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Burley Tobacco Variety Information for 1995

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Two new varieties, NC 3 and HY 402, met the chemical and physical standards in the 1993 Regional Variety Evaluation Program and seed will be commercially available to producers in 1995. The new varieties have been thoroughly evaluated, but under a narrow range of climatic and management conditions. Growers are advised to plant only a limited acreage of any new variety until more information becomes available. Brief descriptions of the new varieties are given below.

NC 3 (tested as NCTG 9000) was developed by North Carolina State University. NC 3 is a high yielding and moderate to late maturing hybrid. It has a high level of resistance to black root rot, tobacco mosaic virus, and wildfire.

HY 402 was developed by Clay's Seed. HY 402 is a late maturing hybrid with moderate yields. It has a high level of resistance to black root rot, tobacco mosaic virus, and wildfire.

Information is provided for widely grown or recently released varieties in Tables 1-3 of this publication. Average performance of 11 varieties included in the 1994 Virginia Official Variety Tests is shown in Table 1. Tests were conducted in Washington (B. Miller, Jr. farm and Southwest Virginia Agricultural Research and Extension Center), Lee (D. Cavin and H. Scott farms), and Scott (L. Culbertson farm) counties under the joint supervision of Extension Agents in the respective counties and Virginia Polytechnic Institute and State University Research and Extension personnel. Data in Table 1 are for only one year and the results may not be indicative of what might be obtained in other years. Where available, averages that include 1990 to 1994 data are also presented in Table 2.

Certain agronomic and disease information is given in Table 3. In addition to yield, quality potential, and ease of handling, the history of various disease problems on your farm should weigh into the decision of which variety is best suited to your farm. Varietal resistance alone cannot prevent losses to diseases. Crop rotation should be practiced in every field, no matter what variety is grown. Varietal resistance should be used in combination with crop rotation with nonhost plants, early root destruction, and the proper use of labelled pesticides to achieve consistent, cost-effective pest control.

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Table 1. Virginia Burley Tobacco Variety Test Results; Yield, Value, Price, Grade Index, 1994.[1]

	State Avg.		Southwest VA Ag Res & Ext		B. H. Miller farm		D. Cavin farm		H. Scott farm		L. Culbertson farm	
Variety	Yield lbs/A	Price[2] $/cwt	Yield lbs/A	Price $/cwt	Yield lbs/A	Price $/cwt	Yield lbs/A	Price $/cwt	Yield lbs/A	Price $/cwt	Yield lbs/A	Price $/cwt
KY 14	3009	184	3043	185	3160	183	2660	184	2850	186	3330	182
KY 8959	3341	184	3213	184	3320	183	2990	185	3280	186	3900	182
KY 907	2982	184	2422	184	3480	184	3010	185	3210	184	2970	183
TN 86	3189	185	2996	185	3250	184	3070	185	3160	187	3470	182
TN 90	3023	185	3026	186	3020	185	2890	185	3000	187	3180	181
BU 21 x KY 10	3231	185	3123	185	3050	185	3180	184	2980	187	3820	182
KY 14 x L8	3125	185	3126	184	3040	185	2960	185	2900	187	3600	182
NC BH129	3301	184	3005	186	3430	183	3260	184	3050	185	3760	184
R 711	3354	184	3382	184	3520	183	3350	185	3040	186	3480	182
PF 561	2920	185	3000	185	3030	185	2990	185	2990	187	2590	183
Clay's 403	3304	184	3249	185	3420	183	3630	184	3210	187	3010	182
	Value $/A	Grade[3] Index	Value $/A	Grade Index	Value $/A	Grade Index	Value $/A	Grade Index	Value $/A	Grade Index	Value $/A	Grade Index
KY 14	5538	72	5634	82	5781	60	4901	71	5316	91	6060	55
KY 8959	6135	67	5912	70	6068	58	5530	77	6078	81	7088	49
KY 907	5485	68	4460	68	6389	60	5566	78	5914	76	5094	57
TN 86	5883	74	5540	78	5980	70	5676	77	5902	90	6315	55
TN 90	5581	74	5609	83	5587	74	5344	77	5597	87	5770	49
BU 21 x KY 10	5957	73	5759	77	5634	72	5859	71	5563	90	6969	57
KY 14 x L8	5764	74	5770	77	5609	73	5462	74	5412	91	6566	57
NC BH129	6082	74	5579	86	6281	67	6007	67	5645	80	6900	68
R711	6172	70	6233	74	6446	57	6194	80	5641	84	6344	55
PF 561	5399	77	5555	83	5596	74	5528	80	5578	90	4740	60
Clay's 403	6089	72	5998	79	6274	65	6696	70	5994	91	5485	57

[1]Tests were conducted in Washington (Southwest Virginia Ag. Res. and Ext. Ctr. and B. H. Miller, Jr. farm), Lee (Dale Cavin and Herbert Scott farms), and Scott (L. Culbertson farm) counties in 1994.
[2]Based on season average prices for Virginia.
[3]Grade index is a numerical quality rating based on government grade. High ratings are best.

Table 2. Virginia Burley Tobacco Official Variety Test Results by Years, Southwest Virginia Agricultural Research and Extension Center, Glade Spring, VA.[1]

Variety or	Yield, lbs/A						Value, $/A					Grade Index				
Hybrid	1990	1991	1992	1993	1994	Avg.	1990	1991	1992	1993	1994	1990	1991	1992	1993	1994
KY 14	3122	2915	2885	3138	3043	3021	5443	5313	5299	5590	5634	85	77	77	61	82
KY 8959	—	—	3344	3253	3213	3270	—	—	6137	5864	5912	—	—	75	70	70
KY 907	—	—	—	3055	2422	2738	—	—	—	5373	4460	—	—	—	51	68
TN 86	3096	2843	3118	3124	2996	3035	5393	5178	5733	5507	5540	88	78	76	62	78
TN 90	3342	2842	3057	2895	3026	3032	5825	5204	5617	5335	5609	87	86	78	82	83
VA 509	2863	2959	2665	3097	2645	2846	4985	5393	4894	5609	4910	85	78	75	73	84
BU 21 x KY 10	3383	2847	3178	3114	3123	3129	5892	5205	5812	5705	5759	86	83	75	77	77
KY 14 x L8	3026	2851	2877	3166	3126	3009	5270	5164	5257	5833	5770	85	69	70	81	77
NC 2	—	—	3142	3075	2873	3030	—	—	5783	5617	5317	—	—	81	78	80
NC 3	**—**	**—**	**—**	**—**	**3024**	**3024**	**—**	**—**	**—**	**—**	**5563**	**—**	**—**	**—**	**—**	**74**
NC BH 129	3083	2772	2926	3196	3005	2996	5379	5034	5335	5742	5579	89	73	70	66	86
PF 561	—	—	—	2916	3000	2958	—	—	—	5296	5555	—	—	—	73	83
R7-11	3315	3028	3200	3184	3382	3222	5784	5535	5839	5601	6233	88	83	71	57	74
Coop 313	3100	2970	2950	3110	2478	2922	5400	5398	5379	5569	4592	86	76	69	67	83
Coop 543	3334	2388	2352	2844	2705	2725	5813	4340	4299	5117	4997	88	73	72	68	78
Clay's 403	2851	3141	3180	3400	3249	3164	4960	5699	5829	6025	5998	86	71	75	60	79
HY 402	**—**	**—**	**—**	**—**	**2718**	**2718**	**—**	**—**	**—**	**—**	**5038**	**—**	**—**	**—**	**—**	**82**

New varieties for 1995 are in bold.

[1]Averages are not directly comparable unless the number of years is equivalent.

Table 3. Agronomic and Disease Information for Varieties Tested in VA, 1994.[1]

Varieties	Days to Flower	Plant height (in)	Leaf no.	Leaf length (in)	Leaf width (in)	Disease Reaction[2]				
						BS	BRR	TMV	WF	FW
KY 14	63	45.5	18.9	31.2	13.5	S	M	H	H	H
KY 8959[3]	70	47.8	19.0	32.5	15.5	S	H	S	H	S
KY 907[3]	65	48.6	19.0	32.7	15.6	L	H	H	H	M
TN 86[3]	70	47.9	18.2	32.9	15.3	M	H	S	H	S
TN 90[3]	63	44.9	17.9	32.8	15.0	M	H	H	H	S
VA 509	67	45.8	17.6	33.3	15.0	M	L	S	H	L
BU 21 x KY 10	59	50.3	18.3	32.5	15.3	S	L	H	H	L
KY 14 x L8	58	47.1	18.9	34.1	14.7	4	M	H	H	M
NC 2	65	46.0	19.3	33.1	15.2	L	H	H	H	S
NC 3	**64**	**46.8**	**20.0**	**33.4**	**15.3**	**L**	**H**	**H**	**H**	**S**
NC BH129	59	48.1	19.1	34.5	15.8	S	H	H	H	-
PF 561	60	47.2	19.3	32.1	14.3	M	H	H	H	-
R 711	63	46.9	18.2	34.4	14.9	S	M	H	H	-
COOP 313	62	47.2	19.3	33.9	15.7	S	MH	H	H	-
COOP 543	63	47.9	19.0	33.2	15.4	M	M	H	H	-
Clay's 403	64	48.6	18.5	32.5	15.0	S	M	H	H	-
HY 402	**58**	**48.6**	**18.6**	**32.9**	**15.7**	**S**	**H**	**H**	**H**	**M**

New varieties for 1995 are in bold.

[1]Agronomic measures were made at the Southwest Virginia Ag. Res. & Ext. Ctr.

[2]BS=Black Shank; BRR=Black Root Rot; TMV=Tobacco Mosaic Virus; WF=Wildfire; FW=Fusarium Wilt. Resistance levels: H=high; M=moderate; L=low; S=susceptible; and -=not determined.

[3]High resistance to tobacco vein mottle virus and medium resistance to tobacco etch virus.

[4]High resistance to race 0 and no resistance to race 1.

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