

# Burley Tobacco Variety Information for 2002

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One new variety will be commercially available to tobacco producers in 2002. NC 5 met the chemical and physical standards in the 1999 Regional Variety Evaluation Program. Growers are advised to plant only a limited acreage of any new variety until more information and experience is available from a wider range of soil and climatic conditions.

**NC 5** (tested as NC 9806) was developed by North Carolina State University. It is a moderately yielding hybrid with resistance to tobacco mosaic virus, the virus complex (potato virus Y, tobacco etch virus, and tobacco vein mottling virus), wildfire, and root knot nematode. NC 5 has a high level of resistance to black root rot. It has a high level of resistance to race 0 black shank and a low to moderate level of resistance to race 1 black shank. Seed will be available from F. W. Rickard Seed Company.

Information is provided for widely grown and recently released varieties in Tables 1 to 4 of this publication. Average performance of twelve varieties in the 2001 Virginia Official Variety Tests (OVT) is shown in Table 1. These tests were conducted in Washington (B. Miller, Jr. farm, industrial park, and Southwest Virginia Agricultural Research and Extension Center) and Lee (H. Scott farm) counties under the joint supervision of Extension agents in the respective counties and Virginia Polytechnic Institute and State University research and Extension personnel. Testing in various locations throughout the production area makes it possible to

evaluate varietal performance under the widely ranging soil and weather conditions existing in Virginia. Such a testing program also provides an opportunity for producers to observe burley tobacco varieties under field conditions in their particular region. Contact the Extension agent in your county to arrange a visit to the on-farm variety test nearest you and to learn of tours of tobacco on-farm tests.

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 1997 to 2001 data are also presented in Table 2. Do not compare the average yield of varieties unless each variety was grown the same number of years.

Information on agronomic performance and disease resistance levels 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 production system. Varietal resistance alone cannot prevent losses to diseases. Any variety may suffer damage when disease causing organisms are present and when weather conditions favor their development. An effective pest management program will also include crop rotation and other cultural control practices. Combining varietal resistance with crop rotation, early root destruction, and proper use of labeled pesticides is the only way to achieve consistent, cost-effective pest control.

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**Table 1. Results from Virginia Burley Tobacco Variety Tests, Yield, Value, Price and Grade Index, 2001.<sup>1</sup>**

Variety	Southwest VA				Industrial Park				B. H. Miller farm				H. Scott farm			
	State Average		AREC		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	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	Yield lbs/A	Price \$/cwt
KY 907	2581	164	2881	146	2774	170	2040	145	2630	195						
NC 2000	3131	170	2946	155	3067	185	1955	144	3380	195						
TN 90	2834	177	2764	162	2797	156	2533	193	2940	196						
TN 97	3078	176	2937	175	2976	175	2550	159	3320	196						
Bu 21 x KY 10	3071	184	3084	188	3198	168	2601	185	2930	196						
KY 14 x L 8	2785	190	2638	187	2628	188	2448	189	3090	196						
KT 200	3274	173	3057	151	3336	188	2618	156	3430	195						
NC BH129	2784	188	2799	177	2654	186	2363	192	2900	196						
Clay's 403	3174	173	3117	172	3546	181	2686	144	2860	195						
HB04P	2764	178	2639	178	3013	186	2669	151	2640	195						
R 711	3145	170	3078	142	3276	180	2788	160	3080	196						
R 712	3019	180	2849	163	3197	167	2635	193	3010	196						
Location Average	2970	177	2899	166	3039	178	2491	168	3018	196						
	Value <sup>2</sup>	Grade	Value	Grade	Value	Grade	Value	Grade	Value	Grade	Value	Grade	Value	Grade	Value	Grade
	\$/A	Index <sup>3</sup>	\$/A	Index	\$/A	Index	\$/A	Index	\$/A	Index	\$/A	Index	\$/A	Index	\$/A	Index
KY 907	4257	52	4219	40	4730	45	2950	37	5128	84						
NC 2000	4907	55	4546	36	5687	60	2818	37	6576	86						
TN 90	4870	61	4511	48	4346	44	4878	67	5743	84						
TN 97	5238	58	5148	55	5247	47	4063	46	6494	84						
Bu 21 x KY 10	5412	63	5786	62	5339	48	4800	60	5722	83						
KY 14 x L 8	5140	66	4927	64	4946	53	4632	63	6056	84						
KT 200	5418	57	4605	44	6273	58	4096	42	6699	84						
NC BH129	5020	63	4958	55	4917	50	4537	64	5668	83						
Clay's 403	5304	58	5348	57	6409	56	3879	37	5580	80						
HB04P	4878	57	4713	57	5610	54	4038	35	5152	81						
R 711	5190	55	4351	36	5897	54	4473	45	6040	84						
R 712	5242	62	4650	48	5343	48	5074	68	5900	84						
Location Average	5073	59	4814	50	5395	51	4187	50	5897	83						

<sup>1</sup> Tests were conducted in Washington (Southwest Virginia Ag. Res. and Ext. Ctr., B. H. Miller, Jr. farms, and Industrial Park) and Lee (H. Scott farm), counties in 2001.

<sup>2</sup> Based on season average prices for Virginia.

<sup>3</sup> 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.**

Variety or Hybrid	Yield,lbs/A					Value <sup>2</sup> , \$/A					Grade Index <sup>3</sup>					
	1997	1998	1999	2000	2001	Avg. <sup>1</sup>	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001
HB04P	---	---	---	---	2639	2639	---	---	---	---	4713	—	—	—	—	57
KY 14	2251	2576	2140	2508	2775	2450	4334	4904	3693	4431	4417	55	74	57	46	48
KY 907	2489	2131	—	2522	2881	2506	4687	4059	—	4514	4219	58	76	—	46	40
KY 910	—	—	2193	1972	2433	2199	—	—	4070	3690	4348	—	—	63	55	61
NC 2000	—	—	—	2637	2946	2792	—	—	—	4857	4546	—	—	—	60	36
TN 90	2523	2330	2674	2364	2764	2531	4745	4433	4664	4206	4511	63	73	51	48	48
TN 97	2459	2491	2422	2471	2937	2556	4685	4749	4505	4688	5148	69	75	60	64	55
Bu 21 x KY 10	2614	2613	2570	2702	3084	2717	4895	4950	4221	5277	5786	54	75	42	67	62
KY 14 x L 8	2352	2576	2864	2523	2638	2591	4327	4859	5155	4590	4927	47	74	55	50	64
KT 200	—	—	—	2614	3057	2836	—	—	—	4687	4605	—	—	—	50	44
NC BH129	2461	2399	2567	2629	2799	2571	4637	4557	4728	5052	4958	72	72	61	64	55
NC 4	—	—	—	—	2854	2854	—	—	—	—	4959	—	—	—	—	55
<b>NC 5</b>	—	—	—	—	<b>2706</b>	<b>2706</b>	—	—	—	—	<b>4287</b>	—	—	—	—	<b>48</b>
Clay's 403	2604	2736	2201	2557	3117	2643	4883	5180	3620	4508	5348	50	76	38	42	57
PF 561	2433	2623	2452	2037	2617	2432	4575	4968	4527	3889	4407	56	74	66	62	54
R 630	—	—	—	2370	2730	2550	—	—	—	4482	4659	—	—	—	65	57
R 711	2657	3007	2293	2627	3078	2732	4999	5699	3953	4824	4351	62	76	43	53	36
R 712	—	—	—	2570	2849	2710	—	—	—	4942	4650	—	—	—	66	48
Year Average	2477	2528	2438	2457	2828	—	4658	4795	4314	4561	4713	58	74	54	57	51

**New variety for 2002 is in bold.**

<sup>1</sup>Averages are not directly comparable unless the number of years is equivalent.

<sup>2</sup>Based on season average prices for Virginia.

<sup>3</sup>Grade index is a numerical quality rating based on government grade. High ratings are best.

**Table 3. Agronomic and Disease Information for Varieties Tested at the Southwest Virginia Agricultural Research and Extension Center, Glade Spring, VA.**

Variety	Days to Flower	Plant height (in.)	Leaf No.	Leaf Length (in.)	Leaf Width (in.)	Disease Reaction <sup>1</sup>			
						BM	BS	BRR	TMV
HB04P	61	55.8	21.0	30.3	13.4	S	S	H	H
KY 14	62	53.0	22.8	31.0	12.3	S	S	H	H
KY 907	67	55.1	23.5	28.7	13.6	S	L	H	H
KY 910	62	53.4	19.3	29.9	12.9	S	<sup>4</sup>	H	H
NC 2000	73	49.0	23.2	27.4	11.3	M	S	H	H
TN 90	65	50.5	20.9	28.1	11.9	L	M	H	H
TN 97	64	51.7	21.6	28.2	12.0	—	M	H	H
Bu 21 x KY 10	63	54.7	22.1	29.4	12.4	S	S	L	H
KY 14 x L 8	59	49.5	18.9	30.6	13.1	S	—	M	H
KT 200	67	53.8	22.9	28.9	12.5	S	L	H	H
NC BH129	64	57.1	20.7	30.1	13.1	S	S	H	H
NC 4	65	54.3	21.5	28.7	12.5	S	L	H	H
<b>NC 5</b>	<b>66</b>	<b>53.8</b>	<b>21.3</b>	<b>30.5</b>	<b>13.6</b>	<b>S</b>	<sup>4</sup>	<b>H</b>	<b>H</b>
Clay's 403	69	52.7	21.9	29.8	13.0	S	S	H	H
PF 561	62	52.8	20.3	29.3	12.2	S	M	H	H
R 630	64	56.4	21.4	28.6	12.7	S	M	H	H
R 711	67	52.3	20.9	30.2	12.5	S	M	H	H
R 712	63	55.3	21.3	30.1	12.7	S	S	H	S

**New variety for 2002 is in bold.**

<sup>1</sup> BS = Black Shank; BRR = Black Root Rot; TMV = Tobacco Mosaic Virus; and WF = Wildfire. Resistance levels: H = high; M = moderate; L = low; S = susceptible, and — = not determined.

<sup>2</sup> High resistance to tobacco vein mottling virus and medium resistance to tobacco etch virus.

<sup>3</sup> High resistance to race 0 and no resistance to race 1.

<sup>4</sup> High resistance to race 0 and medium resistance to race 1.

**Table 4. Percentage of certain color grade factor of varieties tested at five locations in 2001.**

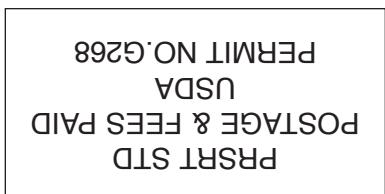
Variety	L <sup>1</sup>	F	FR	K	M	V	VF
KY 907	0	33	0	52	5	0	10
NC 2000	0	42	0	42	0	1	15
TN 90	6	51	5	35	0	0	3
TN 97	4	35	7	31	8	5	10
Bu 21 x KY 10	2	53	4	18	12	0	11
KY 14 x L 8	0	66	9	6	1	4	14
KT 200	2	32	6	37	10	4	9
NC BH129	7	50	5	11	11	3	13
Clay's 403	6	40	5	37	4	0	8
HB04P	0	31	5	28	20	0	16
R 711	4	25	9	43	12	0	7
R 712	2	43	9	23	11	2	10

1 L = buff; F = tan; FR = tannish red; K = variegated; M = mixed; V = greenish; VF = greenish tan.



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