2015
Virginia Grain Sorghum Performance Tests

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VT/0116/pdf/PPWS-72NP

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2015

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ACKNOWLEDGEMENTS
The authors gratefully acknowledge support from the following institutions, organizations, and individuals:

United Sorghum Checkoff

North Carolina Biotechnology Center
- Paul Ulanch, Executive Director

Universities:
Virginia Polytechnic University and State University/Tidewater Ag. Res. Ext. Center
- David Langston, Center Director

The Chambers Family at Brooke Farms

Redd Farms

Seed Companies:
Advanta US, Inc.
DuPont Pioneer
Meherrin Ag
Monsanto
Sorghum Partners, LLC
Southern States Cooperative

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Virginia Grain Sorghum Performance Tests
2015

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INTRODUCTION

The 2015 grain sorghum OVT tests contained 21 hybrids planted as a full season crop and 22 as double crop. Full season tests were conducted at three locations, the Tidewater Agricultural Research and Extension Center (TAREC) in Suffolk, VA, the Eastern Virginia Agricultural Research and Extension Center (EVAREC) in Warsaw, VA, and in a farmer field near Windsor, VA, in Isle of Wight County. The double crop sorghum trials were conducted at three locations, the TAREC, in a farmer field near Windsor, VA, in Isle of Wight County, and in a farmer field near Locust Grove, VA, in Orange County.

MATERIALS AND METHODS

Based on the information provided by the participating companies, hybrids were divided in two maturity groups for the full season varieties. Therefore, the experimental design for the full season tests was a randomized complete block design with three replications for each maturity group. For the double crop tests, the experimental design was a randomized complete block design with three replications. Detailed information on planting, crop maintenance, harvest, irrigation treatment (where available), and maturity group are presented within each location

RESULTS SUMMARY

With the exception of plots at Windsor, the average full season yields at all locations were at least 106 bu/A. At Windsor, large amounts of rainfall and severe wash-out of some plots was probably the cause of much lower yields in comparison with the other two locations. Among the three locations, all varieties except 84P80 and SH80G4 averaged above 100 bu/A.

Double crop yields were very good at Suffolk and Locust Grove, with the average yields ranging from 89 bu/A to 92 bu/A. Again at Windsor, large amounts of rainfall and severe wash-out in many plots caused yields to be much lower (69 bu/A) than the other two locations. Several varieties (DKS51-01, DKS54-00, 83P17, 84P80, and AG1203) all had average yields of over 90 bu/A among the three locations.

GRAIN SORGHUM PERFORMANCE MEASUREMENTS

Yield: Yields are calculated from the weight of the threshed grain from each plot and are expressed as bushels per acre (BU/A) at 14% moisture.

Grain Moisture: Expressed as percent moisture of grain at harvest.

Head Mold & Anthracnose: Head mold was rated twice at Suffolk and Windsor full season tests: at soft dough and at physiological maturity. Meanwhile, anthracnose was rated at Suffolk and Windsor full season tests between physiological maturity and harvest (mid-September). Head Mold was rated as the percentage of total grain with signs of fungal colonization. Leaf anthracnose was rated on a scale form 0-9 within a plot with 0 being no lesions of anthracnose and 9 being most severe (0=no disease, 1=1-5%, 2=6-10%, 3=11-20%, 4=21-30%, 5=31-40%, 6=41-50%, 7=51-75%, 8=75-90%, and 9=91-100% of leaf are with signs or symptoms of anthracnose.

Table 1. Performance of Full Season Grain Sorghum Hybrids, Desiccation Group 1, TAREC, Suffolk, VA. 2015

Company or Brand Name	Hybrid	Yield (BU/A)		Harvest Moisture (%)	Test Weight (LB/BU)	Head Date	Anthracnose[1] (0-10)	Head Mold Soft Dough[1] (%)	Head Mold Maturity[2] (%)
Alta Seeds	AG2103	109.0	a	14.9	54.6	7/31	6.7	8.3	8.3
Alta Seeds	AG2105	115.2	a	14.5	53.3	7/31	6.0	4.0	11.7
Alta Seeds	AG2115	111.9	a	14.7	54.0	7/31	6.7	2.0	25.0
Alta Seeds	AG3101	104.6	a	14.7	54.0	7/31	7.0	5.3	8.3
Alta Seeds	AG3201	107.8	a	14.6	53.7	7/31	5.7	3.7	16.7
DEKALB	DKS44-20	96.0	a	14.7	53.9	7/31	5.7	1.7	13.3
DEKALB	DKS51-01	106.7	a	14.7	53.9	7/31	7.0	3.7	15.0
DEKALB	DKS53-53	98.8	a	14.7	53.8	7/31	5.3	1.0	15.0
DEKALB	DKS54-00	119.8	a	14.7	53.9	7/31	4.0	1.0	26.7
Pioneer	86P90	93.0	a	14.0	52.2	7/30	6.3	3.7	13.3
Southern Harvest	SH59G4	112.8	a	14.4	53.3	7/31	6.3	4.3	26.7
Southern Harvest	SH80G4	99.8	a	14.4	53.1	7/30	5.7	2.0	31.7
Southern Harvest	SH94153	103.2	a	14.3	52.9	7/30	5.7	11.7	16.7
Southern States	SS655	120.5	a	14.4	53.1	7/30	6.7	3.0	10.0
Southern States	SS800	95.5	a	14.3	53.0	7/30	6.7	5.3	21.7
Averages		**106.3**		**14.5**	**53.5**	**7/31**	**6.1**	**4.0**	**17.3**
LSD		**30.7**					**1.0**	**4.8**	**6.0**
CV%		**17.0**					**2.0**	**2.0**	**2.0**

[1] Rated on 9/1/15
[2] Rated on 10/9/15

Soil Series	Emporia, Eunola, Uchee
Soil pH	5.9
Previous Crop	Peanuts
Tillage	Conventional Tillage
Row Width	36"
Planting Date	June 6, 2015
Irrigation	July 29, 2015: 1.5 inches
Fertilizer	162 lbs/ac 11-18-37 (April 28, 2015)
	60 lbs N as 24-0-0-3 (June 30, 2015)
	60 lbs N as 24-0-0-3 (July 20, 2015)
Herbicides	24 oz/ac Touchdown, 1 pt/ac 2,4-D (April 1, 2015)
	1 qt/ac Bicep, 1 qt/ac Intrro, 1.5 pt/ac Gramoxone (June 6, 2015)
Insecticides	2 oz/ac Belt, 2 oz/ac Baythroid (July 2, 2015)
	10 oz/ac Beseige (July 20, 2015)
	13 oz/ac Beseige (August 12, 2015)
Fungicides	9 oz/ac Headline (August 6, 2015)
	9 oz/ac Headline (August 22, 2015)
Desiccation	October 7, 2015
Harvest Date	October 16, 2016

Table 2. Performance of Full Season Grain Sorghum Hybrids, Desiccation Group 2, TAREC, Suffolk, VA. 2015

Company or Brand Name	Hybrid	Yield (BU/A)		Harvest Moisture (%)	Test Weight (LB/BU)	Head Date	Anthracnose[1] (0-10)	Head Mold Soft Dough[1] (%)	Head Mold Maturity[2] (%)
Pioneer	83P17	119.8	a	14.4	47.4	8/3	4.7	1.7	26.7
Pioneer	84P80	69.3	b	14.3	49.8	8/3	5.3	6.0	18.3
Sorghum Partners	NK6638	143.5	a	13.4	46.0	8/2	3.7	4.7	26.7
Sorghum Partners	SP7715	123.3	a	14.0	47.7	8/2	3.3	2.3	16.7
Sorghum Partners	SP7868	127.9	a	14.2	48.8	8/2	4.7	5.7	16.7
Sorghum Partners	SPX17414	135.8	a	14.1	47.2	8/4	3.7	3.7	16.7
Averages		**119.9**		**14.1**	**47.8**	**8/2**	**4.2**	**4.0**	**20.3**
LSD		**49.2**					**1.0**	**5.8**	**7.3**
CV%		**20.9**					**2.2**	**2.2**	**2.2**

[1] Rated on 9/1/15
[2] Rated on 10/9/15

Soil Series	Emporia, Eunola, Uchee
Soil pH	5.9
Previous Crop	Peanuts
Tillage	Conventional Tillage
Row Width	36"
Planting Date	June 6, 2015
Irrigation	July 29, 2015: 1.5 inches
Fertilizer	162 lbs/ac 11-18-37 (April 28, 2015)
	60 lbs N as 24-0-0-3 (June 30, 2015)
	60 lbs N as 24-0-0-3 (July 20, 2015)
Herbicides	24 oz/ac Touchdown, 1 pt/ac 2,4-D (April 1, 2015)
	1 qt/ac Bicep, 1 qt/ac Intrro, 1.5 pt/ac Gramoxone (June 6, 2015)
Insecticides	2 oz/ac Belt, 2 oz/ac Baythroid (July 2, 2015)
	10 oz/ac Beseige (July 20, 2015)
	13 oz/ac Beseige (August 12, 2015)
Fungicides	9 oz/ac Headline (August 6, 2015)
	9 oz/ac Headline (August 22, 2015)
Desiccation	October 7, 2015
Harvest Date	October 16, 2016

Table 3. Performance of Full Season Grain Sorghum Hybrids, Desiccation Group 1, Windsor, VA

Company or Brand Name	Hybrid	Yield (BU/A)		Harvest Moisture (%)	Test Weight (LB/BU)	Head Date	Anthracnose[1] (0-10)	Head Mold Soft Dough[1] (%)	Head Mold Maturity[2] (%)
Alta Seeds	AG2103	84.1	ab	14.0	49.0	7/31	7.0	30.0	35.0
Alta Seeds	AG2105	70.4	ab	14.7	50.2	8/2	5.7	20.0	43.3
Alta Seeds	AG2115	61.8	b	14.3	46.5	7/30	5.7	23.3	50.0
Alta Seeds	AG3101	87.6	ab	14.7	51.6	7/30	6.0	25.0	36.7
Alta Seeds	AG3201	77.8	ab	13.6	46.2	7/31	5.3	36.7	53.3
DEKALB	DKS44-20	82.6	ab	14.1	46.7	8/2	5.0	18.3	46.7
DEKALB	DKS51-01	81.7	ab	13.9	48.9	8/3	5.3	20.0	45.0
DEKALB	DKS53-53	91.1	ab	13.9	49.0	8/3	5.0	16.7	45.0
DEKALB	DKS54-00	102.1	a	13.7	45.5	8/4	3.7	11.7	53.3
Pioneer	86P90	95.9	ab	13.7	47.0	7/30	6.7	43.3	56.7
Southern Harvest	SH59G4	84.1	ab	14.0	51.1	8/1	4.7	35.0	51.7
Southern Harvest	SH80G4	66.6	ab	14.2	47.2	8/5	4.7	21.7	51.7
Southern Harvest	SH94153	81.8	ab	14.4	51.1	8/1	5.7	23.3	41.7
Southern States	SS655	92.7	ab	14.6	51.6	7/31	6.0	28.3	35.0
Southern States	SS800	84.2	ab	14.5	49.7	7/31	6.0	36.7	51.7
Averages		**83.0**		**14.2**	**48.8**	**8/1**	**5.5**	**26.0**	**46.5**
LSD		**35.6**					**1.7**	**11.3**	**10.8**
CV%		**24.9**					**2.0**	**2.0**	**2.0**

[1] Rated on 9/4/15
[2] Rated on 10/6/15

Soil Series	Slage fine sandy loam
Soil pH	5.7
Previous Crop	Soybeans
Tillage	Conventional Tillage
Row Width	36"
Planting Date	June 9, 2015
Irrigation	None
Fertilizer	60 lbs N as 24-0-0-3 (May 23, 2015) 60 lbs N as 24-0-0-3 (July 3, 2015)
Herbicides	1 qt/ac Bicep, 1 qt/ac Intrro (June 10, 2015)
Insecticides	2 oz/ac Belt, 2 oz/ac Baythroid (July 2, 2015) 10 oz/ac Beseige (July 21, 2015) 6 oz/ac Sivanto (September 18, 2015)
Fungicides	9 oz/ac Headline (July 31, 2015) 12 oz/ac Quilt (August 23, 2015)
Desiccation	October 8, 2015
Harvest Date	October 18, 2015

Table 4. Performance of Full Season Grain Sorghum Hybrids, Desiccation Group 2, Windsor, VA. 2015

Company or Brand Name	Hybrid	Yield (BU/A)		Harvest Moisture (%)	Test Weight (LB/BU)	Head Date	Anthracnose[1] (0-10)	Head Mold Soft Dough[1] (%)	Head Mold Maturity[2] (%)
Pioneer	83P17	70.8	a	15.0	50.3	8/6	4.0	15.0	53.3
Pioneer	84P80	81.6	a	14.3	50.4	8/3	5.3	33.3	43.3
Sorghum Partners	NK6638	78.0	a	14.3	48.4	8/4	2.7	23.3	65.0
Sorghum Partners	SP7715	71.2	a	14.6	52.8	8/3	3.3	21.7	53.3
Sorghum Partners	SP7868	76.9	a	14.6	52.3	8/5	4.0	21.7	50.0
Sorghum Partners	SPX17414	72.4	a	14.9	49.9	8/5	3.0	16.7	53.3
Averages		**75.2**		**14.6**	**50.7**	**8/4**	**3.7**	**22.0**	**53.0**
LSD		**32.6**					**1.6**	**9.4**	**4.2**
CV%		**23.1**					**2.2**	**2.2**	**2.2**

[1] Rated on 9/4/15

[2] Rated on 10/6/15

Soil Series	Slage fine sandy loam
Soil pH	5.7
Previous Crop	Soybeans
Tillage	Conventional Tillage
Row Width	36"
Planting Date	June 9, 2015
Irrigation	None
Fertilizer	60 lbs N as 24-0-0-3 (May 23, 2015)
Herbicides	60 lbs N as 24-0-0-3 (July 3, 2015)
Insecticides	1 qt/ac Bicep, 1 qt/ac Intrro (June 10, 2015)
Fungicides	2 oz/ac Belt, 2 oz/ac Baythroid (July 2, 2015) 10 oz/ac Beseige (July 21, 2015) 6 oz/ac Sivanto (September 18, 2015) 9 oz/ac Headline (July 31, 2015) 12 oz/ac Quilt (August 23, 2015)
Desiccation	N/A
Harvest Date	October 18, 2015

Table 5. Performance of Full Season Grain Sorghum Hybrids, Desiccation Group 1, Warsaw, VA. 2015

Company or Brand Name	Hybrid	Yield (BU/A)		Harvest Moisture (%)	Test Weight (LB/BU)	Head Date
Alta Seeds	AG2103	141.0	a-c	16.4	59.4	8/7
Alta Seeds	AG2105	125.0	c	16.8	59.1	8/10
Alta Seeds	AG2115	129.5	bc	16.4	56.0	8/10
Alta Seeds	AG3101	162.5	ab	16.3	60.7	8/5
Alta Seeds	AG3201	139.5	a-c	15.3	58.2	8/5
DEKALB	DKS44-20	140.3	a-c	16.7	58.8	8/9
DEKALB	DKS51-01	149.3	a-c	17.2	58.4	8/11
DEKALB	DKS53-53	167.8	a	16.9	58.8	8/11
DEKALB	DKS54-00	130.3	bc	16.7	58.2	8/11
Pioneer	86P90	141.3	a-c	15.8	58.9	8/4
Southern Harvest	SH59G4	158.0	a-c	15.9	59.0	8/8
Southern Harvest	SH80G4	127.0	c	16.2	57.4	8/10
Southern Harvest	SH94153	127.3	c	15.8	59.2	8/8
Southern States	SS655	129.5	bc	16.7	59.1	8/9
Southern States	SS800	134.3	bc	15.8	58.6	8/7
Averages		**140.2**		**16.3**	**58.7**	**8/8**
LSD		**33.4**				
CV%		**16.7**				

Soil Series	Kempsville sandy loam
Soil pH	6.6
Previous Crop	Soybeans
Tillage	Conventional Tillage
Row Width	30"
Planting Date	June 12, 2015
Irrigation	None
Fertilizer	0-60-60 plus 130 lb. N (as 24-0-0-3) with Agrotain (June 10, 2015)
Herbicides	Bicep II Magnum 1.6 qt/A ppi (June 12, 2015)
Insecticides	None
Fungicides	Quilt, 14 oz/A (August 5, 2015)
	Quilt, 14 oz/A (August 24, 2015)
Desiccation	1.25 qt/A Glyphosate (September 21, 2015)
Harvest Date	October 13, 2015

Table 6. Performance of Full Season Grain Sorghum Hybrids, Desiccation Group 2, Warsaw, VA. 2015

Company or Brand Name	Hybrid	Yield (BU/A)		Harvest Moisture (%)	Test Weight (LB/BU)	Head Date
Pioneer	83P17	121.0	ab	18.6	57.8	8/15
Pioneer	84P80	143.8	a	17.9	59.5	8/13
Sorghum Partners	NK6638	135.8	ab	15.7	58.3	8/12
Sorghum Partners	SP7715	115.3	b	18.1	58.9	8/15
Sorghum Partners	SP7868	134.0	ab	17.4	58.8	8/15
Sorghum Partners	SPX17414	119.0	ab	19.0	58.0	8/18
Averages		**128.2**		**17.8**	**58.6**	**8/14**
LSD		**26.1**				
CV%		**13.7**				

Soil Series	Kempsville sandy loam
Soil pH	6.6
Previous Crop	Soybeans
Tillage	Conventional Tillage
Row Width	30"
Planting Date	June 12, 2015
Irrigation	None
Fertilizer	0-60-60 plus 130 lb. N (as 24-0-0-3) with Agrotain (June 10, 2015)
Herbicides	Bicep II Magnum 1.6 qt/A ppi (June 12, 2015)
Insecticides	None
Fungicides	Quilt, 14 oz/A (August 5, 2015)
	Quilt, 14 oz/A (August 24, 2015)
Desiccation	1.5 qt/A Glyphosate (September 29, 2015)
Harvest Date	October 13, 2015

Table 7. Yield ranking of full season grain sorghum at all locations in Virginia.

Relative Maturity	Company or Brand Name	Hybrid	Yield (BU/A)	Relative Ranking
Med-Full	DEKALB	DKS53-53	119	1.00
Medium	Sorghum Partners	NK6638	119	1.00
Medium	Southern Harvest	SH59G4	118	0.99
Med-Late	Alta Seeds	AG3101	118	0.99
Med-Full	DEKALB	DKS54-00	117	0.99
Medium	Southern States	SS655	114	0.96
Med-Full	Sorghum Partners	SP7868	113	0.95
Med-Full	DEKALB	DKS51-01	113	0.95
Medium	Alta Seeds	AG2103	111	0.94
Med-Late	Pioneer	86P90	110	0.92
Med-Full	Sorghum Partners	SPX17414	109	0.92
Med-Late	Alta Seeds	AG3201	108	0.91
Medium	DEKLAB	DKS44-20	106	0.89
Medium	Southern States	SS800	105	0.88
Med-Late	Southern Harvest	SH94153	104	0.87
Med-Late	Pioneer	83P17	104	0.87
Medium	Alta Seeds	AG2105	104	0.87
Med-Full	Sorghum Partners	SP7715	103	0.87
Medium	Alta Seeds	AG2115	101	0.85
Med-Late	Pioneer	84P80	98	0.83
Late	Southern Harvest	SH80G4	98	0.82

Table 8. Yield percentage ranking of full season grain sorghum hybrids at all locations in Virginia with three-year comparisons.

Company or Brand Name	Hybrid	Suffolk	Windsor	Warsaw	2015 All Locations	2014 All Locations	2013 All Locations
DEKALB	DKS53-53	0.69	0.89	1.00	1.00	0.75	
Sorghum Partners	NK6638	1.00	0.76	0.81	1.00	0.85	
Southern Harvest	SH59G4	0.79	0.82	0.94	0.99	0.73	
Alta Seeds	AG3101	0.73	0.86	0.97	0.99	0.77	0.64
DEKALB	DKS54-00	0.83	1.00	0.78	0.99		
Southern States	SS655	0.84	0.91	0.77	0.96	0.80	
Sorghum Partners	SP7868	0.89	0.75	0.80	0.95	0.76	0.69
DEKALB	DKS51-01	0.74	0.80	0.89	0.95	0.86	0.94
Alta Seeds	AG2103	0.76	0.82	0.84	0.94	0.69	0.61
Pioneer	86P90	0.65	0.94	0.84	0.92		
Sorghum Partners	SPX17414	0.95	0.71	0.71	0.92		
Alta Seeds	AG3201	0.75	0.76	0.83	0.91	0.67	0.60
DEKLAB	DKS44-20	0.67	0.81	0.84	0.89	0.82	0.87
Southern States	SS800	0.67	0.82	0.80	0.88	0.76	
Southern Harvest	SH94153	0.72	0.80	0.76	0.87		
Pioneer	83P17	0.83	0.69	0.72	0.87	0.81	1.00
Alta Seeds	AG2105	0.80	0.69	0.74	0.87		
Sorghum Partners	SP7715	0.86	0.70	0.69	0.87		
Alta Seeds	AG2115	0.78	0.61	0.77	0.85	0.69	0.84
Pioneer	84P80	0.48	0.80	0.86	0.83	1.00	0.77
Southern Harvest	SH80G4	0.70	0.65	0.76	0.82	0.72	

Table 9. Performance of Double Crop Grain Sorghum Hybrids, TAREC, Suffolk, VA. 2015

Company or Brand Name	Hybrid	Yield (BU/A)		Harvest Moisture (%)	Test Weight (LB/BU)	Head Date
Advanta US	XG02008	89.2	a-d	14.2	52.4	8/31
Advanta US	XG30001	66.8	d	16.2	51.9	8/27
Advanta US	XG30002	75.2	cd	16.7	55.0	9/1
Advanta US	XG30003	74.7	cd	17.7	56.2	9/5
Alta Seeds	AG1203	93.0	a-c	16.0	53.6	9/1
Alta Seeds	AG1401	77.7	b-d	13.8	48.6	8/28
Alta Seeds	AG2103	97.0	a-c	16.0	54.6	9/1
Alta Seeds	AG2105	91.5	a-c	16.1	54.9	9/2
Alta Seeds	AG2115	89.2	a-d	14.0	50.5	9/1
Alta Seeds	AG3101	96.9	a-c	15.6	57.3	8/30
Alta Seeds	AG3201	94.2	a-c	15.6	54.1	9/1
DEKALB Brand	DKS44-20	87.5	a-d	14.5	53.4	9/1
DEKALB Brand	DKS51-01	100.8	ab	15.3	56.2	9/1
DEKALB Brand	DKS53-53	92.4	a-c	15.2	54.8	9/1
DEKALB Brand	DKS54-00	104.2	a	15.5	54.0	9/5
Pioneer	83P17	96.0	a-c	17.2	51.1	9/5
Pioneer	84P80	93.5	a-c	14.7	54.5	8/30
Pioneer	86P90	67.7	d	14.7	51.3	8/24
Southern Harvest	SH59G4	87.2	a-d	14.3	54.3	8/30
Southern Harvest	SH80G4	94.6	a-c	15.7	52.4	9/2
Southern Harvest	SH94153	100.4	ab	14.9	55.5	8/30
Southern States	SS540	82.9	a-d	14.7	54.2	8/30
Averages		**88.8**		**15.4**	**53.7**	**8/31**
LSD		**23.7**				
CV%		**16.2**				

Soil Series	Emporia, Eunola, Uchee
Previous Crop	Wheat
Tillage	Conventional Tillage
Row Width	36"
Planting Date	July 3, 2015
Irrigation	August 3, 2015: 1.5 inches
Fertilizer	60 lbs N as 24-0-0-3 (July 3, 2015)
	60 lbs N as 24-0-0-3 (August 10, 2015)
Herbicides	1 qt/ac Bicep (July 2, 2015)
	1 qt/ac Intrro (July 2, 2015)
Insecticides	10 oz/ac Beseige (August 12, 2015)
	13 oz/ac Beseige (August 31, 2015)
	6 oz/ac Sivanto (September 18, 2015)
Fungicides	9 oz/ac Headline (August 17, 2015)
	9 oz/ac Headline (September 3, 2015)
Desiccation	November 13, 2015
Harvest Date	November 18, 2015

Table 10. Performance of Double Crop Grain Sorghum Hybrids, Windsor, VA. 2015

Company or Brand Name	Hybrid	Yield (BU/A)		Harvest Moisture (%)	Test Weight (LB/BU)	Head Date
Advanta US	XG02008	54.3	b	16.5	50.1	8/31
Advanta US	XG30001	60.3	ab	15.9	48.6	8/26
Advanta US	XG30002	54.5	b	16.9	49.1	9/1
Advanta US	XG30003	57.2	ab	15.9	49.0	9/5
Alta Seeds	AG1203	87.1	a	14.9	48.9	8/27
Alta Seeds	AG1401	58.2	ab	15.6	49.2	8/27
Alta Seeds	AG2103	61.3	ab	15.9	50.5	8/23
Alta Seeds	AG2105	56.8	b	15.5	49.5	8/27
Alta Seeds	AG2115	76.3	ab	15.8	46.2	8/31
Alta Seeds	AG3101	65.1	ab	15.8	52.4	8/27
Alta Seeds	AG3201	62.9	ab	15.5	44.5	8/24
DEKALB Brand	DKS44-20	84.3	ab	15.1	44.5	8/24
DEKALB Brand	DKS51-01	82.4	ab	15.6	49.9	8/30
DEKALB Brand	DKS53-53	78.6	ab	14.8	48.6	8/31
DEKALB Brand	DKS54-00	81.9	ab	15.0	48.2	8/30
Pioneer	83P17	82.9	ab	16.4	50.3	8/30
Pioneer	84P80	76.3	ab	14.8	47.8	8/26
Pioneer	86P90	55.4	b	15.1	48.6	8/22
Southern Harvest	SH59G4	71.3	ab	16.0	53.1	8/27
Southern Harvest	SH80G4	57.3	ab	15.7	46.1	9/2
Southern Harvest	SH94153	74.8	ab	16.1	53.1	8/24
Southern States	SS540	69.0	ab	15.8	53.2	8/25
Averages		**68.6**		**15.7**	**49.1**	**8/27**
LSD		**30.2**				
CV%		**20.7**				

Soil Series	Slage fine sandy loam
Soil pH	5.7
Previous Crop	Soybeans
Tillage	Conventional Tillage
Row Width	36"
Planting Date	July 1, 2015
Irrigation	None
Fertilizer	60 lbs N as 24-0-0-3 (July 3, 2015)
	60 lbs N as 24-0-0-3 (August 10, 2015)
Herbicides	1 qt/ac Bicep (July 1, 2015)
	1 qt/ac Intrro (July 1, 2015)
Insecticides	10 oz/ac Beseige (August 12, 2015)
	13 oz/ac Beseige (August 31, 2015)
	6 oz/ac Sivanto (September 18, 2015)
Fungicides	9 oz/ac Headline (August 17, 2015)
	9 oz/ac Headline (September 3, 2015)
Desiccation	None
Harvest Date	November 18, 2015

Table 11. Performance of Double Crop Grain Sorghum Hybrids, Locust Grove, VA. 2015

Company or Brand Name	Hybrid	Yield (BU/A)		Harvest Moisture (%)	Test Weight (LB/BU)	Head Mold[1] (0-10)[2]
Advanta US	XG02008	108.5	a	21.4	56.5	2.7
Advanta US	XG30001	91.3	a-f	23.2	57.5	1.7
Advanta US	XG30002	97.7	a-d	23.6	56.7	1.7
Advanta US	XG30003	102.2	ab	25.2	57.9	0.7
Alta Seeds	AG1203	93.3	a-e	21.2	56.2	3.3
Alta Seeds	AG1401	83.9	c-g	18.4	55.9	4.0
Alta Seeds	AG2103	95.4	a-e	19.4	58.0	2.3
Alta Seeds	AG2105	78.9	e-g	22.5	57.3	2.3
Alta Seeds	AG2115	93.7	a-e	20.1	55.8	2.0
Alta Seeds	AG3101	75.3	fg	21.1	58.5	2.3
Alta Seeds	AG3201	92.9	a-e	20.6	55.9	3.3
DEKALB	DKS44-20	81.3	d-g	20.9	56.8	2.7
DEKALB	DKS51-01	95.7	a-e	19.4	58.4	2.3
DEKALB	DKS53-53	94.3	a-e	26.3	56.6	2.7
DEKALB	DKS54-00	90.3	b-g	21.9	56.9	2.0
Pioneer	83P17	98.4	a-d	23.3	55.3	3.3
Pioneer	84P80	99.1	a-c	23.9	57.7	3.0
Pioneer	86P90	97.1	a-d	23.4	58.1	3.3
Southern Harvest	SH59G4	85.8	b-g	19.7	55.9	2.0
Southern Harvest	SH80G4	73.1	g	20.9	55.8	2.3
Southern Harvest	SH94153	86.8	b-g	20.5	57.3	2.3
Southern States	SS540	92.9	a-e	20.3	56.7	4.0
Averages		**91.5**		**21.7**	**56.9**	**2.6**
LSD		**17.5**				
CV%		**11.1**				

[1] Rated on 10/12/15

[2] Rated on a 0-10 scale, each digit is % of head mold X 10.

Soil Series	Nason loam
Soil pH	6.4
Previous Crop	Corn
Row Width	30"
Planting Date	June 12, 2015
Irrigation	None
Fertilizer	UAN 80 lbs/A (June 10, 2015)
Herbicides	Bicep II Magnum 1.5 pt/A (June 12, 2015)
Insecticides	None
Fungicides	None
Desiccation	None
Harvest Date	October 12, 2015

Table 12. Yield ranking of double crop grains sorghum at all locations in Virginia

Relative Maturity	Company or Brand Name	Hybrid	Yield (BU/A)	Relative Ranking
Med-Full	DEKALB	DKS51-01	93	1.00
Med-Late	Pioneer	83P17	92	0.99
Med-Full	DEKALB	DKS54-00	92	0.99
Med-Early	Alta Seeds	AG1203	91	0.98
Med-Late	Pioneer	84P80	90	0.96
Med-Full	DEKALB	DKS53-53	88	0.95
Med-Late	Southern Harvest	SH94153	87	0.94
Medium	Alta Seeds	AG2115	86	0.93
Medium	Alta Seeds	AG2103	85	0.91
Medium	DEKLAB	DKS44-20	84	0.91
Med-Late	Advanta US	XG02008	84	0.90
Med-Late	Alta Seeds	AG3201	83	0.90
Med-Early	Southern States	SS540	82	0.88
Medium	Southern Harvest	SH59G4	81	0.88
Med-Late	Alta Seeds	AG3101	79	0.85
Med-Late	Advanta US	XG30003	78	0.84
Medium	Advanta US	XG30002	76	0.82
Medium	Alta Seeds	AG2105	76	0.81
Late	Southern Harvest	SH80G4	75	0.81
Med-Late	Pioneer	86P90	73	0.79
Med-Early	Alta Seeds	AG1401	73	0.79
Med-Early	Advanta US	XG30001	73	0.78

Table 13. Yield percentage ranking of double crop grain sorghum hybrids at all locations in Virginia with three-year comparisons.

Company or Brand Name	Hybrid	Suffolk	Windsor	Locust Grove	2015 All Locations	2014 All Locations	2013 All Locations
DEKALB	DKS51-01	0.97	0.95	0.88	1.00	0.89	
Pioneer	83P17	0.92	0.95	0.91	0.99		
DEKALB	DKS54-00	1.00	0.94	0.83	0.99		
Alta Seeds	AG1203	0.89	1.00	0.86	0.98		
Pioneer	84P80	0.90	0.88	0.91	0.96		
DEKALB	DKS53-53	0.89	0.90	0.87	0.95	0.89	
Southern Harvest	SH94153	0.96	0.86	0.80	0.94		
Alta Seeds	AG2115	0.86	0.88	0.86	0.93		
Alta Seeds	AG2103	0.93	0.70	0.88	0.91	1.00	0.88
DEKLAB	DKS44-20	0.84	0.97	0.75	0.91	0.79	0.70
Advanta US	XG02008	0.86	0.62	1.00	0.90		
Alta Seeds	AG3201	0.90	0.72	0.86	0.90	0.98	0.81
Southern States	SS540	0.80	0.79	0.86	0.88	0.93	
Southern Harvest	SH59G4	0.84	0.82	0.79	0.88	0.90	
Alta Seeds	AG3101	0.93	0.75	0.69	0.85	0.99	0.78
Advanta US	XG30003	0.72	0.66	0.94	0.84		
Advanta US	XG30002	0.72	0.63	0.90	0.82		
Alta Seeds	AG2105	0.88	0.65	0.73	0.81		
Southern Harvest	SH80G4	0.91	0.66	0.67	0.81	0.89	
Pioneer	86P90	0.65	0.64	0.89	0.79	0.93	
Alta Seeds	AG1401	0.75	0.67	0.77	0.79		
Advanta US	XG30001	0.64	0.69	0.84	0.78		