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SMALL GRAIN VARIETY REPORT, 1980

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Wheat, oats, barley, and rye are tested annually at several locations throughout Alabama by the Auburn University Agricultural Experiment Station. These 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 1979-80 season. Most variety tests were planted during the months optimal for establishment and growth (late September to early November). Good stands were obtained at all locations. Adequate rainfall and mild temperatures allowed varieties to produce large amounts of forage this season. Warm spring temperatures in early March were interrupted by a short period of extremely cold temperatures and wind, which caused severe leaf burn and some stand reduction. Yield of early maturing varieties may have been reduced by these conditions. Stand losses in variety tests are tabulated in 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

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forage production and the effect 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 in order to determine total forage production of wheat, oat, barley, rye and triticale varieties. At nine locations, varieties of rye and 3 varieties of triticale were also tested for forage production only.

The experimental design for the tests was a split plot with species as main plots and varieties as subplots. Plots consisted of three rows spaced 10 to 12 inches apart and 16 feet long. Each management series was replicated three times. Recommended cultural practices were followed and proved 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, Camp Hill, Winfield, and Crossville, a small plot combine was used and the entire plot was harvested. At Marion Junction 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.

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 and triticale 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 ratings were made when most varieties were in the soft dough stage. Generally, disease incidence and severity were moderate to heavy. Septoria blotch and leaf rust were most prevalent on wheat at this time. Powdery mildew, which

had been prevalent on wheat earlier in the growing season (February and March), was negligible by the time of readings. Disease data were compiled by Dr. Robert T. Gudauskas, Department of Botany, Plant Pathology, and Microbiology.

Varieties are recommended by region for (1) forage and grain production combined, (2) grain production only, and (3) forage production only. 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 - J.A. Pitts, Superintendent
Experiment Field, Monroeville - J.A. Pitts, 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

Table 1. FORAGE AND GRAIN YIELDS OF SMALL GRAIN VARIETIES TESTED, 1976-80

NORTHERN ALABAMA								
Variety	Yield of clipped plots, average						Total feed, 1978-80 av.	
	Oven dry forage					Grain	Clipped forage plus grain	Not clipped grain only
	1-yr 1980 Lb.	2-yr 79-80 Lb.	3-yr 78-80 Lb.	4-yr 77-80 Lb.	5-yr 76-80 Lb.	3-yr 78-80 Lb.	Lb.	Lb.
Number of tests	(3)	(6)	(9)	(12)	(15)	(9)	(9)	(9)
WHEAT								
Wakeland	1381	1291	968	1051	1191	1417	2385	1767
Coker 68-15	1293	1159	801	919	1009	1738	2539	2077
Ga. 1123	1362	1156	872	967	993	1450	2322	1914
Arthur	551	652	494	573	647	2110	2604	2038
Coker 747	714	675	470	566	618	2166	2636	2103
Delta Queen	972	879	620	752		1158	1778	1795
Coker 762	1281	1014	774			1737	2511	2262
McNair 1003	908	1032	750			1905	2655	2189
McNair 1813	1041	1061						
Southern Belle	904	850						
Roy	1215							
VA-75-54-53	1197							
Omega 78	1189							
Coker 79-20	1080							
Rosen	1019							
Coker 79-16	816							
Pioneer S78	499							
OATS								
Coker 227	800	636	438	496	528	2426	2864	2208
Coker 716	644	583	432	463	430	2629	3061	2586
Coker 76-16	1023	789	608			2200	2808	2262
Brooks	1137							
Coker 79-23	814							
Coker 79-21	758							
BARLEY								
Barsoy	772	689	576	594	653	1858	2434	1818
Keowee	417	513	431	454	507	1976	2407	1629
Volbar	480	498	349	410	470	1858	2207	1935
Surry	941	847	633			1451	2084	1538
VA-75-42-55	1087							

Table 1. (Cont'd) FORAGE AND GRAIN YIELDS OF SMALL GRAIN VARIETIES TESTED, 1976-80

CENTRAL ALABAMA								
Variety	Yield of clipped plots, average						Total feed, 1978-80 av.	
	Oven dry forage					Grain 3-yr 78-80	Clipped forage plus grain Lb.	Not clipped grain only Lb.
	1-yr 1980	2-yr 79-80	3-yr 78-80	4-yr 77-80	5-yr 76-80			
	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.
Number of tests ^{1/}	(4)	(7)	(11)	(13)	(16)	(11)	(11)	(11)
WHEAT								
Wakeland	2673	2365	2269	2155	1906	878	3147	1144
McNair 1813	2540	2231	2113	2085	1842	1252	3365	1601
McNair 1003	2456	2262	2292	2078	1842	1227	3519	1799
Coker 68-15	2521	2135	2118	2059	1804	1099	3217	1396
Coker 747	1823	1522	1655	1389	1237	1625	3280	1690
Oasis	1479	1363	1548	1325	1149	1708	3256	1638
Arthur	1756	1577	1567	1299	1146	1677	3244	1915
Arthur 71	1676	1508	1516	1298	1101	1697	3213	1696
Abe	1590	1378	1481	1192	1009	1920	3401	1741
Coker 762	2459	2032	2152	2031		1092	3244	1874
Southern Belle	2193	1920						
VA-75-54-53	2861							
Coker 79-20	2693							
Roy	2602							
Omega 78	2525							
Rosen	2259							
Coker 797	2066							
Pioneer S78	1480							
OATS								
Salem	1907	1572	1520	1392	1180	1353	2873	1531
Coker 227	1965	1582	1617	1345	1157	1653	3270	1520
Coker 716	1619	1373	1503	1287	1084	1948	3451	1872
Coker 76-16	2043	1711	1851	1610		1839	3690	1879
Coker 76-20	2208							
Brooks	2142							
Coker 79-23	1976							
BARLEY								
Barsoy	1962	1807	1737	1644	1437	1152	2889	1596
Surry	2265	1948	1828			938	2766	1333
Volbar	1434							

^{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, 1976-80

SOUTHERN ALABAMA

Variety	Yield of clipped plots, average					Grain 3-yr 78-80 Lb.	Clipped forage plus grain Lb.	Not clipped, grain only Lb.
	Oven dry forage							
	1-yr 1980 Lb.	2-yr 79-80 Lb.	3-yr 78-80 Lb.	4-yr 77-80 Lb.	5-yr 76-80 Lb.			
Number of tests	(5)	(10)	(15)	(20)	(25)	(14) ^{1/}	(14)	(15)
WHEAT								
Wakeland	2774	2631	2375	2170	2059	1168	3543	1404
McNair 1813	2101	2047	1809	1704	1622	1186	2995	1328
McNair 1003	1888	1921	1816	1711	1607	1347	3163	1677
Holley	2245	2040	1882	1750	1589	1214	3096	1374
Coker 68-15	2252	1883	1704	1618	1509	1363	3067	1517
Coker 747	1668	1491	1299	1143	1026	1848	3147	1837
Coker 762	2423	2354	2149	1972		1541	3690	2064
Delta Queen	2136	2161	1993	1869		1129	3122	1590
Southern Belle	1721	1810						
Omega 78	2327							
Roy	2326							
VA-75-54-53	2312							
Coker 797	2135							
Rosen	2072							
Coker 79-16	1748							
Pioneer S78	1471							
OATS								
Fla. 501	2076	1683	1626	1414	1305	1181	2807	1529
Coker 227	1970	1859	1659	1445	1297	1746	3405	1957
Elan	1824	1436	1395	1180	1072	1352	2747	1769
Coker 76-16	2368	2170	1998	1740		2023	4021	2202
Coker 76-20	2452							
Brooks	1994							
Coker 79-21	1817							

^{1/}No grain was harvested from the clipped plots at Fairhope during the 1979-80 season. Grain data for 1980 are from Camden, Headland, Brewton, and Monroeville.

Table 2. GRAIN YIELD AND OTHER CHARACTERISTICS OF CLIPPED SMALL GRAIN VARIETIES TESTED, 1976-80

NORTHERN ALABAMA								
Variety	Regional average yield per acre					Other characteristics 3-yr av. 1978-80		
	1-yr	2-yr	3-yr	4-yr	5-yr	Lodging	Height	1/10
	1980	79-80	78-80	77-80	76-80			Headed
	Bu.	Bu.	Bu.	Bu.	Bu.	Pct.	In.	Date
Number of tests	(3)	(6)	(9)	(12)	(15)	(9)	(9)	(9)
WHEAT								
Coker 747	34	35	36	38	36	16	34	4/22
Arthur	34	33	35	37	32	4	37	4/21
Coker 68-15	29	29	29	33	31	3	34	4/22
Ga. 1123	21	24	24	29	27	7	44	4/24
Wakeland	18	19	24	27	26	18	41	4/24
Delta Queen	16	16	19	24		11	32	4/25
McNair 1003	25	28	32			1	34	4/22
Coker 762	27	26	29			8	29	4/25
McNair 1813	21	23	22			22	33	4/18
Southern Belle	33	34						
Coker 79-16	33							
Coker 79-20	32							
Pioneer S78	30							
VA-75-54-53	30							
Roy	29							
Omega 78	25							
Rosen	24							
OATS								
Coker 716	81	79	82	82	75	6	41	4/28
Coker 227	70	67	76	81	74	14	39	4/24
Coker 76-16	73	63	69			27	35	4/26
Coker 79-21	89							
Coker 79-23	80							
Brooks	66							
BARLEY								
Barsoy	48	46	39	43	45	46	28	4/8
Volbar	49	39	39	43	45	13	35	4/19
Keowee	43	44	41	42	42	21	32	4/18
Surry	37	29	30			37	30	4/14
VA-75-42-55	31							

Table 2. (Cont'd) GRAIN YIELD AND OTHER CHARACTERISTICS OF CLIPPED SMALL GRAIN VARIETIES TESTED, 1976-80

CENTRAL ALABAMA

Variety	Regional average yield per acre					Other characteristics 3-yr av. 1978-80		
	1-yr	2-yr	3-yr	4-yr	5-yr	Lodging Pct.	Height In.	1/10 Headed Date
	1980 Bu.	79-80 Bu.	78-80 Bu.	77-80 Bu.	76-80 Bu.			
Number of tests ^{1/}	(4)	(7)	(11)	(13)	(16)	(11)	(11)	(11)
WHEAT								
Abe	24	30	32	34	35	22	34	4/15
Arthur	25	24	28	32	32	15	36	4/15
Oasis	22	27	28	32	31	14	36	4/16
Coker 747	23	25	27	30	31	24	33	4/16
Arthur 71	21	26	28	32	30	13	35	4/15
McNair 1003	13	17	20	28	28	1	33	4/17
McNair 1813	13	18	21	27	26	5	32	4/16
Coker 68-15	14	16	18	23	24	12	33	4/16
Wakeland	7	11	15	19	20	23	37	4/19
Coker 762	13	16	18	24		7	28	4/18
Southern Belle	18	21						
Pioneer S78	31							
Coker 79-20	26							
Roy	21							
VA-75-54-53	19							
Rosen	13							
Omega 78	11							
Coker 797	1							
OATS								
Coker 716	55	62	61	66	62	30	40	4/23
Coker 227	48	53	52	59	57	43	39	4/18
Salem	52	49	42	49	46	3	38	4/27
Coker 76-16	52	64	57	61		44	38	4/20
Coker 79-23	49							
Coker 76-20	35							
Brooks	27							
BARLEY								
Barsoy	21	26	24	34	34	8	25	4/4
Surry	14	16	20			12	27	4/10
Volbar	41							

^{1/}The small grain variety test was not clipped at Camp Hill in the 1978-79 season. Grain 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 VARIETIES TESTED, 1976-80

SOUTHERN ALABAMA

Variety	Regional average yield per acre					Other characteristics 3-yr av. 1978-80		
	1-yr	2-yr	3-yr	4-yr	5-yr	Lodging	Height	1/10 Headed
	1980	79-80	78-80	77-80	76-80			
Number of tests	(4) ^{1/}	(9)	(14)	(19)	(24)	(14)	(14)	(14)
WHEAT								
Coker 747	24	31	31	35	36	7	31	4/9
Coker 68-15	14	21	23	27	28	8	32	4/9
McNair 1003	13	21	22	27	28	5	30	4/8
Holley	20	21	20	24	25	13	35	4/7
Wakeland	12	18	19	23	25	14	36	4/11
McNair 1813	12	19	20	24	24	7	29	4/8
Coker 762	15	24	26	30		9	26	4/9
Delta Queen	12	18	19	24		18	28	4/11
Southern Belle	20	26						
Coker 79-16	28							
Pioneer S78	26							
Roy	22							
VA-75-54-53	19							
Rosen	12							
Omega 78	10							
Coker 797	2							
OATS								
Coker 227	56	62	55	62	62	23	39	4/12
Elan	41	47	42	51	54	18	33	4/15
Fla. 501	32	41	37	47	47	33	34	4/11
Coker 76-16	58	69	63	69		43	38	4/15
Coker 79-21	75							
Coker 76-20	48							
Brooks	30							

^{1/}No grain was harvested from the clipped plots during the 1979-80 season at Fairhope. Grain yields for 1980 are from Camden, Headland, Brewton, and Monroeville.

Table 3. GRAIN YIELD AND OTHER CHARACTERISTICS OF UNCLIPPED SMALL GRAIN VARIETIES TESTED, 1976-80

NORTHERN ALABAMA

Variety	Regional average yield per acre					Other characteristics 3-yr av. 1978-80		
	1-yr	2-yr	3-yr	4-yr	5-yr	Lodging Pct.	Height In.	1/10
	1980	79-80	78-80	77-80	76-80			Headed Date
	Bu.	Bu.	Bu.	Bu.	Bu.			
Number of tests	(3)	(6)	(9)	(12)	(15)	(9)	(9)	(9)
WHEAT								
Coker 747	31	35	35	37	38	6	34	4/23
Coker 68-15	32	34	35	35	36	1	36	4/22
Arthur	32	34	34	35	32	8	38	4/22
Ga. 1123	27	30	32	33	32	6	47	4/23
Wakeland	25	28	29	31	30	27	43	4/23
Delta Queen	24	30	30	34		14	34	4/22
Coker 762	31	36	38			11	32	4/23
McNair 1003	30	36	36			2	36	4/22
McNair 1813	35	36	30			3	36	4/20
Southern Belle	29	34						
Coker 79-16	39							
Coker 79-20	39							
VA-75-54-53	38							
Roy	34							
Omega 78	30							
Rosen	30							
Pioneer S78	27							
OATS								
Coker 716	68	74	81	84	79	14	40	4/28
Coker 227	59	64	69	73	71	26	40	4/25
Coker 76-16	62	67	71			44	38	4/26
Coker 79-23	70							
Coker 79-21	69							
Brooks	61							
BARLEY								
Volbar	42	42	40	43	48	18	37	4/20
Barsoy	39	46	38	40	46	36	27	4/7
Keowee	34	37	34	35	39	33	33	4/20
Surry	35	36	32			38	30	4/12
VA-75-42-55	44							

Table 3. (Cont'd) GRAIN YIELD AND OTHER CHARACTERISTICS OF UNCLIPPED SMALL GRAIN VARIETIES TESTED, 1976-80

CENTRAL ALABAMA

Variety	Regional average yield per acre					Other characteristics 3-yr av. 1978-80		
	1-yr	2-yr	3-yr	4-yr	5-yr	Lodging Pct.	Height In.	1/10
	1980	79-80	78-80	77-80	76-80			Headed Date
	Bu.	Bu.	Bu.	Bu.	Bu.			
Number of tests	(4)	(8)	(10)	(13)	(17)	(10)	(10)	(10)
WHEAT								
McNair 1003	19	30	30	35	35	12	37	4/14
Arthur	31	33	32	33	31	12	39	4/14
Abe	27	30	29	31	30	17	36	4/14
Coker 747	28	29	28	31	30	31	35	4/15
Arthur 71	27	30	28	30	30	25	37	4/15
Oasis	28	29	27	29	28	20	38	4/14
McNair 1813	17	27	27	30	27	16	37	4/13
Coker 68-15	17	22	23	26	27	17	37	4/13
Wakeland	11	19	19	23	24	43	43	4/15
Coker 762	22	33	31	35		23	32	4/13
Southern Belle	22	29						
Pioneer S78	33							
Roy	28							
Coker 79-20	22							
VA-75-54-53	22							
Rosen	20							
Omega 78	14							
Coker 797	10							
OATS								
Coker 716	52	68	58	58	57	28	43	4/20
Salem	54	46	48	52	51	33	41	4/22
Coker 227	41	52	48	48	49	58	40	4/16
Coker 76-16	36	59	59	58		68	41	4/16
Coker 79-23	44							
Brooks	31							
Coker 76-20	31							
BARLEY								
Barsoy	31	37	33	36	37	29	30	4/5
Surry	18	26	28			40	30	4/6
Volbar	42							

Table 3. (Cont'd) GRAIN YIELD AND OTHER CHARACTERISTICS OF UNCLIPPED SMALL GRAIN VARIETIES TESTED, 1976-80

SOUTHERN ALABAMA								
Variety	Regional average yield per acre					Other characteristics 3-yr av. 1978-80		
	1-yr	2-yr	3-yr	4-yr	5-yr	Lodging	Height	1/10
	1980	79-80	78-80	77-80	76-80			Headed
	Bu.	Bu.	Bu.	Bu.	Bu.	Pct.	In.	Date
Number of tests	(5)	(10)	(15)	(20)	(25)	(15)	(15)	(15)
WHEAT								
Coker 747	32	34	31	34	36	5	31	4/10
McNair 1003	12	29	28	32	35	4	32	4/8
Coker 68-15	19	26	25	29	31	12	33	4/9
Wakeland	13	25	23	27	29	23	38	4/9
Holley	18	24	23	25	27	19	37	4/1
McNair 1813	11	23	22	25	27	11	32	4/6
Coker 762	20	36	34	37		11	29	4/7
Delta Queen	12	27	27	31		17	31	4/6
Southern Belle	27	37						
Coker 79-16	35							
Pioneer S78	26							
Roy	25							
VA-75-54-53	16							
Rosen	14							
Omega 78	9							
Coker 797	7							
OATS								
Coker 227	64	70	61	66	69	32	40	4/11
Elan	45	61	55	60	60	35	35	4/12
Fla. 501	35	50	48	52	54	49	37	4/9
Coker 76-16	66	74	69	72		44	40	4/13
Coker 79-21	79							
Coker 76-20	59							
Brooks	31							

Table 4. FORAGE YIELD OF SMALL GRAIN VARIETIES TESTED FOR FORAGE ONLY AT BELLE MINA, PRATTVILLE, AND BREWTON, 1976-80

Variety	Oven dry forage, lb. per acre								
	1980	1979-80	1980	1979-80	1978-80	1977-80	1976-80	1980	1979-80
	season total	2 yr. av.	season total	2 yr. av.	3 yr. av.	4 yr. av.	5 yr. av.	season total	2 yr. av.
	Belle Mina	Belle Mina	Prattville	Prattville	Prattville	Prattville	Prattville	Brewton	Brewton
<u>RYE</u>									
Maton	6891	6535	6335	5753	5574	5557	5166	4965	5056
Wintergrazer 70	6675	6478	6108	5584	5428	5216	4983	5370	5317
Athen's Abruzzi	5607	5523	5800	5175	4985	4999	4768	4334	4684
Bonel	7018	6809	6713	5760	5543	5441		5086	5214
NAPB SR-80	5580	5641	5937	5343	5424			4340	4836
NF 74	6581	6564	6987	5951				5280	5300
NF 72	6420	6334	6866	5704				5119	5236
<u>WHEAT</u>									
Coker 68-15	3652	2916	4453	3706	3707	3780	3668	3511	3766
Wakeland	2825	2601	3404	3086	3347	3439	3340	3136	4080
McNair 1813	3583		3756	3420	3349	3433		2209	2965
Coker 747	4350	4495	4763	3800	3750			3453	3641
McNair 1003	4302		4581	4032				2393	3295
Coker 762	2986		2630	2697				2988	3606
Holley	- 1/	-	4301					3359	3523
Southern Belle	3583		3913					3006	
Delta Queen	3157		2557					2227	
Ga. 1123	2985	2663	-	-	-	-	-	-	-
Arthur	4328	4200	-	-	-	-	-	-	-
Oasis	3682	3810	-	-	-	-	-	-	-
<u>OATS</u>									
Coker 227	5142	3355	6592	5202	4937	4703	4527	4040	4918
Coker 716	5002	4262	7167	5852				-	-
Coker 76-16	4913	3499	6731	5373				4716	5584
Salem	-	-	5338	3813				-	-
Fla. 501	-	-	-	-	-	-	-	3313	3820
Elan	-	-	-	-	-	-	-	3194	3911
<u>BARLEY</u>									
Barsoy	5992	4450	4471	3678	3482	3676		3324	3524
Surry	5660	4422	4944	3585	3525			2621	2708
Keowee	5672	4670	-	-	-	-	-	-	-
<u>TRITICALE</u>									
AM 4143	6693		6261					3898	
AM 3684	6571		6146					4195	
AM 3948	6365		6143					4547	

1/Dashes indicate that the variety was not tested at that location.

Table 5. FORAGE YIELD OF RYE AND TRITICALE VARIETIES TESTED FOR FORAGE ONLY, 1978-1980

Variety	Oven dry forage, lb. per acre 1980		One year regional average	1979-80 2 yr. average	1978-80 3 yr. average
	Locations				
NORTHERN ALABAMA					
	<u>Crossville</u>	<u>Winfield</u>			
<u>RYE</u>					
NF 74	3998	6301	5150	4673	4445
Bonel	3347	5548	4447	4359	4162
Wintergrazer 70	3248	5196	4222	3915	3875
Maton	3513	5141	4327	3932	3637
Athen's Abruzzi	2812	5197	4005	3836	3581
Gurley's Grazer 2000	2739	6039	4389	3714	3416
Wren's Abruzzi	2884	5052	3968	3619	3286
McNair Vita Graze	2819	4688	3754	3411	3148
Weser	2565	5667	4116	3552	3146
NF 72	3433	6401	4917	4520	
NAPB SR-80	2975	5613	4294	3850	
Gurley's GI 85	3169	6435	4802		
Gurley's Abruzzi	2844	5566	4205		
Gurley's GI 75	2728	4718	3723		
<u>TRITICALE</u>					
AM 3572	2311	6449	4380		
AM 2778	2656	6028	4342		
AM 3720	2738	5064	3901		
CENTRAL ALABAMA					
	<u>Marion Junction</u>	<u>Camp Hill</u>	<u>Tallassee</u>		
<u>RYE</u>					
Bonel	4290	3259	4334	3961	4116
Wintergrazer 70	4143	3143	4292	3859	3901
Maton	4170	2773	4242	3728	3885
Gurley's Grazer 2000	4045	3209	4003	3752	3723
Athen's Abruzzi	4070	2455	3611	3379	3581
McNair Vita Graze	3935	2878	3833	3549	3532
Wren's Abruzzi	3875	2976	3810	3554	3460

Table 5. (Cont'd). FORAGE YIELD OF RYE VARIETIES TESTED FOR FORAGE ONLY, 1978-1980

Variety	Oven dry forage, lb. per acre 1980				One year regional average	1979-80 2 yr average	1978-80 3 yr. average
	Locations						
	CENTRAL ALABAMA				1980		
	<u>Marion Junction</u>	<u>Camp Hill</u>	<u>Tallassee</u>				
Weser	4059	2969	3580		3536	3487	3393
NF 74	4453	3851	4434		4246	4240	
NF 72	4377	3755	4709		4281	4231	
NAPB SR-80	4374	2935	4228		3846	3910	
Gurley's GI 85	3882	3327	4550		3920		
AFC 20-20	4047	3461	4180		3896		
Gurley's Abruzzi	4234	2876	4176		3762		
Gurley's GI 75	3774	3144	4084		3667		
<u>TRITICALE</u>							
AM 3572	4533	2838	4253		3874		
AM 3720	3994	3221	3868		3694		
AM 2778	4017	2635	4109		3587		
	SOUTHERN ALABAMA						
	<u>Fairhope</u>	<u>Monroeville</u>	<u>Headland</u>	<u>Camden</u>			
<u>RYE</u>							
NF 74	6712	5903	4015	4754	5346	5381	5295
Bonel	5727	5611	3556	4860	4938	5288	5274
NF 72	5895	5550	3696	5329	5117	5323	5226
Wintergrazer 70	5743	5005	3868	4058	4669	5060	5061
Maton	5551	5048	3483	4578	4665	4984	5015
Athen's Abruzzi	5584	5104	3386	4478	4638	4925	4980
Gurley's Grazer 2000	5178	5593	3307	5471	4887	4999	4857
Wren's Abruzzi	5353	4331	2844	4837	4341	4641	4614
Weser	5002	4416	3014	3927	4090	4537	4514
McNair Vita Graze	4841	4259	3300	4466	4216	4492	4347
NAPB SR-80	5513	5323	3690	5172	4924	5056	
Gurley's GI 85	5981	5264	3413	4796	4863		
AFC 20-20	5531	5174	3366	4738	4702		
Gurley's GI 75	5120	5729	3480	4284	4653		
Gurley's Abruzzi	5360	4038	3294	4923	4404		
<u>TRITICALE</u>							
AM 3572	6859	5604	3976	3993	5108		
AM 2778	5966	5581	4691	3799	5009		
AM 3720	5870	5262	3697	3564	4598		

Table 6. ESTIMATED PERCENT STAND LOSS OF SMALL GRAIN VARIETIES DUE TO WINTERKILL DURING THE 1979-80 SEASON

Variety	Northern Alabama		Central Alabama		Southern Alabama	
	Clipped %	Unclipped %	Clipped %	Unclipped %	Clipped %	Unclipped %
NUMBER OF TESTS		(3)		(4)	(4)	(5)
WHEAT						
Coker 747	8	4	0	0	2	2
Coker 762	1	0	4	0	11	10
Coker 797	<u>1</u> /	-	96	34	64	32
Coker 68-15	7	2	1	0	2	3
Coker 79-16	1	1	-	-	4	5
Delta Queen	19	3	-	-	9	10
Ga. 1123	11	0	-	-	-	-
Holley	-	-	-	-	4	6
McNair 1003	11	6	1	0	6	10
McNair 1813	19	0	4	0	20	11
Omega 78	11	4	2	0	11	13
Rosen	2	1	5	2	12	10
Roy	3	2	0	1	4	5
Southern Belle	6	0	1	3	3	5
VA-75-54-53	3	1	2	0	4	5
Wakeland	2	2	24	4	8	11
OATS						
Brooks	0	0	2	5	4	5
Coker 227	0	0	11	2	4	3
Coker 76-16	0	0	3	4	4	5
Coker 76-20	-	-	15	4	4	2
Coker 79-21	0	0	-	-	3	7
Coker 79-23	0	0	1	9	-	-
Elan	-	-	-	-	6	7
Fla. 501	-	-	-	-	16	8
BARLEY						
VA 75-42-55	9	1	-	-	-	-

1/Dashes indicate that the variety was not tested in that region during the 1979-80 season.

Table 7. Disease ratings for wheat varieties in 1979-80 tests in Alabama^{1/}

Variety	Powdery ^{2/} mildew	Leaf ^{2/} rust	Septoria ^{2/} blotch	Loose ^{3/} smut
NORTHERN ALABAMA *				
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 762	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				
Abe	4.2	0.4	3.1	0
Arthur	2.8	1.8	3.6	0
Arthur 71	3.8	1.1	3.3	0
Coker 68-15	3.7	0.1	4.6	1.7
Coker 79-20 ^{4/}	0	1.5	2.5	0
Coker 727	2.6	0.7	4.2	0.3
Coker 762	0.2	1.3	2.8	0.1
Coker 7974 ^{4/}	0	0	3.5	0
McNair 1003	0.6	1.6	3.9	0
McNair 1813	0	2.5	4.0	0
Oasis	3.8	1.4	4.0	0
Omega 78 ^{4/}	0	1.5	5.5	0
Pioneer S78 ^{4/}	4.0	0.5	3.0	0
Rosen ^{4/}	3.5	0.5	5.5	0
Roy ^{4/}	3.5	1.0	4.5	0
Southern Belle ^{5/}	2.5	1.7	3.3	0
Va-75-54-53 ^{4/}	2.5	2.5	3.5	0
Wakeland	1.6	0	3.0	5

^{1/}Averages of 3 year's data unless indicated otherwise.

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

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

^{4/}One year's data.

^{5/}Two year's data.

*1978-79 data.

Table 7 (cont'd). Disease ratings for wheat varieties in 1979-80 tests in Alabama^{1/}

Variety	Powdery ^{2/} mildew	Leaf ^{2/} rust	Septoria ^{2/} blotch	Loose ^{3/} smut
SOUTHERN ALABAMA				
Abe ^{5/}	2.5	1.5	2.4	0
Arthur 71 ^{5/}	2.2	0.2	2.8	0
Coker 68-15	4.6	0.3	4.5	0
Coker 79-16 ^{4/}	1.7	0.6	3.3	0
Coker 747 ^{5/}	2.1	2.1	2.3	0
Coker 762	0.8	0.5	3.4	0
Coker 797 ^{4/}	3.0	1.0	6.0	0
Delta Queen	1.8	0.3	4.3	0
Holley	1.7	1.6	4.6	0
McNair 1003	1.3	2.7	4.6	0
McNair 1813	1.4	1.6	4.4	0
Omega 78 ^{4/}	3.0	0.6	7.0	0
Pioneer S78 ^{4/}	4.7	0.6	2.7	0
Rosen ^{4/}	1.7	0.6	6.3	0
Roy ^{4/}	4.3	3.3	4.0	0
Southern Belle ^{5/}	3.9	2.4	5.1	0
Va-75-54-53 ^{4/}	1.0	3.0	4.0	0
Wakeland	2.4	0.5	3.0	0.3

^{1/} Averages of 3 years' data unless indicated otherwise.

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

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

^{4/} One year's data.

^{5/} Two year's data.

*1978-79 data

Table 8. Disease ratings for oat varieties in 1979-80 tests in Alabama^{1/}

Variety	Barley yellow dwarf ^{2/}	Leaf blotch ^{3/}	Leaf rust ^{3/}	Loose smut ^{4/}
NORTHERN ALABAMA*				
Coker 76-14 ^{5/}	0	1.3	0	0
Coker 76-16 ^{6/}	1.0	1.0	0	0
Coker 77-23 ^{5/}	6.6	1.6	0	0
Coker 227 ^{6/}	2.3	1.0	0	0
Coker 716 ^{6/}	1.7	1.0	0	0
Firecracker ^{5/}	8.3	1.3	0	0
CENTRAL ALABAMA				
Carolee	2.0	2.2	0	0
Coker 76-20 ^{5/}	5.0	3.5	0	7.5
Coker 79-23 ^{5/}	2.5	3.0	0	0
Coker 227	2.6	3.0	0	0
Coker 716	1.1	2.8	0	0
Elan ^{8/}	2.8	2.2	0	0
Firecracker ^{5/}	8.3	1.3	0	0
Salem	1.5	2.4	0	0
SOUTHERN ALABAMA				
Brooks ^{5/}	0	2.0	6.0	0
Coker 76-16	3.0	2.0	0.3	0
Coker 76-20 ^{5/}	1.0	2.7	0.3	2.7
Coker 79-21 ^{5/}	1.0	2.7	1.7	3.0
Coker 227	5.0	2.0	0.3	0
Elan	3.9	2.7	2.8	0
Firecracker ^{5/}	0.8	2.8	0.4	0
Fla. 501	6.0	3.1	2.7	0

^{1/}Averages of 3 years' data unless indicated otherwise.

^{2/}Percentage of plants showing symptoms.

^{3/}0-9 scale; 0= no disease, 9 = severe infection

^{4/}Number smutted heads per 16 feet of row.

^{5/}One year's data.

^{6/}Two year's data

*1978-79 data.

Table 9. Disease ratings for barley varieties in 1979-80 tests in Alabama^{1/}

Variety	Powdery mildew	Spot blotch	Net blotch	Leaf rust	Scald
Barsoy	0	2.4	1.9	0.5	2.6
Keowee ^{2/}	0	1.1	0.6	0.2	0
Surry	0	3.1	2.0	0.3	0.7
Volbar	0	2.5	1.8	0.8	1.7

^{1/}0-9 scale; 0 = no disease, 9 = severe infection. Averages of 3 years' data.

^{2/}Two years' data.

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>Forage ratio</u>	<u>Oats</u>	<u>Forage ratio</u>	<u>Barley</u>	<u>Forage ratio</u>
Arthur	(19)	Coker 227	(15)	Barsoy	(24)
Coker 68-15	(32)	Coker 716	(14)	Keowee	(18)
Coker 747	(18)	Coker 76-16	(22)	Surry	(30)
Coker 762 ^{2/}	(31)			Volbar	(16)
Ga. 1123	(38)				
McNair 1003	(28)				
Wakeland	(41)				

CENTRAL ALABAMA

<u>Wheat</u>	<u>Forage ratio</u>	<u>Oats</u>	<u>Forage ratio</u>	<u>Barley</u>	<u>Forage ratio</u>
Abe	(44)	Coker 227	(49)	Barsoy	(60)
Arthur	(48)	Coker 716	(44)	Surry	(66)
Arthur 71	(47)	Coker 76-16	(50)		
Coker 68-15	(66)	Salem ^{1/}	(53)		
Coker 747	(50)				
Coker 762 ^{2/}	(66)				
McNair 1003	(65)				
McNair 1813	(63)				
Oasis	(48)				
Wakeland	(72)				

SOUTHERN ALABAMA

<u>Wheat</u>	<u>Forage ratio</u>	<u>Oats</u>	<u>Forage ratio</u>
Coker 68-15 ^{1/}	(56)	Coker 227 ^{1/}	(49)
Coker 747 ^{1/}	(41)	Coker 76-16	(50)
Coker 762 ^{2/}	(58)		
Delta Queen ^{1/}	(64)		
Holley ^{1/}	(61)		
McNair 1003 ^{1/}	(57)		
McNair 1813 ^{1/}	(60)		
Wakeland	(67)		

^{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/}Previously tested as Coker 76-22.

VARIETIES RECOMMENDED FOR GRAIN ONLY

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

NORTHERN ALABAMA

<u>Wheat</u>	<u>Oats</u>	<u>Barley</u>
Arthur	Coker 227 ^{1/}	Barsoy
Coker 68-15	Coker 716	Volbar
Coker 747		
Coker 762 ^{2/}		
Delta Queen ^{1/}		
Ga. 1123 ^{1/}		
McNair 1003		
McNair 1813		

CENTRAL ALABAMA

<u>Wheat</u>	<u>Oats</u>	<u>Barley</u>
Abe	Coker 227 ^{1/}	Barsoy
Arthur	Coker 716	
Arthur 71	Coker 76-16 ^{1/}	
Coker 747	Salem ^{1/}	
Coker 762 ^{2/}		
McNair 1003		
McNair 1813 ^{1/}		
Oasis		

SOUTHERN ALABAMA

<u>Wheat</u>	<u>Oats</u>
Coker 747	Coker 227
Coker 762 ^{2/}	Coker 76-16
Delta Queen ^{1/}	Elan ^{1/}
McNair 1003	

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

^{2/}Previously tested as Coker 76-22.

VARIETIES RECOMMENDED FOR FORAGE ONLY

Rye recommendation for all 3 regions are based on 2- and 3-year averages of full-season forage yield found in tables 4 and 5. Wheat, oat, and barley recommendation for the Northern and Southern regions are based on 2-year averages of full-season forage yield at Belle Mina and Brewton, respectively. Wheat, oat, and barley recommendation for the Central region are based on 3-year averages of full-season forage yield at Prattville. Wheat, oat, and barley yields for all regions are in table 5. Varieties are listed alphabetically.

NORTHERN ALABAMA

<u>Rye</u>	<u>Wheat^{2/}</u>	<u>Oats^{2/}</u>	<u>Barley^{2/}</u>
Athen's Abruzzi	Arthur	Coker 227	Barsoy
Bonel	Coker 747	Coker 716	Keowee
Gurley's Grazer 2000 ^{1/}	Oasis	Coker 76-16	Surry
Maton			
McNair Vita Graze ^{1/}			
NF 74			
NF 72 ^{2/}			
Wintergrazer 70			
Wren's Abruzzi ^{1/}			

CENTRAL ALABAMA

<u>Rye</u>	<u>Wheat^{3/}</u>	<u>Oats^{3/}</u>	<u>Barley^{3/}</u>
Athen's Abruzzi ^{1/}	Coker 68-15	Coker 227	Barsoy
Bonel	Coker 747	Coker 716	Surry
Gurley's Grazer 2000	McNair 1003 ^{2/}	Coker 76-16 ^{2/}	
Maton			
McNair Vita Graze ^{1/}			
NAPB SR-80			
NF 72 ^{2/}			
NF 74 ^{2/}			
Weser ^{1/}			
Wintergrazer 70			
Wren's Abruzzi ^{1/}			

SOUTHERN ALABAMA

<u>Rye</u>	<u>Wheat^{4/}</u>	<u>Oats^{4/}</u>	<u>Barley^{4/}</u>
Athen's Abruzzi ^{1/}	Coker 68-15	Coker 227	Barsoy
Bonel	Coker 747	Coker 76-16	
Gurley's Grazer 2000 ^{1/}	Coker 762		
Maton	Holley		
McNair Vita Graze ^{1/}	Wakeland		
NF 72			
NF 74			
Weser ^{1/}			
Wintergrazer 70			
Wren's Abruzzi ^{1/}			

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

^{2/}Recommended on a trial basis, based on a 2-year average yield at Belle Mina. See table 4.

^{3/}Recommendation based on a 3-year regional average at one location. See table 4.

^{4/}Recommended on a trial basis, based on a 2-year average yield at Brewton. See table 4.

SOURCES OF SEED

RYE

AFC 20-20-----Alabama Farmers Coop,
Decatur, Alabama

Athen's Abruzzi, Weser-----Georgia Seed Development
Commission, Athens, Georgia

Bonel,Maton, NF 72, NF 74-----Noble Foundation,
Ardmore, Oklahoma

Gurley's (All varieties)-----Gurley's Inc., Selma,
North Carolina

McNair Vita Graze-----Northrup King Co.,
Laurinburg, North Carolina

NAPB SR-80-----North American Plant Breeders,
Brookston, Indiana

Wintergrazer 70-----Pennington Seed Inc.
Madison, Georgia

Wren's Abruzzi-----Alabama Crop Improvement Association,
Inc., Auburn, Alabama

WHEAT

Abe, Athur 71-----Alabama Crop Improvement Association,
Inc., Auburn, Alabama

Arthur, Oasis-----Agricultural Alumni Seed Improvement
Association, Inc.
Romney, 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, Omega 78-----Georgia Seed Development Commission,
Athens, Georgia

McNair (All varieties)-----Northrup King Co.,
Laurinburg, North Carolina

Pioneer S78-----Pioneer Hi-Bred International Inc.,
Tipton, Indiana

Rosen-----Northeast Branch Research and Extension
Center, Keiser, Arkansas

Roy-----North Carolina Foundation Seed Producer's
Inc., Raleigh, North Carolina

VA-75-54-53-----Virginia Polytechnic Institute and State
University, Blacksburg, Virginia

Wakeland-----Alabama Crop Improvement Association,
Inc., Auburn, Alabama

OATS

Brooks, Salem-----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-----Alabama Crop Improvement Association,
Inc., Auburn, Alabama

BARLEY

Barsoy-----Department of Agronomy, University of
Kentucky, Lexington, Kentucky
Keowee-----South Carolina Crop Improvement Association,
Clemson, South Carolina
Surry, VA-75-42-55-----Virginia Polytechnic Institute and State
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