

BROWN & WILLIAMSON TOBACCO CORPORATION

RESEARCH & DEVELOPMENT

INTERNAL CORRESPONDENCE

TO: T. F. Riehl
CC: P. R. Fisher
FROM: ✓ A. Beatty
DATE: March 1, 1988
SUBJECT: BURLEY VARIETY EVALUATION COMMITTEE/360

At the annual meeting of the 1987 Regional Burley Variety Evaluation Committee, three of the nine experimental strains did not pass all the minimum standards and can not be released to the farmers.

Attached are those varieties which passed with the three rejected listed also. All three of the varieties that were rejected were based on nicotine content with one also rejected because of smoke panel evaluation.

In the Disease Screening Entries Test it was noted that R-3 was segregating for TMV. This entry should be an F₁ Hybrid and genetically stable. The Committee voted for the breeder to hold this line until this problem is corrected.


In the Regional On-Farm Test one of the two entries was rejected based on two or more unacceptable smoke evaluations.

The Committee Vice-Chairman, Dr. Daryl Bowman, will serve one more year. Mr. Carroll Sasser will succeed him.

Dr. Mark Neilson, UK, presented some interesting comments and raised questions as to the usefulness and effectiveness of the Committee in serving the industry. His presentation prompted the Committee to investigate his questions and to make recommendations to increase the effectiveness of this Committee. He was appointed Chairman of this Task Force. Phil Fisher was appointed as a member of this Task Force. This Task Force plans to meet before the Tobacco Workers Conference and report on their findings at the conference.

The Stem Lamina Ratio Study that was initiated by B&W was voted not to continue based on the data of the last several years which showed little difference between varieties.

The next committee meeting will be held the last Tuesday in February, 1989 to evaluate those varieties grown in 1988.


AB/1a
3355n
Attachments

620147516

Table 1. Regional Small Plot data (agronomic and chemical) - 1987. (Data combined over states.)

Code	Yield lb/a	Length of Largest Leaf		Number of Leaves	Plant Height	Days to Mid Bloom	Nic.	Tot. Sec. Alk.	Tot. Alk.	TSA/TA	Tot. Nlt.
		CM	CM								
KY 14	2637	62.0	34.2	17.8	102.8	72	4.98	0.41	5.39	7.1	4.98
VA 509	2661	64.6	34.0	18.0	109.4	71	4.94	0.49	5.43	9.1	5.14
5	2509	67.2	35.9	18.2	112.9	70	4.33	0.50	4.83	10.3	4.77
6	2537	63.9	33.9	19.1	113.6	72	4.33	0.44	4.77	9.4	5.01
Rejected 7	2734	63.8	35.2	19.5	115.6	66	4.14	0.71	4.86	15.0	4.79
8	2527	65.6	35.0	18.8	110.0	72	4.41	0.60	5.01	12.1	5.09
Rejected 9	2948	67.3	36.0	18.9	109.2	67	4.18	0.50	4.67	10.5	5.07
Rejected 10	2688	65.8	37.3	18.9	116.9	68	3.57	1.29	4.85	26.5	4.98
11	2933	67.6	36.2	19.0	119.8	66	4.34	0.43	4.77	9.1	4.67
12	2511	64.8	33.3	19.0	108.2	76	4.33	0.33	4.66	7.3	5.16
13	2727	66.1	33.3	18.5	112.4	68	4.84	0.47	5.32	9.0	5.14

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3355 N

Entries less than or greater than limits in the Regional Small Plot.

Code	Nicotine +15%	Tot. Sec. Alk. Less 20% Tot. Alk.	Tot. N ± 10%	Notes:
KY 14				
VA 509				
5				
6				
7	LOW			
8				
9	LOW			
10	LOW	Above		
11				
12				
13				

3355N

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Entries less than or greater than limits in the Regional Small Plot
and Regional On-Farm Tests combined

Code	Nicotine <u>+15%</u>	Tot. Sec. Alk. Less 20% Tot. Alk.	Tot. N <u>+ 10%</u>	Notes:
KY 14				
VA 509				
3	OK	OK	OK	
4	OK	OK	OK	

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REGIONAL ON-FARM TEST - 1987

SMOKE TEST RESULTS BY COMPANY

Code	A	B	C	D	E
KY 14					
VA 509					
3	UNACCEPTABLE				UNACCEPTABLE
4		UNACCEPTABLE			

③ - OUT - BASED ON 2 OR MORE UNACCEPTABLES.

QUESTION RAISED SHOULD STANDARDS BE CODED ALONG WITH TEST?
ANS: NO

CODE SHEET FOR EVALUATION COMMITTEE MEETING

February 1988

REGIONAL SMALL PLOT TESTS - 1987

<u>STATISTICAL ENTRY NUMBER</u>		<u>CODE NUMBER FOR EVALUATION BY REGIONAL COMMITTEE AND FOR COMMITTEE REPORT</u>	
1	KY 14	1	KY 14
2	C 502A	2	VA 509
3	R 610	3	C 502A
4	VA 509	4	R 610
5	GR 140	5	GR 140
6	GR 142	6	GR 142
7	KY 8534	7	KY 8534 Res
8	GR 143	8	GR 143
9	NC 140	9	NC 140 Res
10	KY 8538	10	KY 8538 Res
11	NC 129	11	NC 129
12	NC 8407	12	NC 8407
13	GR 141	13	GR 141

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1987 Regional Burley Variety Test
Kentucky

<u>Entry</u>	<u>Virus complex, Etch, TMV</u>	<u>Ringspot</u>
	<u>% Infection</u>	<u>% Infection</u>
R-1	39	5.9
R-2	36	4.5
R-3	18	1.1
R-4	25	1.1
R-5	0	3.6
R-6	0	3.4
R-7	14	2.3
R-8	0	6.8
R-9	1	6.9
R-10	30	2.3
R-11	21	3.4
R-12	34	0
R-13	0	2.3

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**Disease Screening of the 1987 Regional Burley
Variety Test Entries Ky.**

<u>Entry</u>	<u>TMV</u>	<u>Black Shank</u>	<u>Black Root Rot</u>
R-1	H	S	M
R-2	S	M	ML
R-3	Seg	M	ML
R-4	S	M	L
R-5	H	ML	M
R-6	H	ML	H
R-7	H	M	H
R-8	H	ML	H
R-9	H	S	M
R-10	H	ML	H
R-11	H	L	H
R-12	H	L	M
R-13	H	ML	H

<u>Controls</u>	B 21 H	Beinhart (H)	Ky 15 (H)
	Va 509 S	Ky 17 (M)	Ky 17 (H)
		Va 509 (M)	Ky 14 (M)
		Ky 14 (S)	B 21 (L)
		B 21 (S)	Casey (S)

Ratings: H = High resistance; M= Medium resistance; ML= Medium low resistance; L= Low resistance; S= Susceptible; Seg= Segregating.

All tests were conducted in the greenhouse using an appropriate experimental design, along with suitable controls.

1987 REGIONAL SMALL PLOT

BLACK SHANK SURVIVAL - Tenn.

ENTRY	REP 1	REP 2	MEAN
87-R-1	0/0	0/0	0/0
87-R-2	50/0	100/0	75/0
87-R-3	45/0	63/0	54/0
87-R-4	82/0	53/0	68/0
87-R-5	29/0	33/0	31/0
87-R-6	90/0	48/0	69/0
87-R-7	55/0	40/0	48/0
87-R-8	48/0	21/0	35/0
87-R-9	94/0	0/0	47/0
87-R-10	100/0	38/0	69/0
87-R-11	5/0	10/0	8/0
87-R-12	0/0	0/0	0/0
87-R-13	100/0	63/0	82/0

TOTAL Susceptible ~~ENTRY~~ ~~DATA~~

Percent survival of entry / percent survival of an adjacent Burley 21 check in a field heavily infested with black shank.

2- LOCATION IN field

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REGIONAL FARM
% STEM CONTENT
1987 CROP

<u>Entry</u>	<u>% Stem</u>
1	22.61
2	23.24
3	22.70
4	23.50

INDIVIDUAL FARM AVERAGES

Ohio	22.94	Kentucky Farm A	22.72
Tennessee Farm #1	21.92	Kentucky Farm B	21.83
Tennessee Farm #2	25.83	Kentucky Farm C	23.54
Tennessee Farm #3	25.00	Kentucky Farm D	22.06
Tennessee Farm #4	22.74	Kentucky Farm E	20.90
Virginia Farm #1	25.48	North Carolina Farm #1	22.16
Virginia Farm #2	20.14	North Carolina Farm #2	24.96

ANOVA

<u>Source</u>	<u>df</u>	<u>ss</u>	<u>ms</u>	<u>f</u>
Total	55	281.54		
Farm	13	156.76	12.06	4.02**
Entry	3	7.73	2.58	NS
Error	39	117.05	3.00	

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