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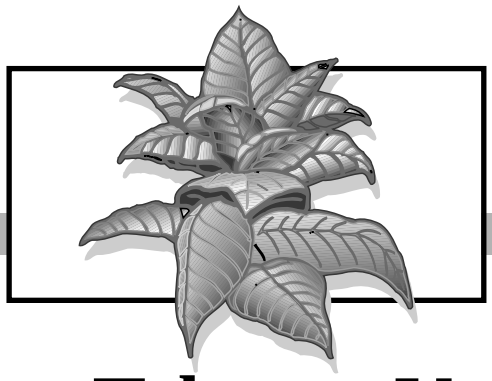

Burley Tobacco Variety Information for 2001

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Three new varieties will be commercially available to tobacco producers in 2000. KT 200, NC 4, and HB 04P met the chemical and physical standards in the 1997, 1998, and 1999 Regional Variety Evaluation Program, respectively. Growers are advised to plant only a limited acreage of any new variety until more information is available from a wider range of soil and climatic conditions.

KT 200 (tested as GR 171) was released jointly by the University of Kentucky and University of Tennessee. It is a late maturing hybrid with moderately high yield potential. KT 200 is moderately resistant to black shank and is recommended for growers with serious black shank problems. It has a high level of resistance to black root rot. KT 200 is resistant to tobacco mosaic virus, wildfire, and the virus complex (potato virus Y, tobacco etch virus, and tobacco vein mottling virus). It is darker green than most other varieties, holds well at the bottom of the plant, and occasionally sunburns during curing.

NC 4 (tested as NC 9810) was developed by North Carolina State University. It is a moderately yielding hybrid with resistance to tobacco mosaic virus, the virus complex, wildfire, and root knot nematode. NC 4 has a high level of resistance to fusarium wilt and black root rot. It has a low level of resistance to black shank. Seed will be available from F. W. Rickard Seed Company.

HB 04P (tested as B 04P) was developed by F. W. Rickard Seed Company. It has excellent yield and quality potential. HB 04P has broad round leaves, a semi-upright growth habit, and medium maturity. It is resistant to tobacco mosaic virus and wildfire. HB 04P has a high level of resistance to black root rot. It is susceptible to black shank and the virus complex.

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 2000 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), Lee (H. Scott farm), 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. 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 1996 to 2000 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.

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Table 1. Results from Virginia Burley Tobacco Variety Tests, Yield, Value, Price and Grade Index, 2000.[1]

	State Average		Southwest VA AREC		Industrial Park		B. H. Miller 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	2650	188	2508	177	3141	185	1733	196	2880	193	2070	195
KY 907	2775	187	2522	179	3029	180	1766	196	3390	194	2160	194
TN 90	2709	190	2364	178	3143	192	2047	198	3270	194	2060	195
TN 97	2709	192	2471	190	3255	190	1894	195	3330	194	1780	192
Bu 21 x KY 10	2834	192	2702	195	3173	188	1658	189	3460	193	2000	193
KT 200	**2695**	**187**	**2614**	**179**	**3084**	**181**	**2059**	**192**	**3040**	**194**	**2040**	**195**
NC BH129	2823	192	2629	192	3081	188	1615	196	3500	193	2080	195
NBH 98	2701	190	2416	189	3007	184	1700	197	3200	194	2180	194
Clay's 403	2671	188	2557	176	3045	186	1907	195	3240	193	1840	195
R 630	2694	191	2370	189	3025	186	1637	191	3220	192	2160	195
R 711	2883	191	2627	183	3345	190	1568	195	3340	193	2220	196
R 712	2808	193	2570	192	3181	190	1557	191	3560	194	1920	195
Location Average	2746	190	2529	185	3126	187	1762	194	3286	193	2043	195
	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
KY 14	4959	64	4431	46	5810	61	3391	64	5564	80	4031	68
KY 907	5188	62	4514	46	5478	57	3459	64	6563	76	4198	68
TN 90	5139	68	4206	48	6016	72	4047	64	6316	83	4016	67
TN 97	5185	68	4688	64	6182	70	3700	65	6444	78	3425	60
Bu 21 x KY 10	5445	69	5277	67	5961	66	3129	58	6686	80	3855	64
KT 200	**5037**	**65**	**4687**	**50**	**5587**	**60**	**3961**	**68**	**5901**	**82**	**3973**	**69**
NC BH129	5411	70	5052	64	5796	67	3158	65	6748	78	4046	69
NBH 98	5164	66	4572	60	5544	60	3352	65	6208	78	4332	65
Clay's 403	5005	63	4508	42	5655	64	3714	62	6260	80	3596	65
R 630	5121	67	4482	65	5604	65	3128	59	6186	74	4212	64
R 711	5497	68	4824	53	6372	73	3065	64	6441	77	4349	68
R 712	5402	72	4942	66	6035	72	2977	57	6894	84	3735	65
Location Average	5213	67	4682	56	5837	66	3423	63	6351	79	3981	66

New variety for 2001 is in bold.

[1] Tests were conducted in Washington (Southwest Virginia Ag. Res. and Ext. Ctr., B. H. Miller, Jr. farms, and Industrial Park) Lee (H. Scott farm), and Scott (L. Culbertson farm) counties in 2000.

[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.

Variety or Hybrid	Yield,lbs/A						Value[2], $/A					Grade Index [3]				
	1996	1997	1998	1999	2000	Avg.[1]	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
KY 14	1741	2251	2576	2140	2508	2243	3273	4334	4904	3693	4431	70	55	74	57	46
KY 907	1625	2489	2131	——	2522	2192	3054	4687	4059	——	4514	75	58	76	—	46
KY 910	——	——	——	2193	1972	2083	——	——	——	4070	3690	—	—	—	63	55
NC 2000	——	——	——	——	2637	2637	——	——	——	——	4857	—	—	—	—	60
TN 90	2162	2523	2330	2674	2364	2411	4063	4745	4433	4664	4206	75	63	73	51	48
TN 97	——	2459	2491	2422	2471	2461	——	4685	4749	4505	4688	—	69	75	60	64
VA 509	2352	2405	2328	——	2245	2333	4421	4476	4386	——	4335	77	50	64	—	69
Bu 21 x KY 10	2476	2614	2613	2570	2702	2595	4641	4895	4950	4221	5277	77	54	75	42	67
KY 14 x L 8	2189	2352	2576	2864	2523	2501	4114	4327	4859	5155	4590	76	47	74	55	50
KT 200	——	——	——	——	**2614**	**2614**	——	——	——	——	**4687**	—	—	—	—	**50**
NC BH129	2127	2461	2399	2567	2629	2437	3998	4637	4557	4728	5052	76	72	72	61	64
NBH 98	——	——	——	——	2416	2416	——	——	——	——	4572	—	—	—	—	60
Clay's 403	2018	2604	2736	2201	2557	2423	3794	4883	5180	3620	4508	73	50	76	38	42
PF 561	2305	2433	2623	2452	2037	2370	4333	4575	4968	4527	3889	77	56	74	66	62
R 630	——	——	——	——	2370	2370	——	——	——	——	4482	—	—	—	—	65
R 711	2169	2657	3007	2293	2627	2551	4077	4999	5699	3953	4824	76	62	76	43	53
R 712	——	——	——	——	2570	2570	——	——	——	——	4942	—	—	—	—	66
Year Average	2116	2477	2528	2438	2457		3977	4658	4795	4314	4561	75	58	74	54	57

New variety for 2001 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	65	50.3	20.1	26.9	11.9	S	S	M	H	H	S
KY 907	71	53.8	21.5	27.3	13.2	S	L	H	H	H	[2]
KY 910	64	49.6	19.3	27.9	12.4	S	[4]	H	H	H	[2]
NC 2000	73	45.3	21.7	25.3	11.0	M	S	S	H	H	S
TN 90	67	54.9	20.3	27.3	11.6	L	M	H	H	H	[2]
TN97	69	51.5	21.2	26.4	11.5	—	M	H	H	H	[2]
VA 509	68	51.0	19.8	27.0	11.9	S	M	L	S	H	S
Bu 21 x KY 10	64	53.6	20.9	27.7	12.6	S	S	L	H	H	S
KY 14 x L 8	63	47.7	18.8	30.7	13.8	S	[3]	M	H	H	S
KT 200	**71**	**53.4**	**21.9**	**26.4**	**12.1**	**S**	**L**	**H**	**H**	**H**	[2]
NC BH129	66	55.9	21.2	29.7	14.0	S	S	H	H	H	S
NBH 98	67	54.1	21.5	28.0	12.4	S	L	M	H	H	S
Clay's 403	69	51.4	21.0	26.9	12.3	S	S	M	H	H	S
PF 561	67	53.9	20.1	26.7	12.5	S	M	H	H	H	S
R 630	64	57.3	21.0	27.9	13.3	S	M	H	H	H	[2]
R 711	68	51.8	19.9	28.8	11.6	S	S	M	H	H	S
R 712	66	54.6	21.1	29.6	13.2	S	S	H	H	H	S

New variety for 2001 is in bold.

[1] BM = Blue Mold; 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 medium resistance to race 1.

Table 4. Percentage of certain color grade factor of varieties tested at five locations in 2000.

Variety	L[1]	F	FR	K	M	V
KY 14	6	70	2	14	8	0
KY 907	8	61	5	16	10	0
TN 90	7	67	12	11	3	0
TN 97	5	79	9	3	4	0
Bu 21 x KY 10	6	78	9	0	7	0
KT 200	**6**	**65**	**3**	**10**	**16**	**0**
NC BH129	7	77	8	1	7	0
NBH 98	6	60	18	6	10	0
Clay's 403	7	61	7	14	11	0
R 630	7	74	6	3	10	0
R 711	9	72	7	5	4	3
R 712	14	72	9	0	5	0

New variety for 2001 is in bold.

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

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. Information on agronomic performance and disease resistance levels is given in Table 3.

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