



Burley Tobacco Variety Information for 2003

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One new variety will be commercially available to tobacco producers in 2003. NC 6 met the chemical and physical standards in the 2000 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 6 (tested as NC 9800) was developed by North Carolina State University. It is a high yielding hybrid with resistance to tobacco mosaic virus, the virus complex, wildfire, and root knot nematode. NC 6 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 level of resistance to race 1 black shank. NC 6 is susceptible to blue mold and fusarium wilt. Seed will be available from F.W. Rickard Seed Company.

Information for widely grown and recently released varieties is presented in Tables 1 to 4. The average performance of twelve varieties in the 2002 Virginia Official Variety Tests (OVT) is shown in Table 1. These tests were conducted in Washington (B. Miller, Jr. farm, and Southwest Virginia Agricultural Research and Extension Center), Lee (H. Scott farm), and Scott (M. Culbertson farm) counties under the joint supervision of Extension agents in the respective counties and Virginia Tech research and Extension personnel. Testing in various locations throughout the production area makes it possible to evaluate varietal performance under the wide range of soil and weather

conditions 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 about tours of on-farm tobacco 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 1998 to 2002 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, 2002.¹

Variety	Southwest Virginia				Washington County				Lee County				Scott County	
	State Average		AREC		Yield		Price		Yield		Price		Yield	
	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	Yield lbs/A	Price \$/cwt
KY 907	2748	186	2635	188	2968	194	2870	192	2520	169				
NC 2000	2918	188	2938	191	3024	194	3060	196	2650	172				
TN 90	3045	189	2611	191	3108	196	3330	192	3130	176				
TN 97	2955	188	2669	194	3080	195	3350	195	2720	167				
Bu 21 x KY 10	2998	188	2532	186	3388	195	3480	194	2590	175				
KY 14 x L 8	2949	184	2558	181	2828	192	3760	192	2650	169				
KT 200	2901	190	2489	190	2856	194	3300	192	2960	185				
NC 5	2923	191	2421	188	3080	194	3460	193	2730	190				
NC BH129	2963	186	2513	191	3010	193	3430	192	2900	169				
Clay's 403	2956	184	2569	179	3234	196	3190	190	2830	171				
R 711	3009	184	2677	179	3108	195	3560	194	2690	169				
R 712	2930	190	2555	191	3094	193	3480	191	2590	185				
Location Average	2941	187	2597	187	3065	194	3356	193	2747	175				
	Value ² \$/A	Grade Index ³	Value \$/A	Grade Index	Value \$/A	Grade Index	Value \$/A	Grade Index	Value \$/A	Grade Index	Value \$/A	Grade Index	Value \$/A	Grade Index
KY 907	5119	65	4952	64	5758	73	5496	67	4268	54				
NC 2000	5510	70	5619	71	5858	75	6014	75	4548	57				
TN 90	5732	68	4974	66	6082	78	6376	72	5495	57				
TN 97	5566	69	5178	72	6020	77	6524	78	4542	50				
Bu 21 x KY 10	5651	68	4703	63	6621	77	6738	76	4540	54				
KY 14 x L 8	5442	66	4619	61	5438	74	7222	74	4487	54				
KT 200	5519	68	4736	67	5548	71	6322	72	5469	63				
NC 5	5593	70	4553	63	5960	75	6684	76	5175	64				
NC BH129	5530	68	4791	65	5814	75	6607	76	4907	57				
Clay's 403	5465	67	4615	61	6329	78	6068	70	4847	60				
R 711	5569	66	4772	60	6063	75	6893	76	4548	54				
R 712	5565	70	4873	68	5961	74	6639	72	4786	64				
Location Average	5522	68	4865	65	5954	75	6465	74	4801	57				

¹Tests were conducted in Washington (Southwest Virginia Agricultural Research and Extension Center and B. H. Miller, Jr. farms), Lee (H. Scott farm), and Scott (M. Culbertson farm) counties in 2002.

²Based on season average prices for Virginia.

³Grade 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				Avg. ¹	Value ² , \$/A				Grade Index ³				
	1998	1999	2000	2001		1998	1999	2000	2001	2002	1998	1999	2000	2001
KY 14	2576	2140	2508	2775	2654	2531	4904	3693	4431	4417	4707	74	57	46
KY 907	2131	—	2522	2881	2635	2542	4059	—	4514	4219	4952	76	—	46
KY 910	—	2193	1972	2433	2323	2230	—	—	4070	3690	4348	4374	—	63
NC 2000	—	—	2637	2946	2938	2840	—	—	—	—	4857	4546	5619	—
TN 90	2330	2674	2364	2764	2611	2549	4433	4664	4206	4511	4974	73	51	48
TN 97	2491	2422	2471	2937	2669	2598	4749	4505	4688	5148	5178	75	60	64
Bu 21 x KY 10	2613	2570	2702	3084	2532	2700	4950	4221	5277	5786	4703	75	42	67
HB04P	—	—	2639	2476	2558	—	—	—	—	—	4713	4601	—	—
KY 14 x L 8	2576	2864	2523	2638	2558	2632	4859	5155	4590	4927	4619	74	55	50
KT 200	—	—	2614	3057	2489	2720	—	—	4687	4605	4736	—	—	50
NC BH129	2399	2567	2629	2799	2513	2581	4557	4728	5052	4958	4791	72	61	64
NC 4	—	—	—	—	2854	2685	2770	—	—	4959	5135	—	—	—
NC 5	—	—	—	—	2706	2421	2564	—	—	4287	4553	—	—	—
NC 6	—	—	—	—	2733	2733	—	—	—	5289	—	—	—	69
Clay's 403	2736	2201	2557	3117	2569	2636	5180	3620	4508	5348	4615	76	38	42
PF 561	2623	2452	2037	2617	2466	2439	4968	4527	3889	4407	4587	74	66	62
R 630	—	—	2370	2730	2540	2547	—	—	4482	4659	4781	—	65	57
R 711	3007	2293	2627	3078	2677	2736	5699	3953	4824	4351	4772	76	43	53
R 712	—	—	2570	2849	2555	2658	—	—	4942	4650	4873	—	66	48
Year Average	2528	2438	2457	2828	2581	4795	4314	4561	4713	4835	74	54	57	51
													65	65

New variety for 2003 is in bold.

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

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 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 ¹					
						BM	BS	BRR	TMV	WF	Virus Complex
KY 14	69	51.5	21.5	27.2	12.4	S	S	L	H	H	S
KY 907	67	54.4	20.7	28.0	13.4	S	H	H	H	H	2
KY 910	64	51.6	19.1	27.7	12.4	S	4	H	H	H	2
NC 2000	75	56.2	22.9	28.3	12.3	M	S	H	H	H	S
TN 90	66	52.1	20.4	27.6	12.3	L	M	H	H	H	2
TN 97	65	52.0	22.0	27.0	11.7	—	M	H	H	H	2
Bu 21 x KY 10	64	51.6	17.6	31.0	13.0	S	S	L	H	H	S
HB04P	62	53.1	19.3	31.4	14.0	S	S	H	H	H	2
KY 14 x L 8	61	51.4	17.5	30.3	13.3	S	3	M	H	H	S
KT 200	70	60.6	22.9	26.4	12.8	S	L	H	H	H	2
NC 4	66	57.7	19.6	26.3	11.9	S	L	H	H	H	2
NC 5	65	55.4	19.6	27.7	13.5	S	4	H	H	H	2
NC 6	69	55.9	20.5	26.1	12.3	S	4	H	H	H	2
NC BH129	62	52.3	18.7	29.2	12.7	S	H	H	H	H	S
Clay's 403	65	54.9	19.6	28.1	12.0	S	S	M	H	H	S
PF 561	61	57.0	19.3	28.1	12.0	S	M	H	H	H	S
R 630	64	51.1	19.3	26.5	12.3	S	M	H	H	H	2
R 711	64	52.7	18.2	30.3	12.9	S	S	M	H	H	S
R 712	66	55.8	19.9	27.1	11.8	S	S	H	H	H	S

New variety for 2003 is in bold.

¹ 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.

² High resistance to tobacco vein mottling virus and medium resistance to tobacco etch virus.

³ High resistance to race 0 and no resistance to race 1.

⁴ High resistance to race 0 and low to medium resistance to race 1.

Table 4. Percentage of certain color grade factors of varieties tested at four locations in 2002.

Variety	L ¹	F	FR	K	G
KY 907	4	77	18	1	0
NC 2000	6	74	20	0	0
TN 90	7	80	13	0	0
TN 97	5	79	16	0	0
Bu 21 x KY 10	5	84	11	0	0
KY 14 x L 8	4	80	16	0	0
KT 200	11	78	11	0	0
NC 5	7	74	19	0	0
NC BH129	3	85	12	0	0
Clay's 403	4	76	17	0	3
R 711	3	83	11	0	3
R 712	5	88	7	0	0

¹ L = buff; F = tan; FR = tannish red; K = variegated; G = green.



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