseph Stilley	Shannon Morsello George Kennedy Hannah Burrack Clyde Sorenson
Duplin County	Scott Thigpin	Curtis Fountain

Neonicotiniod Phytotoxicity and Insect Control

Franklin County	Ricky May	Cedric Jones
Davidson County	Lyle Wagner	Troy Coggins

Wireworm Control

Yancy County	Billy Yeargan	Stanley Holloway

Budworm Control/New Insecticide Test

Edgecombe County	Henry Phillips	Art Brandley
Stokes County	Stanley Smith	Tim Hambrick
Upper Piedmont Research Station		Auman French

Biological & Ag. Engineering

Flue-Cured Tobacco Common Wall Curing Barn Study

Weaver Labs - NCSU	Max Denning	Mike Boyette Justin Macialek Grant Ellington

Wood-Fired Hot Water Curing System

Halifax County	Robert and Pat Edwards	Grant Ellington Mike Boyette

		Justin Macialek
On Farm Curing Energy Consumption		
Pitt County	Henry Bunn	Grant Ellington
	Ronnie Briley	Mike Boyette
	Johnny McLawhorn	Justin Macialek
Duplin County	Steve Grady	
Johnston County	Andy Penny	
	Steve Batten	
	Tom Vinson	
	Ray Boswell	
	Keith Smith	
Sampson County	Anthony Bass	
	George Warren	
Rockingham County	Bobby Baker	
	John and Monroe Isley	
Person County	Jimmy Thomas	
Edgecombe County	Mike Keel	
Wilson County	Bill Harrell	
	David Hinnant	
Wayne County	Craig West	

2008 Flue-Cured/Burley/Dark Tobacco Research Tests
7/07/2008

Location	Test Type
Whiteville	Use of Various Suckercides for Sucker Control Study
Tommy Hobbs	Fertilizer Study
Tobacco Supervisor	RJR-15 and NC 71 – 2 Fertilizer Rates X 2 Topping Heights X 2 Harvest Schemes
	OVT; OVTA; RSP; RV
Kinston	Regional Sucker Control Study
Randy Stancil	Fertilizer Study
Tobacco Supervisor	Use of Various Suckercides for Sucker Control Study
	Pesticide Residue Study
	Dark Air-Cured Study
	Burley OVT; OVTA; RSP; RFT
	Holdability Study
Rocky Mount	Use of Various Suckercides for Sucker Control Study
Lewis Pitt	Fertilizer Study
Tobacco Supervisor	Simulated Hail Damage on Flue-Cured and Burley Tobacco
	Dark Air-Cured Study
	Burley OVT; OVTA; RFT
Clayton	Pesticide Residue Study
Philip Bunn	MH Wash-Off Study with Kinetic Sticker/Spreader
Tobacco Supervisor	RJR- 15 & NC 71 – 2 Fertilizer Rates X 2 Topping Heights X 2 Harvest Schemes
	Syngenta Spray Pattern Study
	OVT; OVTA
Oxford	Regional Sucker Control Study
Carl Watson	Fertilizer Study
Tobacco Supervisor	Use of CJX-0202 for Sucker Control Study
	OVT; OVTA; RSP; RFT

Location	Test Type
Reidsville	Dark Air-Cured Study
Auman French	Nitrogen Management with Various Burley Varieties Study
Tobacco Supervisor	Burley OVT Study
	Burley Regional Quality Study
	Burley Regional Preliminary Study
	Burley Regional Sucker Control Study
	Burley Chemtura Sucker Control Study
Laurel Springs	Burley OVT Study
Tony Bare	Burley Herbicide Study
Tobacco Supervisor	Burley Chemtura Sucker Control Study
	Burley Time of Planting Study
	Dark Air-Cured Study
Waynesville	Burley OVT Study
Caleb Rathbone	Burley Regional Quality Study
Tobacco Supervisor	Burley Regional Sucker Control Study
	Burley Time of Planting Study

2008 On-Farm Flue-Cured/Burley Tests

Forsyth Co.	Fertilizer Study (Flue-Cured)	Richard Linville
Tim Hamrick	Fertilizer Study with Nutrisphere (Burley)	Marvin Eaton
Extension Agent		
Johnston	Sucker Control Study (Flue-Cured)	Will Boykin
Bryant Spivey		
County Extension Director		
Rockingham	Fertilizer Study with Avail (Flue-Cured)	John Isley
Scott Shoulars		
County Extension Director		
Stokes	Fertilizer Study (Flue-Cured)	David & Keith Hartmon
Tim Hamrick		
Extension Agent	Fertilizer Study with Avail (Flue-Cured)	Steve Robertson

Tuesday, July 22

7:35am	Arrive Edwards Farm, Johnston County **Breakfast** Black Shank Chemical Trial
8:15	Depart Edwards Farm
8:26	Arrive Boykin Farm, Johnston County Sucker Control
8:46	Depart Boykin Farm
8:58	Arrive Sharp Farm, Wilson County Mechanized Barns
9:33	Depart Sharp Farm
10:20	Arrive Rest-A-Bit Farm, Edgecombe County Budworm Control
10:40	Depart Rest-A-Bit Farm
10:51	Arrive Upper Coastal Plain Research Station, Edgecombe County Sucker Control Loss Assessment from Simulated Hail Damage Dark Air-Cured Tobacco Variety and Fertilization Burley OVT Black Shank OVT
12:19	Depart Research Station
12:25	Arrive Eastern NC Agriculture Center, Edgecombe County **Lunch**
1:25	Depart Agriculture Center
2:19	Arrive Blizzard Farm, Greene, County PCR Tobacco
2:39	Depart Blizzard Farm

3:06	Arrive Lower Coastal Plain Research Station, Lenoir County Regional Sucker Control Test Evaluation of Nitrogen Sources Pesticide Residue Test Flue-Cured OVTA, Regional Small Plot, & Regional Farm Test Holding Ability Study Insect Management in Burley in Non Traditional Areas Split Worm Monitoring
5:06	**Adjourn Tour for the Day**

Wednesday, July 23

8:00am	Depart Hampton Inn, Kinston
8:32	Arrive Phillip Howard Farms, Jones County Tomato Spotted Wilt
8:52	Depart Howard Farm
9:20	Arrive Sloan Farms, Duplin County Tomato Spotted Chemical Control/breeding lines evaluation for TSW management
9:40	Depart Sloan Farm
10:34	Arrive Gerald Bell Farms, Duplin County Granville Wilt Variety X Fumigant
	Adjourn Tour for 2008

Tuesday, July 22 (tour begins at Edwards Farm at 7:30)

Directions	Distance
OWN YOUR OWN * NO PROTECTION	
From Holiday Inn Express to Edwards Farm, Johnston Co. (approx 35 min)	
Head northeast on NC-42 Hwy W toward Exit 312	6.3
Take the ramp onto US-70 E business	1.3
Left at NC-42	7.7
Left at Thanksgiving Fire Rd	0.7
Right at Jordan Narron Rd	0.2
Left at Price Rd	0.3
Edwards Farm to Boykin Farm, Johnston Co.	
Left from test on Price Rd	0.2
Left at Jordan Narron Rd	1.6
Right at NC-96 N	0.4
Left at NC-42	4.3
Left at NC-222 W	0.9
From Boykin Farm to Sharp Farm, Wilson Co.	
Left from test on NC-222 W	0.9
Slight Left at NC-42	6.2
Left at NC-581	2.2
Arrive at Test on Right	
From Sharp Farm to Rest-A-Bit Farm, Edgecombe Co.	
Left from test on NC-581 toward Rock Ridge School Rd	2.1
Left at NC-42	6.6
Straight through stoplight	0.6
Straight through stoplight	0.7
Slight Left at Airport Blvd	0.9
Left at Merck Rd	2.3
Right at Raleigh Rd	2.0
Left on Airport Blvd	1.1
Straight through stoplight	1.2
Straight through stoplight	1.2
Straight through stoplight	1.0
Continue on Lake Wilson Rd	2.9
Straight through 4-way stop	0.4
Turn Right at W Main St	0.8
Straight through stoplight	0.8
Continue on Langley Rd	4.0
Left at E Langley Rd	2.5
Left at Pleasant Hill Rd	1.0
Right at Trap Range Rd	0.1
Left at Temperance Hall Rd	0.1
Arrive at Test on Right	

From Rest-A-Bit Farm to Upper Coastal Plain Research Station

Right from test on Temperance Hall Rd toward Dois Ln	2.0
Slight Left at NC-43	0.3
Straight through stoplight	1.8
Slight Right at Sampson Rd	0.1
Right at Nobles Mill Pond Rd	3.6
Arrive at Station on Right	

UPCRS to Eastern NC Agriculture Center, Edgecombe Co.

Right from station on Nobles Mill Pond Rd	0.4
Left at Howard Ave	0.6
Left at Kingsboro Rd	1.3
Arrive at Ag. Center on right	

Eastern NC Agriculture Center to Blizzard Farm, Greene Co.

Right at Kingsboro Rd	0.6
Right to merge on US-64 E	5.4
Take exit 484 toward Comm College/Edgecombe	0.4
Right at NC-122	0.6
Right at NC-111/NC-122	4.8
Continue on NC-111	1.1
Slight Right to stay on NC-111	1.9
Straight through stopsign	1.4
Straight through stopsign	1.3
Straight through stopsign	4.6
Straight through stopsign	2.9
Right on NC-111/NC-222	1.3
Straight through stoplight	4.2
Left at Moyton Ave/NC-58	6.4
Arrive at Site on Right	

From Blizzard Farm to Lower Coastal Plain Research Station, Lenoir Co.

Left from field onto Harper Dr.	0.4
Right on NC-58	5.9
Left at US-13/NC-58	1.0
Straight through stoplight	0.1
Straight through stoplight	0.2
Straight through stoplight	1.3
Straight through stoplight	9.3
Continue on Kingold Blvd/NC-58	2.3
(Continue to follow NC-58	
Arrive at Station on Right	

From Hamton Inn, Kinston to Howard Farm, Jones Co.

Left out of Hotel Parking Lot to stop light	0.1
Right at E New Bern Rd/US-70	0.8
Right at NC-58	16.6
Right at NC-41	8.5

Wednesday, July 23

From Howard Farm to Soan Farm, Duplin Co.

Left from test on NC-41	0.7
Right at Richlands Rd	0.5
Right to stay on Richlands Rd	0.2
Continue on Comfort Rd	5.4
Continue on N Wilmington St	0.7
Straight through stoplight	0.1
Straight through stoplight	0.1
Left at Richlands Blvd/Richlands Hwy/US-258	2.0
(continue to follow Richlands Blvd/US-258	
Right at Gregory Fork Rd	0.7
Left at Fowler Manning Rd	3.2
Right at NC-111	4.3
Left at Fountaintown Rd	0.4
Arrive at Test on Right	

From Sloan Farm to Bell Farm, Duplin Co.

Left from test on Fountaintown Rd	0.4
Left at NC-111	4.6
Slight Right at Jackson Store Rd	3.2
Right at NC-111/NC-41	2.6
(continue to follow NC-111)	
Straight through stoplight	0.3
Left to stay on NC-111	10.2
Left at NC-11/NC-111	0.3
Right at NC-111/NC-903	12.0
(continue to follow NC-111)	
Left at NC-55	5.2
Left at NC-403	3.3
Left at Norwood Ezzell Rd	1.5
Test on Right	

Rep D	37	38	39	40	41	42	43	44	45	46	47	48
	3	1	2	4	6	7	8	5	11	10	12	9
Rep C	25	26	27	28	29	30	31	32	33	34	35	36
	4	2	1	3	8	5	6	7	9	11	10	12
Rep B	13	14	15	16	17	18	19	20	21	22	23	24
	2	4	1	3	5	6	8	7	9	11	12	10
Rep A	1	2	3	4	5	6	7	8	9	10	11	12
	2	4	1	3	8	5	7	6	10	9	12	11
		SP 227				NC 196				K 326		

Johnston County Black Shank Chemical Trial

Trt No.	Treatment Name	Rate	Rate Unit	Grow Stg
1	SP 227			
	Nontreated			
2	SP 227			
	Telone II	6	Gal/A	Early Pretrans
	Ridomil Gold	1	PT/A	1st Cult
3	SP 227			
	Chloropic	3	Gal/A	Early Pretrans
	Ridomil Gold	1	PT/A	1st Cult
4	SP 227			
	Ridomil Gold	1	PT/A	1st Cult
	Ridomil Gold	1	PT/A	Layby
5	NC 196			
	Nontreated			
6	NC 196			
	Telone II	6	Gal/A	Early Pretrans
	Ridomil Gold	1	PT/A	1st Cult
7	NC 196			
	Chloropic	3	Gal/A	Early Pretrans
	Ridomil Gold	1	PT/A	1st Cult
8	NC 196			
	Ridomil Gold	1	PT/A	1st Cult
	Ridomil Gold	1	PT/A	Layby
9	K 326			
	Nontreated			
10	K 326			
	Telone II	6	Gal/A	Early Pretrans
	Ridomil Gold	1	PT/A	1st Cult
11	K 326			
	Chloropic	3	Gal/A	Early Pretrans
	Ridomil Gold	1	PT/A	1st Cult
12	K 326			
	Ridomil Gold	1	PT/A	1st Cult
	Ridomil Gold	1	PT/A	Layby

2008 ON-FARM SUCKER CONTROL TEST
JOHNSTON COUNTY
WILL BOYKIN FARM

404 4	405 3	406 2	407 5	408 1	409 7
307 5	308 7	309 1	401 9	402 6	403 8
301 8	302 9	303 6	304 3	305 4	306 2
204 6	205 4	206 5	207 7	208 1	209 9
107 7	108 8	109 9	201 2	202 8	203 3
101 1	102 2	103 3	104 4	105 5	106 6

DESIGN: RANDOMIZED COMPLETE BLOCK.
PLOT SIZE: 4-ROWS, 50' LONG.
VARIETY: NC 196 (GREENHOUSE PLANTS). TRANSPLANTED 4-26-08.
FERTILIZATION: 320 LBS/A 9-5-10 AT TRANSPLANTING. 600 LBS/A 6-6-18 AT 1ST CULTIVATION. 350 LBS/A 6-6-18 AT 2ND CULTIVATION.
1ST CONTACT 6-25-08; 2ND CONTACT 6-30-08; 3RD CONTACT 7-4-08;
SYSTEMICS APPLIED 7-9-08 AND 7-16-08.

North Carolina State University

2008 ON-FARM SUCKER CONTROL TEST
LOREN FISHER JOE PRIEST SCOTT WHITLEY

Trial ID: SCJTN08 Study Director: LOREN FISHER
Location: JOHNSTON COUNTY Investigator: Joseph A Priest

Reps: 4 Plots: 16 by 50 feet
Spray vol: 50 gal/ac Mix size: 5 gallons (min 3.6731)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Amt Product to Measure	Plot No. By Rep 1	2	3	4
1	CONTACT @ 4 %	6.01	EC	12.02	lb ai/a	757.0 ml/mx	101	208	309	408
	CONTACT @ 5 %	6.01	EC	15.01	lb ai/a	945.3 ml/mx				
	CONTACT @ 5 %	6.01	EC	15.01	lb ai/a	945.3 ml/mx				
	ROYAL MH-30 @ 1.5 GPA +	1.5	EC	2.25	lb ai/a	567.8 ml/mx				
	PRIME PLUS @ 0.5 GPA (TM)	1.2	EC	0.6	lb ai/a	189.3 ml/mx				
2	CONTACT @ 4 %	6.01	EC	12.02	lb ai/a	757.0 ml/mx	102	201	306	406
	CONTACT @ 5 %	6.01	EC	15.01	lb ai/a	945.3 ml/mx				
	CONTACT @ 5 %	6.01	EC	15.01	lb ai/a	945.3 ml/mx				
	PRIME PLUS @ 0.5 GPA	1.2	EC	0.6	lb ai/a	189.3 ml/mx				
	ROYAL MH-30 @ 1.5 GPA	1.5	EC	2.25	lb ai/a	567.8 ml/mx				
3	CONTACT @ 4 %	6.01	EC	12.02	lb ai/a	757.0 ml/mx	103	203	304	405
	CONTACT @ 5 %	6.01	EC	15.01	lb ai/a	945.3 ml/mx				
	CONTACT @ 5 %	6.01	EC	15.01	lb ai/a	945.3 ml/mx				
	PRIME PLUS @ 0.5 GPA	1.2	EC	0.6	lb ai/a	189.3 ml/mx				
	PRIME PLUS @ 0.25 GPA +	1.2	EC	0.3	lb ai/a	94.63 ml/mx				
	ROYAL MH-30 @ 1.0 GPA(TM)	1.5	EC	1.5	lb ai/a	378.5 ml/mx				
4	CONTACT @ 4 %	6.01	EC	12.02	lb ai/a	757.0 ml/mx	104	205	305	404
	CONTACT @ 5 %	6.01	EC	15.01	lb ai/a	945.3 ml/mx				
	CONTACT @ 5 %	6.01	EC	15.01	lb ai/a	945.3 ml/mx				
	PRIME PLUS @ 0..75 GPA	1.2	EC	0.9	lb ai/a	283.9 ml/mx				
	PRIME PLUS @ 0.25 GPA +	1.2	EC	0.3	lb ai/a	94.63 ml/mx				
	ROYAL MH-30 @ 1.0 GPA(TM)	1.5	EC	1.5	lb ai/a	378.5 ml/mx				
5	CONTACT @ 4 %	6.01	EC	12.02	lb ai/a	757.0 ml/mx	105	206	307	407
	CONTACT @ 5 %	6.01	EC	15.01	lb ai/a	945.3 ml/mx				
	CONTACT @ 5 %	6.01	EC	15.01	lb ai/a	945.3 ml/mx				
	PRIME PLUS @ 0.5 GPA	1.2	EC	0.6	lb ai/a	189.3 ml/mx				
	PRIME PLUS @ 0.25 +	1.2	EC	0.3	lb ai/a	94.63 ml/mx				
	ROYAL MH-30 @ 0.75GPA(TM)	1.5	EC	0.75	lb ai/a	189.3 ml/mx				
6	CONTACT @ 4 %	6.01	EC	12.02	lb ai/a	757.0 ml/mx	106	204	303	402
	CONTACT @ 5 %	6.01	EC	15.01	lb ai/a	945.3 ml/mx				
	CONTACT @ 5 %	6.01	EC	15.01	lb ai/a	945.3 ml/mx				
	PRIME PLUS @ 0.5 GPA	1.2	EC	0.6	lb ai/a	189.3 ml/mx				
	PRIME PLUS @ 0.25 GPA	1.2	EC	0.3	lb ai/a	94.63 ml/mx				
7	CONTACT @ 4 %	6.01	EC	12.02	lb ai/a	757.0 ml/mx	107	207	308	409
	CONTACT @ 5 %	6.01	EC	15.01	lb ai/a	945.3 ml/mx				
	CONTACT @ 5 %	6.01	EC	15.01	lb ai/a	945.3 ml/mx				
	FST-7 @ 3 GPA +	4.0	EC	12.00	lb ai/a	1135.5 ml/mx				
	PRIME PLUS @ 0.5 GPA (TM)	1.2	EC	0.6	lb ai/a	189.3 ml/mx				
8	CONTACT @ 4 %	6.01	EC	12.02	lb ai/a	757.0 ml/mx	108	202	301	403
	CONTACT @ 5 %	6.01	EC	15.01	lb ai/a	945.3 ml/mx				
	CONTACT @ 5 %	6.01	EC	15.01	lb ai/a	945.3 ml/mx				
	ROYAL MH-30 @ 1.5 GPA +	1.5	EC	2.25	lb ai/a	567.8 ml/mx				
	DREXALIN PLUS @ 0.5 GPA (TM)	1.2	EC	0.6	lb ai/a	189.3 ml/mx				
9	CONTACT @ 4 %	6.01	EC	12.02	lb ai/a	757.0 ml/mx	109	209	302	401
	CONTACT @ 5 %	6.01	EC	15.01	lb ai/a	945.3 ml/mx				
	CONTACT @ 5 %	6.01	EC	15.01	lb ai/a	945.3 ml/mx				
	(ROYAL MH-30 @ 1.5 GPA +	1.5	EC	2.25	lb ai/a	567.8 ml/mx				
	APE FREE @ 0.5 GPA (TM)	1.2	EC	0.6	lb ai/a	189.3 ml/mx				

Sort Order: Treatment

Title: Budworm Control, Edgecombe County

Purpose: To assess efficacy and longevity of soon-to-be available materials for Lepidopteran control in tobacco.

Methods:

Plot map

Block 4	401 **B**	402 **G**	403 **D**	404 **F**	405 **E**	406 **C**	407 **A**
Block 3	301 **F**	302 **G**	303 **B**	304 **A**	305 **D**	306 **E**	307 **C**
Block 2	201 **D**	202 **E**	203 **B**	204 **F**	205 **A**	206 **C**	207 **G**
Block 1	101 **B**	102 **E**	103 **D**	104 **C**	105 **A**	106 **G**	107 **F**

Treatments
A. Belt 3 oz/A
B. Belt 4 oz/A
C. Coragen 5 oz/A
D. Coragen 3 oz/A
E. Coragen 7 oz/A
F. Tracer 1.8 oz/A
G. Control

Treatments were replicated 4 times in 4 row plots with 50 plants per row, 0.02 A each. On June 9, 2008, 10 plants in rows 2 and 3 of each plot were infested with 2nd instar tobacco budworms. The following day, plots were treated, with the exception of the control, using a CO_2 powered backpack sprayer. Materials were applied at 30 gpa and 60 psi using a single TG3 solid cone nozzle with the spray directed into the bud. Larval survival was assessed at 3, 7, and 14 days post treatment, and leaf equivalent loss in the top 7 leaves (leaves produced during the period of infested budworm feeding) was assessed at 7 and 14 days post treatment. Leaf equivalent loss was defined as the proportion of a full leaf missing.

Results (to date):

Results to this date suggest that the new materials, which both act in a similar fashion (Ca channel activators), perform well when compared to Tracer (Dow Agrosciences) (Figures 1 and 2). Hornworm control was initiated on July 23, 2008 in Edgecombe County, so longevity data is being gathered at two other locations where this same trial is being conducted, Stokes County (flue-cured) and at the Upper Piedmont Research Station (burley). Both Coragen and Belt may have systemic activity and persist within or on the plant, so determining residual control will allow us to develop appropriate recommendations for these materials.

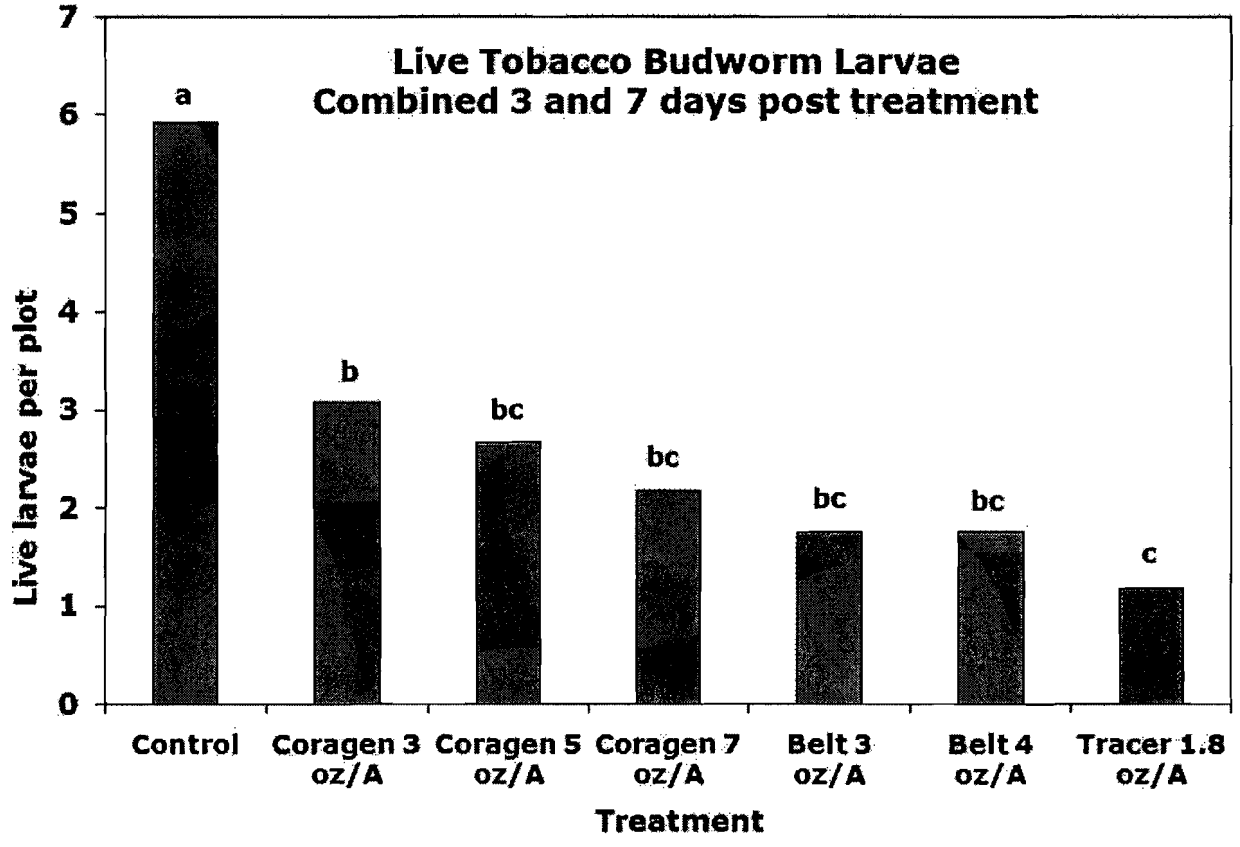


Figure 1. Live larvae present per plot. Values indicated by the same letter are significantly different at $\alpha = 0.05$ via LSD.

2008 Budworm Control Trial

Leaf Equivalent Loss[1]

County	Treatment	Days Post Treatment 7	14	21	28
Edgecombe[2]	Control	0.45 **a**	0.91 **a**		
	Belt 3 oz/A	0.26 **b**	0.20 **c**		
	Belt 4 oz/A	0.23 **b**	0.16 **c**		
	Coragen 3 oz/A	0.28 **b**	0.34 **b**		
	Coragen 5 oz/A	0.23 **b**	0.21 **bc**		
	Coragen 7 oz/A	0.32 **b**	0.15 **c**		
	Tracer 1.8 oz/A	0.21 **b**	0.25 **bc**		
Rockingham	Control	0.48 **a**	0.63 **a**	0.52 **a**	0.17 **a**
	Belt 3 oz/A	0. 13 **c**	0.27 **c**	0.05 **b**	0.07 **b**
	Belt 4 oz/A	0.17 **bc**	0.14 **d**	0.07 **b**	0.06 **b**
	Coragen 3 oz/A	0.19 **bc**	0.27 **c**	0.10 **b**	0.03 **b**
	Coragen 5 oz/A	0.16 **bc**	0.37 **b**	0.13 **c**	0.06 **b**
	Coragen 7 oz/A	0.13 **c**	0.29 **bc**	0.09 **b**	0.05 **b**
	Tracer 1.8 oz/A	0.27 **b**	0.31 **bc**	0.10 **ab**	0.08 **b**
Stokes[2]	Control	0.82 **a**	0.75 **a**	0.08 **a**	
	Belt 3 oz/A	0.29 **b**	0.07 **b**	0.00 **a**	
	Belt 4 oz/A	0.29 **b**	0.10 **b**	0.00 **a**	
	Coragen 3 oz/A	0.25 **b**	0.10 **b**	0.00 **a**	
	Coragen 5 oz/A	0.26 **b**	0.09 **b**	0.00 **a**	
	Coragen 7 oz/A	0.33 **b**	0.07 **b**	0.00 **a**	
	Tracer 1.8 oz/A	0.31 **b**	0.14 **b**	0.01 **a**	

[1]Means followed by the same letter within the same observation period are not significantly different at α=0.05 via LSD.
[2]Edgecombe and Stokes County tests were on flue-cured tobacco, while Rockingham County test was on burley tobacco.

No phytotoxicity was observed during this study. Longevity observations are ongoing at Rockingham County location.

Hannah J. Burrack
NCSU Entomology

2008 EFFECTS OF VARIOUS SUCKERCIDES ON FLUE-CURED TOBACCO
UPPER COASTAL PLAIN RESEARCH STATION
ROCKY MOUNT, NC

401	402	403	404	405	406	407	408	409	410	411	412	413	414
1	5	11	14	8	4	12	10	6	3	9	2	7	13

REP IV

301	302	303	304	305	306	307	308	309	310	311	312	313	314
1	11	13	8	5	7	4	2	3	9	12	14	6	10

REP III

201	202	203	204	205	206	207	208	209	210	211	212	213	214
1	5	9	14	13	2	12	7	6	11	8	10	4	3

REP II

101	102	103	104	105	106	107	108	109	110	111	112	113	114
1	2	3	4	5	6	7	8	9	10	11	12	13	14

REP I

DESIGN: RANDOMIZED COMPLETE BLOCK
PLOT SIZE: 2-ROWS, 40' LONG
VARIETY: NC 71 (GREENHOUSE PLANTS). TRANSPLANTED 4-21-08
FERTILIZATION: NORMAL RESEARCH STATION CULTURAL PRACTICES
1^{ST} CONTACT 6-23-08; 2^{ND} CONTACT 6-27-08; 3^{RD} CONTACT 7-2-08; SYSTEMICS APPLIED 7-9-08. TREATENT # 8 APPLIED 7-16-08.

North Carolina State University

2008 VARIOUS SUCKERCIDES FOR SUCKER CONTROL IN FLUE-CURED TOBACCO
LOREN FISHER JOE PRIEST SCOTT WHITLEY

Trial ID: SCRM-08 Study Director:
Location: ROCKY MOUNT, NC Investigator: Joseph A Priest

Reps: 4 Plots: 8 by 40 feet
Spray vol: 50 gal/ac Mix size: 3 gallons (min 1.4692)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Amt Product to Measure	Plot No. By Rep 1	2	3	4
1	TOPPED, NOT SUCKERED						101	201	301	401
2	OST 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx	102	206	308	412
	OST 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	RMH-30 1.5 GPA &	1.5	EC	2.25	lb ai/a	340.7 ml/mx				
	FLUPRO 0.5 GPA) TM	1.2	EC	0.6	lb ai/a	113.6 ml/mx				
3	OST 1.5 GPA	6.01	EC	9.00	lb ai/a	340.1 ml/mx	103	214	309	410
	OST 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx				
	OST 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	RMH-30 1.5 GPA	1.5	EC	2.25	lb ai/a	340.7 ml/mx				
4	OST 1.5 GPA	6.01	EC	9.00	lb ai/a	340.1 ml/mx	104	213	307	406
	OST 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx				
	OST 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	RMH-30 2.0 GPA	1.5	EC	3.0	lb ai/a	454.2 ml/mx				
5	OST 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx	105	202	305	402
	OST 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	(RMH-30 1.5 GPA &	1.5	EC	2.25	lb ai/a	340.7 ml/mx				
	APE FREE FLUPRO 0.5 GPA) TM	1.2	EC	0.6	lb ai/a	113.6 ml/mx				
6	OST 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx	106	209	313	409
	OST 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	(RMH-30 1.5 GPA &	1.5	EC	2.25	lb ai/a	340.7 ml/mx				
	BUTRALIN 0.5 GPA) TM	3.0	EC	1.5	lb ai/a	113.6 ml/mx				
7	OST 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx	107	208	306	413
	OST 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	RMH-30 1.5 GPA	1.5	EC	2.25	lb ai/a	340.7 ml/mx				
8	OST 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx	108	211	304	405
	OST 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	RMH-30 1.5 GPA	1.5	EC	2.25	lb ai/a	340.7 ml/mx				
	APPLY MH AFTER 1ST HARVEST									
9	OST 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx	109	203	310	411
	OST 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	FST-7 3.0 GPA	4.0	EC	12.00	lb ai/a	681.3 ml/mx				
10	OST 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx	110	212	314	408
	OST 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	(FST-7 3.0 GPA &	4.0	EC	12.00	lb ai/a	681.3 ml/mx				
	PRIME PLUS 0.5 GPA) TM	1.2	EC	0.6	lb ai/a	113.6 ml/mx				
11	OST 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx	111	210	302	403
	OST 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	(FAIR 80 SP &	60	WP	3.75	lb ai/a	170.1 g/mx				
	PRIME PLUS 0.5 GPA) TM	1.2	EC	0.6	lb ai/a	113.6 ml/mx				
12	OST 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx	112	207	311	407
	OST 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	DREXALIN PLUS 0.5 GPA	1.2	EC	0.6	lb ai/a	113.6 ml/mx				
13	OST 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx	113	205	303	414
	OST 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	(RMH-30 1.5 GPA &	1.5	EC	2.25	lb ai/a	340.7 ml/mx				
	DREXALIN PLUS 0.5 GPA) TM	1.2	EC	0.6	lb ai/a	113.6 ml/mx				
14	OST 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx	114	204	312	404
	OST 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	PRIME PLUS 0.5 GPA	1.2	EC	0.6	lb ai/a	113.6 ml/mx				

2008 EFFECTS OF HAIL DAMAGE ON FLUE-CURED AND BURLEY TOBACCO
UPPER COASTAL PLAIN RESEARCH STATION
ROCKY MOUNT, NC

	G	622	G	313			313	G	622	G	
B	610	621	320	314	B	B	314	320	621	610	B
O	G	624	G	311	O	O	311	G	624	G	O
R	611	623	321	G	R	R	G	321	623	611	R
D	612	G	323	310	D	D	310	323	G	612	D
E	613	620	325	G	E	E	G312	325	620	613	E
R	614	G	322	312	R	R	313	322	G	614	R
	615	625	324	315				324	625	615	

FLUE-CURED REP I BURLEY

	G	313	622	G			622	G	313	G	
B	320	314	621	610	B	B	621	610	314	320	B
O	G	311	624	G	O	O	624	G	311	G	O
R	321	G	623	611	R	R	623	611	G	321	R
D	323	310	G	612	D	D	G	612	310	323	D
E	325	G	620	613	E	E	620	613	G	325	E
R	322	312	G	614	R	R	G	614	312	322	R
	324	315	625	615			625	615	315	324	

FLUE-CURED REP II BURLEY

	G	622	G	313			313	G	622	G	
B	610	621	320	314	B	B	314	320	621	610	B
O	G	624	G	311	O	O	311	G	624	G	O
R	611	623	321	G	R	R	G	321	623	611	R
D	612	G	323	310	D	D	310	323	G	612	D
E	613	620	325	G	E	E	G312	325	620	613	E
R	614	G	322	312	R	R	313	322	G	614	R
	615	625	324	315				324	625	615	

FLUE-CURED REP III BURLEY

	G	313	622	G			622	G	313	G	
B	320	314	621	610	B	B	621	610	314	320	B
O	G	311	624	G	O	O	624	G	311	G	O
R	321	G	623	611	R	R	623	611	G	321	R
D	323	310	G	612	D	D	G	612	310	323	D
E	325	G	620	613	E	E	620	613	G	325	E
R	322	312	G	614	R	R	G	614	312	322	R
	324	315	625	615			625	615	315	324	

FLUE-CURED REP IV BURLEY

2008 EFFECTS OF HAIL DAMAGE ON FLUE-CURED AND BURLRY TOBACCO
UPPER COASTAL PLAIN RESEARCH STATION
ROCKY MOUNT, NC

	G	622	G	313			313	G	622	G	
B	610	621	320	314	B	B	314	320	621	610	B
O	G	624	G	311	O	O	311	G	624	G	O
R	611	623	321	G	R	R	G	321	623	611	R
D	612	G	323	310	D	D	310	323	G	612	D
E	613	620	325	G	E	E	G312	325	620	613	E
R	614	G	322	312	R	R	313	322	G	614	R
	615	625	324	315				324	625	615	

FLUE-CURED REP V BURLEY

	G	313	622	G			622	G	313	G	
B	320	314	621	610	B	B	621	610	314	320	B
O	G	311	624	G	O	O	624	G	311	G	O
R	321	G	623	611	R	R	623	611	G	321	R
D	323	310	G	612	D	D	G	612	310	323	D
E	325	G	620	613	E	E	620	613	G	325	E
R	322	312	G	614	R	R	G	614	312	322	R
	324	315	625	615			625	615	315	324	

FLUE-CURED REP VI BURLEY

	G	622	G	313			313	G	622	G	
B	610	621	320	314	B	B	314	320	621	610	B
O	G	624	G	311	O	O	311	G	624	G	O
R	611	623	321	G	R	R	G	321	623	611	R
D	612	G	323	310	D	D	310	323	G	612	D
E	613	620	325	G	E	E	G312	325	620	613	E
R	614	G	322	312	R	R	313	322	G	614	R
	615	625	324	315				324	625	615	

FLUE-CURED REP VII BURLEY

	G	313	622	G			622	G	313	G	
B	320	314	621	610	B	B	621	610	314	320	B
O	G	311	624	G	O	O	624	G	311	G	O
R	321	G	623	611	R	R	623	611	G	321	R
D	323	310	G	612	D	D	G	612	310	323	D
E	325	G	620	613	E	E	620	613	G	325	E
R	322	312	G	614	R	R	G	614	312	322	R
	324	315	625	615			625	615	315	324	

FLUE-CURED REP VIII BURLEY

2008 EFFECTS OF HAIL DAMAGE ON FLUE-CURED AND BURLEY TOBACCO
UPPER COASTAL PLAIN RESEARCH STATION
ROCKY MOUNT, NC

TREATMENTS

33% TISSUE REMOVED
310 CHECK (NO LOSS)
311 LEAF TIP REMOVAL (EACH LEAF)
312 MID LEAF LAMINA (EACH LEAF)
313 66% FROM LEAF TIP REMOVAL (2/3 OF LEAVES)
314 66% MID LEAF LAMINA (2/3 OF LEAVES)
315 WHOLE LEAF REMOVAL (1/3 OF LEAVES)

33% TISSUE BROKEN, NOT REMOVED
320 CHECK (NO LOSS)
321 LEAF TIP REMOVAL (EACH LEAF)
322 MID LEAF LAMINA (EACH LEAF)
323 66% FROM LEAF TIP REMOVAL (2/3 OF LEAVES)
324 66% MID LEAF LAMINA (2/3 OF LEAVES)
325 WHOLE LEAF REMOVAL (1/3 OF LEAVES)

66% TISSUE REMOVED
610 CHECK (NO LOSS)
611 LEAF TIP REMOVAL (EACH LEAF)
612 MID LEAF LAMINA (EACH LEAF)
613 100 + 33% LEAF TIP REMOVAL
614 100 + 33% MID LEAF LAMINA
625 WHOLE LEAF REMOVAL (2/3 OF LEAVES)

66% TISSUE BROKEN, NOT REMOVED
620 CHECK (NO LOSS)
621 LEAF TIP REMOVAL (EACH LEAF)
622 MID LEAF LAMINA (EACH LEAF)
623 100 + 33% LEAF TIP REMOVAL
624 100 + 33% MID LEAF LAMINA
625 WHOLE LEAF REMOVAL (2/3 OF LEAVES)

Evaluation of 3 Dark Air-Cured Varieties & 3 Nitrogen Rates on Yield & Quality
Upper Coastal Plain Research Station
Rocky Mount, NC

REP IV

409 NL MODLE 300 LBS N 3	408 NL MODLE 250 LBS N 2	407 NL MODLE 200 LBS N 1	406 KY 171 250 LBS N 5	405 KY 171 300 LBS N 6	404 KY 171 200 LBS N 4	403 VA 359 300 LBS N 9	402 VA 359 250 LBS N 8	401 VA 359 200 LBS N 7
301 KY 171 300 LBS N 6	302 KY 171 250 LBS N 5	303 KY 171 200 LBS N 4	304 VA 359 200 LBS N 7	305 VA 359 300 LBS N 9	306 VA 359 250 LBS N 8	307 NL MODLE 300 LBS N 3	308 NL MODLE 200 LBS N 1	309 NL MODLE 250 LBS N 2

REP III

REP II

209 VA 359 300 LBS N 9	208 VA 359 200 LBS N 7	207 VA 359 250 LBS N 8	206 NL MODLE 250 LBS N 2	205 NL MODLE 300 LBS N 3	204 NL MODLE 200 LBS N 1	203 KY 171 250 LBS N 5	202 KY 171 300 LBS N 6	201 KY 171 200 LBS N 4
101 NL MODLE 200 LBS N 1	102 NL MODLE 250 LBS N 2	103 NL MODLE 300 LBS N 3	104 KY 171 200 LBS N 4	105 KY 171 250 LBS N 5	106 KY 171 300 LBS N 6	107 VA 359 200 LBS N 7	108 VA 359 250 LBS N 8	109 VA 359 300 LBS N 9

REP I

DESIGN: FACTORIAL
PLOT SIZE: 4 ROWS 16' WIDE AND 50' LONG. HARVEST CENTER 2 ROWS FOR YIELD AND QUALITY. IN ROW SPACING 28 INCHES.
VARIETIES: NARROWLEAF MODLE, KENTUCKY 171 AND VIRGINIA 359.
FERTILIZATION: 200, 250 AND 300 LBS NITROGEN PER ACRE.

North Carolina State University

Evaluation of 3 Dark Air-cured Varieties & 3 Nitrogen Rates on Yield & Quality

Loren Fisher and Joe Priest

Trial ID: DACRM-08 Study Director:
Location: ROCKY MOUNT, NC Investigator: Joseph A Priest

Reps: 4 Plots: 8 by 50 feet

Trt No	Treatment Name	Amt Product to Measure	Plot No. By Rep 1	2	3	4
1	NARROWLEAF MODLE 200 LBS NITROGEN PER ACRE	NA for Unit NA for Unit	101	204	308	407
2	NARROWLEAF MODLE 250 LBS NITROGEN PER ACRE	NA for Unit NA for Unit	102	206	309	408
3	NARROWLEAF MODLE 300 LBS NITROGEN PER ACRE	NA for Unit NA for Unit	103	205	307	409
4	KENTUCKY 171 200 LBS NITROGEN PER ACRE	NA for Unit NA for Unit	104	201	303	404
5	KENTUCKY 171 250 LBS NITROGEN PER ACRE	NA for Unit NA for Unit	105	203	302	406
6	KENTUCKY 171 300 LBS NITROGEN PER ACRE	NA for Unit NA for Unit	106	202	301	405
7	VIRGINIA 359 200 LBS NITROGEN PER ACRE	NA for Unit NA for Unit	107	208	304	401
8	VIRGINIA 359 250 LBS NITROGEN PER ACRE	NA for Unit NA for Unit	108	207	306	402
9	VIRGINIA 359 300 LBS NITROGEN PER ACRE	NA for Unit NA for Unit	109	209	305	403

Sort Order: Treatment

2008 OFFICIAL VARIETY TEST ON BURLEY TOBACCO (O.V.T.)
UPPER COASTAL PLAIN RESEARCH STATION, ROCKY MOUNT, N.C.
NORTH CAROLINA STATE UNIVERSITY CROP SCIENCE DEPARTMENT

LOREN FISHER SCOTT WHITLEY

234'

301 4 NC 6	302 18 R 7-12	303 11 TN 97 LC	304 15 KT 206 LC	305 1 NC 3	306 14 KT 204 LC	307 9 TN 86	308 12 KY 907	309 7 NC 2002	310 16 R 610	311 20 KY 14 X L8	315 21 N 126	321 13 KT 200 LC	320 5 NC 7	G U A R D

200'
184'

222 16 R 610	221 8 NC BH 129	220 6 NC 2000	219 13 KT 200 LC	218 10 TN 90	217 2 NC 4	216 20 KY 14 X L8	215 18 R 7-12	214 3 NC 5	213 21 N 126	212 15 KT 206 LC	316 3 NC 5	322 10 TN 90	G U A R D	G U A R D

150'
134'

201 9 TN 86	202 14 KT 204 LC	203 7 NC 2002	204 12 KY 907	205 4 NC 6	206 11 TN 97 LC	207 22 N 777	208 19 HB 04P	209 1 NC 3	210 17 R 630	211 5 NC 7	317 8 NC BH 129	312 6 NC 5	G U A R D	G U A R D

100'
84'

122 22 N 777	121 21 N 126	120 20 KY 14 X L8	119 19 HB 04P	118 18 R 7-12	117 17 R 630	116 16 R 610	115 15 KT 206 LC	114 14 KT 204 LC	113 13 KT 200 LC	112 12 KY 907	318 19 HB 04P	313 22 N 777	G U A R D	G U A R D

50'
34'

101 1 NC 3	102 2 NC 4	103 3 NC 5	104 4 NC 6	105 5 NC 7	106 6 NC 2000	107 7 NC 2002	108 8 NC BH 129	109 9 TN 86	110 10 TN 90	111 11 TN 97 LC	319 17 R 630	314 2 NC 4	G U A R D	G U A R D

0'

< - 15 ROWS (INCLUDING BORDER ROWS) - >
60 FT.

NO. OF REPETITIONS: 3
ROW SPACING: 4 FT.
PLANT SPACING: 18 IN.
TOTAL ACREAGE: 60 FT. X 234 FT. = **0.32 ACRE**

INDIVIDUAL PLOT SIZE: 1 ROW x 34 FT.
ALLEY LENGTH 16 FT.

	309 32	310 24	311 60	312 17	313 8	314 59	315 105	316 97	317 7	318 5	319 52	320 91	321 33	322 66	323 75	324 94	325 96	326 27	327 63	328 77	329 79	330 41						
Rep C	281 42	282 102	283 56	284 76	285 25	286 37	287 99	288 62	289 83	290 84	291 21	292 13	293 34	294 11	295 15	296 98	297 82	298 103	299 80	300 16	301 10	302 85	303 106	304 109	305 107	306 70	307 65	308 2
	253 49	254 58	255 38	256 55	257 74	258 50	259 40	260 19	261 39	262 53	263 57	264 61	265 18	266 20	267 6	268 30	269 35	270 68	271 54	272 14	273 90	274 104	275 4	276 45	277 29	278 28	279 36	280 87
	225 101	226 89	227 110	228 51	229 23	230 95	231 64	232 67	233 22	234 69	235 72	236 47	237 86	238 3	239 12	240 46	241 81	242 31	243 44	244 43	245 9	246 93	247 48	248 73	249 71	250 108	251 78	252 26
	197 90	198 37	199 54	200 3	201 39	202 1	203 80	204 12	205 2	206 84	207 107	208 33	209 77	210 50	211 6	212 28	213 103	214 47	215 30	216 82	217 93	218 75	219 44	220 52	221 88	222 92	223 1	224 100
Rep B	169 108	170 42	171 83	172 27	173 91	174 29	175 22	176 79	177 94	178 5	179 66	180 32	181 58	182 11	183 26	184 110	185 86	186 7	187 109	188 38	189 17	190 87	191 106	192 34	193 101	194 88	195 61	196 96
	141 35	142 104	143 92	144 43	145 97	146 51	147 63	148 62	149 16	150 10	151 95	152 71	153 73	154 100	155 15	156 55	157 98	158 49	159 23	160 25	161 72	162 69	163 45	164 8	165 102	166 36	167 99	168 67
	113 4	114 76	115 59	116 74	117 85	118 84	119 81	120 24	121 105	122 40	123 70	124 65	125 56	126 78	127 21	128 53	129 89	130 68	131 9	132 14	133 60	134 19	135 41	136 31	137 18	138 13	139 48	140 20
	85 36	86 30	87 4	88 74	89 14	90 95	91 26	92 73	93 19	94 54	95 20	96 88	97 105	98 93	99 89	100 101	101 32	102 39	103 72	104 31	105 51	106 15	107 37	108 52	109 49	110 55	111 57	112 46
Rep A	57 34	58 109	59 9	60 25	61 97	62 58	63 28	64 45	65 83	66 50	67 43	68 68	69 71	70 27	71 94	72 106	73 103	74 100	75 21	76 44	77 108	78 12	79 80	80 46	81 85	82 47	83 75	84 76
	29 1	30 53	31 7	32 13	33 110	34 65	35 35	36 6	37 98	38 3	39 11	40 69	41 23	42 91	43 63	44 81	45 59	46 2	47 66	48 70	49 107	50 48	51 5	52 86	53 87	54 38	55 92	56 29
	1 79	2 22	3 82	4 61	5 16	6 77	7 62	8 40	9 17	10 10	11 64	12 90	13 67	14 102	15 24	16 18	17 42	18 84	19 104	20 96	21 56	22 76	23 57	24 99	25 60	26 41	27 8	28 33

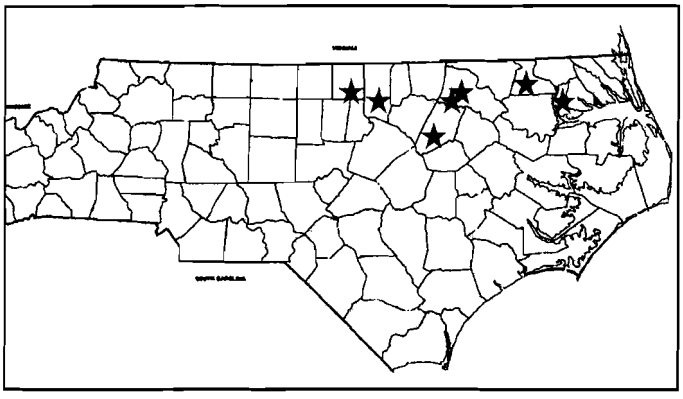
UCPRS Black Shank OVT (Race 1 Black shank nursery)

Seed Date: 2/19/2008
Transplant Date: 5/6/2008

Rating Data Type			%Disease
Rating Date			7/3/2008
	Trt No.	Treatment Name	
OVT/C	1	CC 27	6.1 h-k
	2	SP 236	0 k
	3	NC 196	6.1 h-k
	4	SP NF3	1.5 jk
	5	NC 72	3 ijk
	6	NC 55	15.2 d-k
	7	K 149	0 k
	8	K 394	1.5 jk
	9	SP 227	1.5 jk
	10	NC 299	6.1 h-k
	11	GL 939	6.1 h-k
	12	NC 92	22.7 b-g
	13	SP 168	4.5 ijk
	14	RG 17	0 k
	15	PVH 2110	6.1 h-k
	16	PVH 1118	6.1 h-k
	17	NC 606	0 k
	18	K 326	13.6 d-k
	19	CC 65	7.6 g-k
	20	K 399	0 k
	21	NC 102	3 ijk
	22	CC 35	1.5 jk
	23	GF 52	18.2 c-i
	24	CC 13	1.5 jk
	25	K 346	0 k
	26	CC 700	0 k
	27	CC 37	1.5 jk
	28	SP 210	6.1 h-k
	29	NC 471	3 ijk
	30	RGH 4	6.1 h-k
	31	RGH 51	4.5 ijk
	32	SP 225	0 k
	33	NC 291	12.1 e-k
	34	SP 220	3 ijk
	35	NC 810	3 ijk
	36	SP H-20	4.5 ijk
	37	NC 71	3 ijk
	38	SP 234	7.6 g-k
	39	NC 297	18.2 c-i
OVT/A	40	NC 2326	18.2 c-i
	41	NC 95	15.2 d-k
	42	K 326	18.2 c-i
	43	CC 314	3 ijk
	44	RJR 739	0 k
	45	GL 350	1.5 jk
	46	NCTG 156	1.5 jk
	47	CC 317	7.6 g-k
	48	NCEX 21	7.6 g-k
	49	NCEX 17	59.1 a
	50	NCEX 18	9.1 f-k
	51	CU 100	1.5 jk
	52	CU 108	36.4 b
	53	RJR 239	3 ijk
	54	GL 390	3 ijk
	55	GF 27	3 ijk
	56	RJR 151	0 k
	57	CC 318	1.5 jk
	58	NCEX 20	25.8 b-e
	59	CC 319	3 ijk
	60	CU 95	1.5 jk
	61	CU 110	3 ijk
	62	NCTG 158	12.1 e-k
	63	NCEX 22	28.8 bcd
	64	NCTG 138	12.1 e-k
	65	NCEX 19	7.6 g-k
	66	CU 92	0 k
	67	NCTG 157	36.4 b
	68	RJR 238	0 k
OVT/RSP	69	NC 2326	13.6 d-k
	70	NC 95	7.6 g-k
	71	K 326	7.6 g-k
	72	CU 109	25.8 b-e
	73	RJR 225	1.5 jk
	74	CU 94	1.5 jk
	75	RJR 251	0 k
	76	OX 2047	0 k
	77	CC 507	10.6 e-k
	78	NCEX 16	33.3 bc
	79	NCEX 15	10.6 e-k
	80	NCEX 14	1.5 jk
	81	ULT 142	4.5 ijk
	82	AOV 708	16.7 d-j
	83	XP 275	36.4 b
	84	NCEX 10	16.7 d-j
	85	CU 61	7.6 g-k
	86	RJR 25	7.6 g-k
	87	XP 156	3 ijk
	88	NCEX 13	34.8 b
	89	CU 75	4.5 ijk
	90	XP 274	13.6 d-k
	91	EXP 806	0 k
	92	XP 254	12.1 e-k
	93	EXP 803	24.2 b-f
	94	RJR 651	0 k
	95	CU 90	0 k
	96	XP 324	4.5 ijk
	97	EXP 305	21.2 b-h
	98	RJR 62	1.5 jk
	99	ULT 112	15.2 d-k
OVT/RFT	100	NC 2326	16.7 d-j
	101	NC 95	10.6 e-k
	102	XP 596	4.5 ijk
	103	RJR 75	1.5 jk
	104	GF 318	9.1 f-k
	105	RJR 15	18.2 c-i
	106	NCEX 08	7.6 g-k
	107	CC 67	1.5 jk
	108	NCEX 09	6.1 h-k
	109	CC 33	1.5 jk
	110	NCEX 07	1.5 jk

Means followed by same letter do not significantly differ (P=.05, LSD)

Splitworm Monitoring
Burrack Lab, NCSU Entomology



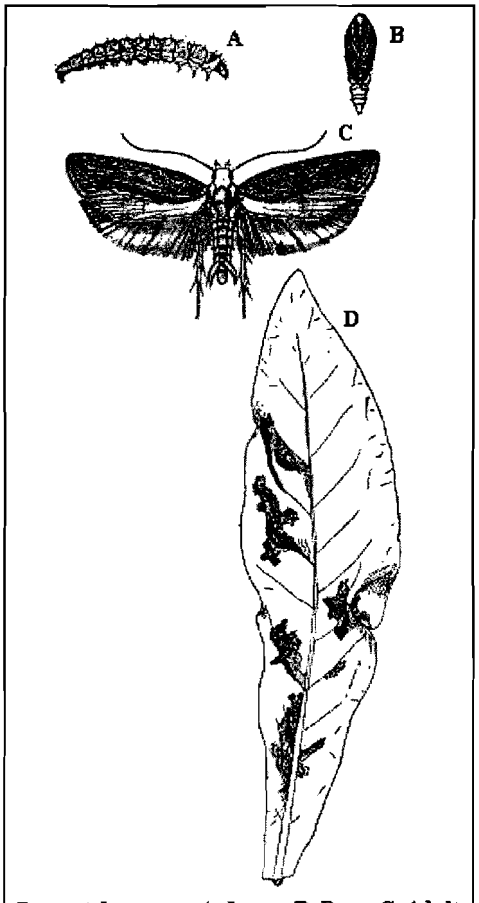
Splitworm monitoring locations

Tobacco splitworm monitoring sites have been established at 7 sites with previous histories of splitworm damage in 6 NC counties. Four sites each have also been established in Georgia, South Carolina, and Virginia. Each location consists of 4 traps, and one weather station. Infestation and larval presence is assessed weekly at each location by observing at least 900 plants in 3, 300-plant sections.

Splitworm have been captured at all the monitoring locations, and damage has been observed at 3 of the locations. Damage levels to date are low (< 1%), but will be observed throughout the season to determine their progress.

Noncrop hosts will observed over winter at a subset of locations to ID potential overwinter hosts.

Splitworm life cycle



Potato tuberworm. A, Larva. B, Pupa. C, Adult. D, Damage.

2008 REGIONAL SUCKER CONTROL TEST
CUNNINGHAM RESEARCH STATION
KINSTON, NC

REP IV **REP III**

409 1	408 6	407 8	406 7	405 9	404 5	403 2	402 3	401 4	309 8	308 2	307 6	306 4	305 1	304 3	303 9	302 5	301 7
101 1	102 2	103 3	104 4	105 5	106 6	107 7	108 8	109 9	201 3	202 5	203 7	204 9	205 1	206 4	207 6	208 8	209 2

REP I **REP II**

Design: Randomized complete block
Plot size: 2-rows, 40' long
Variety: NC 71 (Greenhouse plants). Transplanted 4-18-08.
Fertilization: Normal Research Station Fertility Program

North Carolina State University

2008 REGIONAL SUCKER CONTROL TEST
JOE PRIEST AND LOREN FISHER

Trial ID: SCK-08 Study Director:
Location: KINSTON, NC Investigator: Joseph A Priest

Use 3 gallons(s) per treatment mixture to spray 50 gal/ac
Plots: 8 by 40 feet

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Amt Product to Measure	Plot No. By Rep 1	2	3	4
1	TOPPED, NOT SUCKERED						101	205	305	409
2	OST 4% 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx	102	209	308	403
	OST 5% 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	(RMH-30 1.5 GPA &	1.5	EC	2.25	lb ai/a	340.7 ml/mx				
	FLUPRO 0.5 GPA) TM	1.2	EC	0.6	lb ai/a	113.6 ml/mx				
3	OST 4% 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx	103	201	304	402
	OST 5% 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	CHECK MH 1.5 GPA	1.5	EC	2.25	lb ai/a	340.7 ml/mx				
4	OST 4% 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx	104	206	306	401
	OST 5% 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	(CHECK MH 1.5 GPA &	1.5	EC	2.25	lb ai/a	340.7 ml/mx				
	MATRIXX .0625 GPA) TM	100	ADJ	0.1250	% v/v	14.19 ml/mx				
5	OST 4% 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx	105	202	302	404
	OST 5% 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	(CHECK MH 1.5 GPA &	1.5	EC	2.25	lb ai/a	340.7 ml/mx				
	SYNTACT .0625 GPA) TM	100	ADJ	0.125	% v/v	14.19 ml/mx				
6	OST 4% 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx	106	207	307	408
	OST 5% 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	(RMH-30 1.5 GPA &	1.5	EC	2.25	lb ai/a	340.7 ml/mx				
	APE FREE 0.5 GPA) TM	1.2	EC	0.6	lb ai/a	113.6 ml/mx				
7	OST 4% 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx	107	203	301	406
	OST 5% 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	FLUPRO 0.5 GPA	1.2	EC	0.6	lb ai/a	113.6 ml/mx				
	RMH-30 1.0 GPA	1.5	EC	1.5	lb ai/a	227.1 ml/mx				
8	OST 4% 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx	108	208	309	407
	OST 5% 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	APE FREE 0.5 GPA	1.2	EC	0.6	lb ai/a	113.6 ml/mx				
	RMH-30 1.0 GPA	1.5	EC	1.5	lb ai/a	227.1 ml/mx				
9	OST 4% 2.0 GPA	6.01	EC	12.02	lb ai/a	454.2 ml/mx	109	204	303	405
	OST 5% 2.5 GPA	6.01	EC	15.03	lb ai/a	567.9 ml/mx				
	FLUPRO 0.5 GPA	1.2	EC	0.6	lb ai/a	113.6 ml/mx				
	RMH-30 1.5 GPA	1.5	EC	2.25	lb ai/a	340.7 ml/mx				

Sort Order: Treatment

2008 FERTILIZER STUDY
CUNNINGHAM RESEARCH STATION
KINSTON, NC

410 4	409 1	408 6	407 9	406 8
401 5	402 3	403 10	404 2	405 7

REP IV

Wide alley

310 7	309 10	308 5	307 1	306 3
301 2	302 4	303 6	304 8	305 9

REP III

Wide alley

210 9	209 7	208 5	207 3	206 1
201 8	202 6	203 4	204 2	205 10

REP II

Wide alley

110 10	109 9	108 8	107 7	106 6
101 1	102 2	103 3	104 4	105 5

REP I

DESIGN: Randomized Complete Block.

PLOT SIZE: 4 rows, 14.6' wide and 40' long. Harvest 2 center rows for yield and quality.

VARIETY: NC 71 (Greenhouse plants). Transplanted 4-18-08

FERTILIZATION: Base fertilizer will be 40 lbs N/A from the various sources. Sidedressing will be 20 lbs N/A from the various sources.

North Carolina State University

2008 VARIOUS FERTILIZER SOURCES ON THE YIELD AND QUALITY OF FLUE-CURED TOBACCO
LOREN FISHER JOE PRIEST SCOTT WHITLEY

Trial ID: FERK-08 Study Director:
Location: KINSTON, NC Investigator: Joseph A Priest
Reps: 4 Plots: 16 by 40 feet

Trt No	Treatment Name	Amt Product to Measure	Plot No. By Rep 1	2	3	4
1	BASE FERTILIZER- 667 LBS/A 6-6-18	NA for Unit	101	206	307	409
	SIDEDRESSING- 129 LBS/A 15.5-0-0 (CaNO3)	NA for Unit				
2	BASE FERTILIZER- 500 LBS/A 8-8-24 WITH AVAIL	NA for Unit	102	204	301	404
	SIDEDRESSING -129 LBS/A 15.5-0-0 CaNO3)	NA for Unit				
3	BASE FERTILIZER- 87 LBS/A 46-0-0 (Urea)	NA for Unit	103	207	306	402
	SIDEDRESSING- 43 LBS/A 46-0-0 (Urea)	NA for Unit				
4	BASE FERTILIZER-125 LBS/A 32-0-0-24S (Urea NH4SO4)	NA for Unit	104	203	302	410
	SIDEDRESSING-63 LBS/A 32-0-0 24S (Urea NH4SO4)	NA for Unit				
5	BASE FERTILIZER-190 LBS/A 21-0-0-24S (NH4SO4)	NA for Unit	105	208	308	401
	SIDEDRESSING- 95 LBS/A 21-0-0-24S (NH4SO4)	NA for Unit				
6	BASE FERTILIZER- 12.3 GPA 30% LIQUID NITROGEN	NA for Unit	106	202	303	408
	SIDEDRESSING- 6.2 GPA 30% LIQUID NITROGEN	NA for Unit				
7	BASE FERTILIZER- 15.5 GPA 24S LIQUID NITROGEN	NA for Unit	107	209	310	405
	SIDEDRESSING- 7.7 GPA 24S LIQUID NITROGEN	NA for Unit				
8	BASE FERILIZER-119 LBS/A 33.5-0-0 (NH4NO3)	NA for Unit	108	201	304	406
	SIDEDRESSING-60 LBS/A 33.5-0-0 (NH4NO3)	NA for Unit				
9	BASE FERTILIZER-258 LBS/A 15.5-0-0 (CaNO3)	NA for Unit	109	210	305	407
	SIDEDRESSING-129 LBS/A 15.5-0-0 (CaNO3)	NA for Unit				
10	BASE FERTILIZER- 250 LBS/A 8-8-24 WITH AVAIL	NA for Unit	110	205	309	403
	BASE FERTILIZER--129 LBS/A 15.5-0-0 (CaNO3)	NA for Unit				
	SIDEDRESSING-129 LBS/A 15.5-0-0 (CaNO3)	NA for Unit				

Sort Order: Treatment

2008 PESTICIDE RESIDUE STUDY
CUNNINGHAM RESEARCH STATION
KINSTON, NC

REP IV

408 4	407 8	406 7	405 6	404 2	403 1	402 3	401 5
301 2	302 1	303 8	304 4	305 7	306 6	307 5	308 3

REP III

WIDE ALLEY

REP II

208 6	207 3	206 8	205 2	204 1	203 5	202 4	201 7
101 1	102 2	103 3	104 4	105 5	106 6	107 7	108 8

REP I

DESIGN: RCB.
PLOT SIZE: 4-ROWS, 40' LONG.
VARIETY: NC 71 (GREENHOUSE PLANTS). TRANSPLANTED 4-18-08.
FERTILIZATION: NORMAL RESEARCH STATION CULTURAL PRACTICES.

North Carolina State University

2008 Pesticide Residue Study
Loren Fisher Joe Priest Scott Whitley

Trial ID: PRSK-08 Study Director:
Location: Kinston, NC Investigator: Joseph A Priest

Reps: 4 Plots: 16 by 40 feet
Spray vol: 20 gal/ac Mix size: 2 gallons (min 1.1754)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Amt Product to Measure	Plot No. By Rep 1	Plot No. By Rep 2
1	Admire Pro (Imidacloprid)			1.2	fl oz/a	Unknown Fm Ds	101	204
	Provado (Imidacloprid) .03125 gpa	1.6	F	4	fl oz/a	11.83 ml/mx		
	Provado (Imidacloprid) .03125 gpa	1.6	F	4	fl oz/a	11.83 ml/mx		
2	Butralin 1.0 gpa (Applied Broadcast)	3.0	EC	3.0	lb ai/a	378.5 ml/mx	102	205
3	Butralin 1.0 gpa (Applied with a Dropline)	3.0	EC	3.0	lb ai/a	378.5 ml/mx	103	207
4	Flumetralin 1.0 gpa (Applied Broadcast)	1.2	EC	1.2	lb ai/a	378.5 ml/mx	104	202
5	Flumetralin 1.0 gpa (Applied with a Dropline)	1.2	EC	1.2	lb ai/a	378.5 ml/mx	105	203
6	Quadris .0625 gpa	2.08	F	8	fl oz/a	23.66 ml/mx	106	208
	Quadris .0625 gpa	2.08	F	8	fl oz/a	23.66 ml/mx		
	Quadris .0625 gpa	2.08	F	8	fl oz/a	23.66 ml/mx		
	Quadris .0625 gpa	2.08	F	8	fl oz/a	23.66 ml/mx		
7	Admire PRO (Imidacloprid)			1.2	fl oz/a	Unknown Fm Ds	107	201
	Provado (Imidacloprid) .03125 gpa	1.6	F	4	fl oz/a	11.83 ml/mx		
	Provado (Imidacloprid) .03125 gpa	1.6	F	4	fl oz/a	11.83 ml/mx		
	Provado (Imidacloprid) .03125 gpa	1.6	F	4	fl oz/a	11.83 ml/mx		
	Provado (Imidacloprid) .03125 gpa	1.6	F	4	fl oz/a	11.83 ml/mx		
8	Cypermethrin	2.5	SC	0.71	lb ai/a	107.5 ml/mx	108	206

North Carolina State University

Reps: 4 Plots: 16 by 40 feet
Spray vol: 20 gal/ac Mix size: 2 gallons (min 1.1754)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Amt Product to Measure	Plot No. By Rep 3	4
1	Admire Pro (Imidacloprid)			1.2	fl oz/a	Unknown Fm Ds	302	403
	Provado (Imidacloprid) .03125 gpa	1.6	F	4	fl oz/a	11.83 ml/mx		
	Provado (Imidacloprid) .03125 gpa	1.6	F	4	fl oz/a	11.83 ml/mx		
2	Butralin 1.0 gpa (Applied Broadcast)	3.0	EC	3.0	lb ai/a	378.5 ml/mx	301	404
3	Butralin 1.0 gpa (Applied with a Dropline)	3.0	EC	3.0	lb ai/a	378.5 ml/mx	308	402
4	Flumetralin 1.0 gpa (Applied Broadcast)	1.2	EC	1.2	lb ai/a	378.5 ml/mx	304	408
5	Flumetralin 1.0 gpa (Applied with a Dropline)	1.2	EC	1.2	lb ai/a	378.5 ml/mx	307	401
6	Quadris .0625 gpa	2.08	F	8	fl oz/a	23.66 ml/mx	306	405
	Quadris .0625 gpa	2.08	F	8	fl oz/a	23.66 ml/mx		
	Quadris .0625 gpa	2.08	F	8	fl oz/a	23.66 ml/mx		
	Quadris .0625 gpa	2.08	F	8	fl oz/a	23.66 ml/mx		
7	Admire PRO (Imidacloprid)			1.2	fl oz/a	Unknown Fm Ds	305	406
	Provado (Imidacloprid) .03125 gpa	1.6	F	4	fl oz/a	11.83 ml/mx		
	Provado (Imidacloprid) .03125 gpa	1.6	F	4	fl oz/a	11.83 ml/mx		
	Provado (Imidacloprid) .03125 gpa	1.6	F	4	fl oz/a	11.83 ml/mx		
	Provado (Imidacloprid) .03125 gpa	1.6	F	4	fl oz/a	11.83 ml/mx		
8	Cypermethrin	2.5	SC	0.71	lb ai/a	107.5 ml/mx	303	407

Sort Order: Treatment

2008 NORTH CAROLINA FLUE-CURED TOBACCO VARIETY TEST
Commercial Varieties

Trt. No.	Variety Or Line	Generation Or Year of Release	Pedigree	Disease Resistance[1] BS	GW	FW	RK	Bn Sp.	Virus	Sponsor
1	CC 27	2003	Hybrid	R	R		TCN/R		TMV	CC
2	Speight 236	2005	(SP 168 X SP 196)(SP 179 X SP 177)	R	R		R			SPT
3	NC 196	2002	Hybrid	R	L		R			GL
4	Speight NF 3[2]	1996	Speight NF 1 X NC 0007	H	H		R			SPT
5	NC 72	1996	Hybrid	H	L		R			Rickard
6	NC 55	1994	(K 326 X DH 1220) X (K 326 X Coker 371-Gold)	L	L		R		PVY/TEV	GL
7	K 149	1988	([G-28 X 354] X [CB-139 X F-105] X [G-28 X 354]) McNair 399	M	H		R			GL
8	K 394	1983	Speight G-28 X McNair 944	H	M					GL
9	Speight 227	2003	(Sp 151 X K 346)(SP 202 X K 346)	R	R		R			SPT
10	NC 299	2001	Hybrid	R	R		TCN/R			CC
11	GL 939	1992	McN 926 X 80241	R	R		R			GL
12	NC92	2007	Hybrid	R	R		TCN/R			NC
13	Speight 168	1996	Coker 371G X Spt. G 118	H	H		R			SPT
14	RG 17	1993	K 326 X K 399	L	M		R			Rickard
15	PVH 2110	2005	Hybrid							Profigen
16	PVH 1118	2004	Hybrid	R	R		TCN/R			Rickard
17	NC 606	1998	NC 729 X NC 82	R	R		R			Raynor
18	K 326	1981	McNair 225 (McNair 30 X NC 95)	L	L		R			GL
19	CC 65	2007	Hybrid	R	R		M.j/R			CC
20	K 399	1979	(C-139 X C-319) X NC 95							GL
21	NC 102	2001	Hybrid	R	R				TMV/PVY	Rickard
22	CC 35	2007	Hybrid	R	R		M.j/R			CC
23	GF 52	2007	Hybrid	R	R		R		TMV	GF
24	CC 13	2005	Hybrid	R	R		M.j/R			CC
25	K 346	1988	McNair 926 X 80241	H	H		R			GL

2008 NORTH CAROLINA FLUE-CURED TOBACCO VARIETY TEST
Commercial Varieties (Continued)

Trt. No.	Variety Or Line	Generation Or Year of Release	Pedigree	Disease Resistance[1] BS	GW	FW	RK	Bn Sp.	Virus	Sponsor
26	CC 700	2005	Hybrid	R	R		TCN/R			CC
27	CC 37	2006	Hybrid	R	R		TCN/R M.j/R		TMV	CC
28	Speight 210	2000	(SP 116 X G-126((K 346 X G-28)	R	R		R			SPT
29	NC 471	2003	Hybrid	R	R				TMV	Raynor
30	RGH4	1994	Hybrid	M	H		R		TMV	Rickard
31	RGH 51	1998	Hybrid	R	R		R			Rickard
32	Speight 225	2003	(SP 168 X K 346)(SPA 95 X SP 168)	R	R		R			SPT
33	NC 291	1997	Hybrid	R	R		TCN/R		PVY/TEV	CC
34	Speight 220	2002	(K 346 X SP 117) (SP 116 X K 346)	R	R		R			SPT
35	NC 810	2000	OX 2101 X NC 729	R	R		R			CC
36	Speight H-20	1999	Hybrid	R	R		R		TMV	SPT
37	NC 71	1995	Hybrid	H	M		R			Rickard
38	Speight 234	2004	(SP 168 X K 346)	R	R		R			SPT
39	NC 297	1998	Hybrid	R	R		R		TMV	GL

[1]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; 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; M.j - Meloidogyne javanica
[2]Non flowering genotypes: Should be topped at 18 harvestable leaves

2008 OFFICIAL VARIETY TEST
LOWER COASTAL PLAIN TOBACCO RESEARCH STATION, KINSTON NC
K-OVT

REP I			REP II			REP III			
Plot	Entry		Plot	Entry		Plot	Entry		
101	1		201	1		301	37		39 entries replicated three times in
102	2		202	24		302	34		one-row plots with 20 harvested
103	3		203	12		303	35		plants in each plot.
104	4		204	35		304	14		
105	5		205	29		305	15		Rep I - Plots 101 – 139
106	6		206	6		306	29		Rep II - Plots 201 – 239
107	7		207	25		307	33		Rep III - Plots 301 - 339
108	8		208	37		308	20		
109	9		209	21		309	32		
110	10		210	22		310	9		
111	11		211	7		311	39		
112	12		212	17		312	7		
113	13		213	33		313	30		
114	14		214	2		314	2		
115	15		215	9		315	16		
116	16		216	28		316	24		
117	17		217	27		317	1		
118	18		218	36		318	21		
119	19		219	18		319	28		
120	20		220	15		320	3		
121	21		221	26		321	11		
122	22		222	38		322	26		
123	23		223	34		323	19		
124	24		224	32		324	6		
125	25		225	19		325	25		
126	26		226	4		326	38		
127	27		227	5		327	8		
128	28		228	11		328	31		
129	29		229	8		329	23		
130	30		230	13		330	10		
131	31		231	30		331	18		
132	32		232	23		332	22		
133	33		233	20		333	12		
134	34		234	16		334	5		
135	35		235	39		335	17		
136	36		236	14		336	36		
137	37		237	10		337	13		
138	38		238	31		338	4		
139	39		239	3		339	27		

2008 NORTH CAROLINA FLUE-CURED OFFICIAL TOBACCO VARIETY TEST
Advanced Breeding Lines

Trt. No.	Variety Or Line	Generation Or Year of Release	Pedigree	Disease Resistance[1] 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	K326	1981	McNair 225 (McNair 30 X NC 95)	L	L		R			GL
4	CC 314	F1	Hybrid	R	R		TCN/R		TMV	CC
5	RJR 739	F1	Hybrid	R	R		R		TMV	RJR
6										
7	NCTG 156	F1	Hybrid	R	R		TCN/R		PVY	NC
8	CC 317	F1	Hybrid	R	R		TCN/R		TMV	CC
9	NCEX21	F1	Hybrid	R	R		TCN/R			NC
10	NCEX17	F1	Hybrid	R	R		TCN/R			NC
11	NCEX18	F1	Hybrid	R	R		TCN/R			NC
12	CU 100	F1	Hybrid							SC
13	CU 108	F1	Hybrid							SC
14	RJR 239	F1	Hybrid	R	R		R			RJR
15	GL 390	1989	McNair 926 X McNair 944	R	R		R			GL
16	GF 27	F1	Hybrid	R	R		R			GF
17	RJR 151	F1	Hybrid	R			R	R		RJR
18	CC 318	F1	Hybrid	R	R		TCN/R		TMV	CC
19	NCEX20	F1	Hybrid	R	R		TCN/R			NC
20	CC 319	F1	Hybrid	R	R		TCN/R		TMV	CC
21	CU 95	F1	Hybrid							SC
22	CU 110	F1	Hybrid							SC
23	NCTG 158	F1	Hybrid	R	R		TCN/R			NC
24	NCEX22	F1	Hybrid	R	R		R			NC
25	NCTG 138	2006	Hybrid	R	R	R	TCN/R			NC
26	NCEX19	F1	Hybrid	R	R		TCN/R			NC
27	CU 92	F1	Hybrid							SC
28	NCTG 157	F1	Hybrid	R	R		TCN/R			NC
29	RJR 238	F1	Hybrid	R	R		R			RJR

[1]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; 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; M.j - Meloidogyne javanica

2008 OFFICIAL VARIETY TEST
LOWER COASTAL PLAIN TOBACCO RESEARCH STATION, KINSTON, NC
K-OVTA

REP I			REP II			REP III			
Plot	Entry		Plot	Entry		Plot	Entry		
101	1		201	13		301	14		29 entries replicated three times in
102	2		202	15		302	23		one-row plots with 20 harvested.
103	3		203	14		303	22		plants in each plot.
104	4		204	17		304	1		
105	5		205	2		305	29		Rep I - Plots 101 – 129
106	6		206	18		306	21		Rep II - Plots 201 – 229
107	7		207	29		307	9		Rep III - Plots 301 - 329
108	8		208	10		308	4		
109	9		209	1		309	15		
110	10		210	4		310	25		
111	11		211	25		311	10		
112	12		212	5		312	28		
113	13		213	27		313	11		
114	14		214	12		314	17		
115	15		215	11		315	5		
116	16		216	16		316	20		
117	17		217	21		317	6		
118	18		218	6		318	26		
119	19		219	24		319	7		
120	20		220	22		320	8		
121	21		221	26		321	3		
122	22		222	23		322	2		
123	23		223	19		323	24		
124	24		224	3		324	27		
125	25		225	8		325	18		
126	26		226	9		326	13		
127	27		227	7		327	19		
128	28		228	28		328	16		
129	29		229	20		329	12		

2008 REGIONAL SMALL PLOT TEST
LOWER COASTAL PLAIN TOBACCO RESEARCH STATION, KINSTON, NC
K-RSP

REP I			REP II			REP III			
Plot	Entry		Plot	Entry		Plot	Entry		
101	1		201	25		301	14		31 entries replicated three times in
102	2		202	17		302	4		one-row plots with 20 harvested.
103	3		203	3		303	20		plants in each plot.
104	4		204	5		304	30		
105	5		205	30		305	16		Rep I - Plots 101 – 131
106	6		206	26		306	25		Rep II - Plots 201 – 231
107	7		207	16		307	6		Rep III - Plots 301 - 331
108	8		208	29		308	9		
109	9		209	23		309	24		
110	10		210	9		310	26		
111	11		211	18		311	22		
112	12		212	31		312	13		
113	13		213	10		313	1		
114	14		214	4		314	7		
115	15		215	7		315	5		
116	16		216	24		316	8		
117	17		217	28		317	29		
118	18		218	21		318	23		
119	19		219	12		319	2		
120	20		220	19		320	3		
121	21		221	6		321	18		
122	22		222	11		322	27		
123	23		223	22		323	28		
124	24		224	14		324	21		
125	25		225	2		325	31		
126	26		226	13		326	15		
127	27		227	15		327	12		
128	28		228	20		328	17		
129	29		229	8		329	19		
130	30		230	1		330	11		
131	31		231	27		331	10		

Trt. No.	Variety Or Line	Generation Or Year of Release	Pedigree	Disease Resistance[1] 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 30XNC95)	L	L		R			GL
4	CU 109	F1	Hybrid							SC
5	RJR 225	F1	Hybrid	R	R		R			RJR
6	CU 94	F1	Hybrid							SC
7	RJR 251	F1	Hybrid	R			R	R		RJR
8	OX2047	F7	SPT 210/OX7038	R	R		R		TMV	NC
9	CC 507	F1	Hybrid	R	R		R		TMV PVY	CC
10	NCEX16	F1	Hybrid	R	R		TCN/R			NC
11	NCEX15	F1	Hybrid	R	R		TCN/R			NC
12	NCEX14	F1	Hybrid	R	R		TCN/R			NC
13	ULT 142	F1	Hybrid						PVY	ULT
14	AOV 708	F1	Hybrid						TMV	AO
15	XP275	F8	Hybrid	R		R	R		TMV PVY	Profigen
16	NCEX10	F1	Hybrid	R	R		TCN/R			NC
17	CU 61	F1	Hybrid							SC
18	RJR 25	F1	Hybrid	R			M.j/R	R		RJR
19	XP156	F1	Hybrid		R		R		TMV PVY	Profigen
20	NCEX13	F1	Hybrid	R	R		TCN/R			NC
21	CU 75	F1	Hybrid							SC
22	XP274	F1	Hybrid	R			R		TMV PVY	Profigen
23	Exp.806	F1	Hybrid							GL
24	XP254	F1	Hybrid		R		R		TMV	Profigen
25	Exp.803	F1	Hybrid							GL

2008 FLUE-CURED REGIONAL SMALL PLOT TEST
GEORGIA, SOUTH CAROLINA, NORTH CAROLINA AND VIRGINIA

Trt. No.	Variety Or Line	Generation Or Year of Release	Pedigree	Disease Resistance[1] BS	GW	FW	RK	Bn Sp.	Virus	Sponsor
26	RJR 651	F1	Hybrid	R	R		R	R		RJR
27	CU 90	F1	Hybrid							SC
28	XP324	F1	Hybrid	R	R					Profigen
29	Exp.305	F1	Hybrid							GL
30	RJR 62	F1	Hybrid	R	R		R			RJR
31	ULT 112	F1	Hybrid						TMV	ULT

[1]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; 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; M.j - Meloidogyne javanica
[2]Non flowering genotypes: Should be topped at 18 harvestable leaves

2008 REGIONAL FARM TEST
LOWER COASTAL PLAIN RESEARCH STATION, KINSTON, NC
K-RFT

Rep I			Rep II			Rep III	
Plot	**Entry**		**Plot**	**Entry**		**Plot**	**Entry**
101	1		201	1		301	6
102	2		202	11		302	3
103	3		203	10		303	10
104	4		204	6		304	1
105	5		205	9		305	8
106	6		206	3		306	5
107	7		207	2		307	2
108	8		208	7		308	4
109	9		209	5		309	9
110	10		210	4		310	7
111	11		211	8		311	11

Rep IV			Rep V			Rep VI	
Plot	**Entry**		**Plot**	**Entry**		**Plot**	**Entry**
401	2		501	5		601	5
402	6		502	7		602	8
403	1		503	1		603	9
404	9		504	4		604	7
405	4		505	6		605	1
406	7		506	11		606	6
407	10		507	8		607	2
408	5		508	9		608	4
409	3		509	3		609	11
410	11		510	10		610	3
411	8		511	2		611	10

11 entries replicated six times in one-row plots with 20 harvest plants in each plot.

2008 FLUE-CURED REGIONAL FARM TEST
GEORGIA, SOUTH CAROLINA, NORTH CAROLINA AND VIRGINIA

Trt. No.	Variety Or Line	Generation Or Year of Release	Pedigree	Disease Resistance[1] BS	GW	FW	RK	Bn Sp.	Virus	Sponsor
			REGIONAL FARM TEST							
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	XP 596	F1	Hybrid	R	R		R			Profigen
4	RJR 75	F1	Hybrid	R	R		TCN/R M.j/R		TMV	RJR
5	GF 318	F1	Hybrid	R	R		R		TMV	GF
6	RJR 15	F1	Hybrid	R	R		M.j/R			RJR
7	NCEX08	F1	Hybrid	R	R		TCN/R			NC
8	CC 67	F1	Hybrid	R	R		TCN/R		TMV	CC
9	NCEX09	F1	Hybrid	R	R		TCN/R			NC
10	CC 33	F1	Hybrid	R	R		M.j/R			CC
11	NCEX07	F1	Hybrid	R	R		TCN/R			NC

[1]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; 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; M.j - Meloidogyne javanica

2008 KINSTON TOBACCO HOLDING ABILITY TEST
LOWER COASTAL PLAIN TOBACCO RESEARCH STATION, KINSTON, NC

REP I				REP II				REP III				
Plot	Var.	Har. Sch.		Plot	Var.	Har. Sch.		Plot	Var.	Har. Sch.		Varieties
101	1	1		201	5	2		301	7	3		1 CC 27
102	1	2		202	5	4		302	7	4		2 K 394
103	1	3		203	5	3		303	7	5		3 CC 37
104	1	4		204	5	1		304	7	2		4 SPT. 227
105	**1**	**5**		**205**	**5**	**5**		**305**	**7**	**1**		**5 NC 196**
106	2	1		206	1	5		306	2	5		6 K 326
107	2	2		207	1	4		307	2	1		7 SPT. 225
108	2	3		208	1	3		308	2	4		8 K 346
109	2	4		209	1	1		309	2	2		9 NC 471
110	**2**	**5**		**210**	**1**	**2**		**310**	**2**	**3**		10 NC 71
111	3	1		211	6	1		311	10	4		
112	3	2		212	6	4		312	10	1		**Harvest Schedule**
113	3	3		213	6	2		313	10	2		1 7 days before optimum
114	3	4		214	6	3		314	10	3		2 10 days later
115	3	5		215	6	5		315	10	5		3 20 days later
116	**4**	**1**		**216**	**10**	**1**		**316**	**5**	**1**		4 30 days later
117	4	2		217	10	4		317	5	2		5 40 days later
118	4	3		218	10	2		318	5	3		
119	4	4		219	10	5		319	5	4		10 entries replicated
120	4	5		220	10	3		320	5	5		six times in five-row
121	**5**	**1**		**221**	**3**	**4**		**321**	**1**	**2**		plots with 20 harvested
122	5	2		222	3	1		322	1	1		plants in each plot.
123	5	3		223	3	5		323	1	5		
124	5	4		224	3	3		324	1	4		
125	5	5		225	3	2		325	1	3		
126	**6**	**1**		**226**	**4**	**2**		**326**	**4**	**4**		
127	6	2		227	4	4		327	4	2		
128	6	3		228	4	1		328	4	5		
129	6	4		229	4	3		329	4	3		
130	6	5		230	4	5		330	4	1		
131	**7**	**1**		**231**	**2**	**5**		**331**	**3**	**5**		
132	7	2		232	2	3		332	3	1		
133	7	3		233	2	4		333	3	2		
134	7	4		234	2	2		334	3	4		
135	7	5		235	2	1		335	3	3		
136	**8**	**1**		**236**	**9**	**3**		**336**	**8**	**2**		
137	8	2		237	9	1		337	8	4		
138	8	3		238	9	5		338	8	1		
139	8	4		239	9	4		339	8	3		
140	8	5		240	9	2		340	8	5		
141	**9**	**1**		**241**	**7**	**4**		**341**	**6**	**1**		
142	9	2		242	7	3		342	6	3		
143	9	3		243	7	1		343	6	4		
144	9	4		244	7	2		344	6	5		
145	9	5		245	7	5		345	6	2		
146	**10**	**1**		**246**	**8**	**3**		**346**	**9**	**3**		
147	10	2		247	8	5		347	9	1		
148	10	3		248	8	2		348	9	4		
149	10	4		249	8	4		349	9	2		
150	10	5		250	8	1		350	9	5		

2008 KINSTON TOBACCO HOLDING ABILITY TEST
LOWER COASTAL PLAIN TOBACCO RESEARCH STATION, KINSTON, NC

REP IV				REP V				REP VI			
Plot	Var.	Har. Sch.		Plot	Var.	Har. Sch.		Plot	Var.	Har. Sch.	
401	10	5		501	7	5		601	2	2	
402	10	4		502	7	4		602	2	1	
403	10	2		503	7	2		603	2	5	
404	10	1		504	7	3		604	2	4	
405	**10**	**3**		**505**	**7**	**1**		**605**	**2**	**3**	
406	3	5		506	8	2		606	6	2	
407	3	2		507	8	3		607	6	1	
408	3	4		508	8	5		608	6	4	
409	3	1		509	8	4		609	6	3	
410	**3**	**3**		**510**	**8**	**1**		**610**	**6**	**5**	
411	2	1		511	10	5		611	7	1	
412	2	5		512	10	4		612	7	3	
413	2	3		513	10	1		613	7	2	
414	2	2		514	10	2		614	7	4	
415	2	4		515	10	3		615	7	5	
416	**6**	**4**		**516**	**4**	**4**		**616**	**8**	**3**	
417	6	2		517	4	3		617	8	1	
418	6	1		518	4	2		618	8	4	
419	6	3		519	4	1		619	8	2	
420	6	5		520	4	5		620	8	5	
421	**7**	**3**		**521**	**5**	**3**		**621**	**5**	**5**	
422	7	1		522	5	2		622	5	1	
423	7	5		523	5	4		623	5	2	
424	7	2		524	5	1		624	5	3	
425	7	4		525	5	5		625	5	4	
426	**1**	**3**		**526**	**6**	**1**		**626**	**10**	**4**	
427	1	1		527	6	5		627	10	5	
428	1	5		528	6	3		628	10	1	
429	1	4		529	6	4		629	10	3	
430	1	2		530	6	2		630	10	2	
431	**4**	**1**		**531**	**3**	**4**		**631**	**1**	**3**	
432	4	3		532	3	2		632	1	5	
433	4	2		533	3	5		633	1	2	
434	4	5		534	3	3		634	1	1	
435	4	4		535	3	1		635	1	4	
436	**8**	**4**		**536**	**2**	**5**		**636**	**4**	**3**	
437	8	5		537	2	4		637	4	5	
438	8	2		538	2	3		638	4	4	
439	8	1		539	2	2		639	4	1	
440	8	3		540	2	1		640	4	2	
441	**5**	**1**		**541**	**9**	**3**		**641**	**9**	**5**	
442	5	2		542	9	1		642	9	4	
443	5	5		543	9	4		643	9	1	
444	5	3		544	9	2		644	9	2	
445	5	4		545	9	5		645	9	3	
446	**9**	**5**		**546**	**1**	**1**		**646**	**3**	**4**	
447	9	3		547	1	3		647	3	1	
448	9	1		548	1	4		648	3	5	
449	9	2		549	1	5		649	3	2	
450	9	4		550	1	2		650	3	3	

NCSU Department of Entomology
Mariah Bock Clyde Sorenson, Alan Stephenson

We are conducting research to understand the insect management implications of growing burley tobacco in the high insect-pressure environment of eastern North Carolina. Treatments in these evaluations are designed to measure the effects of tobacco type (burley or flue-cured) planting date (early or late) and treatment with the soil applied, TSWV and aphid-suppressive insecticide imidacloprid, on the occurrence of economically significant insect pests of tobacco, including flea beetles, aphids, tobacco budworms, and hornworms, and on the incidence of TSVW transmitted by thrips.

There was a slight increase in the number of flea beetle holes present in burley tobacco compared to the numbers present in flue-cured tobacco. No substantial difference was detected in tobacco budworm or hornworm populations between the burley and flue-cured tobacco. Aphid numbers have been too low to adequately assess. Through both planting dates and with or without imidacloprid, burley tobacco had approximately twice the incidence of TSWV than flue-cured tobacco under the same plot conditions.

Field Map

401-P2N	402-P2A	403-P1N	404-P1A
301-P2A	302-P1N	303-P2N	304-P1A
Alley			
201-P1N	202-P2A	203-P1A	204-P2N
101-P1N	102-P2N	103-P2A	104-P1A

P1 – transplanted Wednesday April 23, 2008
P2 – transplanted Thursday May 8, 2008
A – pretreated with Admire
N – not pretreated with Admire

Plots are 16 rows wide and 50 feet in length, and are further subdivided into alternating subplots of 2 rows of burley (NC7) and 2 rows of flue-cured (NC71). This helps to eliminate possible variation due to uneven thrips distribution for TSWV evaluations. Burley is always the first two rows on the left in each plot when viewed from the front of the test.

Tour Site Information:

Title: Foliar Applications of Actigard to Tobacco for TSWV suppression

Purpose: The objective of this study is to assess the benefit of post-transplant, foliar applications of the plant protectant Actigard (acibenzolar-S-methyl) to tobacco timed to the flight activity of the thrips that transmit tomato spotted wilt virus (TSWV).

Background: In the past, applications of Actigard to tobacco in the greenhouse have frequently caused stunting plants, while calendar-based foliar sprays to tobacco have provided variable benefits. We made foliar Actigard applications to tobacco in four fields, one in Craven County, one in Duplin County, two sites in Jones County based on weather-based predictions of flight activity of tobacco thrips, the primary agent of spread for TSWV. Our goal was to time the foliar applications so they correspond to the period of greatest virus spread into tobacco fields.

From previous work, we know that thrips flights are affected by both temperature and rainfall during the winter and spring. Warmer temperatures increase the size of the thrips populations, the warmer it is, the faster the thrips grow and reproduce. Rainfall affects thrips populations variably. Rainfall can decrease populations by killing thrips larvae and by restricting adults from flying. However, rainfall can also increase the thrips populations by delaying senescence of their winter weed hosts. By monitoring local temperature and rainfall patterns throughout the winter and spring, we are able to track how the population was progresses and by using 15-day weather forecasts we can estimate when the largest spring flight is going to take place.

Methods: This Jones Co. site on Phillip Howard's farm was transplanted on April 30. The plants received a pre-transplant application of Admire Pro at 1.2 oz./1000 plants on April 25. We tested five different application timings of Actigard® which corresponded to different times during the tobacco thrips flight (Fig. 2) at one-week intervals. The first application went out on May 05, the second on May 12, the third on May 19, the fourth on May 26, and the fifth on June 02. We also tested a sixth treatment consisting of two applications, the first was timed to the beginning of the 3rd generation thrips flight (May 05) and the second was applied two weeks later (May 19). We also included an untreated control, which was not treated with either Admire or Actigard. We counted the incidence of TSWV infected plants weekly. The height of 10 non-TSWV-infected plants per plot was measured on June 26, 2008.

Plot map

601 **A**		603 **C**		605 **D**		607 **B**	
501 **D**	502 **H**	503 **C**	504 **B**	505 **C**	506 **G**	507 **D**	508 **A**
401 **C**	402 **E**	403 **F**	404 **H**	405 **F**	406 **A**	407 **G**	408 **D**
301 **F**	302 **C**	303 **E**	304 **D**	305 **E**	306 **E**	307 **F**	308 **E**
201 **G**	202 **B**	203 **D**	204 **G**	205 **H**	206 **D**	207 **E**	208 **H**
101 **E**	102 **D**	103 **A**	104 **E**	105 **C**	106 **B**	107 **C**	108 **C**
BLOCK 1		**BLOCK 2**		**BLOCK 3**		**BLOCK 4**	

Treatments

A. Untreated Control
B. Admire at Transplant (TS)
C. Admire TS, Actigard Foliar Spray (FS) 0.5 oz/A – 3RD Generation Thrips Flight (May 05)
D. Admire TS, Actigard FS – 1 week after 3rd generation thrips flight (May 12)
E. Admire TS, Actigard FS – 2 weeks after 3rd generation thrips flight (May 19)
F. Admire TS, Actigard FS – 3 weeks after 3rd generation thrips flight (May 26)
G. Admire TS, Actigard FS – 4 weeks after 3rd generation thrips flight (June 02)
H. Admire TS, Actigard FS – 3rd Gen Flight (May 05) & 2 weeks after 3rd Gen Flight (May19)

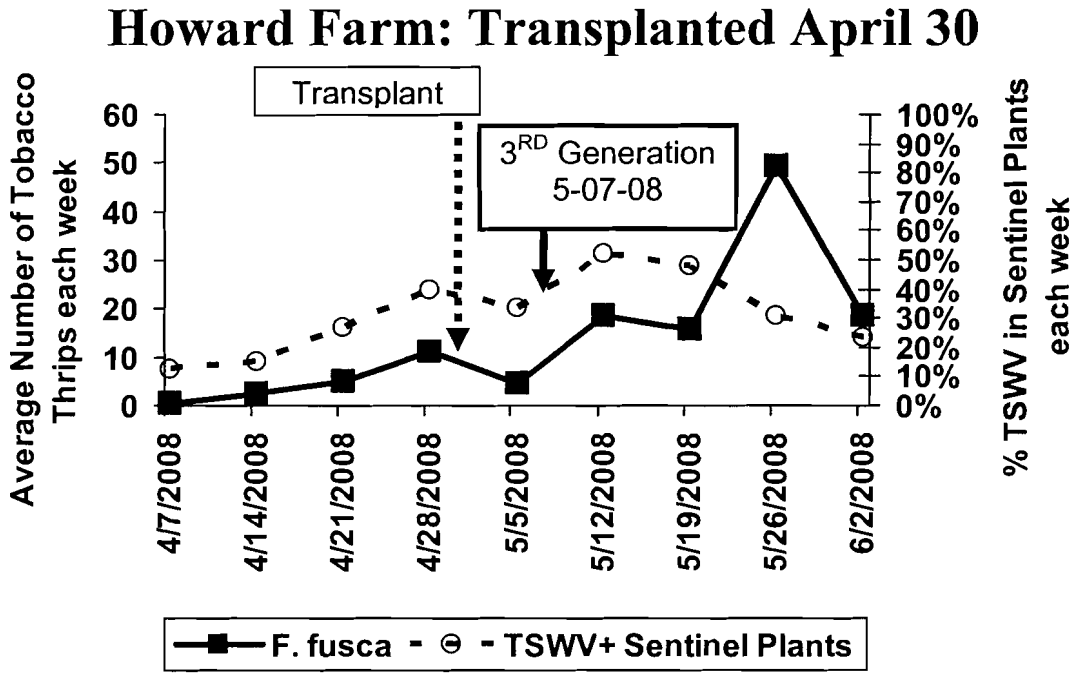


Figure 1. Mean number of tobacco thrips collected from yellow sticky traps and percent TSWV incidence in sentinel plants placed around the field borders. Traps and plants were replaced on a weekly basis.

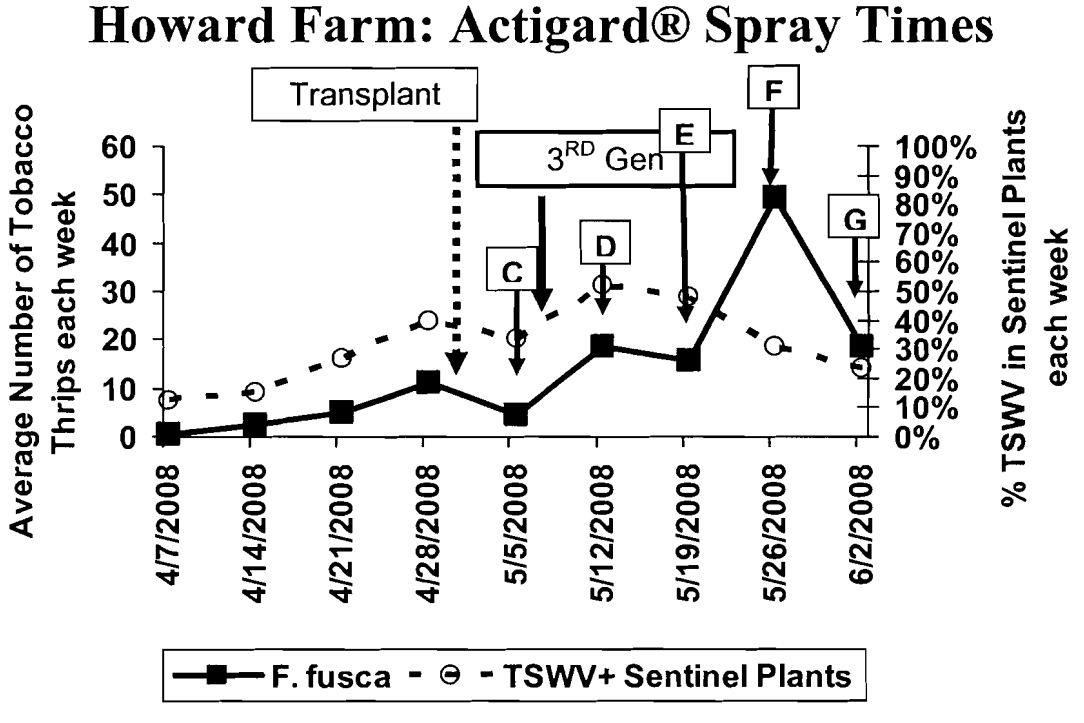


Figure 2. Letters in boxes correspond to treatment spray dates (see above).

2008 TSWV

Duplin County

Field Plan

Variety	Trial						
6	**12**	**26**	**27**	**28**			
3	1	5	4	3			
							Rep D
5	**11**	**21**	**22**	**23**	**24**	**25**	
2	3	2	1	6	7	2	
4	**10**	**16**	**17**	**18**	**19**	**20**	**Rep C**
1	2	7	6	4	1	3	
3	**9**	**11**	**12**	**13**	**14**	**15**	
2	2	1	5	7	6	5	
2	**8**	**6**	**7**	**8**	**9**	**10**	**Rep B**
1	1	6	2	3	4	2	
1	**7**	**1**	**2**	**3**	**4**	**5**	**Rep A**
3	3	5	1	7	4	3	

* 4 row plots

Treatments in Duplin County

Trt No.	Treatment Name	Rate	Rate Unit	Growth Stage	Appl Code
1	Nontreated Control				
2	Admire Pro	0.8	FL OZ/1000 PLANTS	PRETRA	DRENCH
3	Actigard	0.02	OZ WT/1000 PLANTS	PRETRA	DRENCH
4	Admire Pro	0.8	FL OZ/1000 PLANTS	PRETRA	DRENCH
	Actigard	0.02	OZ WT/1000 PLANTS	PRETRA	DRENCH
5	Admire Pro	0.8	FL OZ/1000 PLANTS	PRETRA	DRENCH
	Actigard	0.5	OZ WT/A	2-DAYS	FOLIAR
6	Admire Pro	0.8	FL OZ/1000 PLANTS	PRETRA	DRENCH
	Actigard	10	PPM PR	PRETRA	WATER
7	Admire Pro	0.8	FL OZ/A	PRETRA	DRENCH
	Actigard	0.005	OZ WT/1000 PLANTS	PRETRA	DRENCH

Leaf Width Phytotoxicity

19 May 2008

(3 weeks after transplant)

t	Grouping	Mean	N	Trt
	A	5.3938	4	1
	A			
	A	5.1000	4	2
	A			
B	A	5.0625	4	5
B				
B	C	4.4188	4	7
	C			
	C	4.3750	4	3
	C			
	C	4.3250	4	4
	C			
	C	4.2813	4	6

Means followed by same letter do not significantly differ (P=.05, LSD)

TSWV Control Study

Plant Pathology Extension

North Carolina State University

Rating Date			6/2/08		6/30/08			
Rating Data Type			% Disease		% Disease		%Control	
Trt No.	Treatment Name	Growth Stage						
1	Nontreated Control		20.9	a	37.8	a	0	d
2	Admire Pro	PRETRA	4.9	b	9.8	b	73.5	c
3	Actigard	PRETRA	3.3	b	8.9	b	75.4	bc
4	Admire Pro Actigard	PRETRA PRETRA DREN (.02)	0	b	4.1	b	88.2	ab
5	Admire Pro Actigard	PRETRA ATTRAN FOL	4.1	b	9.5	b	74	c
6	Admire Pro Actigard	PRETRA PRETRA WATER	0.9	b	3.9	b	88.8	a
7	Admire Pro Actigard	PRETRA PRETRA DREN (.005)	1.1	b	5	b	86.1	abc
LSD (P=.05)			5.09		7.16		13.19	
Standard Deviation			3.42		4.82		8.88	
CV			68.22		42.69		12.78	
Grand Mean			5.02		11.3		69.44	
Replicate F			0.861		0.367		1.455	
Replicate Prob(F)			0.4792		0.7773		0.2601	
Treatment F			17.734		24.637		49.916	
Treatment Prob(F)			0.0001		0.0001		0.0001	

Means followed by same letter do not significantly differ (P=.05, LSD)

Evaluation of breeding lines for TSW management

Seed date: 2/20/2008
Transplant date: 4/22/2008

Rating Date		6/2/2008	6/30/2008
Rating Data Type		% Disease	% Disease
Trt No.	Entry No.		
1	H-61	4.01 b	11 b
2	H-94	6 b	15.8 b
3	H-106	3.1 b	10 b
4	K 326 Untreated	20.9 a	37.8 a
Treatment F		7.153	9.379
Treatment Prob(F)		0.002	0.0039

Means followed by same letter do not significantly differ (P=.05, LSD)

	212	**211**	**213**	**214**	**215**	**216**	**217**	**218**	**220**	**219**	**222**	**221**	**223**	**224**	**225**	**226**	**228**	**227**	**230**	**229**	**231**	**232**	**234**	**233**	**236**	**235**	**238**	**237**	**240**	**239**
	34	33	10	9	12	11	48	47	14	19	6	5	22	21	18	17	30	29	52	51	54	53	8	7	50	49	36	35	42	41
	151	**152**	**154**	**153**	**156**	**155**	**157**	**158**	**159**	**160**	**161**	**162**	**164**	**163**	**165**	**166**	**167**	**168**	**170**	**169**	**171**	**172**	**174**	**173**	**176**	**175**	**178**	**177**	**180**	**179**
	6	5	42	41	12	11	48	47	38	37	24	23	26	25	8	7	46	45	52	51	36	35	32	31	58	57	18	17	10	9
	92	**91**	**94**	**93**	**96**	**95**	**97**	**98**	**100**	**99**	**102**	**101**	**103**	**104**	**105**	**106**	**108**	**107**	**110**	**109**	**111**	**112**	**114**	**113**	**116**	**115**	**118**	**117**	**119**	**120**
	40	39	48	47	28	27	16	15	42	41	58	57	32	31	44	43	54	53	12	11	26	25	50	49	8	7	24	23	20	19
	32	**31**	**34**	**33**	**35**	**36**	**38**	**37**	**40**	**39**	**41**	**42**	**44**	**43**	**45**	**46**	**48**	**47**	**49**	**50**	**52**	**51**	**53**	**54**	**55**	**56**	**58**	**57**	**59**	**60**
	28	27	20	19	52	51	6	5	22	21	44	43	56	55	34	33	46	45	12	11	54	53	40	39	42	41	4	3	58	57
Rep D	**182**	**181**	**183**	**184**	**185**	**186**	**188**	**187**	**189**	**190**	**192**	**191**	**193**	**194**	**196**	**195**	**198**	**197**	**200**	**199**	**201**	**202**	**204**	**203**	**206**	**205**	**208**	**207**	**209**	**210**
	46	45	28	27	44	43	40	39	4	3	38	37	26	25	16	15	20	19	56	55	2	1	32	31	58	57	60	59	24	23
Rep C	**122**	**121**	**124**	**123**	**125**	**126**	**127**	**128**	**129**	**130**	**131**	**132**	**133**	**134**	**135**	**136**	**138**	**137**	**140**	**139**	**142**	**141**	**143**	**144**	**145**	**146**	**147**	**148**	**150**	**149**
	34	33	20	19	22	21	14	13	56	55	16	15	28	27	4	3	40	39	54	53	30	29	2	1	44	43	50	49	60	59
Rep B	**61**	**62**	**64**	**63**	**66**	**65**	**67**	**68**	**70**	**69**	**72**	**71**	**73**	**74**	**75**	**76**	**78**	**77**	**80**	**79**	**82**	**81**	**83**	**84**	**85**	**86**	**88**	**87**	**89**	**90**
	52	51	6	5	60	59	4	3	36	35	2	1	38	37	18	17	34	33	46	45	56	55	30	29	14	13	10	9	22	21
Rep A	**1**	**2**	**4**	**3**	**6**	**5**	**7**	**8**	**10**	**9**	**12**	**11**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
	50	49	32	31	10	9	18	17	8	7	24	23	16	15	38	37	60	59	26	25	14	13	30	29	36	35	48	47	2	1

*Shaded rows treated with Chloropicrin @ 3 gal/A

Duplin County Granville Wilt Variety and Fumigant Test

Seed date: 2/19/2008
Transplant date: 5/1/2008

		% GW incidence	
		6/12/2008	7/10/2008
1	Nontreated	1.2a	51.4b
2	Chrlorpic	0.5a	21.4a

Trt No.	Variety Name	% GW incidence Nontreated	Chrlorpic	
1	CC 13	57.1	5	*
2	CC 27	45.7	2.1	*
3	CC 33	47.2	23.5	
4	CC 35	71.8	31.4	*
5	CC 37	32.6	6.3	*
6	CC 65	47.3	68.3	
7	CC 67	33.9	17.3	
8	CC 700	54.9	19.8	*
9	GF 318	67.7	33.5	*
10	GF 52	66.3	14	*
11	K 346	41.2	19	
12	K 394	73.3	35.1	*
13	NC 102	59.9	34.9	
14	NC 196	31.3	10.4	
15	NC 299	66.3	17.5	*
16	NC 471	60.6	11.5	*
17	NC 810	20	10.8	
18	NC 92	60.8	20.1	*
19	NCEX 07	65.1	31	*
20	NCEX 08	52.8	18.5	*
21	NCEX 09	46.3	22.9	
22	PVH 1118	56	27.2	*
23	PVH 2110	57.7	37.7	
24	RJR 15	72.2	57	
25	RJR 75	77.3	12	*
26	SP 220	32.1	24.2	
27	SP 227	43.8	10.1	*
28	SP 234	43.8	6.3	*
29	SP 236	36.2	12.1	
30	XP 596	19.8	1.1	

* = significant (P = 0.05) reduction of Granville wilt with fumigation

TRAFFIC MANAGERS

Bryant Spivey, Extension Director, Johnston County

Art Bradley, Extension Agent, Edgecombe County

Norman Harrell, Extension Agent, Wilson County

Louie Johnson, Extension Agent, Greene County

Mark Keene, Extension Agent, Lenoir County

Franky Howard, County Manager, Jones County

Curtis Fountain, Extension Agent, Duplin County

2009 FLUE-CURED TOBACCO TOUR

JULY (Dates to be announced)

North Carolina
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Published By
THE NORTH CAROLINA COOPERATIVE EXTENSION SERVICE