

SMALL GRAIN VARIETY REPORT
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TABLE OF CONTENTS

	Page
Introduction.	5
Forage and Grain Yields (Table 1):	
Northern Alabama.	10
Central Alabama	11
Southern Alabama.	12
Grain Yield and Other Characteristics of Clipped Varieties (Table 2):	
Northern Alabama	13
Central Alabama	14
Southern Alabama.	15
Grain Yield and Other Characteristics of Unclipped Varieties (Table 3):	
Northern Alabama	16
Central Alabama	17
Southern Alabama.	18
Forage Yields, Forage Only Series (Table 4):	
Brewton, Prattville, and Belle Mina	19
Forage Yields, Rye Varieties (Table 5):	
Northern Alabama.	20
Central Alabama	20
Southern Alabama	21
Estimated Percent Stand Loss of Small Grain Varieties Due to Winterkill During the 1978-79 Season (Table 6)	22
Disease Reactions	
Wheat (Table 7)	23

	<u>Page</u>
Oats (Table 8)	25
Barley (Table 9)	26
Varieties Recommended for Forage and Grain	27
Varieties Recommended for Grain Only	28
Rye Varieties Recommended for Forage Only	29
Sources of Seed	30

SMALL GRAIN VARIETY REPORT, 1979

Cliff G. Currier^{1/}

Wheat, oats, barley, and rye are tested annually at several locations throughout Alabama by the Auburn University Agricultural Experiment Station. The tests are designed to provide information on relative performance of varieties in given regions of the State and may not reflect absolute yielding potential. Entries selected for testing are commercially available varieties and experimental lines from public and private sources which show potential for use in Alabama.

Small grain variety tests were conducted at 12 locations during the 1978-79 season. Due to an extremely dry fall, planting dates varied considerably depending on local rainfall conditions. Plantings were made from September 20 to November 7. The tests at Headland and Camden were irrigated after planting to obtain stands. Good stands were obtained at all locations. Warm weather followed by a sudden drop in temperature during December caused stand loss in clipped plots of wheat, oat, and barley varieties (table 6).

In Alabama, small grains are grown for grain only, for forage and grain, and for forage only. To evaluate performance of small grains under these three management practices, three series of plots were used. The first series was managed for grain production only. The second series was clipped during the fall and winter as growth permitted, to evaluate forage production and the effect

^{1/}Research Associate, Department of Agronomy and Soils

of its removal on subsequent grain production. In this series, the final forage harvest for the season was made no later than early March, prior to jointing. In both series, wheat, oat, and barley varieties were evaluated. The third series, at Brewton, Prattville, and Belle Mina, was clipped throughout the growing season until no regrowth occurred to determine total forage production of wheat, oat, barley, and rye varieties. Since rye is primarily grown for forage in Alabama, rye varieties were tested for forage production only. The rye forage tests were conducted at nine locations, and plots were clipped throughout the season until no regrowth occurred.

The experimental design for the tests, except the rye forage test, was a split plot with species as main plots and varieties as subplots. A randomized complete block experimental design was used for the rye forage test. Plots consisted of three rows spaced 12 inches apart and were 16 to 20 feet long. Each management series was replicated three times. Recommended cultural practices were followed and were the same for all entries within a management series at a location. Plots clipped for forage were fertilized with 100 pounds of nitrogen per acre at planting, and grain only plots were given 20 pounds of nitrogen per acre at planting. Both series of plots received 60 pounds of nitrogen in late February or early March.

Forage dry matter yields were obtained by clipping the entire plot, determining percent moisture content, and converting the plot green weight to pounds of dry matter per acre. Two methods were used to harvest grain. At Fairhope, Brewton, Monroeville, Headland, Camden, Tallassee, Prattville, and Crossville, a small plot combine

was used and the entire plot was harvested. At Camp Hill, Marion Junction, Winfield, and Belle Mina, the center row of the plot was cut by hand and threshed on a stationary thresher. In either case, grain samples were air dried, cleaned, weighed, and yield was calculated on a bushels per acre basis. For conversion to bushels per acre the following values were used: wheat, 60 lb./bu; oats, 32 lb./bu; and barley, 48 lb./bu.

Since growing conditions and performance may vary among locations, regional averages are used to give a better indication of variety performance for a region. Where data are available, averages over several years are included.

Wheat varieties previously tested as Coker 75-6 and Coker 75-24 have been named Southern Belle and Delta Queen, respectively. Coker 70-16 oats has been named Coker 716, and NAPB SR-80 rye has been named as Supergrazer.

Table 1 shows forage and grain yields and total feed production values for clipped plots and grain yields for unclipped plots. Grain yield, lodging, plant height, and date when one-tenth headed for clipped plots are given in table 2. Similar data for unclipped plots are given in table 3. Lodging is given as the percent of the stand that is broken or leaning and would likely be missed or shattered by a combine. Height is the average height of the plants measured from the soil surface to the tips of the heads. Date when one-tenth headed is the date when approximately 10 percent of the plants show fully emerged heads.

Yields of varieties tested for production of forage only, at Brewton, Prattville, and Belle Mina, are given in table 4. Rye

forage yields are presented in table 5.

Disease ratings for wheat, oat, and barley varieties are presented in tables 7, 8, and 9. Several diseases occur in small grains, but only those that are most common in Alabama are included here. Disease incidence and severity were moderate to heavy in the variety tests this year. Disease data were compiled by Dr. Robert T. Gudauskas, Department of Botany and Microbiology.

Varieties are recommended by region for (1) forage and grain production combined, (2) grain production only, and (3) forage production only for rye varieties. Variety recommendations in this report are for general regions of the State, and are based on performance at several locations in each region. Recommendations are made on the basis of at least 3 years data, however performance over a longer period is considered when data are available. Varieties that show exceptional performance over a 2-year period are recommended on a trial basis.

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NORTHERN ALABAMA

Tennessee Valley Substation, Belle Mina - W.B. Webster, Superintendent
Sand Mountain Substation, Crossville - J.T. Eason, Superintendent
Upper Coastal Plain Substation, Winfield - R.A. Moore, Superintendent

CENTRAL ALABAMA

Black Belt Substation, Marion Junction - L.A. Smith, Superintendent
Experiment Field, Prattville - F.T. Glaze, Superintendent
Piedmont Substation, Camp Hill - W.A. Griffey, Superintendent
Plant Breeding Unit, Tallassee - Larry Walker, Superintendent

SOUTHERN ALABAMA

Experiment Field, Brewton - W.E. Brown^{1/}, Superintendent
Experiment Field, Monroeville - W.E. Brown^{1/}, Superintendent
Gulf Coast Substation, Fairhope - E.L. Carden, Superintendent
Lower Coastal Plain Substation, Camden - J.A. Little, Superintendent
Wiregrass Substation, Headland - J.G. Starling, Superintendent

^{1/}Resigned

Table 1. FORAGE AND GRAIN YIELDS OF SMALL GRAIN VARIETIES TESTED, 1975-79
NORTHERN ALABAMA

Variety	Yield of clipped plots, average						Total feed, 1977-79 av.	
	Oven dry forage					Grain	Clipped forage plus grain	Not clipped, grain only
	1-yr 1979	2-yr 78-79	3-yr 77-79	4-yr 76-79	5-yr 75-79	3-yr 77-79		
	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.
Number of tests	(3)	(6)	(9)	(12)	(15)	(9)	(9)	(9)
WHEAT								
Wakeland	1201	761	940	1144	1037	1801	2741	2004
Coker 68-15	1026	555	794	938	884	2015	2809	2185
Ga. 1123	949	627	835	900	830	1858	2693	2119
Arthur	753	466	580	671	606	2284	2864	2199
Abe	460	284	397	466	433	2000	2397	1917
Arthur 71	608	347	614	629	588	1705	2319	1914
Oasis	713	449	581	638	589	1811	2392	1995
Coker 747	637	348	517	594	564	2341	2858	2299
Delta Queen	786	444	679			1583	2262	2248
McNair 1003	1155	671						
Coker 76-22	746	521						
McNair 4823	1009							
McNair 1813	1082							
Southern Belle	796							
Northrup, King 78W812	812							
Coker 78-27	467							
Coker 78-23	611							
Coker 78-28	775							
OATS								
Coker 227	471	257	394	461	433	2720	3114	2498
Coker 716	522	327	402	377		2648	3050	2836
Coker 76-16	556	401						
Coker 77-23	598							
Coker 76-14	537							
Firecracker	831							
BARLEY								
Keowee	608	438	466	530	492	1980	2446	1701
Barsoy	606	478	535	623	596	1971	2506	1918
Volbar	516	284	387	467	418	1930	2317	2084
Surry	754	479						

Table 1. (Cont'd) FORAGE AND GRAIN YIELDS OF SMALL GRAIN VARIETIES TESTED, 1975-79

CENTRAL ALABAMA

Variety	Yield of clipped plots, average						Total feed, 1977-79 av.	
	Oven dry forage					Grain	Clipped forage plus grain	Not clipped, grain only
	1-yr 1979	2-yr 78-79	3-yr 77-79	4-yr 76-79	5-yr 75-79	3-yr 77-79		
	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.
Number of tests ^{1/}	(3)	(7)	(9)	(12)	(16)	(9)	(9)	(9)
WHEAT								
Wakeland	2056	2066	1982	1715	1743	1369	3351	1711
Coker 68-15	1749	1917	1904	1625	1645	1603	3507	1810
Arthur	1399	1473	1147	994	1019	2088	3235	2035
Abe	1166	1426	1060	863	881	2278	3338	1868
Arthur 71	1341	1436	1171	957	996	2101	3272	1843
Oasis	1248	1583	1274	1067	1087	2097	3371	1785
Coker 747	1222	1571	1245	1091	1115	1960	3205	1980
McNair 1813	1921	1900	1934	1667		1877	3811	2053
McNair 1003	2069	2210	1952	1689		1952	3904	2442
Coker 76-22	1606	1998	1888			1654	3542	2298
McNair 4823	1420							
Southern Belle	1647							
Delta Queen	1346							
Northrup, King 78W812	1923							
Coker 78-27	1065							
Coker 78-23	1008							
Coker 78-28	1660							
OATS								
Elan	1028	1188	890	725	876	949	1839	1019
Coker 227	1198	1442	1138	955	1086	1999	3137	1672
Coker 716	1127	1445	1177	950		2234	3411	1921
Salem	1236	1327	1221	998		1539	2760	1673
Carolee	1056	1247	1079			1563	2642	1554
Coker 76-16	1380	1755	1466			2058	3524	2120
Coker 77-23	1166							
Coker 76-14	1324							
Firecracker	1144							
BARLEY								
Barsoy	1652	1624	1538	1306	1354	1825	3363	1818
Surry	1632	1610						
Keowee	986							

^{1/}Due to cold weather during the 1978-79 season, no forage harvests were made at Camp Hill. Forage data for 1979 are from Marion Junction, Prattville, and Tallassee.

Table 1. (Cont'd) FORAGE AND GRAIN YIELDS OF SMALL GRAIN VARIETIES TESTED, 1975-79

SOUTHERN ALABAMA

Variety	Yield of clipped plots, average						Total feed, 1977-79 av.	
	Oven dry forage					Grain 3-yr 77-79	Clipped forage plus grain	Not clipped, grain only
	1-yr 1979	2-yr 78-79	3-yr 77-79	4-yr 76-79	5-yr 75-79			
	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.
Number of tests	(5)	(10)	(15)	(20)	(25)	(15)	(15)	(15)
WHEAT								
Wakeland	2487	2176	1969	1880	1842	1626	3595	1879
Coker 68-15	1513	1430	1407	1323	1354	1908	3315	1936
Holley	1835	1700	1585	1425	1427	1498	3083	1678
Abe	969	986	820	719	721	1937	2757	1703
Arthur 71	1289	1133	985	848	848	1765	2750	1614
McNair 1813	1993	1663	1572	1502	1532	1654	3226	1792
Coker 747	1313	1115	968	865	849	2326	3294	2062
McNair 1003	1954	1779	1652	1537		1931	3583	2338
Coker 76-22	2285	2012	1821			2079	3900	2559
Delta Queen	2186	1921	1780			1723	3503	2271
McNair 4823	1358							
Southern Belle	1898							
Northrup, King 78W812	2139							
Coker 78-27	1598							
Coker 78-23	1890							
Coker 78-28	2313							
OATS								
Fla. 501	1290	1400	1194	1112	1177	1662	2856	1844
Elan	1047	1180	965	884	956	1752	2717	2075
Coker 227	1748	1503	1271	1128	1113	2064	3335	2143
Coker 76-16	1972	1813	1531			2316	3847	2381
Coker 77-23	1488							
Coker 76-14	1918							
Firecracker	1213							

Table 2. GRAIN YIELD AND OTHER CHARACTERISTICS OF CLIPPED SMALL GRAIN VARIETIES TESTED, 1975-79

NORTHERN ALABAMA

Variety	Regional average yield per acre					Other characteristics 3-yr av. 1977-79		
	1-yr	2-yr	3-yr	4-yr	5-yr	Lodging	Height	1/10
	1979	78-79	77-79	76-79	75-79			Headed
	Bu.	Bu.	Bu.	Bu.	Bu.	Pct.	In.	Date
Number of tests	(3)	(6)	(9)	(12)	(15)	(9)	(9)	(9)
WHEAT								
Wakeland	19	26	30	27	25	24	43	4/19
Coker 68-15	28	29	34	31	28	3	36	4/17
Ga. 1123	26	26	31	29	28	7	46	4/19
Arthur	32	36	38	31	30	7	38	4/17
Abe	34	35	33	30	29	13	35	4/17
Arthur 71	32	30	28	25	25	8	37	4/17
Oasis	31	31	30	28	27	13	37	4/18
Coker 747	37	37	39	36	35	18	35	4/18
Delta Queen	15	21	26			19	34	4/20
McNair 1813	26	23						
McNair 1003	30	35						
Coker 76-22	24	30						
McNair 4823	22							
Southern Belle	34							
Northrup, King 78W812	19							
Coker 78-27	2							
Coker 78-23	6							
Coker 78-28	20							
OATS								
Coker 227	65	79	85	75	71	18	39	4/22
Coker 716	77	83	83	74		8	41	4/25
Coker 76-16	52	67						
Coker 77-23	15							
Coker 76-14	34							
Firecracker	0							
BARLEY								
Keowee	46	40	41	42	41	21	33	4/14
Barsoy	44	34	41	44	41	45	28	4/05
Volbar	28	33	40	43	43	18	37	4/14
Surry	21	27						

Table 2. (Cont'd) GRAIN YIELD AND OTHER CHARACTERISTICS OF CLIPPED SMALL GRAIN VARIETIES TESTED, 1975-79

CENTRAL ALABAMA

Variety	Regional average yield per acre					Other characteristics 3-yr av. 1977-79		
	1-yr	2-yr	3-yr	4-yr	5-yr	Lodging	Height	1/10 Headed
	1979	78-79	77-79	76-79	75-79			
	Bu.	Bu.	Bu.	Bu.	Bu.			
Number of Tests ^{1/}	(3)	(7)	(9)	(12)	(16)	(9)	(9)	(9)
WHEAT								
Wakeland	16	19	23	24	21	19	38	4/13
Coker 68-15	18	21	27	27	24	9	33	4/10
Arthur	24	29	35	33	30	12	37	4/11
Abe	37	36	38	37	35	15	35	4/11
Arthur 71	32	32	35	32	29	11	36	4/11
Oasis	31	32	35	34	31	12	37	4/12
Coker 747	27	29	33	34	31	21	34	4/13
McNair 1813	23	25	31	29		5	33	4/10
McNair 1003	22	24	33	32		1	33	4/11
Coker 76-22	19	21	28			6	29	4/12
McNair 4823	13							
Southern Belle	24							
Delta Queen	12							
Northrup, King 78W812	10							
Coker 78-27	1							
Coker 78-23	9							
Coker 78-28	15							
OATS								
Elan	0	10	30	30	30	0	34	4/19
Coker 227	57	54	62	59	55	38	39	4/15
Coker 716	70	64	70	64		17	41	4/20
Salem	47	38	48	45		2	38	4/23
Carolee	49	39	49			4	39	4/21
Coker 76-16	76	60	64			28	38	4/16
Coker 77-23	45	58						
Coker 76-14	53							
Firecracker	0							
BARLEY								
Barsoy	32	26	38	37	32	7	25	4/01
Surry	18	22						
Keowee	18							

^{1/}The small grain variety test was not clipped at Camp Hill in the 1978-79 season. Grains yields from this location are not included in the 1979 grain yield averages. Grain yields are averages from Marion Junction, Prattville, and Tallassee.

Table 2. (Cont'd) GRAIN YIELD AND OTHER CHARACTERISTICS OF CLIPPED SMALL GRAIN VARIETIES TESTED, 1975-79

SOUTHERN ALABAMA

Variety	Regional average yield per acre					Other characteristics 3-yr av. 1977-79		
	1-yr	2-yr	3-yr	4-yr	5-yr	Lodging	Height	1/10 Headed
	1979	78-79	77-79	76-79	75-79			
	Bu.	Bu.	Bu.	Bu.	Bu.			
Number of tests	(5)	(10)	(15)	(20)	(25)	(15)	(15)	(15)
WHEAT								
Wakeland	24	23	27	29	25	9	37	4/05
Coker 68-15	27	27	32	31	28	2	33	4/05
Holley	22	20	25	26	23	7	35	4/02
Abe	31	28	32	32	31	2	31	4/06
Arthur 71	28	25	29	29	27	2	32	4/06
McNair 1813	27	24	28	26	22	2	31	4/02
Coker 747	37	34	39	38	36	3	31	4/06
McNair 1003	29	27	32	31		3	31	4/03
Coker 76-22	33	31	35			5	28	4/02
Delta Queen	25	22	29			9	29	4/04
McNair 4823	19							
Southern Belle	33							
Northrup, King 78W812	16							
Coker 78-27	13							
Coker 78-23	22							
Coker 78-28	25							
OATS								
Fla. 501	51	40	52	51	49	28	34	4/05
Elan	53	43	55	58	53	16	34	4/09
Coker 227	69	54	65	64	59	24	38	4/07
Coker 76-16	80	66	72			38	37	4/09
Coker 77-23	70							
Coker 76-14	55							
Firecracker	36							

Table 3. GRAIN YIELD AND OTHER CHARACTERISTICS OF UNCLIPPED SMALL GRAIN VARIETIES TESTED, 1975-79

NORTHERN ALABAMA

Variety	Regional average yield per acre					Other characteristics 3-yr av. 1977-79		
	1-yr	2-yr	3-yr	4-yr	5-yr	Lodging Pct.	Height In.	1/10
	1979 Bu.	78-79 Bu.	77-79 Bu.	76-79 Bu.	75-79 Bu.			Headed Date
Number of tests	(3)	(6)	(9)	(12)	(15)	(9)	(9)	(9)
WHEAT								
Wakeland	30	31	33	32	29	28	44	4/20
Coker 68-15	35	36	36	37	34	5	36	4/19
Ga. 1123	33	34	35	34	32	9	47	4/20
Arthur	37	35	37	32	32	12	38	4/19
Abe	30	31	32	29	29	18	36	4/19
Arthur 71	33	32	32	29	28	13	37	4/20
Oasis	33	32	33	29	29	17	37	4/20
Coker 747	39	37	38	39	38	14	34	4/19
Delta Queen	36	33	37			23	35	4/19
McNair 1813	37	28						
McNair 1003	43	40						
Coker 76-22	41	41						
McNair 4823	26							
Southern Belle	39							
Northrup, King 78W812	26							
Coker 78-27	29							
Coker 78-23	34							
Coker 78-28	34							
OATS								
Coker 227	70	74	78	74	70	28	40	4/23
Coker 716	81	87	89	82		23	40	4/26
Coker 76-16	73	75						
Coker 77-23	35							
Coker 76-14	80							
Firecracker	6							
BARLEY								
Keowee	39	34	35	40	37	31	33	4/17
Barsoy	53	38	40	48	46	40	27	4/05
Volbar	42	39	43	50	47	24	37	4/17
Surry	36	30						

Table 3. (Cont'd) GRAIN YIELD AND OTHER CHARACTERISTICS OF UNCLIPPED SMALL GRAIN VARIETIES TESTED, 1975-79

CENTRAL ALABAMA

Variety	Regional average yield per acre					Other characteristics 3-yr av. 1977-79		
	1-yr	2-yr	3-yr	4-yr	5-yr	Lodging Pct.	Height In.	1/10 Headed Date
	1979 Bu.	78-79 Bu.	77-79 Bu.	76-79 Bu.	75-79 Bu.			
Number of tests	(4)	(6)	(9)	(13)	(17)	(9)	(9)	(9)
WHEAT								
Wakeland	31	25	29	29	27	27	43	4/11
Coker 68-15	29	27	30	30	31	4	36	4/11
Arthur	37	33	34	32	32	6	37	4/12
Abe	32	29	31	30	30	20	34	4/13
Arthur 71	34	29	31	30	31	16	36	4/13
Oasis	30	27	30	29	30	12	38	4/14
Coker 747	33	29	33	31	32	22	34	4/09
McNair 1813	36	31	34	30		2	37	4/11
McNair 1003	43	36	41	40		2	37	4/11
Coker 76-22	42	35	38			5	32	
McNair 4823	23							
Southern Belle	36							
Delta Queen	29							
Northrup, King 78W812	23							
Coker 78-27	27							
Coker 78-23	29							
Coker 78-28	33							
OATS								
Elan	30	36	32	37	41	37	34	4/16
Coker 227	70	55	52	53	53	39	38	4/15
Coker 716	84	62	60	59		16	39	4/18
Salem	39	45	52	51		16	40	4/20
Carolee	42	42	49			22	39	4/18
Coker 76-16	86	72	66			37	39	4/14
Coker 77-23	37	57						
Coker 76-14	73							
Firecracker	32							
BARLEY								
Barsoy	42	34	38	38	38	19	29	4/02
Surry	34	33						
Keowee	35							

Table 3 . (cont'd) GRAIN YIELD AND OTHER CHARACTERISTICS OF UNCLIPPED SMALL GRAIN VARIETIES TESTED, 1975-79

SOUTHERN ALABAMA

Variety	Regional average yield per acre					Other characteristics 3-yr av. 1977-79		
	1-yr	2-yr	3-yr	4-yr	5-yr	Lodging	Height	1/10
	1979	78-79	77-79	76-79	75-79			Headed
	Bu.	Bu.	Bu.	Bu.	Bu.	Pct.	In.	Date
Number of tests	(5)	(10)	(15)	(20)	(25)	(15)	(15)	(15)
WHEAT								
Wakeland	36	29	31	33	30	15	40	4/05
Coker 68-15	33	29	32	34	30	3	33	4/07
Holley	30	26	28	29	26	12	37	3/29
Abe	32	25	28	30	28	5	31	4/08
Arthur 71	30	24	27	28	26	7	33	4/07
McNair 1813	36	28	30	31	27	4	34	4/02
Coker 747	37	30	34	37	33	2	32	4/08
McNair 1003	46	36	39	41		1	33	4/04
Coker 76-22	52	42	43			4	30	4/04
Delta Queen	42	34	38			9	32	4/02
Arthur	39							
McNair 4823	23							
Southern Belle	46							
Northrup, King 78W812	27							
Coker 78-27	33							
Coker 78-23	46							
Coker 78-28	41							
OATS								
Fla. 501	66	54	58	59	52	42	36	4/06
Elan	76	60	65	64	59	28	35	4/09
Coker 227	76	60	67	50	62	32	38	4/09
Coker 76-16	82	70	74			44	37	4/10
Coker 77-23	83							
Coker 76-14	72							
Firecracker	71							

Table 4. FORAGE YIELD OF SMALL GRAIN VARIETIES TESTED FOR FORAGE ONLY AT BELLE MINA, BREWTON, AND PRATTVILLE, 1975-79

Variety	Oven dry forage, lb. per acre							
	1979	1979	1979	Multiple Year Averages, Prattville Only				
	Season total Belle Mina	Season total Brewton	Season total Prattville	78-79 2 yr. av.	77-79 3 yr. av.	76-79 4 yr. av.	75-79 5-yr. av.	
RYE								
Wintergrazer 70	6281	5265	5061	5088	4919	4702	4642	
Maton	6179	5147	5170	5194	5297	4874	4825	
Athen's Abruzzi	5439	5034	4549	4578	4732	4510	4503	
Bonel	6600	5342	4806	4958	5017			
Supergrazer	5703	5332	4748	5167				
NF 72	6249	5354	4541					
NF 74	6546	5321	4915					
WHEAT								
Coker 68-15	2179	4020	2959	3335	3556	3472	3548	
Wakeland	2378	5024	2768	3319	3450	3342		
McNair 1813	--	3720	3083	3146	3326			
Coker 747	4641	3829	2837	3243				
McNair 1003	--	4197	3482					
Coker 76-22	--	4224	2764					
Northrup, King 78W812	2825	3706	2993					
Holley	--	3687	--					
Ga. 1123	2340	--	--					
Arthur	4072	--	--					
Oasis	3937	--	--					
OATS								
Coker 227	1569	5797	3812	4109	4073	4011	4069	
Carolee	--	--	1906	2502	2730			
Coker 716	3521	--	4536					
Salem	--	--	2287					
Coker 76-16	2085	6452	4014					
Fla. 501	--	4328	--					
Elan	--	4627	--					
BARLEY								
Volbar	1854	3417	2184	2883	3330	3289		
Barsoy	2909	3725	2884	2987	3411			
Surry	3183	2796	2226	2816				

19

Table 5. FORAGE YIELD OF RYE VARIETIES TESTED FOR FORAGE ONLY

Variety	Oven dry forage, lb. per acre 1979			One Year regional average	1978-79 2 yr. average
	Locations				
	NORTHERN ALABAMA			1979	
	<u>Crossville</u>	<u>Winfield</u>			
RYE					
Bonel	5652	2887		4270	4020
McNair Vita Graze	3772	2362		3067	2845
Wintergrazer 70	4229	2989		3609	3702
Weser	3585	2392		2988	2661
Wren's Abruzzi	4286	2254		3270	2944
Gurley's Grazer 2000	3811	2266		3038	2930
Maton	4484	2589		3537	3292
Athen's Abruzzi	4521	2815		3668	3369
NF 74	5622	2769		4196	4092
NF 72	5278	2969		4124	
Supergrazer	4591	2754		3672	
	CENTRAL ALABAMA				
	<u>Marion Junction</u>	<u>Camp Hill</u>	<u>Tallassee</u>		
RYE					
Bonel	4202	2604	5430	4079	4194
McNair Vita Graze	3750	1969	4943	3554	3524
Wintergrazer 70	4246	2380	5342	3989	3922
Weser	3492	2070	4749	3437	3321
Wren's Abruzzi	3721	1999	4839	3520	3413
Gurley's Grazer 2000	4218	2480	5397	4031	3709
Maton	4360	2139	5478	3992	3963
Athen's Abruzzi	4185	2356	5030	3857	3682
NF 72	4231	2560	5753	4181	
NF 74	4471	2460	5773	4235	
Supergrazer	4301	2421	5385	4036	

Table 5. (Cont'd) FORAGE YIELD OF RYE VARIETIES TESTED FOR FORAGE ONLY.

Variety	Oven dry forage, lb. per acre 1979				One Year regional average	1978-79 2 yr. average
	Locations					
	Fairhope	Monroeville	Headland	Camden	1979	
RYE						
Bonel	5938	5627	6626	4359	5637	5442
McNair Vita Graze	4630	3872	5860	4705	4767	4413
Wintergrazer 70	5339	5399	6454	4617	5452	5248
Weser	4653	4292	6166	4824	4984	4727
Wren's Abruzzi	4910	4287	6174	4390	4940	4750
Gurley's Grazer 2000	5028	4740	6443	4231	5110	4842
Maton	5246	4949	6963	4057	5304	5190
Athen's Abruzzi	5535	4649	6678	3983	5211	5151
NF 72	6018	5434	6322	4343	5529	5281
NF 74	5245	5433	6667	4319	5416	5269
Supergrazer	5656	4653	6760	4116	5297	

Table 6. ESTIMATED PERCENT STAND LOSS OF SMALL GRAIN VARIETIES DUE TO WINTERKILL DURING THE 1978-79 SEASON

Variety	Northern Alabama		Central Alabama		Southern Alabama	
	Clipped %	Unclipped %	Clipped %	Unclipped %	Clipped %	Unclipped %
NUMBER OF TESTS		(3)		(4)		(5)
WHEAT						
Coker 76-22	29	0	0	0	0	0
Coker 78-23	69	3	17	2	11	0
Coker 78-27	84	11	50	4	17	0
Coker 78-28	37	0	0	0	1	0
Delta Queen	32	0	0	0	0	3
Ga. 1123	25	4	-	-	-	-
McNair 1813	12	0	0	2	3	3
Northrup King 78W812	7	0	0	3	0	0
Wakeland	20	0	0	0	3	2
OATS						
Carolee	- ^{1/}	-	25	49	-	-
Coker 227	32	3	0	19	2	2
Coker 716	4	2	0	7	-	-
Coker 76-14	54	4	0	23	3	0
Coker 76-16	48	3	10	13	3	2
Coker 77-23	71	63	37	38	4	2
Elan	-	-	56	45	25	3
Firecracker	100	93	67	50	45	2
Fla. 501	-	-	0	0	23	0
Salem	-	-	14	49	-	-
BARLEY						
Barsoy	0	0	0	8	-	-
Keowee	0	0	0	21	-	-
Surry	8	0	9	2	-	-
Volbar	19	9	-	-	-	-

^{1/}Dashes indicate that the variety was not tested in that region during the 1978-79 season.

Table 7. Disease ratings for wheat varieties in 1978-79 tests in Alabama

Variety	Powdery ^{1/} mildew	Leaf ^{1/} rust	Septoria ^{1/} blotch	Loose ^{2/} smut
NORTHERN ALABAMA^{3/}				
Abe	3.3	1.0	4.1	0
Arthur	3.0	1.0	3.8	0
Arthur 71	3.0	1.0	4.3	0
Coker 68-15	3.3	0	4.1	0
Southern Belle ^{4/}	4.0	1.3	6.0	0
Coker 76-22	0.1	0	3.6	0
Coker 78-23 ^{4/}	0	0	3.4	0
Coker 78-27 ^{4/}	4.0	0	6.0	0.3
Coker 78-28 ^{4/}	3.3	0	6.0	0
Coker 747	4.0	1.0	3.8	0
Delta Queen	0.3	0.2	4.4	0
Ga. 1123	3.0	0.3	4.5	0
McNair 1003	0	1.1	4.3	0
McNair 1813 ^{4/}	1.0	0.3	6.3	0
McNair 4823 ^{4/}	3.3	0	4.3	0
Northrup King 78W812 ^{4/}	4.3	0	5.6	0
Oasis	3.1	0.8	4.1	0
Wakeland	1.8	0	3.6	0
CENTRAL ALABAMA^{5/}				
Abe	4.2	0.8	2.7	0
Arthur	3.6	1.1	2.8	0
Arthur 71	3.6	0.3	2.6	0
Coker 68-15	5.4	0.2	3.2	0
Southern Belle ^{4/}	5.0	0	3.3	0
Coker 76-22	0.4	0	2.7	0.3
Coker 78-23 ^{4/}	0	0	3.2	0
Coker 78-27 ^{4/}	5.2	0	4.2	0.7
Coker 78-28 ^{4/}	2.2	0	4.2	0
Coker 747	3.0	0.2	2.5	0
Delta Queen ^{4/}	1.7	0	4.2	0
Holley ^{4/}	0	0	1.7	0
McNair 1813	0	0	3.1	0
McNair 1003	1.3	1.2	2.3	0
McNair 4823 ^{4/}	6.2	0	4.2	0
Northrup King 78W812 ^{4/}	3.0	0	5.7	0
Oasis	2.6	0.3	2.4	0
Wakeland	1.6	0	2.6	0

Table 7 (Cont'd). Disease ratings for wheat varieties in 1978-79 tests in Alabama

Variety	Powdery ^{1/} mildew	Leaf ^{1/} rust	Septoria ^{1/} blotch	Loose ^{2/} smut
SOUTHERN ALABAMA ^{6/}				
Abe	2.5	1.5	2.4	0
Arthur 71	2.2	0.2	2.8	0
Coker 68-15	2.9	0	3.4	0
Southern Belle ^{4/}	4.6	2.2	4.6	0
Coker 76-22	0.6	0	2.7	0
Coker 78-23 ^{4/}	1.4	0	5.6	1.0
Coker 78-27 ^{4/}	4.0	0	6.0	0
Coker 78-28 ^{4/}	2.2	0	4.6	0
Coker 747 ^{4/}	1.3	0.3	2.4	0
Delta Queen	0	0	3.4	0
Holley	0.4	0	3.9	0
McNair 1813	0.2	0	3.8	0
McNair 1003	0.7	1.1	3.3	0
McNair 4823 ^{4/}	4.6	0	4.4	0
Northrup King 78W812 ^{4/}	1.8	0	7.6	0
Wakeland	1.9	0	2.8	0.3

^{1/} 0-9 scale; 0 = no disease, 9 = severe infection.

^{2/} Number smutted heads per 16 feet of row.

^{3/} Average of 2 years' data from 3 locations unless indicated otherwise.

^{4/} One year's data.

^{5/} Averages of 2 years' data from 4 locations unless indicated otherwise.

^{6/} Averages of 2 years' data from 5 locations unless indicated otherwise.

Table 8. Disease ratings for oat varieties in 1978-79 tests in Alabama

Variety	Barley yellow dwarf ^{1/}	Leaf blotch ^{2/}	Leaf rust ^{2/}	Loose smut ^{3/}
NORTHERN ALABAMA^{4/}				
Coker 76-14 ^{5/}	0	1.3	0	0
Coker 76-16	1.0	1.0	0	0
Coker 77-23 ^{5/}	6.6	1.6	0	0
Coker 227	2.3	1.0	0	0
Coker 716	1.7	1.0	0	0
Firecracker ^{5/}	8.3	1.3	0	0
CENTRAL ALABAMA^{6/}				
Carolee	2.0	2.2	0	0
Coker 76-14 ^{5/}	0	1.2	0	0
Coker 77-23	0	1.5	0	0
Coker 227	2.8	2.1	0	0
Coker 716	1.8	2.1	0	0
Elan	2.8	2.2	0	0
Firecracker ^{5/}	8.3	1.3	0	0
Salem	2.5	1.8	0	0
SOUTHERN ALABAMA^{7/}				
Coker 76-14 ^{5/}	12.0	2.6	0	0
Coker 77-23 ^{5/}	9.4	2.4	0	0
Coker 227	7.8	1.7	0	0
Elan	3.8	1.8	0	0
Firecracker ^{5/}	0.8	2.8	0.4	0
Fla. 501	5.0	1.9	0.4	0

^{1/} Percentage of plants showing symptoms.

^{2/} 0-9 scale; 0 = no disease, 9 = severe infection.

^{3/} Number smutted heads per 16 feet of row.

^{4/} Averages of 2 years' data from 3 locations unless indicated otherwise.

^{5/} One year's data.

^{6/} Averages of 2 years' data from 4 locations unless indicated otherwise.

^{7/} Averages of 2 years' data from 5 locations unless indicated otherwise.

Table 9. Disease ratings^{1/} for barley varieties in 1978-79 tests in Alabama

Variety	Powdery mildew	Spot blotch	Net blotch	Leaf rust	Scald
Barsoy	0	2.3	1.4	0.5	0.8
Keowee	0	1.1	0.6	0.2	0
Surry	0	2.7	0.6	0.3	0.4
Volbar	0	2.1	0.7	0.8	0.5

^{1/} 0-9 scale; 0 = no disease, 9 = severe infection. Averages of 2 years' data from seven locations.

VARIETIES RECOMMENDED FOR FORAGE AND GRAIN

Recommendations are based on regional yield of forage and grain. The ratio of (forage:total feed) in percent, is given with each variety and should be considered in varietal selection. Varieties are listed alphabetically. For disease ratings see tables 7, 8, and 9.

NORTHERN ALABAMA

<u>Wheat</u>	<u>Ratio (%)</u>	<u>Oats</u>	<u>Ratio (%)</u>	<u>Barley</u>	<u>Ratio (%)</u>
Arthur	(20)	Coker 227	(13)	Barsoy	(21)
Coker 68-15	(28)	Coker 716	(13) ^{4/}	Keowee	(19)
Coker 747	(18)	Coker 76-16 ^{2/}	--	Surry ^{2/}	--
Ga. 1123	(31)			Volbar ^{1/}	(17)
McNair 1003 ^{2/}	--				
Wakeland	(34)				

CENTRAL ALABAMA

<u>Wheat</u>	<u>Ratio (%)</u>	<u>Oats</u>	<u>Ratio (%)</u>	<u>Barley</u>	<u>Ratio (%)</u>
Coker 68-15	(54)	Coker 227	(36)	Barsoy	(46)
Coker 76-22	(53)	Coker 716	(35) ^{4/}	Surry ^{2/}	--
McNair 1003	(50)	Coker 76-16	(42)		
McNair 1813	(51)				
Wakeland	(59)				

SOUTHERN ALABAMA

<u>Wheat</u>	<u>Ratio (%)</u>	<u>Oats</u>	<u>Ratio (%)</u>
Coker 68-15	(42)	Coker 227	(38)
Coker 747	(29)	Coker 76-16	(40)
Coker 76-22	(47)	Elan ^{1/}	(36)
Delta Queen ^{3/}	(51)	Fla. 501 ^{1/}	(42)
Holley	(51)		
McNair 1003	(46)		
McNair 1813	(49)		
Wakeland	(55)		

^{1/} If present trends continue, this variety will be removed from the recommended list for forage and grain next year in the region indicated.

^{2/} Trial basis.

^{3/} Previously tested as Coker 75-24.

^{4/} Previously tested as Coker 70-16.

VARIETIES RECOMMENDED FOR GRAIN ONLY

Recommendations are based on regional yields. Varieties are listed alphabetically. For disease ratings see tables 7, 8, and 9. For lodging values see table 3.

NORTHERN ALABAMA

Wheat

Arthur
Coker 747
Coker 76-22^{2/}
Coker 68-15
Delta Queen^{3/}
Ga. 1123
McNair 1003^{2/}
Wakeland^{1/}

Oats

Coker 227
Coker 716^{4/}

Barley

Barsoy
Volbar

CENTRAL ALABAMA

Wheat

Abe^{1/}
Arthur
Authur 71^{1/}
Coker 76-22
Coker 68-15^{1/}
Coker 747
McNair 1003
McNair 1813
Oasis^{1/}
Wakeland^{1/}

Oats

Coker 227
Coker 716^{4/}
Coker 76-16
Salem

Barley

Barsoy

SOUTHERN ALABAMA

Wheat

Coker 76-22
Coker 747
Coker 68-15^{1/}
Delta Queen^{3/}
McNair 1003
Wakeland^{1/}

Oats

Coker 227
Coker 76-16
Elan

-
- ^{1/} If present trends continue, this variety will be removed from the recommended list for grain only next year in the region indicated.
^{2/} Trial basis.
^{3/} Previously tested as Coker 75-24.
^{4/} Previously tested as Coker 70-16.

RYE VARIETIES RECOMMENDED FOR FORAGE ONLY

Rye recommendations are based on 2 -year averages of full season forage yield for each region. Yields are tabulated in table 5. Varieties are listed alphabetically.

NORTHERN ALABAMA

Rye

Athen's Abruzzi
Bonel
Gurley's Grazer 2000
Maton
McNair Vita Graze
NF 74¹/₁
Wintergrazer 70
Wren's Abruzzi

CENTRAL ALABAMA

Rye

Athen's Abruzzi
Bonel¹/₁
Gurley's Grazer 2000¹/₁
Maton
McNair Vita Graze
Weser
Wintergrazer 70
Wren's Abruzzi

SOUTHERN ALABAMA

Rye

Athen's Abruzzi
Bonel¹/₁
Gurley's Grazer 2000
Maton
McNair Vita Graze
NF 72¹/₁
NF 74¹/₁
Weser
Wintergrazer 70
Wren's Abruzzi

¹/Trial basis.

SOURCES OF SEED

RYE

Athens Abruzzi, Weser-----Georgia Seed Development Commission,
Athens, Georgia
Bonel, Maton, NF 72, NF 74-----Noble Foundation, Ardmore, Oklahoma
McNair (All Varieties)-----McNair Seed Company, Laurinburg,
North Carolina
Supergrazer-----North American Plant Breeders,
Brookston, Indiana
Wintergrazer 70-----Pennington Grain & Seed, Inc.,
Madison, Georgia
Wren's Abruzzi-----Alabama Crop Improvement Association,
Inc., Auburn, Alabama

WHEAT

Abe, Arthur, Arthur 71, Oasis---Department of Agronomy, Purdue
University, Lafayette, Indiana
Coker (All Varieties)-----Coker's Pedigreed Seed Company,
Hartsville, South Carolina
Delta Queen, Southern Belle-----North American Plant Breeders,
Brookston, Indiana
Ga. 1123, Holley-----Georgia Seed Development Commission,
Athens, Georgia
McNair (All Varieties)-----McNair Seed Company, Laurinburg,
North Carolina
Northrup, King 78W812-----NORTHROP, KING Co., Minneapolis,
Minnesota
Wakeland-----Alabama Crop Improvement Association,
Inc., Auburn, Alabama

OATS

Carolee, Salem, Firecracker-----North Carolina Foundation Seed Producers
Inc., Raleigh, North Carolina
Coker (All Varieties)-----Coker's Pedigreed Seed Company,
Hartsville, South Carolina
Elan-----Georgia Seed Development Commission,
Athens, Georgia
Fla. 501-----North Florida Experiment Station,
Quincy, Florida

BARLEY

Barsoy-----Department of Agronomy, University of
Kentucky, Lexington, Kentucky
Keowee-----Department of Agronomy, Clemson University,
Clemson, South Carolina
Surry-----Virginia Polytechnic Institute and State
University, Blacksburg, Virginia
Volbar-----Department of Agronomy, University of
Tennessee, Knoxville, Tennessee

Information contained herein is available to all
regardless of race, color, sex, or national origin