

Mississippi Native Grasses Variety Trials, 2015

Table 1. Monthly rainfall totals for Poplarville, Starkville, Holly Springs and Newton in 2014.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	<i>in</i>											
Poplarville	3.13	2.3	3.79	5.33	11.44	4.01	4.71	1.00	0.01	6.92	4.4	8.46
Starkville	5.71	4.98	5.47	5.06	5.45	3.18	4.09	2.20	0.95	1.43	0.20	0.09
Holly Springs	0.00	0.53	2.37	2.27	3.09	2.21	0.51	1.00	0.02	0.41	6.44	2.22
Newton	6.71	4.13	4.91	5.15	2.16	4.97	3.57	4.05	3.6	6.82	7.02	6.08
MS 30 yr. avg.	5.30	4.70	5.80	5.60	5.10	3.30	4.50	3.80	3.60	3.30	4.80	5.90

Table 2. Seeding rates used in 2014 variety trials.

Variety	Seeding Rate <i>lb/ac *PLS</i>
Big bluestem	12
Indiangrass	10
Little bluestem	5
Switchgrass	8
*PLS: Pure Live Seed	

Table 3. Forage dry matter yields for 2015 at Poplarville, MS					
Species	Variety	Harvest Date			
		6/3/15	8/4/15	Total	2014/15 Avg
<i>lb/ac</i>					
Big bluestem	Earl	2983	2896	5879	5854
	Kaw	3501	3858	7359	8335
	OZ-70	4010	3957	7967	9173
	Roundtree	3438	4017	7455	8436
	Suther	4521	3846	8367	8699
Indiangrass	Cheyenne	2233	.	2233	3694
	Cycle 7 IG	2449	.	2449	4553
Little bluestem	Aldous	2502	.	2502	3455
	Cimmarron	2211	.	2211	3321
Switchgrass	Alamo	3049	3679	5809	6344
	Blackwell	1881	1849	3730	4347
	Cave n Rock	2266	3005	5271	5108
	Cycle 7 UPSG	2917	2384	4705	5630
	Espresso	3270	3477	6747	6369
	Kanlow	2479	2807	5286	5468
Mean		2914	3252	5198	5919
LSD_{0.05}		794	1016	1607	1098
CV%		19	21	21	13
Planted: May 29 2013					
Soil type: Basin Loam					

Table 4. Forage nutritive value for 2015 at Poplarville, MS						
Species	Harvest Date					
		6/3/15			8/4/15	
	NDF	ADF	CP	NDF	ADF	CP
	%					
Big Bluestem	73	41	6	75	42	7
Indiangrass	69	39	9	.	.	.
Little Bluestem	70	39	9	.	.	.
Switchgrass	71	38	8	73	40	7
Mean	71	39	8	74	41	7
LSD_{0.05}	†NS	1.17	1	NS	NS	NS
CV%	2	2	7	3	5	7
†NS: Not Significant						

Table 5. Forage dry matter yields for 2015 at Newton, MS

Species	Variety	Harvest Date		Total	2014/15 Avg
		6/24/15	8/28/15		
<i>lb/ac</i>					
Big Bluestem	Earl	1735	1708	3443	3005
	Kaw	2225	2495	4720	4038
	OZ-70	2881	2311	5192	4731
	Roundtree	1715	1774	3489	2873
	Suther	2164	1904	4068	3570
Indiangrass	Cheyenne	1909	2814	4722	.
	Cycle 7 IG	2276	2106	4381	.
Little Bluestem	Aldous	2086	1496	3582	.
	Cimmarron	2653	2103	4756	.
Mean		2183	2079	4262	3643
LSD_{0.05}		†NS	703	NS	NS
CV%		32	23	25	24
†NS: Not Significant					
Planted: May 24, 2013					
Replanted: June 5, 2014					
Soil type: Prentiss Fine Sandy Loam					

Table 6. Forage nutritive value for 2015 at Newton, MS

Species	Harvest Date					
	6/24/15			8/28/15		
	NDF	ADF	CP	NDF	ADF	CP
%						
Big Bluestem	70	40	7	70	40	8
Indiangrass	76	42	6	73	43	7
Little Bluestem	74	41	6	74	41	7
Mean	73	41	6.5	72	42	7.5
LSD_{0.05}	2.5	†NS	NS	NS	NS	NS
CV%	1.3	.98	7.1	1.7	3.3	8
†NS: Not Significant						

Table 7. Forage dry matter yields for 2015 at Starkville, MS					
Species	Variety	Harvest Date		Total	2014/15 Avg
		6/10/15	8/20/15		
<i>lb/ac</i>					
Big Bluestem	Cycle 7 BBS	3690	3036	6727	5251
	Earl	3363	3323	6686	4964
	Kaw	3146	2669	5814	4575
	OZ-70	3585	2958	6544	5061
	Roundtree	3480	2879	6359	4911
	Suther	3484	3215	6698	4891
Switchgrass	Alamo	3781	3353	7134	4771
	Blackwell	1732	2010	3741	2230
	Cave n Rock	1970	1775	3745	2662
	Cycle 7 UPSG	2119	2454	4573	2961
	Espresso	2653	2454	5107	3671
	Kanlow	2498	2257	4755	2902
Mean		2959	2698	5657	4071
LSD_{0.05}		1196	866	1825	1487
CV%		28	22	22	25
Planted: May 30, 2013					
Soil type: Marietta Fine Sandy Loam					

Table 8. Forage nutritive value for 2015 at Starkville, MS			
Species	Harvest Date		
	NDF	8/20/15	
		ADF	CP
%			
Big Bluestem	76	44	4.2
Swithgrass	73	40	3.6
Mean	74	42	3.9
LSD_{0.05}	2.5	1.2	0.56
CV%	2	2	9

Table 9. Forage dry matter yields for 2015 at Holly Springs, MS					
Species	Variety	Harvest Date			
		7/21/15	10/2/15	Total	2014/15 Avg
<i>lb/ac</i>					
Big Bluestem	Cycle 7 BBS	3008	2001	5009	4547
	Earl	2139	1514	3653	2520
	Kaw	2583	1121	3704	3112
	OZ-70	2087	1653	3740	2777
	Roundtree	2099	1086	3185	2837
	Suther	2084	1571	3656	2715
Indiangrass	Cheyenne	.	1791	1791	1932
	Cycle 7 IG	.	2645	2645	3001
Mean		2213	1644	3120	2729
LSD_{0.05}		536	500	806	741
CV%		15	20	16	17
Planted: May 31, 2013					
Soil type: Grenada Silt Loam					

Table 10. 2015 forage DM yield for species at Poplarville, Newton, Starkville and Holly Springs				
Species	Location			
	Poplarville	Newton	Starkville	Holly Springs
<i>lb/ac</i>				
Big bluestem	7405	4182	6471	3824
Indiangrass	2341	4551	.	2217
Little bluestem	2356	4169	.	.
Switchgrass	5257	.	4842	.
Mean	4339	4300	5656	3020
LSD_{0.05}	1827	†NS	827	695
CV%	24	27	25	22
†NS: Not Significant				

Table 11. 2014-2015 Two-year average forage DM yield for species at Poplarville, Newton,

Starkville and Holly Springs			
Species	Location		
	Poplarville	Starkville	Holly Springs
		%	
Big bluestem	8099	4942	3084
Indiangrass	4123	.	2466
Little bluestem	3388	.	.
Switchgrass	5544	3199	.
Mean	5288	4070	2775
LSD_{0.05}	1567	643	†NS
CV%	18	27	28
†NS: Not Significant			

Table 12. Seed supplier for native grass variety trial		
Species	Variety	Company/Source
Big bluestem	Earl	Bamert Seed Company
	Kaw	Bamert Seed Company
	OZ-70	Bamert Seed Company
	Roundtree	Bamert Seed Company
	Cycle 7 BBS	Mississippi State University
	Suther	Public
Indiangrass	Cheyenne	Bamert Seed Company
	Cycle 7 IG	Mississippi State University
Little bluestem	Aldous	Bamert Seed Company
	Cimmarron	Bamert Seed Company
Switchgrass	Alamo	Bamert Seed Company
	Blackwell	Bamert Seed Company
	Cave n Rock	Public
	Cycle 7 UPSG	Mississippi State University
	Expresso	Mississippi State University
	Kanlow	Public