



# **Burley Tobacco Variety Information for 1999**

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One new variety, KY 910, met the chemical and physical standards in the 1997 Regional Variety Evaluation Program and seed will be commercially available to tobacco producers in 1999. 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.

**KY 910** (tested as Kx 94148) was developed by Kentucky Agricultural Experiment Station. Data from the 1997 Regional Variety Evaluation Program indicates the yields of KY 910 are similar to KY 14. KY 910 has a low to moderate level of resistance to black shank and a high level of resistance to black root rot, wildfire, and tobacco mosaic virus.

Information is provided for widely grown and recently released varieties in Tables 1 to 3 of this publication. Average performance of twelve varieties in the 1998 Virginia Official Variety Tests (OVT) are shown in Table 1. These 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. 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 1994 to 1998 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. Yields in 1995 were low due to a combination of a dry growing season and the presence of blue mold.

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 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, \$/A					Grade Index <sup>2</sup>					
	1994	1995	1996	1997	1998	Avg.	1994	1995	1996	1997	1998	1994	1995	1996	1997	1998
KY 14	3043	1481	1741	2251	2576	2218	5634	2723	3273	4234	4904	82	71	70	55	74
KY 8959	3213	1519	1724	2004	2339	2160	5912	2798	3241	3772	4493	70	69	72	55	69
KY 907	2422	1489	1625	2489	2131	2031	4460	2738	3054	4687	4059	68	62	75	58	76
KY 908	—	1830	2164	2160	2051	—	—	3440	4099	4095	—	—	—	76	55	76
TN 86	2996	1441	2347	2734	2483	2400	5540	2654	4412	5179	4730	78	77	78	68	72
TN 90	3026	1473	2162	2523	2330	2303	5609	2709	4063	4745	4433	83	75	75	63	73
TN 97	—	—	2459	2491	2475	—	—	4685	4749	—	—	—	—	—	69	75
VA 509	2645	1449	2352	2405	2328	2236	4910	2666	4421	4476	4386	84	75	77	50	64
Bu 21 x KY 10	3123	1548	2476	2614	2613	2475	5759	2847	4641	4895	4950	77	73	77	54	75
KY 12 x L 8	3126	1671	2189	2352	2576	2383	5770	3078	4114	4327	4859	77	86	76	47	74
NC 2	2873	1428	1939	—	—	2080	5317	2625	3645	—	—	80	76	80	—	—
NC 3	3024	1511	2382	2269	2206	2278	5563	2778	4477	4266	4205	74	70	78	61	73
NC BH 129	3005	1521	2127	2461	2399	2303	5579	2798	3998	4637	4557	86	73	76	72	72
Coop 313	2478	1556	2110	2344	2400	2178	4592	2859	3959	4363	4544	83	77	76	43	74
Coop 543	2705	1447	2132	2414	2582	2256	4997	2664	4008	4362	4894	78	75	76	40	71
Clay's 403	3249	1566	2018	2604	2736	2435	5998	2876	3794	4883	5180	79	76	73	50	76
HY 402	2718	1519	2060	2180	2677	2231	5038	2793	3873	4123	5074	82	74	77	63	72
HY 502	—	2238	2340	2677	2418	—	—	4208	4404	5074	—	—	82	59	76	76
PF 561	3000	1420	2305	2433	2623	2356	5555	2613	4333	4575	4968	83	74	77	56	74
R 711	3382	1382	2169	2657	3007	2519	6233	2540	4077	4999	5699	74	69	76	62	76

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

<sup>2</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.**

<b>Variety</b>	<b>Days to Flower</b>	<b>Plant height (in.)</b>	<b>Leaf No.</b>	<b>Leaf Length (in.)</b>	<b>Leaf Width (in.)</b>	<b>Disease Reaction<sup>1</sup></b>			
						<b>BS</b>	<b>BRR</b>	<b>TMV</b>	<b>WF</b>
KY 14	65	35.6	19.3	34.0	13.9	S	M	H	H
KY 8959 <sup>2</sup>	70	35.4	18.3	33.9	14.1	S	H	S	H
KY 907 <sup>2</sup>	69	36.1	17.1	33.8	13.6	L	H	H	H
KY 908 <sup>2</sup>	69	35.0	18.5	33.2	14.0	M	H	H	H
TN 86 <sup>2</sup>	68	34.7	18.6	33.4	14.6	M	H	S	H
TN 90 <sup>2</sup>	69	34.8	18.3	33.1	14.1	M	H	H	H
TN 97 <sup>2</sup>	66	35.2	18.7	32.9	14.0	M	H	H	H
VA 509	67	35.4	18.9	33.1	13.6	M	L	S	H
Bu 21 x KY 10	65	36.1	18.0	33.6	14.8	S	L	H	H
KY 14 x L 8	64	35.1	18.4	33.9	14.3	<sup>3</sup>	M	H	H
NC 3	68	35.5	18.2	32.5	13.2	L	H	H	H
NC BH 129	64	34.9	18.7	32.0	14.4	S	H	H	H
Coop 313	62	35.5	19.0	33.1	14.5	S	MH	H	H
Coop 543	65	34.6	18.4	34.2	14.6	M	H	H	H
Clay's 403	61	36.0	19.4	33.8	14.1	S	M	H	H
HY 402	62	35.8	17.0	32.8	13.7	S	H	H	H
HY 502	63	36.6	18.7	32.4	14.1	M	H	S	H
PF 561	63	34.8	18.3	32.8	14.3	M	H	H	H
R 711	65	34.8	18.2	33.6	13.6	S	M	H	H

<sup>1</sup> BS = Black Shank; BRR = Black Root Rot; TMV = Tobacco Mosaic Virus; and WF = Wildfire.

<sup>2</sup> Resistance levels: H = high; M = moderate; L = low; S = susceptible, and — = not determined.

<sup>3</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.



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