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Tobacco

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## Burley Tobacco Variety Information for 1996

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One new variety, KY 908, met the chemical and physical standards in the 1994 Regional Variety Evaluation Program, and seed will be commercially available in 1996. Growers are advised to plant only a limited acreage of any new variety until more information becomes available.

**KY 908** (tested as KY 9093) was developed by the Kentucky Agricultural Experiment Station from a cross of KY 8538 by TN 86. The parentage of KY 8538, a breeding line, includes Tobacco Introduction 1406, KY 10, KY 16, KY 15, KY 17, Burley 49, and two other burley breeding lines. KY 908 is early maturing and is moderate in yield. Although KY 908 was not evaluated in the 1995 Burley Variety Test, data from the 1994 Regional Variety Evaluation Program indicates that yields of KY 908 are similar to KY 14 and VA 509. It has a high level of resistance to tobacco mosaic virus, tobacco vein mottling virus, wildfire, and black root rot. KY 908 has a medium level of resistance to black shank and tobacco etch virus.

Information is provided for widely grown or recently released varieties in Tables 1 to 3 of this publication. Average performance of 11 varieties included in the 1995 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. Testing in various locations in the production area makes it possible to evaluate varietal performance under the widely ranging soil and climatic conditions existing in Virginia. Such a testing program provides an opportunity for producers to observe burley varieties under field conditions in their particular region. 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 1991 to 1995 data are also presented in Table 2. Yields in 1995 are low compared to previous years due to a combination of a dry growing season and the presence of blue mold. Therefore, do not compare the average yield of varieties unless each variety was grown the same number of years.

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 production system. 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, 1995.<sup>1</sup>

Variety	Southwest VA			B. H. Miller farm			D. Cavin farm			H. Scott farm			L. Culbertson farm			
	State Avg.		Ag Res & Ext	Yield		Price	Yield		Price	Yield		Price	Yield		Price	
	Yield lbs/A	Price <sup>2</sup> \$/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 14	2282	185	1481	184	2010	186	2180	185	1980	184	3760	184	1980	184	3760	184
KY 907	2106	184	1489	184	1920	185	2370	184	2220	184	2530	184	2220	184	2530	184
TN 86	2276	185	1441	184	2150	186	2230	185	1990	184	3570	184	1990	184	3570	184
TN 90	2087	184	1473	184	2220	185	2300	185	1880	184	2560	181	1880	184	2560	181
BU 21 x KY 10	2216	184	1548	184	2170	185	2600	184	2230	184	2530	184	2230	184	2530	184
KY 14 x L8	2316	184	1671	184	2010	185	2610	184	2460	184	2830	184	2460	184	2830	184
NC 3	2262	184	1511	184	1940	185	2260	185	2270	184	3330	184	2270	184	3330	184
NCBH129	2314	184	1521	184	2280	185	2390	184	2380	184	3000	185	2380	184	3000	185
R 711	2210	184	1382	184	2100	185	2470	184	2170	184	2930	184	2170	184	2930	184
Clay's 403	2491	184	1566	184	2170	184	2430	185	2210	184	4080	184	2210	184	4080	184
HY 402	2296	185	1519	184	2320	186	2370	185	2190	184	3080	184	2190	184	3080	184
KY 14	4209	76	2723	71	3740	63	4026	76	3638	71	6918	30	3638	71	6918	30
KY 907	3879	70	2738	62	3552	71	4367	77	4083	86	4655	51	4083	86	4655	51
TN 86	4196	68	2654	77	3989	74	4117	70	3656	84	6564	35	3656	84	6564	35
TN 90	3210	66	2709	75	4109	73	4247	70	3454	78	4639	32	3454	78	4639	32
BU 21 x KY 10	4084	74	2847	73	4023	74	4792	77	4098	77	4659	70	4098	77	4659	70
KY 14 x L8	4266	68	3078	76	3716	71	4811	77	4523	79	5201	36	4523	79	5201	36
NC 3	4166	63	2778	70	3579	70	4174	73	4180	75	6117	26	4180	75	6117	26
NCBH129	4273	69	2798	73	4224	74	4407	77	4373	84	5562	38	4373	84	5562	38
R 711	4067	67	2540	69	3876	78	4553	77	3987	80	5381	31	3987	80	5381	31
Clay's 403	4581	68	2876	76	3983	76	4489	77	4064	62	7493	49	4064	62	7493	49
HY 402	4234	67	2793	74	4309	70	4376	73	4024	79	5670	41	4024	79	5670	41

<sup>1</sup>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 1995.

<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.<sup>1</sup>

Variety or Hybrid	Yield, lbs/A					Value, \$/A					Grade Index					
	1991	1992	1993	1994	1995	Avg.	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995
KY 14	2915	2885	3138	3043	1481	2692	5313	5299	5590	5634	2723	77	77	61	82	71
KY 8959	—	3344	3253	3213	1519	2832	—	6137	5864	5912	2798	—	75	70	70	69
KY 907	—	—	3055	2422	1489	2322	—	—	5373	4460	2738	—	—	51	68	62
TN 86	2843	3118	3124	2996	1441	2704	5178	5733	5507	5540	2654	78	76	62	78	77
TN 90	2842	3057	2895	3026	1473	2659	5204	5617	5335	5609	2709	86	78	82	83	75
VA 509	2959	2665	3097	2645	1449	2563	5393	4894	5609	4910	2666	78	75	73	84	75
BU 21 x KY 10	2847	3178	3114	3123	1548	2762	5205	5812	5705	5759	2847	83	75	77	77	73
KY 14 x L8	2851	2877	3166	3126	1671	2738	5164	5257	5833	5770	3078	69	70	81	77	76
NC 2	—	3142	3075	2873	1428	2630	—	5783	5617	5317	2625	—	81	78	80	76
NC 3	—	—	—	3024	1511	2268	—	—	—	5563	2778	—	—	—	74	70
NC BH129	2772	2926	3196	3005	1521	2684	5034	5335	5742	5579	2798	73	70	66	86	73
Coop 313	2970	2950	3110	2478	1556	2613	5398	5379	5569	4592	2859	76	69	67	83	77
Coop 543	2388	2352	2844	2705	1447	2347	4340	4299	5117	4997	2664	73	72	68	78	75
Clay's 403	3141	3180	3400	3249	1566	2907	5699	5829	6025	5998	2876	71	75	60	79	76
HY 402	—	—	—	2718	1519	2119	—	—	—	5038	2793	—	—	—	82	74
PF 561	—	—	—	3000	1420	2445	—	—	5296	5555	2613	—	—	73	83	74
R 711	3028	3200	3184	3382	1382	2835	5535	5839	5601	6233	2540	83	71	57	74	69

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

Table 3. Agronomic and Disease Information for Varieties Tested in Virginia, 1995.<sup>1</sup>

Varieties	Days to Flower	Plant height (in)	Leaf no.	Leaf length (in)	Leaf width (in)	Disease Reaction <sup>2</sup>				
						BS	BRR	TMV	WF	FW
KY 14	57	35.0	16.9	24.9	13.0	S	M	H	H	H
KY 8959 <sup>3</sup>	62	37.2	17.3	25.9	12.0	S	H	S	H	S
KY 907 <sup>3</sup>	63	39.7	17.1	23.1	11.4	L	H	H	H	M
TN 86 <sup>3</sup>	63	36.3	16.6	24.4	10.8	M	H	S	H	S
TN 90 <sup>3</sup>	60	35.5	16.2	23.7	11.3	M	H	H	H	S
VA 509	63	36.2	16.2	23.4	10.9	M	L	S	H	L
BU 21 x KY 10	58	36.9	16.3	25.6	11.8	S	L	H	H	L
KY 14 x L8	56	38.1	17.6	25.5	11.1	<sup>4</sup>	M	H	H	M
NC 2	61	37.1	17.0	23.9	11.5	L	H	H	H	S
NC 3	62	36.2	17.0	24.1	11.3	L	H	H	H	S
NC BH129	58	37.2	17.1	24.9	10.7	S	H	H	H	-
COOP 313	57	36.6	17.7	24.6	11.8	S	MH	H	H	-
COOP 543	58	35.4	17.3	23.7	11.7	M	H	H	H	-
Clay's 403	58	37.4	18.0	25.1	10.7	S	M	H	H	-
HY 402	57	36.2	16.7	24.1	11.2	S	H	H	H	M
PF 561	58	35.7	15.9	23.2	10.7	M	H	H	H	-
R 711	64	35.2	16.8	23.1	9.6	S	M	H	H	-

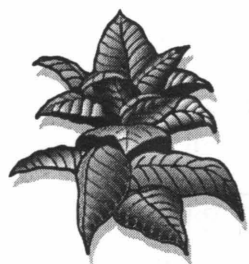
<sup>1</sup>Agronomic measures were made at the Southwest Virginia Ag. Res. & Ext. Ctr.

<sup>2</sup>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.

<sup>3</sup>High resistance to tobacco vein mottling virus and medium resistance to tobacco etch virus.

<sup>4</sup>High resistance to race 0 and no resistance to race 1.



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