LD
5655
A761
B87
1999
ExtenPub
Spec.

Virginia Cooperative Extension

REVISED 1999

Tobacco

PUBLICATION 436-417

Burley Tobacco Variety Information for 1999

*C.A. Wilkinson, T.D. Reed, and C.S. Johnson**

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.

* Associate Professor of Agronomy; Extension Agronomist, Tobacco; and Extension Plant Pathologist, Tobacco, respetively; Virginia Tech, Southern Piedmont Agricultural Research and Extension Center, Blackstone, Va.

Virginia Tech 1872

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Virginia Cooperative Extension programs and employment are open to all, regardless of race, color, religion, sex, age, veteran status, national origin, disability, or political affiliation. An equal opportunity/affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. J. David Barrett. Interim Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; Lorenza W. Lyons, Administrator, 1890 Extension Program, Virginia State, Petersburg.

VT/028/0399/1M/992984/436417

VIRGINIA STATE UNIVERSITY

Table 1. Results from Virginia Burley Tobacco Variety Tests, Yield, Value, Price and Grade Index, 1998. [1]

Variety	State Average Yield lbs/A	State Average Price $/cwt	Southwest VA AREC Yield lbs/A	Southwest VA AREC Price $/cwt	B. H. Miller farm Yield lbs/A	B. H. Miller farm Price $/cwt	D. Cavin farm Yield lbs/A	D. Cavin farm Price $/cwt	H. Scott farm Yield lbs/A	H. Scott farm Price $/cwt	L. Culbertson farm Yield lbs/A	L. Culbertson farm Price $/cwt
KY 14	2042	180	2576	190	2130	169	2080	192	1600	182	1860	178
KY 908	1920	187	2160	190	1940	192	2180	196	1960	187	1620	177
TN 86	2133	189	2483	191	2180	192	2540	191	2300	187	1570	184
TN 90	2240	189	2330	190	2350	194	2520	191	2380	182	1900	188
TN 97	2105	184	2491	191	2230	192	2820	191	2420	180	1280	173
Bu 21 x KY 10	2061	184	2613	189	2390	192	2300	191	1680	183	1560	170
KY 14 x L 8	2192	185	2576	189	2420	192	2360	191	2000	182	1770	175
NC BH129	2110	188	2399	190	2390	192	2370	192	1900	182	1750	189
Clay's 403	2037	188	2736	189	2370	194	2390	191	1520	185	1520	182
HY 502	2179	186	2677	190	2480	191	2420	192	1900	183	1660	181
PF 561	2461	187	2623	189	2460	192	2500	191	2720	188	2040	179
R 711	2187	187	3007	189	2590	191	2240	192	1800	183	1350	186

	State Average Value $/A	State Average Grade Index	Southwest VA AREC Value $/A	Southwest VA AREC Grade Index	B. H. Miller farm Value $/A	B. H. Miller farm Grade Index	D. Cavin farm Value $/A	D. Cavin farm Grade Index	H. Scott farm Value $/A	H. Scott farm Grade Index	L. Culbertson farm Value $/A	L. Culbertson farm Grade Index
KY 14	3683	52	4904	74	3604	59	3989	74	2913	42	3309	34
KY 908	3586	60	4095	76	3716	74	4281	70	3669	55	2863	33
TN 86	4023	62	4730	72	4176	69	4854	77	4299	58	2887	50
TN 90	4224	61	4433	73	4557	69	4801	80	4329	47	3575	56
TN 97	3897	58	4749	75	4276	75	5385	77	4348	38	2214	44
Bu 21 x KY 10	3812	54	4950	75	4581	70	4400	80	3069	44	2649	26
KY 14 x L 8	4058	54	4859	74	4634	73	4515	77	3646	44	3091	25
NC BH129	3977	63	4557	72	4579	74	4557	73	3465	44	3305	61
Clay's 403	3841	62	5180	76	4596	75	4570	77	2814	47	2772	48
HY 502	4073	59	5074	76	4749	75	4643	74	3470	44	2998	39
PF 561	4611	60	4968	74	4712	70	4777	77	5106	58	3659	36
R 711	4111	65	5699	76	4947	78	4306	74	3290	45	2507	61

[1] Tests were conducted in Washington (Southwest Virginia Ag. Res. and Ext. Ctr. and B. H. Miller, Jr. farm), Lee (D. Cavin and H. Scott farms), and L. Culbertson farm) counties in 1998.

[2] 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, $/A					Grade Index [2]				
	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
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

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

[2] 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]			
						BS	BRR	TMV	WF
KY 14	65	35.6	19.3	34.0	13.9	S	M	H	H
KY 8959 [2]	70	35.4	18.3	33.9	14.1	S	H	S	H
KY 907 [2]	69	36.1	17.1	33.8	13.6	L	H	H	H
KY 908 [2]	69	35.0	18.5	33.2	14.0	M	H	H	H
TN 86 [2]	68	34.7	18.6	33.4	14.6	M	H	S	H
TN 90 [2]	69	34.8	18.3	33.1	14.1	M	H	H	H
TN 97 [2]	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	[3]	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

[1] BS = Black Shank; BRR = Black Root Rot; TMV = Tobacco Mosaic Virus; and WF = Wildfire.

[2] Resistance levels: H = high; M = moderate; L = low; S = susceptible, and — = not determined.

[3] High resistance to tobacco vein mottling virus and medium resistance to tobacco etch virus.

[4] High resistance to race 0 and no resistance to race 1.

Disclaimer

Commercial products are named in this publication for information purposes only. Virginia Cooperative Extension and Virginia Polytechnic Institute and State University do not endorse these products and do not intend discrimination against other products which also may be suitable.

Virginia Cooperative Extension
U.S. Department of Agriculture
Virginia Polytechnic Institute
and State University
Blacksburg, Virginia 24061

BULK RATE
POSTAGE & FEES PAID
USDA
PERMIT NO. G268