Progress Report 239

Kentucky Forage Variety Trials - 1978

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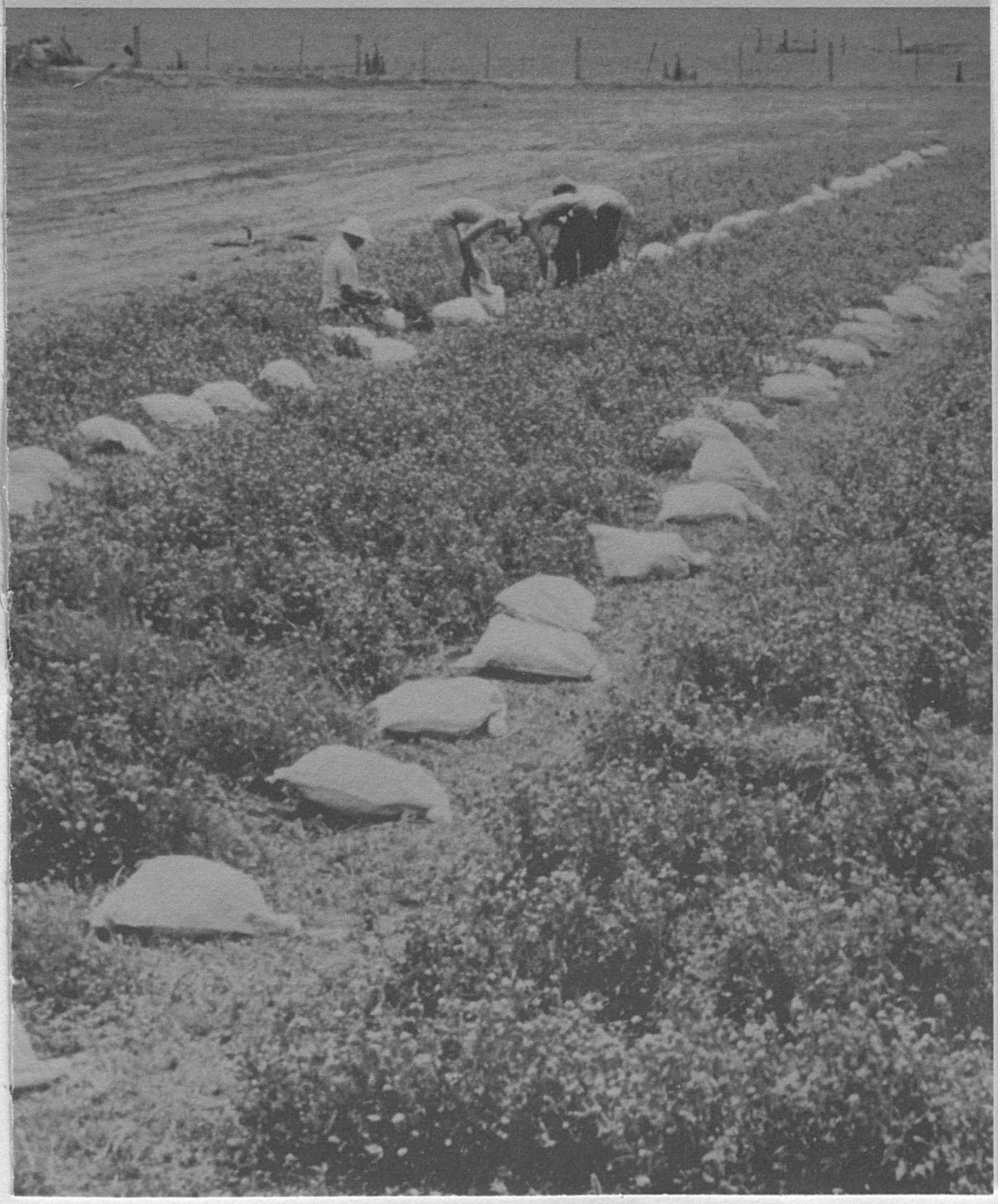

Kentucky Forage Variety Trials-1978

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The objective of the Kentucky Forage Variety Trials is to provide information on yields of forage varieties that are available in the market and are likely to be sown by Kentucky farmers. Primary emphasis will be given to alfalfa and red clover but other species will be tested as new varieties become available. Because of the large number of varieties available, it is considered beyond the scope of these investigations to test species combinations and cultural practices, and other factors.

Experimental Procedures

At present, tests are conducted on the Experiment Station Farms at Lexington and Princeton, Kentucky. Experiments usually are randomized block designs with four to six replications. Plot size is 5 by 13 feet, which is trimmed to 3 by 10 feet for harvesting. Perennial forages usually are harvested 3 to 4 times annually throughout the life of the stand, except for the year of seeding. Plots are mowed with a small cutter bar mower; forage is raked, bagged and dried at 160°F to a constant dry weight which is recorded, converted to tons per acre, subjected to analysis of variance, and usually a multiple range test or LSD (Least significant difference) is included to denote significant differences. For the multiple range test, varieties with the same letter are not significantly different. Other observational data are recorded occasionally and will be reported when especially meaningful. Seeding rates, lime, fertilizer, and herbicide applications follow the recommendations of the Kentucky Agricultural Experiment Station.

Interpretation of Data

Generally those data which are summarized across the life of the stand of an experiment are most meaningful. The data of any one year may not provide a true picture of the performance of a variety and should be considered with caution. Consider two or three year averages to estimate the yield and persistence of a variety before selecting one for use in a given area. It usually will not be worthwhile to purchase higher priced seed of varieties which are only slightly different as shown by the yield results. Use only certified seed if available to ensure the genetic identity of a variety. It is the policy of the Department of Agronomy to present progress reports on forage varietal performance rather than to make variety recommendations.

1/ The assistance of Garry Lacefield and J. K. Evans, Extension Specialists, University of Kentucky, in collecting and assembling these data is gratefully acknowledged.

Description of Varieties

Only those varieties for which data are presented will be described. The characteristic for which the variety was developed is listed but this does not guarantee that the variety expresses that characteristic under Kentucky conditions. Generally, seed of varieties used in variety trials is picked up on the open market. Occasionally, however, if seed of the variety to be tested is unavailable in the market, it may be received directly from the originator, as is the case for all experimentals. Experimentals will be tested only as time, labor and facilities permit, and only if assurance exists that the experimental may be placed on the Kentucky market in the near future. Those varieties listed in Table 1 and not listed below have been taken off the market or are not suited to Kentucky.

Alfalfa

Variety	Characteristic	Originator
Agate	Resistance to bacterial wilt, common leafspot, lepto leafspot, and photophthora root rot	Minnesota ARS & USDA
Apalachee		North Carolina ARS & USD
Apollo	Resistance to bacterial wilt, photophthora root rot, potato leafhopper and pea aphid	North American Plant Breeders
Arc	Resistance to anthracnose, alfalfa weevil, bacterial wilt, and pea aphid	North Carolina & USDA
Buffalo	Resistance to bacterial wilt	Kansas Agricultural Experiment Station and USD
Classic	Resistance to bacterial wilt, anthracnose, photophthora root rot and potato leafhopper	Farmers Forage Research Cooperative
Cody	Resistance to bacterial wilt, spotted alfalfa aphid, and summer blackstem	Kansas Agricultural Experiment Station and USD
Gladiator	Resistance to alfalfa weevil, bacterial wilt, and pea aphid	Northrup-King Seed Company
Honeoye	Resistance to bacterial wilt	New York Agricultural Experiment Station
Iroquois	Resistance to bacterial wilt	New York Agricultural Experiment Station
Lancer		Northrup-King Seed Company

Alfalfa (cont'd)

Variety	Characteristic	Originator
Narragansett		Rhode Island Agricultural Experiment Station
Olympic		Farmland Industries
Ramsey	Resistance to bacterial wilt, downy mildew, common leafspot, lepto leafspot, summer blackstem and photophthora root rot	Minnesota Agricultural Experiment Station & USDA
Saranac	Resistance to bacterial wilt	New York Agricultural Experiment Station
Saranac AR	Resistance to bacterial wilt and anthracnose	New York Agricultural Experiment Station
Spredor	Resistance to bacterial wilt (creeping-rooted)	Northrup-King Seed Company
Team	Resistance to anthracnose, alfalfa weevil, common leafspot, pea aphid and stemphyllium leafspot	Maryland, North Carolina & USDA
Tempo		Farmers Forage Research Cooperative
Thor	Resistance to bacterial wilt	Northrup-King Seed Company
Titan	Resistance to anthracnose, bacterial wilt, and summer blackstem	North American Plant Breeders
Vangard	Resistance to anthracnose, bacterial wilt, and potato leafhopper	North American Plant Breeders
Vernal	Resistance to bacterial wilt and potato leafhopper	Wisconsin Agricultural Experiment Station
Victoria	Resistance to bacterial wilt, downy mildew, common leafspot and spotted alfalfa aphid (creeping-rooted)	Arkansas Agricultural Experiment Station
Weevlchek	Resistance to bacterial wilt and potato leafhopper	Farmers Forage Research Cooperative
Williamsburg		Virginia Agricultural Experiment Station
520	Resistance to bacterial wilt and lepto leafspot	Pioneer Hi-Bred, International
530	Resistance to bacterial wilt, downy mildew, common leafspot, lepto leafspot, pea aphid, and spotted alfalfa aphid	Pioneer Hi-Bred, International

Red Clover	Characteristic	Originator
Kenstar	Yield, persistence, resistance to southern anthracnose	Kentucky Agricultural Experiment Station & USDA
Kenland	Yield, resistance to southern anthracnose	Kentucky Agricultural Experiment Station & USDA
Redland	Closed pedigree	North American Plant Breeders
Redman	Closed pedigree	Forage Farmers Research Cooperative
Florie	Closed pedigree	Northrup-King Seed Company
Florex	Closed pedigree	Northrup-King Seed Company
Lakeland	Yield, resistance to mildew and northern anthracnose	USDA & Wisconsin Agricultural Experiment Station
Arlington	Yield, persistence, resistance to mildew and northern anthracnose	USDA & Wisconsin Agricultural Experiment Station
Pennscott	Yield, adaptation to Pennsylvania conditions	Pennsylvania Agricultural Experiment Station
Norlac	Mammoth type developed for Canadian conditions	Canada
Altaswede	Mammoth type	Canada
RF-2	Varies with seed blended	Northrup-King Seed Company
Russian	Introduction	Russia
K4-183	Experimental--Closed pedigree	Northrup-King Seed Company
Kentucky Double-Cross-1	Experimental--Yield, persistence, resistance to root rot and southern anthracnose	Kentucky Agricultural Experiment Station

Table 1. Forage dry matter yields of alfalfa varieties sown at Lexington April 8, 1971 and at Princeton April 15, 1971.

Lexington (1971-1975)		Princeton (1971-1974)	
Variety	Total Tons/A	Variety	Total Tons/A
1. Weevlchek	17.46	1. Team	14.78
2. Iroquois	17.26	2. Williamsburg	14.32
3. Vernal	16.94	3. Apalachee	14.22
4. Thor	16.93	4. Weevlchek	14.18
5. Williamsburg	16.57	5. Glacier	13.98
6. Franks Langmeiler	16.44	6. Iroquois	13.87
7. Saranac	16.18	7. DuPuits	13.83
8. Narragansett	16.11	8. Thor	13.81
9. Cayuga	16.03	9. Apex	13.71
10. Buffalo	15.95	10. Narragansett	13.68
11. Dawson	15.95	11. Mark II	13.66
12. Mark II	15.93	12. Flamande	13.57
13. Flamande	15.90	13. Vernal	13.53
14. Apalachee	15.59	14. Cody	13.49
15. Apex	15.49	15. Franks Langmeiler	13.44
16. Ranger	15.23	16. Saranac	13.42
17. Team	15.15	17. FD-100	13.39
18. DuPuits	15.02	18. Dawson	13.38
19. Glacier	14.90	19. Ladak 65	13.31
20. Cody	14.87	20. Cayuga	13.15
21. Washoe	14.84	21. Beaver	12.93
22. Ladak 65	14.72	22. Kanza	12.76
23. Kanza	14.55	23. Buffalo	12.74
24. Beaver	14.16	24. Washoe	12.61
25. Lahanton	13.97	25. Ranger	12.35
26. FD-100	13.13	26. Caliverde 65	12.00
27. Roamer	12.38	27. Roamer	11.54
28. Rambler	12.05	28. Lahanton	11.46
29. Caliverde 65	11.61	29. Rambler	11.40
30. Mesa Sersa	11.02	30. Mesa Sersa	8.93
Mean Yield	15.08	Mean Yield	13.11
15 individual harvests		12 individual harvests	

Table 2. Forage dry matter yields in 1977 of alfalfa varieties sown at Lexington May 13, 1977 and at Princeton May 11, 1977.

Lexington			Princeton		
Variety	Tons/A		Variety	Tons/A	
1. Arc	3.40	a	1. Vangard	3.36	a
2. Saranac	3.42	ab	2. Saranac AR	3.26	a
3. Saranac AR	3.29	ab	3. Classic	3.22	ab
4. Classic	3.26	ab	4. Apollo	3.18	ab
5. Olympic	3.26	ab	5. Williamsburg	3.11	abc
6. Vangard	3.19	abc	6. Weevlchek	3.08	abcd
7. Victoria	2.95	bcd	7. Tempo	3.04	abcd
8. Lancer	2.95	bcd	8. Pioneer 530	3.04	abcd
9. Apollo	2.94	bcd	9. Vernal	2.99	abcd
10. Vernal	2.93	bcd	10. Olympic	2.99	abcde
11. Iroquois	2.92	bcd	11. Iroquois	2.90	abcde
12. Tempo	2.91	bcd	12. Team	2.88	abcde
13. Gladiator	2.90	bcd	13. Arc	2.82	abcde
14. Honeoye	2.90	bcd	14. Victoria	2.81	abcde
15. Williamsburg	2.80	cde	15. Gladiator	2.80	abcde
16. Pioneer 530	2.78	def	16. Saranac	2.79	bcde
17. Weevlchek	2.66	def	17. Buffalo	2.75	bcde
18. Buffalo	2.61	def	18. Narragansett	2.72	bcde
19. Thor	2.59	def	19. Lancer	2.71	bcde
20. Cody	2.48	defg	20. Cody	2.67	cdef
21. Team	2.47	efg	21. Thor	2.66	cdef
22. Narragansett	2.43	efg	22. Honeoye	2.65	cdef
23. Agate	2.41	fg	23. Ramsey	2.57	def
24. Ramsey	2.38	fg	24. Agate	2.47	ef
25. Spredor	2.28	g	25. Spredor	2.19	f
Mean Yield	2.84		Mean Yield	2.91	
Cut 8/1, 9/20, 11/18 in 1977			Cut 8/3, 9/21, 11/15 in 1977		

See Table 3 for yield for 1978, total yield for 1977-78 and ranking for total yield.

Table 3. Forage dry matter yields and rankings of alfalfa varieties sown at Lexington May 13, 1977 and Princeton May 11, 1977. Yields for 1978 and two-year total yields and ranking for 1977-78.

Lexington				Princeton			
	Dry Matter Yields				Dry Matter Yields		
	1978[1]	1977-78			1978[2]	1977-78	
Variety	Tons/A		Tons/A	Rank	Variety	Tons/A		Tons/A	Rank
1. Classic	5.21	a	8.47	1	1. Weevlchek	5.36	a	8.44	1
2. Vernal	5.10	ab	8.03	5	2. Williamsburg	5.21	ab	8.32	3
3. Iroquois	5.07	ab	7.99	6	3. Apollo	5.19	ab	8.37	2
4. Arc	5.06	ab	8.46	2	4. Pioneer 530	5.19	ab	8.23	5
5. Honeoye	5.05	ab	7.95	8	5. Cody	5.16	ab	7.83	10
6. Apollo	5.04	abc	7.98	7	6. Narragansett	5.16	ab	7.88	8
7. Saranac	4.86	abc	8.28	3	7. Saranac AR	5.06	abc	8.32	3
8. Narragansett	4.82	abc	7.25	17	8. Gladiator	5.03	abc	7.83	10
9. Saranac AR	4.80	abc	8.09	4	9. Lancer	5.03	abc	7.74	13
10. Gladiator	4.78	abc	7.68	11	10. Thor	4.92	abcd	7.58	15
11. Team	4.68	abc	7.15	19	11. Classic	4.92	abcd	8.14	6
12. Vangard	4.68	abc	7.87	9	12. Agate	4.92	abcde	7.39	21
13. Weevlchek	4.67	abc	7.33	15	13. Tempo	4.83	abcde	7.87	9
14. Williamsburg	4.63	abc	7.43	14	14. Ramsey	4.82	abcde	7.39	21
15. Cody	4.63	abc	7.11	21	15. Olympic	4.81	abcde	7.80	12
16. Lancer	4.60	abc	7.55	12	16. Buffalo	4.79	abcde	7.54	18
17. Thor	4.55	abc	7.14	20	17. Arc	4.78	bcde	7.60	14
18. Victoria	4.55	abc	7.50	13	18. Honeoye	4.77	bcde	7.42	20
19. Agate	4.50	abc	6.91	24	19. Victoria	4.77	bcde	7.58	15
20. Ramsey	4.47	abc	6.85	23	20. Team	4.67	bcde	7.55	17
21. Pioneer	4.45	abc	7.23	18	21. Vangard	4.66	bcde	8.02	7
22. Olympic	4.43	abc	7.69	10	22. Saranac	4.57	cde	7.36	23
23. Tempo	4.36	bc	7.27	16	23. Vernal	4.53	cde	7.52	19
24. Buffalo	4.25	c	6.86	22	24. Iroquois	4.45	de	7.35	24
25. Spredor	3.35	d	5.63	25	25. Spredor	4.33	e	6.52	25
Mean Yield	4.66		7.51		Mean Yield	4.88		7.74	

[1] Cut 5/18, 6/29, 8/9, and 7/19

[2] Cut 5/10, 6/14, 7/18, 8/22 and 9/27

Table 4. Forage dry matter yields and ranking of alfalfa varieties sown at Lexington April 1976. Yields for 1977 and 1978, and two-year total yields and ranking of varieties for 1977-78.

Dry Matter Yields									
1977 [1]		1978 [2]		Total 1977-78	Rank
Variety	Tons/A	Variety	Tons/A	Tons/A	
1. Exp. NCW 18b	5.92 a	1. Arc	5.30 a	11.16	1
2. Arc	5.86 ab	2. Exp. NCW 20a	5.07 ab	10.88	3
3. NCW 20a	5.81 abc	3. Apalachee	5.07 abc	10.59	4
4. Olympic	5.65 abcd	4. Exp. Phyto 2	5.06 abc	10.54	5
5. Vangard	5.64 abcd	5. Exp. NCW 18b	5.01 abcd	10.93	2
6. Apalachee	5.52 abcde	6. Vangard	4.89 abcde	10.53	6
7. NCW 20b	5.51 abcde	7. Weevlchek	4.78 abcde	10.19	8
8. Pioneer 520	5.51 abcde	8. Thor	4.73 abcde	10.10	10
9. Exp. Phyto 2	5.48 abcde	9. Apollo	4.70 abcde	9.80	11
10. Weevlchek	5.41 abcdef	10. Exp. NCW 20b	4.68 abcde	10.19	8
11. Thor	5.37 bcdef	11. Olympic	4.67 abcde	10.32	7
12. Narragansett	5.31 cdef	12. Exp. T4X201	4.48 abcdef	9.45	16
13. Victoria	5.27 def	13. Buffalo	4.44 bcdefg	9.66	21
14. Vernal	5.27 def	14. Agate	4.39 bcdefg	9.35	17
15. Titan	5.26 def	15. Titan	4.35 bcdefg	9.61	13
16. Pioneer 530	5.24 def	16. Cody	4.29 bcdefg	9.31	19
17. Apollo	5.10 efg	17. Pioneer 530	4.28 cdefg	9.52	14
18. Cody	5.02 efg	18. Pioneer 520	4.16 defg	9.67	12
19. Ramsey	4.97 fg	19. Narragansett	4.15 defg	9.46	15
20. Exp. T4X201	4.97 fg	20. Vernal	4.13 efg	9.40	18
21. Agate	4.96 fg	21. Ramsey	4.11 efg	9.08	20
22. Spredor	4.72 g	22. Victoria	3.79 fg	9.06	21
23. Buffalo	4.62 g	23. Spredor	3.66 g	8.38	23
Mean Yield	5.32	Mean Yield	4.53	9.38	

[1] Cut 5/19, 6/23, 8/1 and 9/20 in 1977

Cut 5/18, 6/29, 8/9 and 9/19 in 1978

Plots were harvested three times in 1976 but yields were not recorded.

Table 5. Stage of bloom ratings, lodging estimates, and fall growth measurements of alfalfa varieties at Lexington and Princeton. (1978)

Bloom Stage[1]		Lodging[1]		Fall Growth[2]		Fall Growth[3]	
Variety	Rating	Variety	Rating	Variety	Inches	Variety	Inches
Arc	1.0	Arc	1.0	Williamsburg	9.6	T4X201	9.3
Buffalo	1.0	Gladiator	1.0	Pioneer 530	9.2	Phyto 2 Exp.	7.0
Classic	1.0	Pioneer 530	1.0	Victoria	8.8	Apalachee	6.3
Gladiator	1.0	Spredor	1.0	Vangard	8.1	Pioneer 530	6.2
Vernal	1.0	Team	1.0	Tempo	8.1	Vangard	6.2
Agate	1.3	Thor	1.0	Thor	8.1	NCW 18b	5.7
Cody	1.3	Vangard	1.0	Saranac AR	6.4	Arc	5.7
Olympic	1.3	Honeoye	1.3	Olympic	6.3	Victoria	5.4
Ramsey	1.3	Iroquois	1.3	Buffalo	6.3	NCW 20b	5.1
Saranac AR	1.3	Olympic	1.3	Saranac	6.2	Thor	5.1
Spredor	1.3	Ramsey	1.3	Apollo	6.1	Olympic	4.9
Team	1.3	Saranac AR	1.3	Gladiator	6.0	NCW 20a	4.9
Williamsburg	1.3	Agate	1.7	Arc	6.0	Cody	4.8
Narragansett	1.7	Classic	1.7	Cody	5.9	Pioneer	4.5
Iroquois	1.7	Lancer	1.7	Iroquois	5.7	Titan	4.0
Team	1.7	Vernal	1.7	Honeoye	5.7	Buffalo	4.0
Vangard	1.7	Victoria	2.0	Team	5.5	Apollo	4.0
Honeoye	2.0	Saranac	2.3	Classic	5.4	Weevlchek	3.7
Saranac	2.0	Williamsburg	2.7	Lancer	5.2	Narragansett	3.5
Lancer	2.3	Weevlchek	3.3	Vernal	4.9	Agate	3.4
Apollo	2.7	Narragansett	3.3	Weevlchek	4.8	Spredor	3.3
Pioneer 530	2.7	Cody	3.7	Agate	4.5	Ramsey	3.1
Thor	2.7	Tempo	3.7	Narragansett	4.2	Vernal	3.0
Victoria	2.7	Apollo	4.3	Ramsey	3.2		
Weevlchek	2.7	Buffalo	4.3	Spredor	2.8		
June 14, 1978 Princeton 1 = No bloom 3 = 20% bloom		June 14, 1978 Princeton 1 = No lodging 5 = Severe lodging		November 22, 1978 Lexington		November 22, 1978 Lexington	

[1] See Princeton data, Table 3. [2] See Lexington data, Table 3. [3] See Table 4.

NOTE: These ratings and measurements are given as examples of differences that can show up at times among varieties. Bloom and lodging ratings were taken at the time of the second harvest at Princeton because obvious differences were not present at other times. In previous years pronounced differences were not as obvious in fall growth as was present in November 1978. Short fall growth is typical of hardier varieties. But some of the varieties which made good fall growth are satisfactory in hardiness for Kentucky.

Table 6. Forage dry matter yields in 1978 of varieties of red clover sown March 8, 1976 (Expt 267) Lexington.*

Progeny or Variety	Tons/Acre			
	5-30-78	7-6-78	8-29-78	Total
Kenstar	0.63 bc	0.38 bc	0.30 a-d	1.34 a-d
Kenland	0.57 bc	0.36 b-d	0.34 a-c	1.27 b-e
Redman	0.81 ab	0.34 b-d	0.34 a-c	1.49 a-c
Redland	0.64 bc	0.29 b-e	0.24 a-d	1.17 b-f
Altaswede	0.26 d-g	0.19 c-e	0.17 b-d	0.63 f-h
RF-2	0.39 c-g	0.26 b-e	0.21 a-d	0.86 d-h
Arlington	0.84 ab	0.28 b-e	0.28 a-d	1.41 a-d

*Summarized with 1978 data in Table 7

Table 7. Forage dry matter and seed yields of red clover varieties in 1977 and 1978 sown March 8, 1976 (Expt 267) Lexington.

Variety	Forage*			Seed
	1977	1978	Total	1977
	Tons/Acre			Lbs/Acre
Kenstar	2.62	1.34 a-d	3.96	246
Kenland	2.19	1.27 b-e	3.46	232
Redman	2.47	1.49 a-c	3.96	314
Redland	2.37	1.17 b-f	3.54	317
Altaswede	2.15	0.63 f-h	2.78	134
RF-2	2.32	0.86 d-h	3.18	306
Arlington	2.58	1.41 a-d	3.99	239
LSD .05	0.33			76

*2 Forage harvests and 1 seed harvest in 1977 and 3 forage harvests in 1978. This table summarizes two years of data--1977 and 1978 (from Table 6) and indicates that Kenstar, Kenland, Redman, Arlington, and Redland are about equal in yield of forage.

Table 8. Forage dry matter yields of red clover varieties sown March 4, 1976 and harvested in 1977 and 1978 (Expt 266) Lexington.*

Variety	Tons/Acre 1977	1978	Total
Kenstar	3.79	0.54 ab	4.33
Ky. Double-Cross-1	4.09	0.77 a	4.86
Altaswede	2.44	0.03 c	2.47
Redland	4.20	0.66 ab	4.86
Redman	4.09	0.49 ab	4.58
RF-2	3.74	0.36 b	4.10
Minn. Med. Red	3.54	0.31 b	3.85
LSD	0.46		

*4 harvests in 1977, 1 harvest in 1978. These varieties were in third year in 1978, and the 1978 data in particular are indicative of persistence. No significant difference exists among the varieties Kenstar, Redland, and Redman. Ky. Double-Cross-1 is an experimental and no seed is available.

Table 9. Forage dry matter yields in 1978 of varieties of red clover sown March 25, 1977 (Expt 275) Lexington.*

Variety	Tons/Acre 5-25-78	7-5-78	8-28-78	Total
Russian	0.88 de	0.26 f-h	0.08 h-j	1.21 fg
Norlac	0.66 de	0.15 h	0.03 j	0.84 g
RF-2	1.49 ab	0.83 b-d	0.29 e-g	2.62 bc
Redman	1.77 a	0.91 bc	0.55 ab	3.22 ab
Pennscott	1.56 ab	0.92 b	0.37 b-f	2.86 b
Florie	1.55 ab	0.89 bc	0.42 b-d	2.87 b
Lakeland	1.46 a-c	0.72 b-e	0.25 d-i	2.42 b-e
Arlington	1.47 a-c	0.58 de	0.36 b-f	2.42 b-d
Kenstar	1.44 a-c	0.89 bc	0.49 bc	2.83 b
Altaswede	0.54 e	0.22 gh	0.05 ij	0.81 g
Kenland	0.61 e	0.49 e-g	0.15 g-j	1.25 fg
Redland	1.31 bc	0.75 b-e	0.43 b-d	2.50 b-d
K4-183	1.66 ab	0.72 b-e	0.56 ab	2.93 b
Ky. Double-Cross-1	1.83 a	1.21 a	0.73 a	3.76 a
Florex	1.05 cd	0.51 ef	0.27 d-h	1.84 c-f

*These varieties were in their second year, and yields are low partly because of heavy root-rot infection due to growing red clover on the same soil for several years. Ky. Double-Cross-1 and K4-183 are experimentals and no seed is available. Highest yields among the other varieties were produced by Redman, Pennscott, RF-2, Florie, Lakeland, Arlington, Kenstar, and Redland. Differences among them were not significant in this test.

Table 10. Forage dry matter yields in 1978 of Kenstar and common lots of red clover sown March 25, 1977 (Expt 273) Lexington.*

Origin	Number	Variety	Tons/Acre 5-25-78	7-5-78	8-29-78	Total	% of Kenstar
Ky.	59-L38-1554	Kenstar	2.02 a	1.09 a	0.89 a	4.00 a	100.0
Ore.	0-402	Kenland	1.44 c-e	0.77 b-f	0.45 c	2.65 de	71.5
Ore.	0-104	Kenland	1.30 d-f	0.65 d-g	0.22 d-g	2.17 ef	54.3
Ore.	0-787	Kenland	0.95 fg	0.47 gh	0.09 e-h	1.51 gh	37.8
Ore.	0-371	Kenland	0.43 h	0.20 i	0.04 gh	0.67 ij	16.8
Ore.	0-730	Kenland	0.14 h	0.09 i	0.02 h	0.24 j	06.3
Ore.	0-282	Kenland	0.78 g	0.29 hi	0.05 f-h	1.12 hi	28.0
Ore.	0-243	Kenland	1.18 ef	0.52 e-h	0.22 d-g	1.93 fg	48.0
Ore.	0-473	Kenland (affidavit)	1.23 ef	0.78 b-f	0.25 de	2.26 ef	56.5
Ore.	FSA-4778	Kenland	1.95 ab	1.05 ab	0.67 b	3.67 ab	91.8
Ore.	FSAM-4772	Kenland	0.97 fg	0.54 e-h	0.17 e-h	1.68 f-h	42.0
Mo.	0-964	Variety unknown	1.65 b-d	0.88 a-d	0.37 cd	2.91 cd	72.5
Ky.	0-1384	Variety unknown	1.80 ab	0.80 b-e	0.65 b	3.25 bc	81.3
Ore.	0-370	Med. Red clover	0.34 h	0.14 i	0.02 gh	0.51 j	12.5
Mich.	0-229	Med. Red	1.22 ef	0.51 f-h	0.17 e-h	1.90 fg	47.5
Minn.	0-111	Red clover	0.42 h	0.14 i	0.02 gh	0.58 ij	14.5
Ore.	0-1115	Red clover	0.30 h	0.08 i	0.03 gh	0.41 j	10.3
Ill.	0-340	Red clover	1.73 a-c	0.98 a-c	0.25 d-f	2.95 cd	74.0
Ida.	0-533	Red clover	1.41 c-e	0.50 f-h	0.26 de	2.17 ef	54.3
Ohio	0-125	Variety unknown	1.20 ef	0.70 e-g	0.16 e-h	2.06 e-g	51.5

*Results indicate that varieties labeled Kenland are, in fact, not Kenland. These non-certified lots of seed are typical of seed sold in Kentucky and produce significantly less forage than Kenstar.

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