

PERFORMANCE OF RYEGRASS VARIETIES IN ALABAMA, 2021-2022

DEPT. SERIES NO. CSES2022: RYEGRASS
HENRY G. JORDAN JR., VARIETY TESTING MANAGER
CROP, SOIL & ENVIRONMENTAL SCIENCES
AUBURN UNIVERSITY, AUBURN AL
AUGUST 12, 2022

MISSION

The mission of the Auburn University Variety Testing Program is to provide research-based, unbiased results on the performance of various crop hybrids, cultivars, and varieties to the agricultural community in our state. We are intent on conducting these trials in a manner that will result in maximum biological yield through methods common to the top-producing farms in Alabama. We are committed to providing this information in a timely manner for its use during the decision-making process. The success of the program rests upon our ability to help Alabama producers provide a safe, dependable source of food and fiber for all families as well as economic sustainability for theirs.

HOW TO INTERPRET RESULTS

The purpose of the variety trial data is to determine whether differences are due to genetic performance. These differences cannot be measured absolutely due to environmental field conditions (rainfall, temperatures, soil fertility, soil type, disease, insects, etc.). Yields may differ between plots of the same entry. This variation is accounted for using experimental design and statistics.

The least significant difference (LSD) is used to determine whether the observed differences between entries are real or are caused by random variation. When using the LSD, two entries may have numerically different values, but the values are not statistically different. When two entries are compared and the observed difference is larger than the LSD, the entries are considered statistically different. An alpha level of 0.10 is used, meaning that the differences observed are expected to be real 90% of the time.

The coefficient of variation (CV) is a measure used to compare the amount of random variation within a data set. The lower the CV, the more precise the data set. The model r-square value (0.0-1.0) represents the amount of variation accounted for by the statistical model. As the value increases, the better the variation in the dataset is explained by the model.

Each table is organized in a manner that it is easy to read. The data is sorted from highest yielding to lowest. The bolded values are not statistically different from the highest yielding value.

A dark line in the table visually represents the test average. Any value above the line is equal to or greater than the test average. The numeric value for the test average is at the bottom of the tables.

Test results do not imply recommendation or endorsement by the Auburn University Variety Testing Program.



ACKNOWLEDGEMENTS

DR. PAUL PATTERSON, DEAN AND DIRECTOR
ALABAMA AGRICULTURAL EXPERIMENT STATION

DR. ARTHUR APPEL, ASSOCIATE DEAN FOR RESEARCH &
ASSOCIATE DIRECTOR, ALABAMA AGRICULTURAL EXPERIMENT STATION

GREG PATE, DIRECTOR OF RESEARCH OPERATIONS FOR OUTLYING UNITS
ALABAMA AGRICULTURAL EXPERIMENT STATION

DR. JOHN BEASLEY, DEPT. HEAD
CROP, SOIL & ENVIRONMENTAL SCIENCES

AUBURN UNIVERSITY VARIETY TESTING STUDENT WORKERS
JOSEPH BURCH
RILEY HILL
DEBRA SMITHERMAN
JAMES BURCH
JACKSON BARBER

TABLE OF CONTENTS

TRIAL MANAGEMENT

SEED SOURCES

STATEWIDE SUMMARY

SAND MOUNTAIN RESEARCH AND EXTENSION CENTER CROSSVILLE, AL

DATA WEBSITE

Chet Norris, Interim Director

Clint McElmoyl, Associate Director

E.V. SMITH RESEARCH AND EXTENSION CENTER PLANT BREEDING UNIT - TALLASSEE, AL

DATA WEBSITE

Jason Burkett, Associate Director

WIREGRASS RESEARCH AND EXTENSION CENTER HEADLAND, AL

YIELD

QUALITY: CP NDF ADF RFQ TDN
WEBSITE

Chris Parker, Associate Director

GULF COAST RESEARCH AND EXTENSION CENTER FAIRHOPE, AL

DATA WEBSITE

Malcomb Pegues, Director

Jarrod Jones, Associate Director

2020-2021 PERFORMANCE OF RYEGRASS VARIETIES IN ALABAMA “LAST YEAR’S DATA”

ACES PUBLICATION INTERPRETING A FORAGE ANALYSIS FOR BEEF CATTLE

TRIAL MANAGEMENT

Yields are calculated on a dry matter basis. A subsample, taken from each plot, is oven-dried and used to calculate percent dry matter.

TABLE 1 - AGRONOMIC INFORMATION

Crop	Seeding Rate	Row Spacing	Plot Size	Number of Replications
Ryegrass	20 lbs/acre 30 lbs/acre @ GCREC	7 inch	3-5 x 10-20 ft	4

TABLE 2 - LOCATION SPECIFIC INFORMATION

Research Center	Sand Mountain	E.V. Smith Plant Breeding Unit	Wiregrass	Gulf Coast
Location	Crossville	Tallassee	Headland	Fairhope
Region	North	Central	South	South
Plant Date	November 17	September 30	November 8	October 26
Harvest 1	March 21	January 12	January 24	December 16
Harvest 2	April 12	March 2	March 25	January 7
Harvest 3	May 2	March 28	April 13	February 10
Harvest 4	May 31	April 21	NA	March 7
Harvest 5	NA	May 24	NA	March 25
Harvest 6	NA	NA	NA	April 19
Soil Type	Hartselle Fine Sandy Loam	Kalmia Loamy Sand	Dothan Sandy Loam	Malbis Fine Sandy Loam
Tillage	Conventional	Conventional	Conventional	No-Till
Pre-plant Fertilizer	50 lb N	N/A	45N-280P-280K	50N-50P-50K
In Season Fertilizer	50 lb N after each harvest	50 lb N after each harvest	50 lb N after each harvest	50 lb N after each harvest
Test Conducted By	C. McElmoyl D. Stallings	F. Jackson J. Burkett	B. Johnson C. Parker E. Richards H. McDaniel J. Greene J. Mullen K. Hodges M. Davis S. Phillips	J. Jones M. Pegues

[Table of Contents](#)

SEED SOURCES

TABLE 3 - SOURCE OF SEED, VARIETY NAME, AND LOCATION TESTED

Source	Source Location	Variety	Released or Experimental
Bashaw Land & Seed Inc.	Harrisburg, Oregon	Bashaw Diploid	Released
		Bashaw Tetraploid	Released
DLF Pickseed	Hasley, Oregon	Andes	Released
GO Seed	Salem, Oregon	GO-MOT	Experimental
		Lonestar	Released
		Tetrastar	Released
GreenPoint Ag	Macon, Missouri	Fria	Released
Mountain View Seeds	Salem, Oregon	Centurion	Released
		Ranahan	Released
Oregro Seed	Albany, Oregon	Diamond T	Released
		Double Diamond	Released
		Flying A	Released
		K014-WEAR	Experimental
		Sherrif	Experimental
		TAMTBO	Released
		Triangle T	Released
Winterhawk	Released		
Ragan and Massey	Ponchatoula, Louisiana	Earlyployd	Released
		Prine	Released
		RM4L	Released

Source	Source Location	Variety	Released or Experimental
Smith Seed Services	Halsey, Oregon	Attain	Released
		Bendix	Released
		Baqueano	Released
		Big Boss	Released
		Claro	Released
		Dexter	Experimental
		FrostProof	Released
		Green Dragon	Released
		Green Farm 2	Released
		GreenAcres	Experimental
		Gulf	Released
		Halsey	Experimental
		Koga	Released
		Mantis	Experimental
		Rapido	Released
SELWDTSEM1	Experimental		
SELWTDWL1	Experimental		
The Wax Company, LLC	Armory, Mississippi	Jackson	Released
		ME4	Experimental
		ME-94	Experimental
		Nelson	Released
		Wax Marshall	Released
		WMWL	Experimental
		WMWL-2	Experimental

[Table of Contents](#)

SAND MOUNTAIN RESEARCH AND EXTENSION CENTER
CROSSVILLE, AL

TABLE 4 - DRY MATTER YIELD BY HARVEST TIMING (LB/ACRE)

Variety	1st Harvest 3/21/2022	2 nd Harvest 4/13/2022	3 rd Harvest 5/2/2022	4 th Harvest	Early Season	Late Season	Season Total
Halsey	356	2027	2238	3134	2383	5371	7755
RM4L	540	2483	1942	2424	3023	4366	7388
ME4	453	2098	2244	2579	2551	4823	7374
WMWL-2	300	2377	2194	2501	2677	4694	7371
GO-MOT	397	1906	2571	2479	2303	5050	7353
Triangle T	620	2136	1942	2652	2755	4594	7349
Centurion	597	2329	2061	2288	2926	4349	7275
Winterhawk	691	2157	2088	2319	2848	4406	7254
FrostProof	505	2297	1944	2482	2802	4426	7228
Green Farm 2	561	2223	2093	2302	2785	4394	7179
Double Diamond	636	2131	1891	2503	2767	4394	7161
Tetrastar	585	2229	2041	2294	2814	4335	7149
TAMTBO	534	2043	2067	2462	2577	4529	7106
Bashaw Diploid	648	2374	1921	2097	3022	4018	7040
Bashaw Tetraploid	479	2294	1907	2326	2772	4233	7005
Bendix	436	1758	2152	2622	2194	4774	6968
Attain	445	1966	2356	2171	2411	4527	6938
K014-WEAR	386	1990	1955	2566	2376	4521	6897
Koga	231	1794	2054	2790	2025	4844	6869
Ranahan	373	1780	2106	2604	2152	4711	6863
Big Boss	436	2392	1885	2146	2828	4030	6858
Earlyployd	833	2173	1978	1817	3006	3795	6800
Nelson	429	1955	2074	2333	2384	4408	6792
Fria	497	2354	2173	1738	2851	3911	6762
Claro	384	1908	2032	2431	2292	4463	6754
Flying A	627	2224	1855	2036	2852	3891	6743
ME-94	380	2055	2052	2255	2435	4307	6742
Lonestar	606	2143	1893	2081	2750	3975	6724
Wax Marshall	185	2297	2004	2234	2482	4239	6720
Diamond T	622	2110	1921	2019	2732	3940	6672
SELWTDWL1	383	1935	2003	2338	2318	4342	6660
SELWDTSEM1	465	2032	2077	2084	2498	4160	6658
GreenAcres	510	2033	2040	2074	2543	4114	6657
Gulf	399	2062	2181	1988	2461	4168	6629
Jackson	400	2158	2060	2007	2557	4067	6625
Andes	327	1868	2052	2334	2195	4386	6581
WMWL	316	1987	1926	2349	2303	4275	6578
Prine	524	2090	1985	1957	2615	3942	6557
Dexter	185	1746	1943	2594	1932	4537	6469
Baqueano	301	2101	1964	2004	2402	3968	6370
Sherrif	513	2117	1743	1951	2630	3694	6324
Mantis	393	1944	1840	2006	2337	3846	6183
Green Dragon	515	1941	1957	1727	2456	3684	6140
Rapido	592	1928	1943	1567	2520	3511	6031

Variety	1st Harvest 3/21/2022	2 nd Harvest 4/13/2022	3 rd Harvest 5/2/2022	4 th Harvest	Early Season	Late Season	Season Total
Average	468	2090	2031	2265	2558	4296	6853
LSD at 10% level	174	355	277	397	443	519	645
CV	41	17	13	19	17	12	9
Model R-Square	0.56	0.46	0.37	0.54	0.45	0.50	0.41

Bolded yields are NOT statistically different from the highest yielding entry.

Bolded line in table indicates test average.

N.S. –differences are statistically non-significant.

[Table of Contents](#)

E.V. SMITH RESEARCH AND EXTENSION CENTER
PLANT BREEDING UNIT - TALLASSEE, AL

TABLE 5 - DRY MATTER YIELD BY HARVEST TIMING (LB/ACRE)

Variety	1st Harvest 1/12/2022	2nd Harvest 3/2/2022	3rd Harvest 3/28/2022	4th Harvest 4/21/2022	5th Harvest 5/24/2022	Early Season	Late Season	Season Total
ME4	1273	1552	2892	1898	1092	2826	5881	8707
WMWL	1915	1715	2286	1409	940	3630	4636	8266
FrostProof	1581	1695	2243	1697	1000	3276	4941	8217
Mantis	1622	1729	2190	1492	1154	3351	4837	8187
Sherrif	1504	1678	2417	1645	890	3182	4952	8134
K014-WEAR	1235	1308	2925	1627	1018	2543	5571	8114
RM4L	1607	1563	2373	1501	1158	3170	5058	8101
Ranahan	1240	1465	2296	1835	1263	2705	5394	8099
Bendix	1076	1388	2817	1695	1108	2464	5620	8084
Jackson	1438	1342	2672	1591	1026	2445	5289	8070
Andes	1730	1643	1941	1569	1089	3373	4599	7971
Triangle T	1540	1397	2403	1583	1025	2938	5011	7948
Prine	1538	1450	2270	1510	1087	2988	4866	7854
Wax Marshall	1234	1448	2310	1766	1080	2682	5156	7838
TAMTBO	1647	1094	2285	1610	1200	2741	5095	7836
Nelson	1587	1396	2351	1486	1010	2983	4847	7830
Attain	1264	1321	2142	1468	1602	2585	5212	7797
Centurion	1474	1503	2312	1725	749	2977	4786	7763
Green Farm 2	1532	1557	2349	1487	796	3090	4632	7721
Bashaw Tetraploid	944	1189	2428	1715	1419	2133	5561	7694
ME-94	1166	1262	2485	1730	1042	2428	5257	7685
Baqueano	1244	1495	2306	1682	901	2739	4889	7627
Flying A	1471	1382	2372	1582	803	2853	4757	7610
GreenAcres	1735	1528	1988	1351	1003	2881	4342	7606
Big Boss	1626	1376	2065	1535	944	3002	4544	7546
Earlyployd	1747	1618	2257	1316	605	3365	4178	7543
Tetrastar	1334	1042	2263	1604	1237	2376	5104	7480
WMWL-2	1193	1375	2359	1679	825	2567	4863	7430
Diamond T	1546	1559	2054	1516	752	3105	4322	7427
SELWTDWL1	1289	1252	2285	1520	1078	2540	4882	7423
Claro	1571	1575	2128	1613	453	3146	4194	7340
Lonestar	1222	1543	2486	1515	412	2765	4413	7178
SELWDTSEM1	1408	1531	2197	1475	553	2940	4225	7165
Bashaw Diploid	1526	1431	2180	1311	712	2957	4203	7161
Double Diamond	1255	1294	2539	1584	432	2549	4555	7103
Winterhawk	1024	1077	2377	1647	939	2101	4964	7065
Fria	833	1330	2554	1555	761	2163	4871	7034
Gulf	1235	1212	2493	1592	483	2447	4568	7015
Dexter	830	965	2434	1641	968	1795	5043	6838
GO-MOT	844	1175	2490	1378	936	2019	4804	6823

Variety	1st Harvest 1/12/2022	2nd Harvest 3/2/2022	3 rd Harvest 3/28/2022	4 th Harvest 4/21/2022	5 th Harvest 5/24/2022	Early Season	Late Season	Season Total
Koga	576	899	2555	1826	868	1475	5249	6724
Green Dragon	1299	1422	1960	1287	732	2721	3979	6700
Rapido	878	1152	2424	1710	467	2029	4600	6629
Halsey	752	847	2030	1682	1045	1599	4757	6356
Average	1332	1381	2345	1583	924	2696	4852	7562
LSD at 10% level	596	394	N.S.	250	426	880	700	1031
CV	40	26	17	15	44	30	14	12
Model R-Square	0.33	0.37	0.31	0.37	0.42	0.37	0.39	0.34

Bolded yields are NOT statistically different from the highest yielding entry.

Bolded line in table indicates test average.

N.S. –differences are statistically non-significant.

[Table of Contents](#)

YIELD
WIREGRASS RESEARCH AND EXTENSION CENTER
HEADLAND, AL

TABLE 6 - DRY MATTER YIELD BY HARVEST TIMING (LB/ACRE)

Variety	1 st Harvest 1/24/2022	2 nd Harvest 3/25/2022	3 rd Harvest 4/13/2022	Early Season	Late Season	Season Total
Bashaw Diploid	972	4072	1814	5044	1814	6857
Attain	776	3547	2437	4323	2437	6760
Earlyployd	654	4293	1763	4947	1763	6710
Prine	761	3380	2070	4141	2070	6211
Tetrastar	1013	3546	1504	4559	1504	6063
Jackson	912	3159	1989	4072	1989	6061
Diamond T	1043	2928	1981	3970	1981	5951
Gulf	452	3588	1785	4041	1785	5826
GreenAcres	539	3364	1888	3903	1888	5792
Mantis	442	3227	2097	3669	2097	5766
Big Boss	736	3125	1879	3861	1879	5740
Nelson	593	3096	2041	3689	2041	5730
Baqueano	447	3282	1971	3729	1971	5700
Bashaw Tetraploid	609	3188	1853	3797	1853	5651
Green Farm 2	283	3507	1856	3790	1856	5646
Green Dragon	1209	3012	1369	4221	1369	5590
Flying A	673	3267	1605	3941	1605	5546
Winterhawk	583	3084	1875	3667	1875	5542
TAMTBO	938	2641	1849	3579	1849	5428
Ranahan	414	2886	2109	3301	2109	5410
ME4	549	2402	2443	2951	2443	5394
SELWTDWL1	518	2770	2105	3288	2105	5393
Claro	883	2612	1894	3496	1894	5390
Fria	868	3225	1274	4093	1274	5368
Rapido	458	3518	1160	3976	1160	5137
GO-MOT	813	2007	2313	2820	2313	5133
Triangle T	788	2599	1726	3387	1726	5113
Double Diamond	612	2819	1480	3430	1480	4911
RM4L	527	2480	1804	3008	1804	4812
K014-WEAR	195	2640	1961	2835	1961	4797
WMWL	574	2164	2007	2738	2007	4745
Lonestar	544	2402	1790	2946	1790	4735
Bendix	723	1808	2141	2531	2141	4672
SELWDTSEM1	287	3123	1236	3410	1236	4646
Sherrif	325	3044	969	3369	969	4338
Dexter	507	2062	1750	2569	1750	4319
WMWL-2	681	1605	2027	2286	2027	4313

Variety	1 st Harvest 1/24/2022	2 nd Harvest 3/25/2022	3 rd Harvest 4/13/2022	Early Season	Late Season	Season Total
Koga	350	1406	2540	1756	2540	4296
ME-94	392	2312	1514	2704	1514	4217
Wax Marshall	80	2108	1955	2188	1955	4144
FrostProof	296	2337	1447	2633	1447	4080
Andes	358	2278	1404	2636	1404	4040
Centurion	266	2484	1026	2750	1026	3776
Halsey	408	1539	1744	1947	1744	3691
Average	592	2817	1806	3409	1806	5215
LSD at 10% level	363	860	656	991	656	1256
CV	57	30	29	29	29	21
Model R-Square	0.59	0.64	0.46	0.64	0.46	0.55

Bolded yields are NOT statistically different from the highest yielding entry.

Bolded line in table indicates test average.

N.S. –differences are statistically non-significant.

[Table of Contents](#)

CRUDE PROTEIN
WIREGRASS RESEARCH AND EXTENSION CENTER
HEADLAND, AL

Crude protein (CP) is the total nitrogen multiplied by a 6.25 correction factor.

Quality samples were taken and analyzed for all three harvests. The results from the first harvest were out of range and therefore not being reported.

TABLE 7 – CRUDE PROTEIN BY HARVEST TIMING

Variety	1 ST Harvest	2 nd Harvest	3 rd Harvest	Early Season	Late Season	Season Average
K014-WEAR		13.6	19.5	13.6	19.5	14.9
Koga		15.0	18.1	15.0	18.1	14.8
Rapido		10.6	20.1	10.6	20.1	14.7
Tetrastar		13.5	18.6	13.5	18.6	14.6
Dexter		14.4	17.8	14.4	17.8	14.5
Bashaw Tetraploid		13.5	18.2	13.5	18.2	14.4
Jackson		13.4	19.7	13.4	19.7	14.4
Baqueano		13.3	17.9	13.3	17.9	14.4
SELWTDWL1		13.6	18.2	13.6	18.2	14.3
FrostProof		13.7	18.9	13.7	18.9	14.3
Winterhawk		12.5	19.7	12.5	19.7	14.3
Mantis		12.4	19.6	12.4	19.6	14.2
Big Boss		12.7	18.0	12.7	18.0	14.1
Claro		13.8	18.7	13.8	18.7	14.1
Green Farm 2		13.1	17.0	13.1	17.0	14.1
Ranahan		13.8	18.3	13.8	18.3	14.0
Lonestar		12.2	19.7	12.2	19.7	13.9
Fria		12.4	19.4	12.4	19.4	13.8
TAMTBO		13.2	18.0	13.2	18.0	13.8
Bashaw Diploid		11.0	20.1	11.0	20.1	13.7
Bendix		13.4	17.5	13.4	17.5	13.6
GreenAcres		11.4	19.4	11.4	19.4	13.5
Gulf		12.9	16.9	12.9	16.9	13.5
Prine		13.7	17.7	13.7	17.7	13.4
Halsey		13.7	16.1	13.7	16.1	13.4
SELWDTSEM1		12.4	17.3	12.4	17.3	13.3
Nelson		12.4	17.3	12.4	17.3	13.2
Flying A		11.7	18.3	11.7	18.3	13.2
Diamond T		12.6	17.8	12.6	17.8	13.2
Earlyployd		10.9	19.0	10.9	19.0	13.1
Andes		13.3	16.0	13.3	16.0	13.1
GO-MOT		12.1	17.9	12.1	17.9	13.1
Double Diamond		13.1	16.5	13.1	16.5	13.1
Sherrif		13.5	14.8	13.5	14.8	13.1
ME-94		12.9	15.8	12.9	15.8	13.0
Attain		10.9	17.5	10.9	17.5	12.9
WMWL		12.7	17.4	12.7	17.4	12.9

Variety	1 ST Harvest	2 nd Harvest	3 rd Harvest	Early Season	Late Season	Season Average
RM4L		11.3	16.9	11.3	16.9	12.8
Triangle T		12.3	16.8	12.3	16.8	12.7
Wax Marshall		13.6	16.4	13.6	16.4	12.7
ME4		12.8	16.9	12.8	16.9	12.6
Centurion		13.7	15.0	13.7	15.0	12.4
WMWL-2		12.5	17.1	12.5	17.1	12.2
Green Dragon		10.2	16.4	10.2	16.4	11.6
Average		12.8	17.8	12.8	17.8	13.6
LSD at 10% level				1.4	N.S.	1.3
CV		12	13	12	13	9
Model R-Square				0.72	0.48	0.64

Bolded yields are NOT statistically different from the highest yielding entry.

Bolded line in table indicates test average.

N.S. –differences are statistically non-significant.

[Table of Contents](#)

NEUTRAL DETERGENT FIBER
WIREGRASS RESEARCH AND EXTENSION CENTER
HEADLAND, AL

Neutral detergent fiber (NDF) is the total cell wall of the plant. As NDF increases, dry matter intake decreases.

Quality samples were taken and analyzed for all three harvests. The results from the first harvest were out of range and therefore not being reported.

TABLE 8 – NEUTRAL DETERGENT FIBER BY HARVEST TIMING

Variety	1 ST Harvest	2 nd Harvest	3 rd Harvest	Early Season	Late Season	Season Average
Rapido		57.6	51.5	57.6	51.5	49.7
Bashaw Tetraploid		55.2	51.8	55.2	51.8	48.5
Claro		52.7	52.3	52.7	52.3	48.5
SELWTDWL1		52.4	50.9	52.4	50.9	48.0
Dexter		49.8	52.5	49.8	52.5	47.9
Tetrastar		53.2	51.7	53.2	51.7	47.4
Lonestar		52.8	50.9	52.8	50.9	47.2
Gulf		52.2	51.8	52.2	51.8	47.1
Green Dragon		53.7	52.1	53.7	52.1	47.1
Baqueano		52.4	53.0	52.4	53.0	47.1
Double Diamond		54.2	50.1	54.2	50.1	47.1
Mantis		52.9	52.1	52.9	52.1	47.0
TAMTBO		51.4	51.9	51.4	51.9	47.0
Big Boss		52.2	52.2	52.2	52.2	46.7
GO-MOT		47.7	54.3	47.7	54.3	46.6
Diamond T		52.2	53.4	52.2	53.4	46.6
Nelson		50.5	52.3	50.5	52.3	46.5
Bashaw Diploid		52.4	51.0	52.4	51.0	46.3
Koga		47.7	52.5	47.7	52.5	46.2
Sherrif		55.1	49.8	55.1	49.8	46.2
Bendix		48.8	52.0	48.8	52.0	46.0
Flying A		51.6	52.2	51.6	52.2	46.0
Winterhawk		51.3	52.3	51.3	52.3	45.7
SELWDTSEM1		52.4	49.7	52.4	49.7	45.7
Fria		52.8	50.1	52.8	50.1	45.6
Attain		48.1	51.5	48.1	51.5	45.6
Ranahan		50.7	52.4	50.7	52.4	45.5
Green Farm 2		53.0	50.2	53.0	50.2	45.3
FrostProof		50.3	51.5	50.3	51.5	45.2
Earlyployd		52.5	50.8	52.5	50.8	45.1
K014-WEAR		49.8	49.8	49.8	49.8	45.0
Andes		48.7	50.3	48.7	50.3	45.0
Halsey		46.4	51.8	46.4	51.8	44.8
Triangle T		49.6	51.4	49.6	51.4	44.7
GreenAcres		49.6	50.9	49.6	50.9	44.4
RM4L		46.3	50.8	46.3	50.8	44.0
Jackson		48.4	50.5	48.4	50.5	43.1

Variety	1 ST Harvest	2 nd Harvest	3 rd Harvest	Early Season	Late Season	Season Average
WMWL		46.2	51.8	46.2	51.8	42.7
Centurion		51.6	48.6	51.6	48.6	42.7
Wax Marshall		47.6	55.9	47.6	55.9	42.3
WMWL-2		46.4	51.0	46.4	51.0	42.1
Prine		52.8	39.9	52.8	39.9	42.0
ME-94		47.6	46.6	47.6	46.6	41.9
ME4		45.5	49.1	45.5	49.1	41.6
Average		50.8	51.1	50.8	51.1	45.6
LSD at 10% level				2.9	N.S.	2.5
CV		7	8	7	8	6
Model R-Square				0.74	0.40	0.68

Bolded yields are NOT statistically different from the highest yielding entry.

Bolded line in table indicates test average.

N.S. –differences are statistically non-significant.

[Table of Contents](#)

ACID DETERGENT FIBER
WIREGRASS RESEARCH AND EXTENSION CENTER
HEADLAND, AL

Acid detergent fiber (ADF) is an estimation of the indigestible forage. The larger the value, the less digestible.

Quality samples were taken and analyzed for all three harvests. The results from the first harvest were out of range and therefore not being reported.

TABLE 9 – ACID DETERGENT FIBER BY HARVEST TIMING

Variety	1 ST Harvest	2 nd Harvest	3 rd Harvest	Early Season	Late Season	Season Average
Wax Marshall		25.5	26.0	25.5	26.0	22.1
ME4		24.2	26.8	24.2	26.8	23.0
ME-94		26.4	25.2	26.4	25.2	23.7
K014-WEAR		26.2	25.6	26.2	25.6	23.9
Centurion		27.4	26.4	27.4	26.4	24.0
Jackson		26.3	26.7	26.3	26.7	24.1
WMWL-2		25.2	26.9	25.2	26.9	24.1
WMWL		25.8	27.8	25.8	27.8	24.4
RM4L		25.8	27.7	25.8	27.7	24.8
Koga		25.2	27.7	25.2	27.7	24.9
Green Farm 2		28.7	27.4	28.7	27.4	25.0
Winterhawk		27.9	27.6	27.9	27.6	25.0
Halsey		25.8	28.1	25.8	28.1	25.1
Ranahan		27.6	27.7	27.6	27.7	25.2
Fria		28.8	26.4	28.8	26.4	25.2
FrostProof		27.7	27.1	27.7	27.1	25.3
SELWDTSEM1		28.8	27.0	28.8	27.0	25.5
Lonestar		28.4	26.7	28.4	26.7	25.5
Bendix		26.7	27.3	26.7	27.3	25.6
GreenAcres		28.3	27.2	28.3	27.2	25.6
Sherrif		29.6	27.4	29.6	27.4	25.7
Triangle T		27.7	28.8	27.7	28.8	25.7
Bashaw Diploid		29.3	27.3	29.3	27.3	25.7
Flying A		28.7	28.2	28.7	28.2	25.7
Prine		29.3	27.1	29.3	27.1	25.8
Earlyployd		29.6	27.8	29.6	27.8	25.9
GO-MOT		26.2	28.8	26.2	28.8	26.0
Andes		27.9	28.7	27.9	28.7	26.1
Attain		27.2	28.3	27.2	28.3	26.1
Big Boss		29.1	28.4	29.1	28.4	26.2
Double Diamond		29.8	27.5	29.8	27.5	26.4
Diamond T		28.9	28.8	28.9	28.8	26.4
Mantis		29.7	28.1	29.7	28.1	26.4
Dexter		28.2	27.3	28.2	27.3	26.5
TAMTBO		28.8	27.9	28.8	27.9	26.5
Tetrastar		29.8	28.0	29.8	28.0	26.5
SELWTDWL1		28.7	27.0	28.7	27.0	26.6

Variety	1 ST Harvest	2 nd Harvest	3 rd Harvest	Early Season	Late Season	Season Average
Nelson		28.3	28.6	28.3	28.6	26.6
Claro		29.1	28.0	29.1	28.0	26.6
Gulf		29.2	28.4	29.2	28.4	26.7
Baqueano		29.4	29.3	29.4	29.3	26.8
Bashaw Tetraploid		30.9	28.1	30.9	28.1	27.0
Green Dragon		31.1	29.0	31.1	29.0	27.9
Rapido		32.5	27.9	32.5	27.9	28.0
Average		28.1	27.6	28.1	27.6	25.6
LSD at 10% level				1.7	1.5	1.1
CV		8	7	8	7	6
Model R-Square				0.79	0.75	0.84

Bolded yields are NOT statistically different from the highest yielding entry.

Bolded line in table indicates test average.

N.S. –differences are statistically non-significant.

[Table of Contents](#)

TOTAL DIGESTIBLE NUTRIENTS
WIREGRASS RESEARCH AND EXTENSION CENTER
HEADLAND, AL

Total digestible nutrients (TDN) is used to express energy value of forages. The greater the value, the more energy dense the forage.

Quality samples were taken and analyzed for all three harvests. The results from the first harvest were out of range and therefore not being reported.

TABLE 10 – TOTAL DIGESTIBLE NUTRIENTS BY HARVEST TIMING

Variety	1 ST Harvest	2 nd Harvest	3 rd Harvest	Early Season	Late Season	Season Average
Wax Marshall		71.90	71.35	71.90	71.35	75.45
ME4		73.25	70.51	73.25	70.51	74.53
ME-94		70.97	72.20	70.97	72.20	73.77
K014-WEAR		71.20	71.76	71.20	71.76	73.63
Centurion		69.87	71.00	69.87	71.00	73.47
Jackson		71.07	70.65	71.07	70.65	73.40
WMWL-2		72.19	70.39	72.19	70.39	73.35
WMWL		71.60	69.49	71.60	69.49	73.01
RM4L		71.61	69.57	71.61	69.57	72.63
Koga		72.25	69.58	72.25	69.58	72.58
Green Farm 2		68.57	69.93	68.57	69.93	72.43
Winterhawk		69.42	69.66	69.42	69.66	72.39
Halsey		71.55	69.19	71.55	69.19	72.35
Ranahan		69.68	69.62	69.68	69.62	72.26
Fria		68.49	70.94	68.49	70.94	72.19
FrostProof		69.61	70.19	69.61	70.19	72.14
SELWDTSEM1		68.41	70.31	68.41	70.31	71.95
Lonestar		68.85	70.59	68.85	70.59	71.85
Bendix		70.62	69.96	70.62	69.96	71.84
GreenAcres		68.94	70.09	68.94	70.09	71.84
Sherrif		67.64	69.95	67.64	69.95	71.70
Triangle T		69.59	68.43	69.59	68.43	71.70
Flying A		68.51	69.12	68.51	69.12	71.68
Bashaw Diploid		67.95	70.06	67.95	70.06	71.68
Prine		67.92	70.24	67.92	70.24	71.60
Earlyployd		67.55	69.46	67.55	69.46	71.52
GO-MOT		71.18	68.41	71.18	68.41	71.36
Andes		69.43	68.56	69.43	68.56	71.32
Attain		70.16	68.93	70.16	68.93	71.25
Big Boss		68.18	68.86	68.18	68.86	71.12
Double Diamond		67.41	69.77	67.41	69.77	70.99
Diamond T		68.30	68.45	68.30	68.45	70.95
Mantis		67.49	69.18	67.49	69.18	70.92
Dexter		69.07	70.06	69.07	70.06	70.90
TAMTBO		68.45	69.43	68.45	69.43	70.84
Tetrastar		67.42	69.29	67.42	69.29	70.81
SELWTDWL1		68.59	70.34	68.59	70.34	70.76

Variety	1 ST Harvest	2 nd Harvest	3 rd Harvest	Early Season	Late Season	Season Average
Nelson		68.98	68.68	68.98	68.68	70.76
Claro		68.08	69.23	68.08	69.23	70.71
Gulf		68.07	68.91	68.07	68.91	70.61
Baqueano		67.86	67.90	67.86	67.90	70.50
Bashaw Tetraploid		66.27	69.17	66.27	69.17	70.28
Green Dragon		66.04	68.19	66.04	68.19	69.42
Rapido		64.59	69.34	64.59	69.34	69.23
Average		69.20	69.70	69.20	69.70	71.81
LSD at 10% level				1.78	1.60	1.12
CV		3	3	3	3	2
Model R-Square				0.79	0.75	0.84

Bolded yields are NOT statistically different from the highest yielding entry.

Bolded line in table indicates test average.

N.S. –differences are statistically non-significant.

[Table of Contents](#)

RELATIVE FORAGE QUALITY
WIREGRASS RESEARCH AND EXTENSION CENTER
HEADLAND, AL

Relative forage quality (RFQ) is a single-number index that can be used to compare the overall quality of one or more forage samples. It is calculated based on CP, NDF, and ADF. It ranges from 0-300, with 150 considered a late-bloom alfalfa.

TABLE 11 – RELATIVE FORAGE QUALITY BY HARVEST TIMING

Variety	1 ST Harvest	2 nd Harvest	3 rd Harvest	Early Season	Late Season	Season Average
Wax Marshall		204	197	204	197	213
ME-94		197	202	197	202	213
ME4		213	186	213	186	212
K014-WEAR		197	185	197	185	206
Jackson		197	177	197	177	205
Green Farm 2		177	185	177	185	204
WMWL		201	179	201	179	203
Koga		207	175	207	175	203
Halsey		201	183	201	183	202
Centurion		185	194	185	194	200
RM4L		195	182	195	182	199
WMWL-2		205	186	205	186	198
Ranahan		189	178	189	178	196
Winterhawk		186	170	186	170	196
SELWDTSEM1		179	184	179	184	196
Bendix		193	184	193	184	195
FrostProof		188	176	188	176	193
Sherrif		177	187	177	187	193
Big Boss		177	175	177	175	193
Fria		177	170	177	170	193
Tetrastar		175	174	175	174	193
GreenAcres		180	175	180	175	193
Double Diamond		175	186	175	186	192
Prine		176	182	176	182	192
Earlyployd		171	173	171	173	191
Baqueano		178	170	178	170	191
GO-MOT		194	173	194	173	191
Diamond T		178	174	178	174	190
Andes		186	172	186	172	190
Gulf		174	179	175	179	190
Dexter		176	183	176	183	190
SELWTDWL1		181	183	181	183	190
Attain		185	175	185	175	190
Lonestar		181	176	181	176	189
Bashaw Diploid		170	168	170	168	188
Bashaw Tetraploid		165	176	165	176	188
Nelson		182	176	182	176	188
Claro		179	171	179	171	188
TAMTBO		178	179	178	179	188

Variety	1 ST Harvest	2 nd Harvest	3 rd Harvest	Early Season	Late Season	Season Average
Triangle T		185	171	185	171	187
Flying A		178	167	178	167	186
Mantis		170	169	170	169	185
Rapido		152	166	152	166	178
Green Dragon		159	178	159	178	177
Average		183	178	183	178	194
LSD at 10% level				12	14	9
CV		9	8	9	8	6
Model R-Square				0.79	0.68	0.76

Bolded yields are NOT statistically different from the highest yielding entry.

Bolded line in table indicates test average.

N.S. –differences are statistically non-significant.

[Table of Contents](#)

GULF COAST RESEARCH AND EXTENSION CENTER
FAIRHOPE, AL

TABLE 12 - DRY MATTER YIELD BY HARVEST TIMING (LB/ACRE)

Variety	1 st Harvest 12/16/2021	2 nd Harvest 1/7/2022	3 rd Harvest 2/10/2022	4 th Harvest 3/7/2022	5 th Harvest 3/25/2022	6 th Harvest 4/19/2022	Early Season	Late Season	Season Total
Variety	Yield1	Yield2	Yield3	Yield4	Yield5	Yield6	Early	Late	Season
ME4	1263	832	1119	1663	1596	2078	4876	5337	8550
ME-94	1189	829	783	1653	1662	2013	4453	5328	8128
Flying A	1173	831	1064	1516	1711	1788	4585	5015	8084
GO-MOT	1194	902	1137	1485	1690	1647	4718	4822	8055
Andes	1109	745	1106	1585	1607	1888	4545	5079	8039
Fria	995	879	1119	1568	1539	1921	4561	5027	8021
Lonestar	959	873	1188	1608	1559	1811	4628	4978	7998
Mantis	1290	751	1065	1532	1557	1771	4639	4861	7967
Prine	1039	754	1137	1629	1476	1927	4559	5032	7962
Centurion	999	826	1113	1543	1655	1809	4482	5007	7946
Winterhawk	816	856	1084	1690	1747	1730	4447	5167	7923
TAMTBO	1258	815	1015	1567	1544	1716	4654	4827	7914
Triangle T	1052	837	1151	1545	1514	1790	4585	4849	7889
Gulf	1085	865	1076	1415	1627	1752	4441	4794	7819
Earlyployd	877	776	1079	1841	1291	1951	4574	5083	7816
Bashaw Diploid	935	844	1157	1591	1584	1697	4527	4873	7808
Jackson	886	830	960	1561	1683	1878	4237	5122	7798
WMWL	962	741	861	1546	1743	1919	4110	5208	7772
FrostProof	931	761	1041	1662	1679	1692	4395	5033	7766
WMWL-2	1042	781	964	1470	1653	1842	4258	4965	7753
Green Farm 2	1153	742	772	1633	1659	1754	4300	5045	7713
Attain	974	802	974	1656	1515	1710	4406	4881	7631
Diamond T	844	688	1073	1644	1642	1691	4249	4976	7582
GreenAcres	1048	659	1120	1638	1337	1762	4465	4737	7564
Halsey	1053	793	1020	1528	1577	1591	4394	4696	7563
Nelson	1029	740	988	1574	1509	1671	4331	4754	7511
RM4L	929	893	998	1499	1450	1736	4319	4685	7505
Tetrastar	820	693	1089	1603	1566	1702	4206	4872	7474
Claro	1096	725	1049	1455	1469	1672	4326	4596	7466
Big Boss	921	762	1062	1479	1436	1788	4224	4702	7447
Ranahan	900	703	914	1561	1560	1806	4078	4927	7444
Sherrif	811	744	929	1462	1592	1901	3946	4955	7439
Wax Marshall	721	759	842	1599	1642	1869	3921	5109	7431
Baqueano	985	784	924	1557	1536	1639	4250	4733	7425
SELWTDWL1	873	691	959	1588	1601	1709	4111	4898	7421
Bashaw Tetraploid	875	826	950	1380	1632	1754	4030	4765	7416
Rapido	1033	885	934	1660	1213	1666	4512	4538	7391

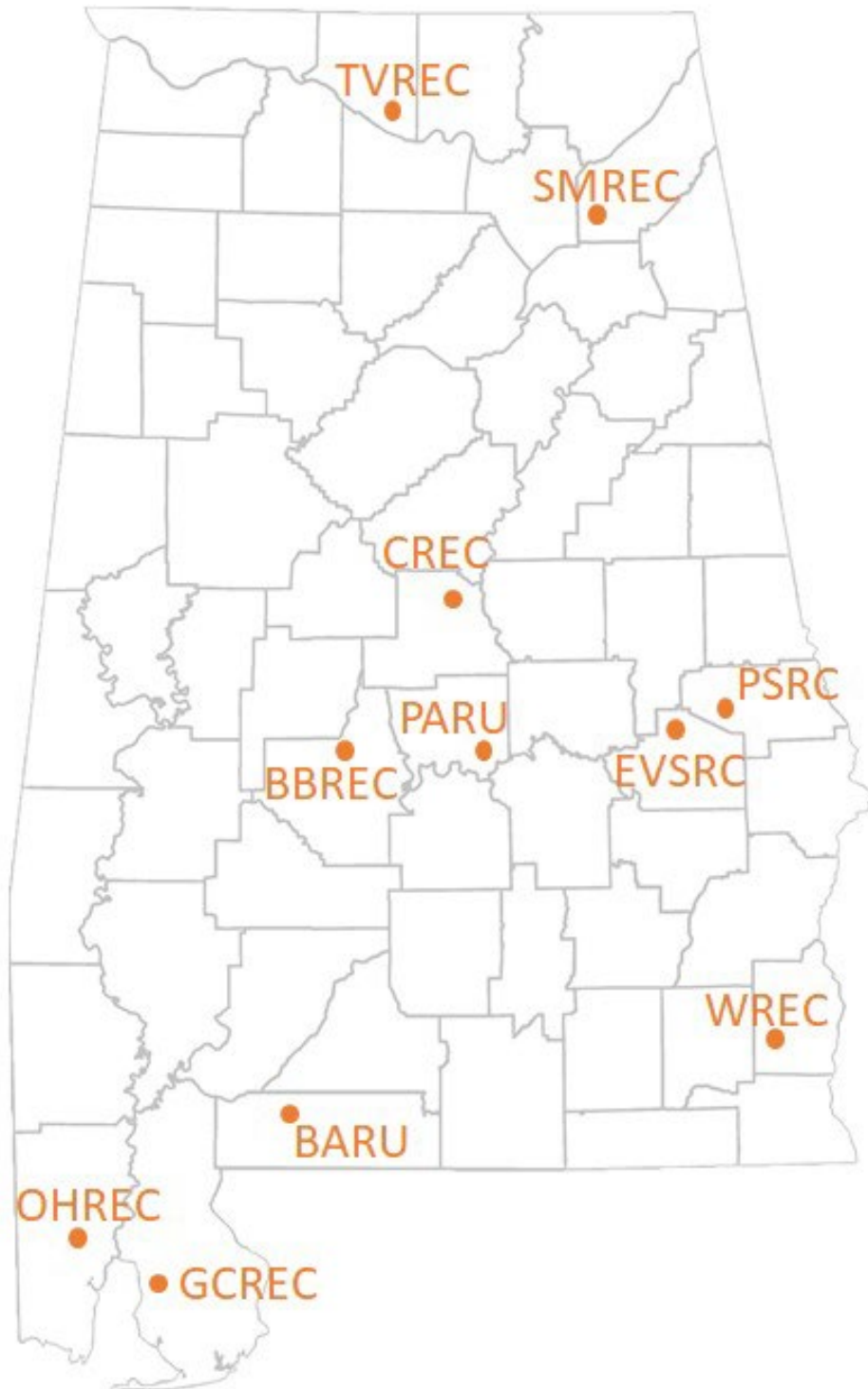
Variety	1 st Harvest 12/16/2021	2 nd Harvest 1/7/2022	3 rd Harvest 2/10/2022	4 th Harvest 3/7/2022	5 th Harvest 3/25/2022	6 th Harvest 4/19/2022	Early Season	Late Season	Season Total
K014-WEAR	1012	733	861	1416	1571	1610	4021	4597	7202
Green Dragon	908	752	976	1582	1285	1661	4219	4529	7165
Double Diamond	712	694	994	1586	1448	1688	3986	4722	7122
SELWDTSEM1	854	777	926	1450	1497	1608	4007	4555	7111
Bendix	1121	635	1039	1313	1492	1491	4108	4296	7091
Koga	749	762	939	1288	1781	1565	3738	4633	7084
Dexter	864	574	825	1278	1538	1493	3541	4310	6572
Average	985	776	1009	1548	1561	1754	4317	4862	7631
LSD at 10% level	N.S.	137	167	163	158	163	470	298	575
CV	36	19	20	12	11	11	14	7	10

Bolded yields are NOT statistically different from the highest yielding entry.

Bolded line in table indicates test average.

N.S. –differences are statistically non-significant.

[Table of Contents](#)



CONTACT

HENRY JORDAN, VARIETY TESTING MANAGER,
CROP, SOIL & ENVIRONMENTAL SCIENCES
201 FUNCHESS HALL, AUBURN UNIVERSITY, 36849
MOBILE 770-468-0478 • HENRYJ@AUBURN.EDU
[AUBURN UNIVERSITY VARIETY TESTING WEBSITE](#)