

# MISSISSIPPI ANNUAL COOL- SEASON FORAGE CROP

## VARIETY TRIALS, 2021

Information Bulletin 561 • August 2021



MISSISSIPPI'S OFFICIAL VARIETY TRIALS



**MISSISSIPPI STATE UNIVERSITY™**  
MS AGRICULTURAL AND  
FORESTRY EXPERIMENT STATION

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This report contains data generated as part of the Mississippi Agricultural and Forestry Experiment Station research program. Joint sponsorship by the organizations listed on page 12 is gratefully acknowledged.

Trade names of commercial products used in this report are included only for clarity and understanding. All available names (i.e., trade names, code numbers, chemical names, etc.) of varieties or products used in this research project are listed on pages 12.

# Mississippi Annual Cool-Season Forage Crop Variety Trials, 2021

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Find variety trial information online at [mafes.msstate.edu/variety-trials](https://mafes.msstate.edu/variety-trials).

# Mississippi Annual Cool-Season Forage Crop Variety Trials, 2021

## INTRODUCTION

Varieties of several forage-crop species are evaluated every year in the Mississippi Agricultural and Forestry Experiment Station's (MAFES) small-plot forage trials. Entries are provided by seed companies as well as forage and breeding programs at state universities. Experimental and commercially available varieties are tested at one or more locations across Mississippi. All entries from privately owned companies are tested on a fee basis. Some varieties may be added by the MAFES forage variety-testing program as a reference for comparison purposes. In addition, varieties of interest may also be added when applicable. Testing during 2020–2021 was conducted at the following locations: Leveck Animal Research Center Forage Unit

(Mississippi State campus), Black Belt Branch Experiment Station (Brooksville, Mississippi), Coastal Plain Branch Experiment Station (Newton, Mississippi), and White Sands Research Unit (Poplarville, Mississippi).

Data presented in Tables 2–11 were used to evaluate the performance of each forage crop within its respective trial. Mean and harvest comparisons were statistically evaluated by using the least significant difference (LSD) test at the probability level of  $\alpha = 0.05$ . The LSD value represents the minimum amount of dry matter yield that must be observed between any two varieties to determine if the difference was due to variety performance alone. Sources of seed are presented in Table 12.

## PROTOCOL

Annual ryegrass, small grains, and annual clover trials across the state were established between October and November of 2021. At all locations, soil samples were taken and analyzed by the Mississippi State University Soil Testing Laboratory. Trial areas were amended with lime and fertilized with phosphorus ( $P_2O_5$ ) and potassium ( $K_2O$ ) according to the soil test recommendations for individual species. Grass trials were additionally fertilized with 50 pounds of N per acre at planting and after the first harvest using urea ammonium sulfate (33-0-0/11S). Plots were 6 feet by 10 feet and planted using a Almaco (Nevada, Iowa) precision cone seeder on a prepared seedbed. Trial design was a randomized complete block replicated four times. The seeding rates used are presented in Table 1. Individual

**Table 1. Recommended seeding rates for cool-season forage crops.**

Type/Species	Seed rate
	<i>lb/A</i>
<b>Annual Grasses</b>	
Rye	100
Oat	100
Triticale	100
Ryegrass	30
<b>Annual Clovers</b>	
Arrowleaf	10
Berseem	25
Balansa	4
Ball	3
Crimson	30
Persian	8

trials were harvested when 75% of the plots achieved 15 inches of growth. All plots were harvested to a 3-inch stubble height. Plots were harvested using a Winterstieger Cibus F (Wintersteiger AG, Ried, Austria) equipped with a forage plot harvester reel-type header that collected a swath of 4.8 feet by 10 feet to calculate

total yield. A subsample was collected and dried at 130°F until constant weight was achieved to calculate DM concentration. Data were analyzed using the General Linear Model (PROC GLM) of SAS and mean separation was conducted using LSD at  $\alpha = 0.05$ .

## ANNUAL RYEGRASS

### Introduction

Annual ryegrass is the most relevant and versatile cool-season annual grass for livestock producers in Mississippi. In pasture and hay systems, annual ryegrass is a popular forage because of its ease of establishment, high nutritive value, high yielding potential, good reseeding ability, and adaptability to a wide range of soil types. Annual ryegrass can be established in pure stands or mixed with small grains and/or clovers for cool-season forage production. For these reasons, annual ryegrass is a staple for many cool-season grazing programs in Mississippi. Recommended planting dates vary by location but usually fall between September to mid-October for prepared seedbed or late October if overseeded on a warm-season perennial grass pasture. Seeding rates are 30 pounds per acre for pure stands and 20 pounds per acre for mixtures with small grains and/or clovers. Annual ryegrass is very responsive to nitrogen fertilizer and its use should be split into two applications for grazing systems. Reasonable produc-

tivity can be expected from November to May in the southern part of Mississippi and February to May in the northern part of Mississippi. Annual ryegrass should normally be allowed to reach an initial height of at least 10 inches before grazing begins.

### Results

Data in Tables 2–5 present the yield performance of ryegrass varieties in Starkville, Brooksville, Newton, and Poplarville, respectively. The mean yields of the first harvests were 1,079, 1,841, 1,629, 2,413 pounds per acre for Starkville, Brooksville, Newton, and Poplarville, respectively. The mean yield of the second harvest was greatest in Starkville, Brooksville, and Newton, while the last harvest yielded the greatest biomass in Poplarville. The greatest total mean harvest yield was observed in Poplarville (8,786 pounds per acre) while Starkville, Brooksville, and Newton produced 5,432, 6,673, 4,842 pounds per acre, respectively.

**Table 2. Annual ryegrass production by harvest date and total yield in Starkville.**

Variety	Harvest date			Total yield
	3/9/21	4/9/21	5/7/21	
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
Jumbo	1065	2354	2049	5468
BAR LM 17534	789	1504	1751	4044
Centurion	1061	2835	2016	5912
Ranahan	1164	1986	1937	5088
Prine	1169	2141	1520	4830
Earlyploid	1471	2297	1605	5374
RM4L	1110	2971	2367	6447
Bashaw Diploid	1542	3746	1733	7020
Bashaw Tetraploid	1341	2113	1767	5222
PPER7	407	2165	1782	4354
Augusta	1587	2207	2182	5975
Andes	1101	2258	2283	5643
New Dawn	837	2523	1596	4956
Marshall	699	1822	1900	4421
Jackson	973	2097	1971	5042
Nelson	903	1718	2025	4646
ME-94	735	2193	1763	4691
ME-4	1225	2881	1939	6044
M2CVS	428	1888	1997	4314
WMWL	391	1828	1775	3993
WMWL II	1022	2348	1952	5322
Ration	372	2570	1905	4847
B-18.1324	1305	2023	2072	5400
Flying A	1096	1979	1645	4719
Winterhawk	1541	3212	1826	6580
Diamond T	1519	2385	2473	6377
TAMTBO	1301	2621	2325	6248
Double Diamond	1037	2037	1945	5019
Triangle T	1538	2475	1957	5969
Tetrastar	1172	3344	1838	6355
Lonestar	1469	2637	1453	5559
Grits	1061	2683	1566	5309
LSC-B1191	1184	2007	1891	5082
Mean	1079	2359	1903	5342
LSD <sub>0.05</sub>	608	1233	72	1923
CV, %	34	32	23	22
Planted: 10/1/20 Fertilizer: 50 lb/A N (33-0-0S) after planting and after the first harvest Herbicide: 1 qt/A of GrazonNext® (aminopyralid and 2,4-D) after first harvest Soil type: Marietta Fine Sandy Loam				

**Table 3. Annual ryegrass production by harvest date and total yield in Brooksville.**

Variety	Harvest date			Total yield
	3/14/21	4/9/21	5/17/21	
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
Jumbo	1871	2954	2757	7582
BAR LM 17534	1461	2272	2289	6021
Centurion	1488	2103	1964	5555
Ranahan	1217	2382	2373	5972
Prine	1832	2536	2356	6724
Earlyploid	1875	1904	1633	5411
RM4L	2145	2813	2646	7604
Bashaw Diploid	2831	2454	2027	7312
Bashaw Tetraploid	2763	2439	2262	7464
PPER7	924	2662	2248	5834
Augusta	3155	2634	2702	8490
Andes	1626	2669	2366	6661
New Dawn	1973	2263	2265	6501
Marshall	1151	2389	2285	5825
Jackson	1464	2830	2155	6449
Nelson	2406	3195	2687	8288
ME-94	1892	2822	2028	6742
ME-4	2088	2969	2082	7139
M2CVS	529	2057	2127	4713
WMWL	1583	3077	2029	6690
WMWL II	1044	2849	2407	6299
Ration	1787	2563	2365	6715
B-18.1324	1050	2774	2643	6466
Flying A	1680	1856	2004	5539
Winterhawk	2399	2497	2258	7155
Diamond T	2590	3047	2468	8105
TAMTBO	2528	3054	2538	8120
Double Diamond	2219	2194	2483	6896
Triangle T	1552	2621	2246	6418
TetraStar	2290	2656	2476	7421
Lonestar	1535	2262	1930	5727
Grits	2266	1842	1991	6098
LSC-B1191	1532	2571	2163	6266
Mean	1841	2552	2280	6673
LSD <sub>0.05</sub>	1279	722	541	2299
CV, %	40	20	17	24

Planted: 10/7/20  
Fertilizer: 50 lb/A N (33-0-0S) after planting after the first harvest  
Herbicide: 1 qt/A of GrazonNext® (aminopyralid and 2,4-D) after first harvest  
Soil type: Silty Clay

**Table 4. Annual ryegrass production by harvest date and total yield in Newton.**

Variety	Harvest date			Total yield
	2/2/21	3/11/21	3/30/21	
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
Jumbo	1488	1774	1760	5023
BAR LM 17534	1421	1726	1766	4913
Centurion	1393	1722	2085	5199
Ranahan	1980	1644	1341	4965
Prine	1852	1481	1282	4614
Earlyploid	1733	1320	1323	4377
RM4L	1517	1664	1536	4717
Bashaw Diploid	1693	1642	1389	4723
Bashaw Tetraploid	1652	1533	1348	4533
PPER7	1770	1677	1316	4763
Augusta	1847	1538	1512	4896
Andes	1275	1468	1515	4257
New Dawn	1368	1867	1414	4648
Marshall	1586	1882	1534	5002
Jackson	1142	1707	1728	4576
Nelson	1636	1517	1591	4743
ME-94	1180	1778	1734	4692
ME-4	1396	1957	1780	5133
M2CVS	357	1500	1587	3444
WMWL	1499	1784	1948	5230
WMWL II	1840	2078	1756	5674
Ration	731	1615	1843	4189
B-18.1324	1149	1598	1875	4622
Flying A	1975	1481	1190	4646
Winterhawk	1794	1409	1516	4719
Diamond T	1475	1617	1596	4687
TAMTBO	1408	1706	1508	4622
Double Diamond	2487	1903	1863	6253
Triangle T	2343	1422	1143	4907
Tetrastar	2007	1744	1724	5475
Lonestar	2299	1422	1231	4951
Grits	2310	1468	1548	5326
LSC-B1191	2154	1855	1254	5263
Mean	1629	1651	1562	4842
LSD <sub>0.05</sub>	863	531	575	1440
CV, %	37	22	26	21

Planted: 10/16/20  
 Fertilizer: 50 lb/A N (33-0-0S) after planting and after the first harvest  
 Herbicide: 1 qt/A of GrazonNext® (aminopyralid and 2,4-D) after first harvest  
 Soil type: Prentiss Sandy Loam



**Table 5. Annual ryegrass production by harvest date and total yield in Poplarville.**

Variety	Harvest date			Total yield
	2/3/21	3/22/21	4/28/21	
	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
Jumbo	2953	1523	5178	9654
BAR LM 17534	2758	1500	5673	9931
Centurion	2268	1766	4587	8622
Ranahan	1893	1439	4475	7807
Prine	3202	1712	4881	9794
Earlyploid	2842	2149	4530	9520
RM4L	2609	1443	4917	8969
Bashaw Diploid	2195	1764	3916	7875
Bashaw Tetraploid	3026	1678	4438	9142
PPER7	1133	859	4951	6943
Augusta	1706	1371	5145	8223
Andes	2530	1846	5519	9895
New Dawn	1397	1686	3956	7040
Marshall	1757	1501	4140	7397
Jackson	1615	1595	4429	7640
Nelson	2906	1943	4712	9561
ME-94	2465	1913	5141	9519
ME-4	3103	1876	5778	10757
M2CVS	820	1723	5369	7912
WMWL	2597	1981	4841	9420
WMWL II	2086	1745	4153	7984
Ration	2069	1540	4797	8407
B-18.1324	2277	1528	5254	9059
Flying A	2744	1456	4565	8765
Winterhawk	3257	2011	4658	9926
Diamond T	3121	1551	4956	9627
TAMTBO	2714	1620	5399	9732
Double Diamond	2062	1533	4922	8517
Triangle T	2758	1410	4906	9074
TetraStar	2849	2139	4383	9371
Lonestar	2849	1454	3795	8098
Grits	2452	1499	3842	7793
LSC-B1191	2630	1483	3857	7969
Mean	2413	1644	4729	8786
LSD <sub>0.05</sub>	1620	758	1047	2688
CV, %	40	31	15	21

Planted: 10/22/20  
Fertilizer: 50 lb/A N (33-0-0S) after planting and after the first harvest  
Herbicide: 1 qt/A of GrazonNext® (aminopyralid and 2,4-D) after first harvest  
Soil type: Basin Loam

# SMALL GRAINS

## Introduction

In Mississippi, small grains (oat, wheat, rye, and triticale) are not utilized as extensively for forage production as annual ryegrass because of lower annual DM yields. However, some small grains tend to be more drought- and cold-tolerant than ryegrass and can provide highly digestible forage when other forages are not available. They can also be used for early grazing during the transition period from summer perennial grasses to annual ryegrass grazing. Cereal rye and triticale have greater cold tolerance among small grains; therefore, they have potential to continue vegetative growth during the fall and winter months in Mississippi.

## Results

Data in Table 6–8 represent forage DM yields in Starkville, Brooksville, and Newton, respectively. The first harvest of small grains was over a month earlier than ryegrass in Starkville and Brooksville, the most northern locations. The mean yields for the first harvests were 1,281, 1,442, and 1,022 pounds per acre for Starkville, Brooksville, and Newton, respectively. The second harvest yields were 2,547, 2,861, and 2,269 pounds per acre for Starkville, Brooksville, and Newton, respectively. ‘Trical 1143’ was the greatest producer of forage yield at all locations for the first harvest.

**Table 6. Small grain production by harvest date and total yield in Starkville.**

Species	Variety	Harvest date		Total yield
		1/29/21	3/29/21	
		<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
Oats	Coker 123	1496	2794	4290
Oats	Ram Oats LA99016	1369	1770	3139
Rye	Bates RS4	1115	3074	4189
Rye	Elbon	620	3103	3723
Rye	NF95319B	1409	3116	4526
Rye	NF97325	1429	3742	5171
Rye	NF99362	1148	2977	4125
Rye	TriCal Exp 19R01	1326	3231	4557
Rye	Wrens Abruzzi	1522	2926	4448
Triticale	Trical 1143	3152	1355	4506
Triticale	TriCal 342	2262	1638	3900
Triticale	TriCal 344	2912	1363	4275
Triticale	TriCal Flex 719	496	1806	2302
Triticale	TriCal Merlin Max	1852	920	2772
Triticale	TriCal Surge	807	1476	2283
Triticale	TriCal Thor	678	2712	3390
Wheat	NF00108	1331	4245	5576
Wheat	NF101	1357	3639	4996
Wheat	NF97117	1034	2575	3608
Wheat	ON1366277	394	2088	2482
Wheat	ON13P016	177	3272	3449
Wheat	SS130-06	297	2203	2500
Mean		1281	2547	3828
LSD <sub>(0.05)</sub>		826	895	1216
CV, %		40	24	23

Planted: 10/1/20  
 Fertilizer: 50 lb/A N (33-0-0S) after planting and the first harvest  
 Herbicide: 1 qt/A of GrazonNext® (aminopyralid and 2,4-D) after first harvest  
 Soil type: Marietta Fine Sandy Loam

**Table 7. Small grain production by harvest date and total yield in Brooksville.**

Species	Variety	Harvest date		Total yield
		2/10/21	4/6/21	
		<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
Oats	Coker 123	772	3372	4144
Oats	Ram Oats LA99016	1118	2050	3168
Rye	Bates RS4	1081	3666	4747
Rye	Elbon	299	2726	3026
Rye	NF95319B	1859	2654	4513
Rye	NF97325	1501	3002	4503
Rye	NF99362	1366	3432	4798
Rye	TriCal Exp 19R01	1443	2505	3949
Rye	Wrens Abruzzi	1537	2781	4318
Triticale	Trical 1143	3727	834	4561
Triticale	TriCal 342	2495	1645	4140
Triticale	TriCal 344	2564	1280	3844
Triticale	TriCal Flex 719	786	3402	4188
Triticale	TriCal Merlin Max	3081	1562	4644
Triticale	TriCal Surge	1928	1889	3817
Triticale	TriCal Thor	1397	2823	4220
Wheat	NF00108	1043	4353	5396
Wheat	NF101	1667	4557	6224
Wheat	NF97117	784	3806	4590
Wheat	ON1366277	457	4348	4805
Wheat	ON13P016	474	4075	4549
Wheat	SS130-06	336	2170	2507
Mean		1442	2861	4302
LSD <sub>(0.05)</sub>		1127	1016	1565
CV, %		42	25	31

Planted: 10/7/20  
 Fertilizer: 50 lb/A N (33-0-0S) after planting and after the first harvest  
 Herbicide: 1 qt/A of GrazonNext® (aminopyralid and 2,4-D) after first harvest  
 Soil type: Silty Clay

**Table 8. Small grain production by harvest date and total yield in Newton.**

Species	Variety	Harvest date		Total yield
		2/10/21	3/30/21	
		<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
Oats	Coker 123	932	2987	3919
Oats	Ram Oats LA99016	972	2321	3293
Rye	Bates RS4	1219	2547	3766
Rye	Elbon	443	2373	2816
Rye	NF95319B	1136	2421	3557
Rye	NF97325	862	2150	3013
Rye	NF99362	1468	2154	3622
Rye	TriCal Exp 19R01	1056	2403	3459
Rye	Wrens Abruzzi	1204	2368	3571
Triticale	Trical 1143	2650	1017	3667
Triticale	TriCal 342	1224	1494	2718
Triticale	TriCal 344	1698	1230	2927
Triticale	TriCal Flex 719	421	2262	2683
Triticale	TriCal Merlin Max	1337	1495	2832
Triticale	TriCal Surge	1115	1780	2895
Triticale	TriCal Thor	740	1810	2550
Wheat	NF00108	879	3043	3922
Wheat	NF101	785	3206	3991
Wheat	NF97117	1084	2984	4068
Wheat	ON1366277	445	2868	3313
Wheat	ON13P016	375	2653	3028
Wheat	SS130-06	430	2343	2773
Mean		1022	2269	3290
LSD <small>(0.05)</small>		578	500	775
CV, %		40	15	16

Planted: 10/16/20  
 Fertilizer: 50 lb/A N (33-0-0S) after planting and after the first harvest  
 Herbicide: 1 qt/A of GazonNext® (aminopyralid and 2,4-D) after first harvest  
 Soil type: Prentiss Sandy Loam

# ANNUAL CLOVER

## Introduction

The addition of annual clovers may reduce some nitrogen input needs and improve nutritive value in pastures. For this reason, they can be beneficial in Mississippi when interseeded into annual cool-season grass pastures. Crimson clover is an early-maturing clover that produces excellent forage though it has relatively poor reseeding abilities, necessitating reseeding each fall. Crimson clover will produce more forage at lower temperatures than other clovers. Ball clover is very tolerant to poor drainage, is more tolerant to acidity than crimson clover, and tolerates heavy grazing while maintaining good reseeding potential. Berseem clover is

tolerant of alkaline and wet soils, though most varieties are not cold tolerant. Balansa, berseem, and arrowleaf are the most late maturing clovers.

## Results

Data in Table 9–11 represent forage DM yield data from annual clover trials at Starkville, Brooksville, and Newton, respectively. Total mean harvest yields were 1,973, 1,997, and 2,932 pounds per acre for Starkville, Brooksville, and Newton, respectively. Forage yield was taken only once at Starkville and Newton, while two harvests were accomplished at Brooksville.

**Table 9. Annual clover production by harvest and total yield in Starkville.**

Species	Variety	Harvest date 4/13/21
		<i>lb/A</i>
Balansa	Fixation	1214
Balansa	Viper	1945
Ball	Don	1589
Ball	Florida Exp	1287
Berseem	Frosty	1721
Crimson	Dixie	2907
Crimson	Kentucky Pride	2284
Crimson	White Cloud	2655
Persian	GO-Per-12	2155
Mean		1973
LSD <sub>(0.05)</sub>		NS
CV, %		45
Planted: 10/8/20 Fertilizer: 100 lb/A of 0-0-60 Herbicide: 5 oz/A of Pursuit® (imazethapyr) Soil type: Marietta Fine Sandy Loam		

**Table 10. Annual clover production by harvest and total yield in Brooksville.**

Species	Variety	Harvest date		Total yield
		5/14/21	5/14/21	
		<i>lb/A</i>	<i>lb/A</i>	<i>lb/A</i>
Balansa	Fixation	241	223	464
Balansa	Viper	676	158	834
Ball	Don	362	789	1150
Ball	Florida Exp	514	414	928
Berseem	Frosty	2111	2156	4267
Crimson	Dixie	1085	678	1763
Crimson	Kentucky Pride	2547	1017	3564
Crimson	White Cloud	953	979	1932
Persian	GO-Per-12	654	2412	3066
Mean		1016	981	1997
LSD <small>(0.05)</small>		666	504	1100
CV, %		42	34	35

Planted: 10/7/20  
 Fertilizer: 100 lb/A of 0-0-60  
 Herbicide: 5 oz/A of Pursuit® (imazethapyr)  
 Soil type: Silty Clay

**Table 11. Annual clover production by harvest and total yield in Newton.**

Species	Variety	Harvest date
		4/13/21
		<i>lb/A</i>
Balansa	Fixation	2126
Balansa	Viper	2451
Ball	Don	1358
Ball	Florida Exp	1087
Berseem	Frosty	4076
Crimson	Dixie	5193
Crimson	Kentucky Pride	4113
Crimson	White Cloud	3699
Persian	GO-Per-12	2287
Mean		2932
LSD <small>(0.05)</small>		784
CV, %		18

Planted: 10/16/20  
 Fertilizer: 100 lb/A of 0-0-60  
 Herbicide: 5 oz/A of Pursuit® (imazethapyr)  
 Soil type: Prentiss Sandy Loam

**Table 12. Seed sources for the 2020–21 annual cool-season forage variety testing program.**

<b>Species/Variety</b>	<b>Seed company/source</b>	<b>Species/Variety</b>	<b>Seed company/source</b>
<b>Annual Ryegrass</b>	<b>Annual Clovers</b>		
Jumbo	Baranburg	Fixation	Grassland Oregon
BAR LM 17534	Baranburg	Frosty	Grassland Oregon
Bashaw Diploid	Bashaw Lawn and Seed	GO-PER-12	Grassland Oregon
Bashaw Tetraploid	Bashaw Lawn and Seed	Kentucky Pride	Grassland Oregon
Augusta	DLF	White Cloud	Oregro
Andes	DLF	Florida	University of Florida
New Dawn	DLF	Don	University of Florida
TetraStar	Grassland Oregon		
Lonestar	Grassland Oregon	<b>Small Grains</b>	
Grits	Lewis Seed	Bates RS4	Noble Foundation
LSC-B1191	Lewis Seed	Elbon	Noble Foundation
Centurion	MTV	NF95319B	Noble Foundation
Ranahan	MTV	NF97325	Noble Foundation
Flying A	Oregro	NF99362	Noble Foundation
Winterhawk	Oregro	NF101	Noble Foundation
Diamond T	Oregro	NF97117	Noble Foundation
TAMTBO	Oregro	NF00108	Noble Foundation
Double Diamond	Oregro	ON13P016	Noble Foundation
Triangle T	Oregro	ON1366277	Noble Foundation
PPER7	Pennington	Ram Oats LA99016	Ragan and Massey
Prine	Ragan and Massey	SS130-06	Specialty Seeds
Earlyploid	Ragan and Massey	TriCal 342	Trical Superior Forage
RM4L	Ragan and Massey	TriCal Surge	Trical Superior Forage
Ration	Thomas AG services	TriCal Merlin Max	Trical Superior Forage
B-18.1324	Thomas AG services	TriCal Thor	Trical Superior Forage
Marshall	Wax Seed	TriCal 1143	Trical Superior Forage
Jackson	Wax Seed	TriCal 344	Trical Superior Forage
Nelson	Wax Seed	TriCal Exp 19R01	Trical Superior Forage
ME-94	Wax Seed	Wrens Abruzzi	Trical Superior Forage
ME-4	Wax Seed		
M2CVS	Wax Seed		
WMWL	Wax Seed		



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**Keith Coble, Interim Director**

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