



Agronomy Facts No. 32
December 7, 2023
Updated: January 2, 2024

2023 Maryland State Soybean Variety Trials

<http://www.psla.umd.edu/extension/md-crops>

Agronomy Facts No. 32 is prepared by Dr. Nicole Fiorellino, Mr. Louis Thorne, Mr. Joseph Crank, and Ms. Shana Burke

Test Procedures

The University of Maryland offers a fee-based, soybean variety performance testing program to local and national seed companies. The results from these replicated trials provide agronomic performance information about soybean varieties tested at four locations in Maryland considered representative of the state's geography and weather conditions. Table 1 summarizes the agronomic and production information for each test site.

Varieties tested in 2023 were entered by participating seed companies, listed in Table 3, that were solicited for submission of varieties. These varieties represented those currently available for purchase to experimental lines still under evaluation. Select Pioneer, Agrigold, and Mid-Atlantic Seeds varieties were identified for use as checks in the test. The inclusion of the performance data for check varieties that are proven performers in the Mid-Atlantic region allows comparisons of newer varieties to proven varieties.

During 2023, 85 varieties were tested using four maturity groups: MG 3 (15 varieties, Table 6), early MG 4 (4.0-4.3, 29 varieties, Table 7), late MG 4 (>4.4, 36 varieties, Table 8) and MG 5 (5 varieties, Table 9). Check varieties were included in each of the tests. All genetic traits and seed treatments are listed in Tables 6-9.

Each variety was replicated three times per location. In 2021, we modified a John Deere Maxemerge-2 four-row, 30" spacing, no-till planter, with coulters and trash wheels. The modifications included the addition of a single cone planting unit that delivered seed to a spinner powered by a 12v motor to evenly distribute seed to the four planter units. Planting, harvest, and in-season management information is presented in Tables 1 and 2. We aimed for a seeding rate of 6-7 seeds/foot and plot harvest length was approximately 20 feet, but harvested plot length varied slightly across locations. Center two rows (~5 ft. swath) were harvested with an Almaco R1 research combine (Almaco Co., Nevada, IA). Grain yield, harvest moisture, and test weight were measured for each plot. These data were collected with a Seed Spector LRX system (Almaco Co., Nevada, IA) and recorded on Microsoft xTablet T1600.

Test Results

The overall performance across the locations for the full season varieties in each maturity group is reported in Tables 10-13 and double crop varieties in Tables 28-31. Variety performance at individual locations can be found in Tables 14-27. The agronomic characteristics reported are yield, in bushels/acre at 13% moisture content and test weight (lb/bu) at 13% moisture. Plot damage at some locations necessitated the removal of outliers, which was performed by location and maturity group. Outliers were determined as two standard deviations above or below the mean for that maturity group. If outlier removal eliminated two of three replicates for any entry, then the entire entry was removed from data analysis. A tornado touched down at Lower Eastern Shore Research and Education Center – Poplar Hill facility on August 15th and some plots in the trial sustained major damage, which were removed from data analysis. Some plots that sustained minor damage were removed from data analysis if yields were < two standard deviations from the mean.

A least significant difference (LSD) value is reported for each test where statistically significant differences ($P \leq 0.1$) for yield was observed among varieties. The mean separation value has been calculated at the 10% probability level ($LSD_{0.1}$). The LSD can be used to compare two varieties within the same test. For example, when the yield difference between two varieties is greater than the LSD value, there is a 90% certainty that the difference in yield is due to variety performance rather than due to random variability.

Relative Yield

The selection of a variety based solely on performance at one location is not recommended. It is better to select variety based upon performance over a number of locations and years, if possible. To compare the performance of each variety across the five locations, relative yield tables (Tables 32-35) are included. Relative yield is the ratio of the yield of a variety at a location to the mean yield of all the varieties at that location expressed in percentage. A variety that has a relative yield consistently greater than 100 across all testing locations is considered to have excellent stability.

Acknowledgments

The University of Maryland Agronomy Trials Center work would not be possible without the assistance and oversight of equipment maintenance, seed packaging, planting, data collection, and plot harvest by faculty research assistant, Louis Thorne. This work could not be accomplished without the assistance of Joseph Crank and Shana Burke. Thank you to the crew at Wye Research and Education Center for sharing your experience, tools, and space in your shop with our team as they continue to keep our equipment running. Tables 1 and 2 outlines the crews at each test location who assisted with land preparation, flagging, plot management, and harvest. I personally would like to acknowledge each farm manager, David Armentrout, John Draper, Ryan McDonald, and Douglas Price for their continued support of the Variety Trials and their continued patience with me.

Additional Information

The inclusion of varieties in these tests is not an endorsement by the University of Maryland. Advertising statements about a company's varieties can be made as long as they are accurate statements about the data as published. Statements similar to "See the Maryland Soybean Tests Agronomy Facts No. 32" or "Endorsement or recommendation by the University of Maryland is not implied" must accompany any reproduced information.

<u>Index to Tables</u>	<u>Page</u>
Table 1. Production management practices and other information for the full season locations for the 2023 Soybean Variety Trials	5
Table 2. Production management practices and other information for the double crop locations for the 2023 Soybean Variety Trials	6
Table 3. Brands and companies in the 2023 Maryland soybean variety trials	7
Table 4. Precipitation received in 2023 at Maryland locations of soybean variety trials	7
Table 5. Glossary of abbreviations for variety genetic traits and description of seed treatments	8
Table 6. Group 3 soybean entries, including traits and seed treatments	9
Table 7. Early Group 4 soybean entries (\leq MG 4.4) including traits and seed treatments	10
Table 8. Late Group 4 soybean entries ($>$ MG 4.4), including traits, and seed treatments	11
Table 9. Group 5 soybean entries, including traits, and seed treatments	12
Table 10. Average performance of MG 3 full season soybeans evaluated at four locations (Wye, Poplar Hill, Clarksville, Keedysville) in 2023	13
Table 11. Average performance of MG 4 (early) full season soybeans evaluated at four locations (Wye, Poplar Hill, Clarksville, Keedysville) in 2023	14
Table 12. Average performance of MG 4 (late) full season soybeans evaluated at four locations (Wye, Poplar Hill, Clarksville, Keedysville) in 2023	15
Table 13. Average performance of MG 5 full season soybeans evaluated at two locations (Wye, Poplar Hill) in 2023	16
Table 14. Performance of MG 3 full season soybeans evaluated at Wye Research and Education Center in 2023	17
Table 15. Performance of MG 4 (early) full season soybeans evaluated at Wye Research and Education Center in 2023	18
Table 16. Performance of MG 4 (late) full season soybeans evaluated at Wye Research and Education Center in 2023	19
Table 17. Performance of MG 5 full season soybeans evaluated at Wye Research and Education Center in 2023	20
Table 18. Performance of MG 3 full season soybeans evaluated at Lower Eastern Shore Research and Education Center in 2023	21
Table 19. Performance of MG 4 (early) full season soybeans evaluated at Lower Eastern Shore Research and Education Center in 2023	22
Table 20. Performance of MG 4 (late) full season soybeans evaluated at Lower Eastern Shore Research and Education Center in 2023	23
Table 21. Performance of MG 5 full season soybeans evaluated at Lower Eastern Shore Research and Education Center in 2023	24
Table 22. Performance of MG 3 full season soybeans evaluated at Central Maryland Research and Education Center in 2023	25
Table 23. Performance of MG 4 (early) full season soybeans evaluated at Central Maryland Research and Education Center in 2023	26
Table 24. Performance of MG 4 (late) full season soybeans evaluated at Central Maryland Research and Education Center in 2023	27
Table 25. Performance of MG 3 full season soybeans evaluated at Western Maryland Research and Education Center in 2023	28
Table 26. Performance of MG 4 (early) full season soybeans evaluated at Western Maryland Research and Education Center in 2023	29
Table 27. Performance of MG 4 (late) full season soybeans evaluated at Western Maryland Research and Education Center in 2023	30

<u>Index to Tables</u>	<u>Page</u>
Table 28. Average performance of MG 3 double crop soybeans evaluated at two locations (Wye, Poplar Hill) in 2023	31
Table 29. Average performance of MG 4 (early) double crop soybeans evaluated at two locations (Wye, Poplar Hill) in 2023	32
Table 30. Average performance of MG 4 (late) double crop soybeans evaluated at two locations (Wye, Poplar Hill) in 2023	33
Table 31. Average performance of MG 5 double crop soybeans evaluated at two locations (Wye, Poplar Hill) in 2023	34
Table 32. Relative yield summary for MG 3 soybeans	35
Table 33. Relative yield summary for MG 4 (early) soybeans	36
Table 34. Relative yield summary for MG 4 (late) soybeans	37
Table 35. Relative yield summary for MG 5 soybeans	38

Funding for purchase of check varieties provided by Maryland Soybean Board
(Project # 72145)



Table 1. Production management practices and other information for the full season locations for the 2023 Soybean Variety Trials.

Location	Soil Type and Previous Crop	Fertilizer	Pesticides	Pesticides	Tillage	Plant and Harvest Dates	Farm Staff
Wye R&E Center Queenstown, MD	Mattapex-Butlertown silt loam Corn	<u>1 March</u> HiCal Lime @ 2,000 lb/a <u>28 March</u> 0-0-60 @ 940 lb/a <u>29 March</u> 4-20-13 @ 319 lb/a	<u>4 April</u> FS Transform Plus @ 1qt/100 gal Amaze Gold @ 1 qt/a Sunphosate 5 Max @ 24 fl oz/a <u>21 April</u> FS Transform Plus @ 1qt/100 gal Metribuzin 75@ 4 fl oz/a Authority First DF @ 4 fl o/a	<u>12 May</u> FS Transform Plus @ 1qt/100 gal Metribuzin 75@ 4 fl oz/a Authority First DF @ 4 fl oz/a Sunphosate 5 Max @ 24 fl oz/a <u>3 June</u> FS Transform Plus @ 1qt/100 gal Sunphosate 5 Max @ 24 fl oz/a Scanner @ 2pt/100gal Cadet @ 0.90 fl oz/a	No-tillage 30" row spacing	<u>Plant</u> 8 May <u>Harvest</u> 26 October	John Draper Thomas Eason Reagan Milby
Lower Eastern Shore R&E Center Poplar Hill Facility Quantico, MD	Mattapex silt loam Soybeans	<u>22 May</u> 297.6 lb/a of 3.5-00-30-S(4)	<u>20 April</u> RoundUp @ 16 fl oz/a <u>15 May</u> Gramoxone @ 1 qt/a 2,4-D @ 1 qt/a Scanner 80/20 @ 6 fl oz/a <u>26 May</u> Valor XLT @ 4 oz/a Scanner 80/20 @ 10 fl oz/a Liberty @ 1qt/a	<u>30 June</u> Reflex @ 20 oz/a Intensity @ 24 oz/a Scanner 80/20 @ 10 fl oz/a <u>24 August</u> Round Up @ 24 fl oz/a	No-tillage 30" row spacing	<u>Plant</u> 25 May <u>Harvest</u> 3 November	David Armentrout Vivian Calder Jordan Miller
Central Maryland R&E Center Clarksville Facility Clarksville, MD	Glenville silt loam Triticalage	<u>17 May</u> 13-0-70-15S-1B	<u>12 May</u> Cloak @ 5oz/ac Moccasin @ 0.67qt/ac Gramoxone 3.0 @ 1qt/ac Surfactant @ 1pt/100 gal	<u>27 June</u> Round-up Powermax @ 1qt/ac	No-tillage 30" row spacing	<u>Plant</u> 11 May <u>Harvest</u> 17 November	Ryan McDonald Michael Gray
Western Maryland R&E Center Keedysville, MD	Swanpond silt loam Corn then rye cover crop	<u>20 April</u> 10.5-50-80-10(S)	<u>10 April</u> Makaze @ 1 qt/a Weedone LV4 @ 1 pt/a <u>11 May</u> Metrixx Plus @ 5oz/a Moccasin II @ 1.33pt/a Helmquat 3SL @ 1.5pt/a Sharpen @ 1oz/a	<u>11 May (cont.)</u> Helmquat 3SL @ 1.5 pt/a Sharpen @ 1 oz/a	No-tillage 30" row spacing	<u>Plant</u> 12 May <u>Harvest</u> 22 November	Douglas Price David Wyand

Table 2. Production management practices and other information for the double crop locations for the 2023 Soybean Variety Trials.

Location	Soil Type and Previous Crop	Fertilizer	Pesticides	Tillage	Plant and Harvest Dates	Farm Staff
Wye R&E Center Queenstown, MD	Mattapex- Butlertown silt loam Wheat	-	<u>17 August</u> Transform + @ 1qt/a Scanner 80/20 @ 2pt/a Amaze Gold @ 24 fl oz/a Headline Fungicide @ 12 oz/a Sunphosate 5 Max @ 24 oz/a <u>20 August</u> Transform + @ 1qt/a Scanner 80/20 @ 2pt/a Headline Fungicide @ 12 oz/a Cadet @ 0.90 fl oz/a Intensity One @ 32 oz/a	No-tillage 30" row spacing	<u>Plant</u> 17 July <u>Harvest</u> 17 November	John Draper Thomas Eason Reagan Milby
Lower Eastern Shore R&E Center Poplar Hill Facility Quantico, MD	Nassawango silt loam Corn then wheat	-	<u>6 July</u> Scanner 80/20 @ 10 oz/a Valor @ 4 oz/a Liberty @ 1 qt/a <u>25 July</u> Scanner 80/20 @ 10 oz/a Relfex @ 20 oz/a Intensity @ 18 oz/a Poast @ 6 oz/a	No-tillage 30" row spacing	<u>Plant</u> 5 July <u>Harvest</u> 2 November	David Armentrout Vivian Calder Jordan Miller

Table 3. Brands and companies in the 2023 Maryland soybean variety trials

Brand	Address
AgriGold	AgriGold, 5381 Akin Road, St. Francisville, IL, 62460 www.agrigold.com
Dyna-Gro	Dyna-Gro Seed, 615 Hilliard Rome Road, Columbus, OH 43228 www.dynagroseed.com
Growmark (HiSOY)	Growmark, Inc., 1701 Towanda Avenue, Bloomington, IL 61701 www.growmarkfs.com
Hubner	Hubner Seed Company, 113 Hanover Street, Gettysburg, PA 17325 www.hubnerseed.com
Mid-Atlantic Seeds	Mid-Atlantic Seeds, 204 St. Charles Way #163E, York, PA 17402 www.midatlanticseeds.com
Meherrin Ag (Southern Harvest)	Meherrin Agricultural Company, 101 Petfinder Lane, Raleigh, NC 27527 www.meherrinag.com
Mid-Atlantic Seeds	Mid-Atlantic Seeds, 204 St. Charles Way, #163E, York, PA 17402 www.midatlanticseeds.com
Pioneer	DuPont-Pioneer, PO Box 1000, Johnston, IA 50131 www.pioneer.com
NK/Syngenta	Syngenta Seeds, 4013 Fairmount Pike, Signal Mountain, TN 37377 www.syngenta-us.com
Revere	Revere Seed, 802 Rozelle Street, Memphis, TN 38104 revereseed.com
UniSouth Genetics	3205 C Highway 46S, Dickson, TN 37055 https://www.usgseed.com/
Xitavo	Xitavo Soybean Seed, 103 Ave D, West Point, IA 52656 https://www.xitavosoybeanseed.com/

Table 4. Precipitation received in 2023 at Maryland locations of soybean variety trials

	Wye	Poplar Hill	Keedysville	Clarksville
Month	inches			
June	2.61	2.30	1.57	0.03
July	3.83	5.86	1.74	2.83
August	2.69	3.76	0.14	2.59
September	4.06	5.89	2.50	6.24
October	1.45	1.45	1.02	1.20
2023 Total (5 mos.)	14.64	19.26	6.97	12.89
Long Term Average¹	23.53	21.09	16.02	15.26

¹Long term average precipitation is for the follow number of years at each location: Wye=24; Poplar Hill = 23; Keedysville = 44; Clarksville =14

Table 5. Glossary of abbreviations for variety genetic traits and description of seed treatments

Abbreviation	Description
Acceleron	Seed treatment for nematode and insect protection and soil/seed-borne fungal pathogens with the number referring to the concentration of the insecticide used
Agrishield Max	
CruiserMaxx	Seed treatment to protect against insect, seedborne and seedling diseases
Dicamba	Refers to genetic tolerance to Dicamba herbicide
Enlist E3	Soybeans modified to be tolerant to use of 2,4-D choline, glyphosate, and glufosinate herbicides for weed control
Equity VIP Saltro Vayantis	Broad, multi-function combination of insecticide and fungicide seed treatment to protect against a range of early season soybean diseases, many early season insects, including aphids and thrips.
Extend Flex (XF)	Soybeans which have dicamba herbicide resistance
ILeVO	Seed treatment to protect against sudden death syndrome and nematodes
Imidicloprid	Insecticide that mimics nicotine, which is toxic to insects and is used to control sucking insects, termites, and some soil insects
Ipconazole	Fungicide seed treatment used to protect plants from soil borne and seed borne disease
Liberty	Refers to glufosinate (Liberty) herbicide tolerance
Metalaxyl	Systemic fungicide used to control plant diseases caused by the Oomycetes or water-mold fungi
Obvius Plus	Protection against Phytophthora, Pythium, Fusarium, and Rhizoctonia
Poncho	Insecticide seed treatment
Proshield	Fungicide and insecticide seed treatment with three modes of action against scab, smut and bunt, plus the added benefit of imidacloprid
Radius Premium	
RR	Has glyphosate herbicide tolerance
Saltro	Seed treatment for protection against sudden death syndrome
STS	Sulfonylurea-tolerant soybeans
Vibrance	Seed treatment effective against certain smut diseases and provide protection against seedling blight or damping-off caused by seed- and soilborne pathogens including Rhizoctonia
Votivo	Control of insect pests and protection from soil plant pathogenic nematodes

Table 6. Group 3 soybean entries, traits, and seed treatments. Check varieties are bolded.

Brand	Variety	RM	Seed Treatment	Traits
Hubner	H37-31XF	3.7	Acceleron	RR, Dicamba, Liberty
Mid-Atlantic Seeds	MAS3220E3	3.2	Untreated	E3
Mid-Atlantic Seeds	MAS3600E3/STS	3.6	MAS PROSHIELD	E3
Mid-Atlantic Seeds	MAS3884GT/LL	3.8	MAS PROSHIELD	GT27
NK/Syngenta	37-B7XFS	3.7	Cruisemax APX+Saltro	Xtendflex
NK/Syngenta	37-C1E3	3.7	Cruisemax APX+Saltro	E3
Pioneer	P37A18E	3.7	Untreated	Enlist E3
Pioneer	P38A54E	3.8	Untreated	Enlist E3
Revere	3908XFS	3.9	Radius Premium	Xtendflex / STS
Xitavo	XO 3224E	3.2	Obvius Plus, Poncho/Votivo, ILEVO, and Relenya	Enlist E3
Xitavo	XO 3483E	3.4	Obvius Plus, Poncho/Votivo, ILEVO, and Relenya	Enlist E3
Xitavo	XO 3651E	3.6	Obvius Plus, Poncho/Votivo, ILEVO, and Relenya	Enlist E3
Xitavo	XO 3752E	3.7	Obvius Plus, Poncho/Votivo, ILEVO, and Relenya	Enlist E3
Xitavo	XO 3803E	3.8	Obvius Plus, Poncho/Votivo, ILEVO, and Relenya	Enlist E3
Xitavo	XO 3922E	3.9	Obvius Plus, Poncho/Votivo, ILEVO, and Relenya	Enlist E3

Table 7. Early Group 4 soybean entries (\leq MG 4.4), traits, and seed treatments. Check varieties are bolded.

Brand	Variety	RM	Seed Treatment	Traits
Agrigold	G4350XF	4.3	Agrishield Max	Xtendflex
Agrigold	G4430XF	4.4	Agrishield Max	Xtendflex
Agrigold	G4459E3	4.4	Agrishield Max	Enlist E3
Agrigold	G44XF	4.4	Agrishield Max	Xtendflex
Dyna-Gro	S40EN54	4.0	Equity VIP, Saltro & Vayantis	Enlist E3
Dyna-Gro	S41EN72	4.1	Equity VIP, Saltro & Vayantis	Enlist E3
HiSOY	HS40E30	4.0	Acceleron F&I	Enlist
HiSOY	HS41E20	4.1	Acceleron F&I	Enlist
HiSOY	HS41F30	4.1	Acceleron F&I	XtendFlex
HiSOY	HS43E30	4.3	Untreated	Enlist
HiSOY	HS44F30	4.4	Acceleron F&I	XtendFlex
Hubner	H40-53XF	4.0	Acceleron	RR, Dicamba, Liberty
Hubner	H43-53XF	4.3	Acceleron	RR, Dicamba, Liberty
Mid-Atlantic Seeds	MAS4021E3	4.0	MAS PROSHIELD	E3
Mid-Atlantic Seeds	MAS4077GT/STS	4.0	MAS PROSHIELD	GT
Mid-Atlantic Seeds	MAS4123E3	4.1	MAS PROSHIELD	E3
Mid-Atlantic Seeds	MAS4320E3/STS	4.3	MAS PROSHIELD	E3
Mid-Atlantic Seeds	MAS4423E3	4.4	MAS PROSHIELD	E3
NK/Syngenta	40-P5E3	4.0	Cruisemax APX+Saltro	E3
NK/Syngenta	42-A6E3	4.2	Cruisemax APX+Saltro	E3
Pioneer	P42A84E	4.2	Untreated	Enlist E3
Revere	4299XS	4.2	Radius Premium	RR2YXtend / STS
Southern Harvest	SH 4024	4.0	Vibrance Trio	E3
USG	7424ETS	4.2	Ipconazole/metalaxyl/ imidicloprid	E3/STS
USG	7434XF	4.3	Ipconazole/metalaxyl/ imidicloprid	XF
USG	7431ET	4.3	Ipconazole/metalaxyl/ imidicloprid	E3
Xitavo	XO 4084E	4.0	Obvius Plus, Poncho/Votivo, ILEVO, and Relenya	Enlist E3
Xitavo	XO 4132E	4.1	Obvius Plus, Poncho/Votivo, ILEVO, and Relenya	Enlist E3
Xitavo	XO 4364E	4.3	Obvius Plus, Poncho/Votivo, ILEVO, and Relenya	Enlist E3

Table 8. Late Group 4 soybean entries (> MG 4.4), traits, and seed treatments. Check varieties are bolded.

Brand	Variety	RM	Seed Treatment	Traits
Agrigold	G4655E3	4.6	Agrishield Max	Enlist E4
Agrigold	G4615XF	4.6	Agrishield Max	Xtendflex
Agrigold	G4742XF	4.7	Agrishield Max	Xtendflex
Dyna-Gro	S45ES10	4.5		Enlist E3 – STS
Dyna-Gro	S47XF23S	4.7	Equity VIP, Saltro & Vayantis	Xtendflex - STS
Dyna-Gro	S48EN73	4.8	Equity VIP, Saltro & Vayantis	Enlist E3
Dyna-Gro	S49XF43S	4.9	Equity VIP, Saltro & Vayantis	Xtendflex - STS
HiSOY	HS45E00	4.5	Acceleron F&I	Enlist
HiSOY	HS45E32	4.5	Untreated	Enlist
HiSOY	HS46F00	4.6	Acceleron F&I	XtendFlex
HiSOY	HS46E92	4.6	Untreated	Enlist
HiSOY	HS47E32	4.7	Untreated	Enlist
Hubner	H47-43XF	4.7	Acceleron	RR, Dicamba, Liberty
Mid-Atlantic Seeds	MAS4623E3	4.6	MAS PROSHIELD	E3
Mid-Atlantic Seeds	MAS4675E3/STS	4.6	MAS PROSHIELD	E3
Mid-Atlantic Seeds	MAS4723E3	4.7	MAS PROSHIELD	E3
Mid-Atlantic Seeds	MAS4822ES	4.8	Untreated	E3
Mid-Atlantic Seeds	MAS4823E3	4.8	MAS PROSHIELD	E3
NK/Syngenta	46-B4XFS	4.6	Cruisermax APX+Saltro	Xtenflex
NK/Syngenta	48-H3XFS	4.8	Cruisermax APX+Saltro	Xtendflex
NK/Syngenta	49-C2XFS	4.9	Cruisermax APX+Saltro	Xntendflex
Pioneer	P48A14E	4.8	Untreated	Enlist E3
Revere	4606XFS	4.6	Radius Premium	Xtendflex / STS
Revere	4821XFS	4.8	Radius Premium	Xtendflex / STS
Revere	4983E3S	4.9	Radius Premium	Enlist E3 / STS
Revere	IS4545E3	4.5	Enlist E3 / STS	Revere
Southern Harvest	SH 4622	4.6	Vibrance Trio	E3
USG	7461XFS	4.6	Ipconazole/metalaxyl/imidiclopid	XF/STS
USG	7464ET	4.6	Ipconazole/metalaxyl/imidiclopid	E3
USG	7461XTS	4.6	Ipconazole/metalaxyl/imidiclopid	XT/STS
USG	7474XFS	4.7	Ipconazole/metalaxyl/imidiclopid	XF/STS
USG	7472ETS	4.7	Ipconazole/metalaxyl/imidiclopid	E3/STS
USG	7494ETS	4.9	Ipconazole/metalaxyl/imidiclopid	E3/STS
Xitavo	XO 4522E	4.5	Obvius Plus, Poncho/Votivo, ILEVO, and Relenya	Enlist E3
Xitavo	XO 4772E	4.7	Obvius Plus, Poncho/Votivo, ILEVO, and Relenya	Enlist E4
Xitavo	XO 4894E	4.8	Obvius Plus, Poncho/Votivo, ILEVO, and Relenya	Enlist E5

Table 9. Group 5 soybean entries, traits, and seed treatments. Check varieties are bolded.

Brand	Variety	RM	Seed Treatment	Traits
HiSOY	HS50E21	5.0	Untreated	Enlist
Pioneer	P53T90E	5.3	Untreated	Enlist E3
Southern Harvest	SH 5124	5.1	Vibrance Trio	E3
Southern Harvest	SH 5321	5.3	Vibrance Trio	E3
USG	7542ET	5.4	Ipconazole/metalaxyl/imidicloprid	E3

Table 10. Average performance of MG 3 full season soybeans evaluated at four locations (Wye, Poplar Hill, Clarksville, Keedysville) in 2023.

Brand	Variety	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹
			2023	2022	2 yr. avg	
Hubner	H37-31XF	3.7	50.2	-	-	59.1
Mid-Atlantic Seeds	MAS3220E3	3.2	49.8	59.7	54.7	55.0
Mid-Atlantic Seeds	MAS3600E3/STS	3.6	51.8	64.3	56.5	52.4
Mid-Atlantic Seeds	MAS3884GT/LL	3.8	39.2	66.8	53.0	54.1
NK/Syngenta	37-B7XFS	3.7	44.3	-	-	56.3
NK/Syngenta	37-C1E3	3.7	48.5	-	-	55.7
Pioneer	P37A18E	3.7	47.4	-	-	51.9
Pioneer	P38A54E	3.8	46.5	61.4	53.9	57.5
Revere	3908XFS	3.9	45.3	-	-	58.5
Xitavo	XO 3224E	3.2	47.9	-	-	56.2
Xitavo	XO 3483E	3.4	39.9	58.0	48.9	47.4
Xitavo	XO 3651E	3.6	44.9	67.4	56.1	47.0
Xitavo	XO 3752E	3.7	51.1	69.8	60.4	57.7
Xitavo	XO 3803E	3.8	45.9	70.5	58.2	56.0
Xitavo	XO 3922E	3.9	43.2	69.1	56.1	48.6
Mean			46.6	66.9	-	54.4
Probability > F			0.8531	-	-	-
LSD_{0.1}			NS	-	-	-
CV%			33.2	-	-	22.2

¹Yields and test weights are reported at 13% moisture content.

²Varieties in **bold** are checks.

* NS indicates that no statistically significant difference was observed for yield at this location for this test.

Table 11. Average performance of MG 4 (early) full season soybeans evaluated at four locations (Wye, Poplar Hill, Clarksville, Keedysville) in 2023.

Brand	Variety	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹
			2023	2022	2 yr. avg	
Agrigold	G4350XF	4.3	56.7	-	-	54.7
Agrigold	G4430XF	4.4	57.3	-	-	57.8
Agrigold	G4459E3	4.4	53.9	-	-	58.4
Agrigold	G44XF	4.4	58.9	-	-	58.8
Dyna-Gro	S40EN54	4.0	55.4	-	-	59.6
Dyna-Gro	S41EN72	4.1	54.5	75.2	64.8	58.2
HiSOY	HS40E30	4.0	53.7	-	-	59.2
HiSOY	HS41E20	4.1	57.8	-	-	57.9
HiSOY	HS41F30	4.1	59.5	-	-	55.6
HiSOY	HS43E30	4.3	54.7	-	-	59.3
HiSOY	HS44F30	4.4	58.1	-	-	59.1
Hubner	H40-53XF	4.0	59.1	-	-	58.0
Hubner	H43-53XF	4.3	56.7	-	-	59.6
Mid-Atlantic Seeds	MAS4021E3	4.0	57.8	68.4	63.1	53.7
Mid-Atlantic Seeds	MAS4077GT/STS	4.0	54.3	-	-	58.3
Mid-Atlantic Seeds	MAS4123E3	4.1	51.8	-	-	56.5
Mid-Atlantic Seeds	MAS4320E3/STS	4.3	51.3	67.0	59.1	57.2
Mid-Atlantic Seeds	MAS4423E3	4.4	60.8	-	-	59.6
NK/Syngenta	40-P5E3	4.0	60.6	-	-	57.5
NK/Syngenta	42-A6E3	4.2	57.7	-	-	56.5
Pioneer	P42A84E	4.2	62.0	-	-	59.9
Revere	4299XS	4.2	63.2	-	-	57.4
Southern Harvest	SH 4024	4.0	55.0	-	-	58.4
USG	7424ETS	4.2	51.9	-	-	57.0
USG	7434XF	4.3	48.8	-	-	58.4
USG	7431ET	4.3	54.7	71.4	63.0	59.2
Xitavo	XO 4084E	4.0	50.8	-	-	58.9
Xitavo	XO 4132E	4.1	57.0	70.8	63.9	58.6
Xitavo	XO 4364E	4.3	58.9	-	-	56.5
Mean			56.3	69.8	-	57.9
Probability > F			0.7710	-	-	-
LSD_{0.1}			NS	-	-	-
CV%			23.4	-	-	8.7

¹Yields and test weights are reported at 13% moisture content.

²Varieties in **bold** are checks.

* NS indicates that no statistically significant difference was observed for yield at this location for this test.

Table 12. Average performance of MG 4 (late) full season soybeans evaluated at four locations (Wye, Poplar Hill, Clarksville, Keedysville) in 2023.

Brand	Variety	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹
			2023	2022	2 yr. avg	
Agrigold	G4655E3	4.6	61.8	-	-	59.1
Agrigold	G4615XF	4.6	61.0	-	-	58.9
Agrigold	G4742XF	4.7	61.3	-	-	60.1
Dyna-Gro	S45ES10	4.5	57.6	70.3	63.9	59.8
Dyna-Gro	S47XF23S	4.7	61.8	73.9	67.8	60.0
Dyna-Gro	S48EN73	4.8	61.3	71.3	66.3	59.4
Dyna-Gro	S49XF43S	4.9	64.8	-	-	59.1
HiSOY	HS45E00	4.5	55.9	-	-	59.4
HiSOY	HS45E32	4.5	53.0	-	-	58.5
HiSOY	HS46F00	4.6	54.2	-	-	58.9
HiSOY	HS46E92	4.6	64.1	-	-	58.4
HiSOY	HS47E32	4.7	54.1	-	-	55.3
Hubner	H47-43XF	4.7	62.6	-	-	59.8
Mid-Atlantic Seeds	MAS4623E3	4.6	56.8	-	-	59.2
Mid-Atlantic Seeds	MAS4675E3/STS	4.6	55.3	68.1	61.7	53.9
Mid-Atlantic Seeds	MAS4723E3	4.7	59.0	-	-	59.3
Mid-Atlantic Seeds	MAS4822ES	4.8	61.2	73.6	67.4	58.8
Mid-Atlantic Seeds	MAS4823E3	4.8	57.2	-	-	58.1
NK/Syngenta	46-B4XFS	4.6	60.3	-	-	58.0
NK/Syngenta	48-H3XFS	4.8	65.4	73.8	69.6	58.3
NK/Syngenta	49-C2XFS	4.9	63.7	-	-	60.0
Pioneer	P48A14E	4.8	62.1	-	-	57.1
Revere	4606XFS	4.6	64.6	-	-	59.3
Revere	4821XFS	4.8	56.9	-	-	59.3
Revere	4983E3S	4.9	59.4	-	-	60.1
Revere	IS4545E3	4.5	56.0	-	-	55.3
Southern Harvest	SH 4622	4.6	53.8	-	-	59.3
USG	7461XFS	4.6	62.9	71.3	67.1	58.5
USG	7464ET	4.6	60.7	-	-	58.6
USG	7461XTS	4.6	62.0	74.3	68.1	59.2
USG	7474XFS	4.7	57.0	-	-	58.7
USG	7472ETS	4.7	64.7	71.2	67.9	58.6
USG	7494ETS	4.9	55.0	-	-	59.7
Xitavo	XO 4522E	4.5	57.6	72.1	64.8	58.8
Xitavo	XO 4772E	4.7	59.7	70.8	65.2	58.7
Xitavo	XO 4894E	4.8	59.5	-	-	58.5
Mean			59.6	69.9	-	58.7
Probability > F			0.6014	-	-	-
LSD_{0.1}			NS	-	-	-
CV%			21.7	-	-	8.1

¹Yields and test weights are reported at 13% moisture content; ²Varieties in **bold** are checks.

* NS indicates that no statistically significant difference was observed for yield at this location for this test.

Table 13. Average performance of MG 5 full season soybeans evaluated at two locations (Wye, Poplar Hill) in 2023.

Brand	Variety	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹
			2023	2022	2 yr. avg	
HiSOY	HS50E21	5.0	65.7	-	-	60.6
Pioneer	P53T90E	5.3	61.3	63.6	62.4	57.8
Southern Harvest	SH 5124	5.1	65.5	-	-	58.8
Southern Harvest	SH 5321	5.3	65.1	-	-	57.8
USG	7542ET	5.4	70.3	61.0	65.6	56.3
Mean			66.7	59.0	-	58.2
Probability > F			0.7300	-	-	-
LSD_{0.1}			NS	-	-	-
CV%			15.2	-	-	5.7

¹Yields and test weights are reported at 13% moisture content.

²Varieties in **bold** are checks.

* NS indicates that no statistically significant difference was observed for yield at this location for this test.

Table 14. Performance of MG 3 full season soybeans evaluated at Wye Research and Education Center in 2023.

Brand	Variety	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2023	2022	2 yr. avg		
Hubner	H37-31XF	3.7	66.5	-	-	57.6	111
Mid-Atlantic Seeds	MAS3220E3	3.2	61.3	65.6	63.4	57.5	102
Mid-Atlantic Seeds	MAS3600E3/STS	3.6	56.7	60.1	58.4	58.5	94
Mid-Atlantic Seeds	MAS3884GT/LL	3.8	53.4	62.0	57.7	58.6	89
NK	37-B7XFS	3.7	58.1	-	-	57.5	97
NK	37-C1E3	3.7	68.1	-	-	56.1	114
Pioneer	P37A18E	3.7	66.7	-	-	46.6	111
Pioneer	P38A54E	3.8	57.2	59.4	58.3	57.8	95
Revere	3908XFS	3.9	54.4	-	-	57.2	91
Xitavo	XO 3224E	3.2	63.4	-	-	52.8	106
Xitavo	XO 3483E	3.4	61.0	52.1	56.5	58.0	102
Xitavo	XO 3651E	3.6	56.8	62.3	59.5	57.6	95
Xitavo	XO 3752E	3.7	63.9	58.3	61.1	57.8	107
Xitavo	XO 3803E	3.8	60.0	69.3	64.6	57.3	100
Xitavo	XO 3922E	3.9	51.9	73.1	62.5	58.6	87
Mean			60.0	62.7	-	56.6	-
Probability > F			0.1922	-	-	-	-
LSD_{0.1}			NS	-	-	-	-
CV %			15.8	-	-	9.6	-

¹Yields and test weights are reported at 13% moisture content.

²Varieties in **bold** are checks.

*NS indicates that no statistically significant difference was observed for yield at this location for this test.

Table 15. Performance of MG 4 (early) full season soybeans evaluated at Wye Research and Education Center in 2023.

Brand	Variety	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2023	2002	2 yr. avg		
Agrigold	G4350XF	4.3	58.1	-	-	59.0	104
Agrigold	G4430XF	4.4	52.0	-	-	58.9	93
Agrigold	G4459E3	4.4	52.8	-	-	56.9	95
Agrigold	G44XF	4.4	60.7	-	-	58.6	108
Dyna-Gro	S40EN54	4.0	58.9	-	-	59.6	105
Dyna-Gro	S41EN72	4.1	47.7	76.0	61.8	57.8	85
HiSOY	HS40E30	4.0	60.6	-	-	58.7	108
HiSOY	HS41E20	4.1	51.2	-	-	57.7	92
HiSOY	HS41F30	4.1	57.6	-	-	55.2	103
HiSOY	HS43E30	4.3	49.5	-	-	59.4	89
HiSOY	HS44F30	4.4	59.5	-	-	59.4	106
Hubner	H40-53XF	4.0	57.8	-	-	58.5	103
Hubner	H43-53XF	4.3	47.8	-	-	58.2	86
Mid-Atlantic Seeds	MAS4021E3	4.0	63.9	65.7	64.8	57.6	114
Mid-Atlantic Seeds	MAS4077GT/STS	4.0	50.4	-	-	58.3	90
Mid-Atlantic Seeds	MAS4123E3	4.1	56.6	-	-	54.4	101
Mid-Atlantic Seeds	MAS4320E3/STS	4.3	51.5	78.2	64.8	52.1	92
Mid-Atlantic Seeds	MAS4423E3	4.4	65.5	-	-	58.9	117
NK/Syngenta	40-P5E3	4.0	62.7	-	-	57.6	112
NK/Syngenta	42-A6E3	4.2	51.3	-	-	57.9	92
Pioneer	P42A84E	4.2	54.2	-	-	59.6	97
Revere	4299XS	4.2	63.2	-	-	58.6	113
Southern Harvest	SH 4024	4.0	58.5	-	-	56.0	105
USG	7424ETS	4.2	49.0	-	-	59.6	88
USG	7434XF	4.3	45.7	-	-	58.5	82
USG	7431ET	4.3	57.9	78.5	68.2	59.7	104
Xitavo	XO 4084E	4.0	59.3	-	-	58.9	106
Xitavo	XO 4132E	4.1	57.2	79.4	68.3	58.0	102
Xitavo	XO 4364E	4.3	60.2	-	-	59.2	108
Mean			55.9	73.0	-	58.0	-
Probability > F			0.2535	-	-	-	-
LSD_{0.1}			NS	-	-	-	-
CV %			16.3	-	-	4.9	-

¹Yields and test weights are reported at 13% moisture content.

²Varieties in **bold** are checks.

*NS indicates that no statistically significant difference was observed for yield at this location for this test.

Table 16. Performance of MG 4 (late) full season soybeans evaluated at Wye Research and Education Center in 2023.

Brand	Variety	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2023	2022	2 yr. avg		
Agrigold	G4655E3	4.6	55.7	-	-	59.3	98
Agrigold	G4615XF	4.6	65.1	-	-	59.8	115
Agrigold	G4742XF	4.7	65.8	-	-	57.1	116
Dyna-Gro	S45ES10	4.5	57.7	66.0	61.8	59.5	102
Dyna-Gro	S47XF23S	4.7	49.6	74.2	61.9	60.1	87
Dyna-Gro	S48EN73	4.8	64.2	68.5	66.5	58.7	113
Dyna-Gro	S49XF43S	4.9	67.4	-	-	59.2	119
HiSOY	HS45E00	4.5	58.2	-	-	58.9	102
HiSOY	HS45E32	4.5	50.3	-	-	58.0	89
HiSOY	HS46F00	4.6	41.9	-	-	58.0	74
HiSOY	HS46E92	4.6	59.9	-	-	57.2	105
HiSOY	HS47E32	4.7	57.2	-	-	54.4	101
Hubner	H47-43XF	4.7	60.3	-	-	59.4	106
Mid-Atlantic Seeds	MAS4623E3	4.6	55.1	-	-	58.6	97
Mid-Atlantic Seeds	MAS4675E3/STS	4.6	52.2	67.7	59.9	58.4	92
Mid-Atlantic Seeds	MAS4723E3	4.7	54.3	-	-	58.7	96
Mid-Atlantic Seeds	MAS4822ES	4.8	58.2	-	-	58.9	103
Mid-Atlantic Seeds	MAS4823E3	4.8	45.6	-	-	60.3	80
NK/Syngenta	46-B4XFS	4.6	53.0	-	-	53.3	93
NK/Syngenta	48-H3XFS	4.8	66.9	78.6	72.7	56.5	118
NK/Syngenta	49-C2XFS	4.9	68.0	-	-	60.1	120
Pioneer	P48A14E	4.8	49.7	-	-	47.5	88
Revere	4606XFS	4.6	65.2	-	-	58.6	115
Revere	4821XFS	4.8	53.9	-	-	57.3	95
Revere	4983E3S	4.9	66.5	-	-	61.1	117
Revere	IS4545E3	4.5	52.7	-	-	54.1	93
Southern Harvest	SH 4622	4.6	48.3	-	-	59.6	85
USG	7461XFS	4.6	70.0	71.8	70.9	58.3	123
USG	7464ET	4.6	63.0	-	-	58.6	111
USG	7461XTS	4.6	57.6	75.2	66.4	57.7	101
USG	7474XFS	4.7	47.0	-	-	58.9	83
USG	7472ETS	4.7	58.9	68.0	63.4	60.1	104
USG	7494ETS	4.9	47.8	-	-	59.6	84
Xitavo	XO 4522E	4.5	51.6	70.5	61.0	58.5	91
Xitavo	XO 4772E	4.7	48.4	71.3	59.8	59.3	85
Xitavo	XO 4894E	4.8	56.0	-	-	59.6	99
Mean			56.8	70.3	-	58.1	-
Probability > F			0.1451	-	-	-	-
LSD_{0.1}			NS	-	-	-	-
CV %			22.1	-	-	8.2	-

¹Yields and test weights are reported at 13% moisture content.

²Varieties in **bold** are checks.

*NS indicates that no statistically significant difference was observed for yield at this location for this test.

Table 17. Performance of MG 5 full season soybeans evaluated at Wye Research and Education Center in 2023.

Brand	Variety	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2023	2022	2 yr. avg		
HiSOY	HS50E21	5.0	58.2*	-	-	60.6	99
Pioneer	P53T90E	5.3	53.1	65.6	59.3	59.8	90
Southern Harvest	SH 5124	5.1	53.0	-	-	59.3	90
Southern Harvest	SH 5321	5.3	65.5*	-	-	59.2	111
USG	7542ET	5.4	64.8*	67.7	66.2	55.5	110
Mean			58.9	66.8	-	58.9	-
Probability > F			0.0320	-	-	-	-
LSD_{0.1}			7.4	-	-	-	-
CV %			14.1	-	-	3.2	-

¹Yields and test weights are reported at 13% moisture content.

²Varieties in **bold** are checks.

*Varieties with an asterisk next to yield are not statistically different (Probability > F ≤ 0.1) compared to the top yielding variety (highlighted in blue) at this location.

Table 18. Performance of MG 3 full season soybeans evaluated at Lower Eastern Shore Research and Education Center in 2023.

Brand	Variety	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2023	2022	2 yr. avg		
Hubner	H37-31XF	3.7	50.4	-	-	56.5	87
Mid-Atlantic Seeds	MAS3220E3	3.2	60.8	54.9	57.8	56.7	105
Mid-Atlantic Seeds	MAS3600E3/STS	3.6	60.5	58.5	59.5	49.7	105
Mid-Atlantic Seeds	MAS3884GT/LL	3.8	-	62.0	-	-	-
NK/Syngenta	37-B7XFS	3.7	57.6	-	-	55.7	99
NK/Syngenta	37-C1E3	3.7	-	-	-	-	-
Pioneer	P37A18E	3.7	-	-	-	-	-
Pioneer	P38A54E	3.8	-	60.3	-	-	-
Revere	3908XFS	3.9	-	-	-	-	-
Xitavo	XO 3224E	3.2	60.1	-	-	51.4	104
Xitavo	XO 3483E	3.4	-	-	-	-	-
Xitavo	XO 3651E	3.6	-	-	-	-	-
Xitavo	XO 3752E	3.7	60.8	57.1	58.9	56.0	105
Xitavo	XO 3803E	3.8	55.0	66.6	60.8	55.3	95
Xitavo	XO 3922E	3.9	-	-	-	-	-
Mean			57.9	61.0	-	54.5	-
Probability > F			0.7384	-	-	-	-
LSD_{0.1}			NS	-	-	-	-
CV %			13.9	-	-	8.6	-

¹Yields and test weights are reported at 13% moisture content.

²Varieties in **bold** are checks.

*NS indicates that no statistically significant difference was observed for yield at this location for this test.

Table 19. Performance of MG 4 (early) full season soybeans evaluated at Lower Eastern Shore Research and Education Center in 2023.

Brand	Variety	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2023	2002	2 yr. avg		
Agrigold	G4350XF	4.3	73.9*	-	-	57.2	103
Agrigold	G4430XF	4.4	74.3*	-	-	57.9	104
Agrigold	G4459E3	4.4	75.2*	-	-	57.9	105
Agrigold	G44XF	4.4	67.0	-	-	56.6	94
Dyna-Gro	S40EN54	4.0	75.6*	-	-	57.9	106
Dyna-Gro	S41EN72	4.1	72.5*	70.1	71.3	55.8	101
HiSOY	HS40E30	4.0	65.5	-	-	55.2	92
HiSOY	HS41E20	4.1	74.9*	-	-	56.8	105
HiSOY	HS41F30	4.1	80.6*	-	-	57.0	113
HiSOY	HS43E30	4.3	68.8	-	-	57.1	96
HiSOY	HS44F30	4.4	74.7*	-	-	57.8	104
Hubner	H40-53XF	4.0	78.8*	-	-	56.9	110
Hubner	H43-53XF	4.3	75.5*	-	-	57.8	106
Mid-Atlantic Seeds	MAS4021E3	4.0	71.9*	66.7	69.3	56.6	101
Mid-Atlantic Seeds	MAS4077GT/STS	4.0	73.2*	-	-	56.9	102
Mid-Atlantic Seeds	MAS4123E3	4.1	64.6	-	-	54.4	90
Mid-Atlantic Seeds	MAS4320E3/STS	4.3	67.6	62.1	64.8	58.3	95
Mid-Atlantic Seeds	MAS4423E3	4.4	74.5*	-	-	58.3	104
NK/Syngenta	40-P5E3	4.0	77.6*	-	-	55.5	109
NK/Syngenta	42-A6E3	4.2	69.5	-	-	55.2	97
Pioneer	P42A84E	4.2	81.6*	-	-	57.9	114
Revere	4299XS	4.2	74.8*	-	-	58.0	105
Southern Harvest	SH 4024	4.0	67.1	-	-	58.0	94
USG	7424ETS	4.2	62.7	-	-	57.3	88
USG	7434XF	4.3	68.4	-	-	57.0	96
USG	7431ET	4.3	67.6	64.4	66.0	57.9	95
Xitavo	XO 4084E	4.0	61.4	-	-	57.4	86
Xitavo	XO 4132E	4.1	70.7	59.5	65.1	56.0	99
Xitavo	XO 4364E	4.3	64.8	-	-	57.1	91
Mean			71.5	62.5	-	57.0	-
Probability > F			0.0917	-	-	-	-
LSD_{0.1}			10.1	-	-	-	-
CV %			12.0	-	-	2.7	-

¹Yields and test weights are reported at 13% moisture content.

²Varieties in **bold** are checks.

*Varieties with an asterisk next to yield are not statistically different (Probability > F ≤ 0.1) compared to the top yielding variety (highlighted in blue) at this location.

Table 20. Performance of MG 4 (late) full season soybeans evaluated at Lower Eastern Shore Research and Education Center in 2023.

Brand	Variety	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2023	2022	2 yr. avg		
Agrigold	G4655E3	4.6	80.2*	-	-	56.7	107
Agrigold	G4615XF	4.6	70.6	-	-	55.8	95
Agrigold	G4742XF	4.7	77.2*	-	-	59.6	103
Dyna-Gro	S45ES10	4.5	72.8	61.9	67.3	58.9	98
Dyna-Gro	S47XF23S	4.7	77.3*	64.6	70.9	58.3	103
Dyna-Gro	S48EN73	4.8	74.5	60.8	67.6	57.6	100
Dyna-Gro	S49XF43S	4.9	80.9*	-	-	58.5	108
HiSOY	HS45E00	4.5	76.3*	-	-	58.1	102
HiSOY	HS45E32	4.5	71.6	-	-	56.7	96
HiSOY	HS46F00	4.6	68.5	-	-	57.7	92
HiSOY	HS46E92	4.6	79.7*	-	-	56.9	107
HiSOY	HS47E32	4.7	66.8	-	-	58.0	89
Hubner	H47-43XF	4.7	78.1*	-	-	58.2	105
Mid-Atlantic Seeds	MAS4623E3	4.6	73.5	-	-	57.4	98
Mid-Atlantic Seeds	MAS4675E3/STS	4.6	69.0	55.8	62.4	58.1	92
Mid-Atlantic Seeds	MAS4723E3	4.7	73.1	-	-	57.7	98
Mid-Atlantic Seeds	MAS4822ES	4.8	72.8	57.0	64.9	57.4	98
Mid-Atlantic Seeds	MAS4823E3	4.8	74.0	-	-	58.4	99
NK/Syngenta	46-B4XFS	4.6	77.2*	-	-	57.8	103
NK/Syngenta	48-H3XFS	4.8	79.4*	61.5	70.4	56.3	106
NK/Syngenta	49-C2XFS	4.9	73.5	-	-	58.3	98
Pioneer	P48A14E	4.8	82.0*	-	-	58.0	110
Revere	4606XFS	4.6	82.6*	-	-	58.2	111
Revere	4821XFS	4.8	61.6	-	-	58.5	82
Revere	4983E3S	4.9	73.9	-	-	58.2	99
Revere	IS4545E3	4.5	78.1*	-	-	57.4	105
Southern Harvest	SH 4622	4.6	70.8	-	-	57.3	95
USG	7461XFS	4.6	77.9*	70.8	74.3	58.5	104
USG	7464ET	4.6	73.0	-	-	58.1	98
USG	7461XTS	4.6	71.7	66.8	69.2	58.5	96
USG	7474XFS	4.7	72.2	-	-	57.5	97
USG	7472ETS	4.7	80.2*	63.8	72.0	58.0	107
USG	7494ETS	4.9	71.8	-	-	58.3	96
Xitavo	XO 4522E	4.5	74.1	62.7	68.4	56.6	99
Xitavo	XO 4772E	4.7	76.4*	62.6	69.5	55.3	102
Xitavo	XO 4894E	4.8	77.7*	-	-	58.0	104
Mean			74.7	62.5	-	57.7	-
Probability > F			0.0003	-	-	-	-
LSD_{0.1}			6.6	-	-	-	-
CV %			8.0	-	-	2.6	-

¹Yields and test weights are reported at 13% moisture content.

²Varieties in **bold** are checks.

*Varieties with an asterisk next to yield are not statistically different (Probability > F ≤ 0.1) compared to the top yielding variety (highlighted in blue) at this location.

Table 21. Performance of MG 5 full season soybeans evaluated at Lower Eastern Shore Research and Education Center in 2023.

Brand	Variety	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2023	2022	2 yr. avg		
HiSOY	HS50E21	5.0	73.3	-	-	60.7	101
Pioneer	P53T90E	5.3	70.6	62.3	66.5	55.0	97
Southern Harvest	SH 5124	5.1	78.1*	-	-	58.2	108
Southern Harvest	SH 5321	5.3	64.8	-	-	56.4	89
USG	7542ET	5.4	75.8*	54.3	65.0	57.2	105
Mean			72.5	52.5	-	57.5	-
Probability > F			0.0049	-	-	-	-
LSD_{0.1}			4.5	-	-	-	-
CV %			8.5	-	-	7.4	-

¹Yields and test weights are reported at 13% moisture content.

²Varieties in **bold** are checks.

*Varieties with an asterisk next to yield are not statistically different (Probability > F ≤ 0.1) compared to the top yielding variety (highlighted in blue) at this location.

Table 22. Performance of MG 3 full season soybeans evaluated at Central Maryland Research and Education Center in 2023.

Brand	Variety	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2023	2022	2 yr. avg		
Hubner	H37-31XF	3.7	36.4	-	-	60.4	115
Mid-Atlantic Seeds	MAS3220E3	3.2	34.0	56.4	45.2	58.0	108
Mid-Atlantic Seeds	MAS3600E3/STS	3.6	42.6	64.3	53.4	48.4	135
Mid-Atlantic Seeds	MAS3884GT/LL	3.8	22.7	65.5	44.1	43.1	72
NK	37-B7XFS	3.7	26.5	-	-	52.4	84
NK	37-C1E3	3.7	31.6	-	-	58.3	100
Pioneer	P37A18E	3.7	29.4	-	-	49.7	93
Pioneer	P38A54E	3.8	36.5	54.6	45.5	59.2	116
Revere	3908XFS	3.9	36.4	-	-	58.3	115
Xitavo	XO 3224E	3.2	31.6	-	-	57.6	100
Xitavo	XO 3483E	3.4	18.6	46.6	32.6	40.3	59
Xitavo	XO 3651E	3.6	32.1	64.1	48.1	42.0	102
Xitavo	XO 3752E	3.7	34.4	87.8	61.1	57.4	109
Xitavo	XO 3803E	3.8	29.2	72.1	50.6	49.6	93
Xitavo	XO 3922E	3.9	29.8	68.1	48.9	26.9	95
Mean			31.5	62.1	-	50.8	-
Probability > F			0.8207	-	-	-	-
LSD_{0.1}			NS	-	-	-	-
CV %			45.3	-	-	33.6	-

¹Yields and test weights are reported at 13% moisture content.

²Varieties in **bold** are checks.

*NS indicates that no statistically significant difference was observed for yield at this location for this test.

Table 23. Performance of MG 4 (early) full season soybeans evaluated at Central Maryland Research and Education Center in 2023.

Brand	Variety	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2023	2002	2 yr. avg		
Agrigold	G4350XF	4.3	45.0	-	-	42.8	93
Agrigold	G4430XF	4.4	49.4*	-	-	60.0	102
Agrigold	G4459E3	4.4	38.2	-	-	61.0	79
Agrigold	G44XF	4.4	59.0*	-	-	60.2	122
Dyna-Gro	S40EN54	4.0	41.4	-	-	59.1	86
Dyna-Gro	S41EN72	4.1	45.7	74.7	60.2	59.0	95
HiSOY	HS40E30	4.0	43.0	-	-	61.0	89
HiSOY	HS41E20	4.1	54.1*	-	-	59.2	112
HiSOY	HS41F30	4.1	52.9*	-	-	59.1	110
HiSOY	HS43E30	4.3	48.3	-	-	60.6	100
HiSOY	HS44F30	4.4	44.8	-	-	58.9	93
Hubner	H40-53XF	4.0	52.5*	-	-	57.0	109
Hubner	H43-53XF	4.3	52.0*	-	-	61.8	108
Mid-Atlantic Seeds	MAS4021E3	4.0	47.5	66.1	56.8	52.1	99
Mid-Atlantic Seeds	MAS4077GT/STS	4.0	49.6*	-	-	60.4	103
Mid-Atlantic Seeds	MAS4123E3	4.1	41.5	-	-	58.1	86
Mid-Atlantic Seeds	MAS4320E3/STS	4.3	41.4	67.6	57.5	59.8	86
Mid-Atlantic Seeds	MAS4423E3	4.4	47.7	-	-	61.5	99
NK/Syngenta	40-P5E3	4.0	48.6*	-	-	58.2	101
NK/Syngenta	42-A6E3	4.2	59.4*	-	-	59.4	123
Pioneer	P42A84E	4.2	59.6*	-	-	59.6	124
Revere	4299XS	4.2	61.2*	-	-	59.9	127
Southern Harvest	SH 4024	4.0	46.5	-	-	59.2	97
USG	7424ETS	4.2	47.6	-	-	58.9	99
USG	7434XF	4.3	40.6	-	-	53.8	84
USG	7431ET	4.3	38.7	68.8	53.7	59.3	80
Xitavo	XO 4084E	4.0	37.5	-	-	58.5	78
Xitavo	XO 4132E	4.1	51.8*	66.6	59.2	59.4	107
Xitavo	XO 4364E	4.3	55.7*	-	-	60.1	116
Mean			48.2	68.7	-	58.5	-
Probability > F			0.0804	-	-	-	-
LSD_{0.1}			12.6	-	-	-	-
CV %			25.1	-	-	10.8	-

¹Yields and test weights are reported at 13% moisture content.

²Varieties in **bold** are checks.

*Varieties with an asterisk next to yield are not statistically different (Probability > F ≤ 0.1) compared to the top yielding variety (highlighted in blue) at this location.

Table 24. Performance of MG 4 (late) full season soybeans evaluated at Central Maryland Research and Education Center in 2023.

Brand	Variety	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2023	2022	2 yr. avg		
Agrigold	G4655E3	4.6	59.6	-	-	60.3	111
Agrigold	G4615XF	4.6	54.3	-	-	60.3	101
Agrigold	G4742XF	4.7	45.6	-	-	62.6	85
Dyna-Gro	S45ES10	4.5	54.6	79.8	67.2	60.8	101
Dyna-Gro	S47XF23S	4.7	62.9	65.6	64.2	61.3	117
Dyna-Gro	S48EN73	4.8	51.0	71.9	61.4	61.4	95
Dyna-Gro	S49XF43S	4.9	61.2	-	-	58.9	114
HiSOY	HS45E00	4.5	36.6	-	-	60.8	68
HiSOY	HS45E32	4.5	45.4	-	-	60.2	84
HiSOY	HS46F00	4.6	52.4	-	-	60.3	97
HiSOY	HS46E92	4.6	55.7	-	-	59.8	104
HiSOY	HS47E32	4.7	47.3	-	-	47.9	88
Hubner	H47-43XF	4.7	54.8	-	-	60.7	102
Mid-Atlantic Seeds	MAS4623E3	4.6	50.3	-	-	61.1	94
Mid-Atlantic Seeds	MAS4675E3/STS	4.6	50.6	73.0	61.8	39.6	94
Mid-Atlantic Seeds	MAS4723E3	4.7	60.4	-	-	60.8	112
Mid-Atlantic Seeds	MAS4822ES	4.8	51.6	83.6	67.2	59.3	96
Mid-Atlantic Seeds	MAS4823E3	4.8	57.8	-	-	59.7	107
NK/Syngenta	46-B4XFS	4.6	52.2	-	-	61.2	97
NK/Syngenta	48-H3XFS	4.8	57.1	70.1	63.6	60.1	106
NK/Syngenta	49-C2XFS	4.9	58.8	-	-	61.3	109
Pioneer	P48A14E	4.8	58.8	-	-	61.7	109
Revere	4606XFS	4.6	55.9	-	-	60.7	104
Revere	4821XFS	4.8	60.3	-	-	61.1	112
Revere	4983E3S	4.9	41.0	-	-	60.2	76
Revere	IS4545E3	4.5	48.5	-	-	59.0	90
Southern Harvest	SH 4622	4.6	49.2	-	-	60.6	91
USG	7461XFS	4.6	49.7	67.0	58.3	57.1	92
USG	7464ET	4.6	55.7	-	-	57.8	104
USG	7461XTS	4.6	61.3	74.5	67.9	60.6	114
USG	7474XFS	4.7	55.5	-	-	58.5	103
USG	7472ETS	4.7	66.8	73.6	70.2	60.6	124
USG	7494ETS	4.9	46.8	-	-	61.3	87
Xitavo	XO 4522E	4.5	51.7	73.8	62.7	60.8	96
Xitavo	XO 4772E	4.7	57.5	68.5	63.0	60.2	107
Xitavo	XO 4894E	4.8	49.1	-	-	60.8	91
Mean			53.8	69.8	-	59.5	-
Probability > F			0.1149	-	-	-	-
LSD_{0.1}			NS	-	-	-	-
CV %			19.5	-	-	11.7	-

¹Yields and test weights are reported at 13% moisture content.

²Varieties in **bold** are checks.

*NS indicates that no statistically significant difference was observed for yield at this location for this test.

Table 25. Performance of MG 3 full season soybeans evaluated at Western Maryland Research and Education Center in 2023.

Brand	Variety	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2023	2022	2 yr. avg		
Hubner	H37-31XF	3.7	47.7	-	-	61.1	106
Mid-Atlantic Seeds	MAS3220E3	3.2	46.6	80.3	63.4	48.2	104
Mid-Atlantic Seeds	MAS3600E3/STS	3.6	50.3	79.4	64.8	52.1	112
Mid-Atlantic Seeds	MAS3884GT/LL	3.8	41.6	77.6	59.6	60.7	92
NK/Syngenta	37-B7XFS	3.7	39.4	-	-	59.3	88
NK/Syngenta	37-C1E3	3.7	45.8	-	-	52.7	102
Pioneer	P37A18E	3.7	46.1	-	-	59.5	102
Pioneer	P38A54E	3.8	46.1	82.1	64.1	55.9	101
Revere	3908XFS	3.9	45.1	-	-	60.0	100
Xitavo	XO 3224E	3.2	40.5	-	-	61.5	90
Xitavo	XO 3483E	3.4	40.0	76.6	58.3	43.8	89
Xitavo	XO 3651E	3.6	46.2	80.3	63.2	38.5	103
Xitavo	XO 3752E	3.7	48.6	75.9	62.2	59.2	108
Xitavo	XO 3803E	3.8	42.4	74.0	58.2	61.4	94
Xitavo	XO 3922E	3.9	47.8	73.0	60.4	60.3	106
Mean			45.0	78.0	-	55.9	-
Probability > F			0.1448	-	-	-	-
LSD_{0.1}			NS	-	-	-	-
CV %			12.1	-	-	21.4	-

¹Yields and test weights are reported at 13% moisture content.

²Varieties in **bold** are checks.

*NS indicates that no statistically significant difference was observed for yield at this location for this test.

Table 26. Performance of MG 4 (early) full season soybeans evaluated at Western Maryland Research and Education Center in 2023.

Brand	Variety	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2023	2002	2 yr. avg		
Agrigold	G4350XF	4.3	49.8	-	-	59.7	102
Agrigold	G4430XF	4.4	53.5	-	-	54.5	109
Agrigold	G4459E3	4.4	49.3	-	-	57.6	101
Agrigold	G44XF	4.4	49.0	-	-	59.9	100
Dyna-Gro	S40EN54	4.0	45.8	-	-	61.8	94
Dyna-Gro	S41EN72	4.1	52.2	80.1	66.1	60.2	107
HiSOY	HS40E30	4.0	45.8	-	-	61.7	94
HiSOY	HS41E20	4.1	51.2	-	-	57.9	105
HiSOY	HS41F30	4.1	46.9	-	-	51.1	96
HiSOY	HS43E30	4.3	51.1	-	-	60.6	104
HiSOY	HS44F30	4.4	53.6	-	-	60.4	110
Hubner	H40-53XF	4.0	47.0	-	-	59.7	96
Hubner	H43-53XF	4.3	51.3	-	-	60.4	105
Mid-Atlantic Seeds	MAS4021E3	4.0	48.1	75.2	61.6	48.5	98
Mid-Atlantic Seeds	MAS4077GT/STS	4.0	42.4	-	-	58.5	87
Mid-Atlantic Seeds	MAS4123E3	4.1	44.6	-	-	59.0	91
Mid-Atlantic Seeds	MAS4320E3/STS	4.3	41.4	65.0	53.2	59.6	85
Mid-Atlantic Seeds	MAS4423E3	4.4	55.3	-	-	59.7	113
NK/Syngenta	40-P5E3	4.0	53.6	-	-	58.8	110
NK/Syngenta	42-A6E3	4.2	50.6	-	-	53.5	103
Pioneer	P42A84E	4.2	47.9	-	-	63.7	98
Revere	4299XS	4.2	52.8	-	-	53.8	108
Southern Harvest	SH 4024	4.0	47.7	-	-	60.6	98
USG	7424ETS	4.2	48.3	-	-	52.3	99
USG	7434XF	4.3	40.6	-	-	64.2	83
USG	7431ET	4.3	54.4	75.2	64.8	60.1	111
Xitavo	XO 4084E	4.0	44.9	-	-	60.7	92
Xitavo	XO 4132E	4.1	48.5	77.7	63.1	61.1	99
Xitavo	XO 4364E	4.3	52.7	-	-	46.0	108
Mean			48.9	75.2	-	58.2	-
Probability > F			0.2752	-	-	-	-
LSD_{0.1}			NS	-	-	-	-
CV %			13.1	-	-	12.4	-

¹Yields and test weights are reported at 13% moisture content.

²Varieties in **bold** are checks.

*NS indicates that no statistically significant difference was observed for yield at this location for this test.

Table 27. Performance of MG 4 (late) full season soybeans evaluated at Western Maryland Research and Education Center in 2023.

Brand	Variety	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2023	2022	2 yr. avg		
Agrigold	G4655E3	4.6	51.6	-	-	60.2	98
Agrigold	G4615XF	4.6	54.0*	-	-	59.8	103
Agrigold	G4742XF	4.7	51.3	-	-	62.0	97
Dyna-Gro	S45ES10	4.5	45.4	73.5	59.4	59.9	86
Dyna-Gro	S47XF23S	4.7	57.6*	81.7	69.6	60.5	110
Dyna-Gro	S48EN73	4.8	55.7*	80.5	68.1	59.9	106
Dyna-Gro	S49XF43S	4.9	49.6	-	-	59.9	94
HiSOY	HS45E00	4.5	46.0	-	-	60.2	87
HiSOY	HS45E32	4.5	44.5	-	-	59.1	85
HiSOY	HS46F00	4.6	54.0*	-	-	59.8	103
HiSOY	HS46E92	4.6	61.3*	-	-	59.6	116
HiSOY	HS47E32	4.7	42.6	-	-	58.3	81
Hubner	H47-43XF	4.7	57.3*	-	-	61.0	109
Mid-Atlantic Seeds	MAS4623E3	4.6	48.5	-	-	59.7	92
Mid-Atlantic Seeds	MAS4675E3/STS	4.6	49.5	76.0	62.7	59.6	94
Mid-Atlantic Seeds	MAS4723E3	4.7	48.2	-	-	60.2	92
Mid-Atlantic Seeds	MAS4822ES	4.8	59.0*	80.3	69.6	59.7	112
Mid-Atlantic Seeds	MAS4823E3	4.8	51.2	-	-	54.1	97
NK/Syngenta	46-B4XFS	4.6	58.6*	-	-	59.7	111
NK/Syngenta	48-H3XFS	4.8	58.2*	84.9	71.5	60.1	111
NK/Syngenta	49-C2XFS	4.9	54.7*	-	-	60.4	104
Pioneer	P48A14E	4.8	58.1*	-	-	61.2	110
Revere	4606XFS	4.6	51.8	-	-	60.3	98
Revere	4821XFS	4.8	51.9	-	-	60.3	99
Revere	4983E3S	4.9	56.2*	-	-	60.9	107
Revere	IS4545E3	4.5	44.8	-	-	50.9	85
Southern Harvest	SH 4622	4.6	46.9	-	-	59.6	89
USG	7461XFS	4.6	54.0*	75.7	64.8	60.2	103
USG	7464ET	4.6	51.1	-	-	59.9	97
USG	7461XTS	4.6	57.3*	80.6	68.9	60.1	109
USG	7474XFS	4.7	52.7	-	-	59.8	100
USG	7472ETS	4.7	52.9	79.5	66.2	55.9	100
USG	7494ETS	4.9	53.3	-	-	59.5	101
Xitavo	XO 4522E	4.5	50.9	81.3	66.1	59.5	97
Xitavo	XO 4772E	4.7	56.6*	76.7	66.6	59.9	108
Xitavo	XO 4894E	4.8	55.2*	-	-	55.6	105
Mean			52.6	76.7	-	59.4	-
Probability > F			0.0026	-	-	-	-
LSD_{0.1}			7.4	-	-	-	-
CV %			12.5	-	-	6.7	-

¹Yields and test weights are reported at 13% moisture content.

²Varieties in **bold** are checks.

*Varieties with an asterisk next to yield are not statistically different (Probability > F ≤ 0.1) compared to the top yielding variety (highlighted in blue) at this location.

Table 28. Average performance of MG 3 double crop soybeans evaluated at two locations (Wye, Poplar Hill) in 2023.

Brand	Variety	MG	Wye		Poplar Hill		Both Locations	
			Yield (bu/ac) ¹	Test Weight (lb/bu) ¹	Yield (bu/ac)	Test Weight (lb/bu)	Yield (bu/ac)	Test Weight (lb/bu)
Hubner	H37-31XF	3.7	50.0	59.3	51.4*	60.0	50.7	59.7
Mid-Atlantic Seeds	MAS3220E3	3.2	47.8	51.6	44.0	59.1	45.9	55.4
Mid-Atlantic Seeds	MAS3600E3/STS	3.6	49.7	60.1	50.8*	59.9	50.2	60.0
Mid-Atlantic Seeds	MAS3884GT/LL	3.8	49.6	59.7	53.1*	60.6	51.4*	60.2
NK	37-B7XFS	3.7	52.9*	62.3	52.7*	59.6	52.8*	61.0
NK	37-C1E3	3.7	52.7*	58.7	47.1	59.4	49.9	59.1
Pioneer	P37A18E	3.7	43.1	55.8	50.9*	59.9	47.0	57.9
Pioneer	P38A54E	3.8	48.4	51.5	43.4	60.2	46.4	55.0
Revere	3908XFS	3.9	57.8*	59.5	54.4*	59.9	56.1*	59.7
Xitavo	XO 3224E	3.2	41.6	58.8	48.6*	59.0	45.1	58.9
Xitavo	XO 3483E	3.4	43.0	54.3	42.5	58.6	42.7	56.4
Xitavo	XO 3651E	3.6	38.4	59.1	47.9	59.6	43.2	59.3
Xitavo	XO 3752E	3.7	40.3	58.5	43.4	58.7	41.9	58.6
Xitavo	XO 3803E	3.8	48.4	59.7	48.3	60.1	48.4	59.9
Xitavo	XO 3922E	3.9	58.1*	59.4	53.4*	59.6	55.8*	59.5
Mean			48.1	57.9	48.9	59.6	48.5	58.7
Probability > F			0.0040	-	0.0213	-	<0.0001	-
LSD_{0.1}			8.0	-	6.1	-	5.1	-
CV %			15.6	9.3	10.8	1.1	13.3	6.7

¹Yields and test weights are reported at 13% moisture content.

²Varieties in **bold** are checks.

*Varieties with an asterisk next to yield are not statistically different (Probability > F ≤ 0.1) compared to the top yielding variety (highlighted in blue) at this location.

Table 29. Average performance of MG 4 (early) double crop soybeans evaluated at two locations (Wye, Poplar Hill) in 2023.

Brand	Variety	MG	Wye		Poplar Hill		Both Locations	
			Yield (bu/ac) ¹	Test Weight (lb/bu) ¹	Yield (bu/ac)	Test Weight (lb/bu)	Yield (bu/ac)	Test Weight (lb/bu)
Agrigold	G4350XF	4.3	54.6	59.9	59.9*	58.5	57.3	59.2
Agrigold	G4430XF	4.4	67.7*	60.3	54.5	60.5	62.4*	60.4
Agrigold	G4459E3	4.4	60.5	59.8	61.2*	60.6	60.9*	60.3
Agrigold	G44XF	4.4	51.7	60.6	54.0	59.9	52.8	60.2
Dyna-Gro	S40EN54	4.0	57.8	60.4	51.1	60.5	54.5	60.5
Dyna-Gro	S41EN72	4.1	61.0	59.8	57.9	59.5	59.4*	59.7
HiSOY	HS40E30	4.0	58.7	55.0	57.6	61.8	58.1	58.9
HiSOY	HS41E20	4.1	57.8	56.0	64.4*	59.4	61.1*	57.7
HiSOY	HS41F30	4.1	49.7	59.7	58.1	60.5	53.9	60.1
HiSOY	HS43E30	4.3	56.1	54.3	57.8	60.7	56.9	57.5
HiSOY	HS44F30	4.4	58.6	59.7	58.2	60.8	58.4	60.3
Hubner	H40-53XF	4.0	50.8	59.1	55.1	60.6	52.9	59.8
Hubner	H43-53XF	4.3	49.3	59.9	59.8*	61.3	54.6	60.6
Mid-Atlantic Seeds	MAS4021E3	4.0	58.9	56.4	63.2*	59.8	61.0*	58.1
Mid-Atlantic Seeds	MAS4077GT/STS	4.0	45.3	59.2	54.0	57.7	49.6	58.4
Mid-Atlantic Seeds	MAS4123E3	4.1	51.2	59.4	56.0	59.6	53.6	59.5
Mid-Atlantic Seeds	MAS4320E3/STS	4.3	51.1	59.3	51.2	59.9	51.2	59.6
Mid-Atlantic Seeds	MAS4423E3	4.4	51.4	60.4	56.0	60.9	53.7	60.6
NK/Syngenta	40-P5E3	4.0	58.3	59.3	59.9*	60.0	59.1*	59.7
NK/Syngenta	42-A6E3	4.2	62.8*	60.1	64.4*	59.9	63.6*	60.0
Pioneer	P42A84E	4.2	58.7	60.5	61.8*	56.2	60.2*	58.3
Revere	4299XS	4.2	59.3	59.8	59.8*	60.2	59.5*	60.0
Southern Harvest	SH 4024	4.0	52.6	60.5	57.0	60.7	54.8	60.6
USG	7424ETS	4.2	52.9	60.3	56.0	59.0	54.4	59.7
USG	7434XF	4.3	47.4	60.0	55.0	59.9	51.2	60.0
USG	7431ET	4.3	54.5	60.2	59.2*	60.4	56.9	60.3
Xitavo	XO 4084E	4.0	51.2	60.7	62.0*	60.1	56.6	60.4
Xitavo	XO 4132E	4.1	59.3	60.1	64.9*	59.5	62.1*	59.8
Xitavo	XO 4364E	4.3	53.0	60.8	56.4	61.1	54.7	61.0
Mean			55.2	59.4	58.2	60.0	56.7	59.7
Probability > F			<0.0001	-	0.0080	-	<0.0001	-
LSD_{0.1}			5.5	-	6.0	-	4.7	-
CV %			11.1	5.2	9.0	3.4	10.4	4.4

¹Yields and test weights are reported at 13% moisture content;²Varieties in **bold** are checks.

*Varieties with an asterisk next to yield are not statistically different (Probability > F ≤ 0.1) compared to the top yielding variety (highlighted in blue) at this location.

Table 30. Average performance of MG 4 (late) double crop soybeans evaluated at two locations (Wye, Poplar Hill) in 2023.

Brand	Variety	RM	Wye		Poplar Hill		Both Locations	
			Yield (bu/ac) ¹	Test Weight (lb/bu) ¹	Yield (bu/ac)	Test Weight (lb/bu)	Yield (bu/ac)	Test Weight (lb/bu)
Agrigold	G4655E3	4.6	59.0*	60.1	51.5	60.1	55.2	60.1
Agrigold	G4615XF	4.6	49.1	60.2	54.8	59.6	51.9	59.9
Agrigold	G4742XF	4.7	52.8	60.1	54.1	59.8	53.4	60.0
Dyna-Gro	S45ES10	4.5	57.6	60.4	55.3	60.5	56.4	60.5
Dyna-Gro	S47XF23S	4.7	56.1	60.0	60.2*	60.0	58.2*	60.0
Dyna-Gro	S48EN73	4.8	59.3*	60.5	59.8*	59.8	59.6*	60.1
Dyna-Gro	S49XF43S	4.9	60.8*	60.3	62.5*	57.5	61.7*	58.9
HiSOY	HS45E00	4.5	51.0	60.6	58.5*	60.0	54.8	60.3
HiSOY	HS45E32	4.5	55.6	60.1	54.5	59.8	55.1	59.9
HiSOY	HS46F00	4.6	53.4	60.0	51.5	59.8	52.5	59.9
HiSOY	HS46E92	4.6	57.3	60.6	60.8*	60.7	59.1*	60.7
HiSOY	HS47E32	4.7	53.8	59.9	61.7*	59.8	57.8*	59.9
Hubner	H47-43XF	4.7	52.3	60.4	56.8	59.3	54.6	59.9
Mid-Atlantic Seeds	MAS4623E3	4.6	56.4	60.0	51.0	60.1	53.7	60.1
Mid-Atlantic Seeds	MAS4675E3/STS	4.6	55.2	60.2	54.2	54.3	54.7	57.2
Mid-Atlantic Seeds	MAS4723E3	4.7	56.1	60.2	60.4*	59.7	58.3*	60.0
Mid-Atlantic Seeds	MAS4822ES	4.8	54.8	60.2	60.7*	58.3	57.7*	59.2
Mid-Atlantic Seeds	MAS4823E3	4.8	56.5	60.2	55.7	59.9	56.2	60.1
NK/Syngenta	46-B4XFS	4.6	60.0*	60.6	61.8*	60.3	60.9*	60.5
NK/Syngenta	48-H3XFS	4.8	63.5*	60.0	58.1*	59.9	60.8*	60.0
NK/Syngenta	49-C2XFS	4.9	59.9*	60.8	59.7*	60.9	59.8*	60.8
Pioneer	P48A14E	4.8	62.8*	60.9	58.7*	61.0	60.7*	61.0
Revere	4606XFS	4.6	55.1	60.0	62.7*	60.1	58.9*	60.1
Revere	4821XFS	4.8	54.0	60.3	55.7	60.1	54.9	60.2
Revere	4983E3S	4.9	59.9*	60.2	56.8	60.1	58.4*	60.1
Revere	IS4545E3	4.5	54.3	59.5	52.5	55.3	53.4	57.4
Southern Harvest	SH 4622	4.6	55.9	59.6	55.1	59.4	55.5	59.5
USG	7461XFS	4.6	55.1	60.3	57.0	60.2	56.1	60.3
USG	7461XTS	4.6	55.1	60.4	63.5*	60.0	59.3*	60.2
USG	7464ET	4.6	52.7	60.3	55.4	60.3	54.1	60.3
USG	7474XFS	4.7	61.7*	59.6	58.2*	59.4	59.9*	59.5
USG	7472ETS	4.7	48.5	59.9	59.2*	59.8	53.8	59.8
USG	7494ETS	4.9	53.9	60.0	57.2	60.2	55.6	60.1
Xitavo	XO 4522E	4.5	52.4	59.9	56.2	59.5	54.3	59.7
Xitavo	XO 4772E	4.7	55.7	60.0	58.0*	58.6	56.9	59.3
Xitavo	XO 4894E	4.8	59.2*	60.6	53.2	60.5	56.2	60.6
Mean			56.0	60.2	57.4	59.6	56.7	59.9
Probability > F			0.0049	-	0.0243	-	0.0032	-
LSD_{0.1}			5.8	-	6.2	-	4.7	-
CV %			9.5	0.7	8.6	3.9	9.1	2.8

¹Yields and test weights are reported at 13% moisture content; ²Varieties in **bold** are checks; *Varieties with an asterisk next to yield are not statistically different (Probability > F ≤ 0.1) compared to the top yielding variety (highlighted in blue) at this location

Table 31. Average performance of MG 5 double crop soybeans evaluated at two locations (Wye, Poplar Hill) in 2023.

Brand	Variety	RM	Wye		Poplar Hill		Both Locations	
			Yield (bu/ac) ¹	Test Weight (lb/bu) ¹	Yield (bu/ac)	Test Weight (lb/bu)	Yield (bu/ac)	Test Weight (lb/bu)
HiSOY	HS50E21	5.0	51.0	60.1	57.4*	60.2	54.2*	60.2
Pioneer	P53T90E	5.3	47.1	61.1	48.6	59.7	47.8	60.4
Southern Harvest	SH 5124	5.1	44.9	48.2	58.8*	59.5	51.9*	53.8
Southern Harvest	SH 5321	5.3	50.5	59.7	54.2*	52.3	52.4*	56.0
USG	7542ET	5.4	44.9	60.2	46.1	36.1	45.5	48.1
Mean			47.7	57.9	53.0	53.5	50.3	55.7
Probability > F			0.2554	-	0.0113	-	0.0478	-
LSD_{0.1}			NS	-	5.6	-	5.1	-
CV %			9.1	16.3	11.3	19.8	11.6	18.1

¹Yields and test weights are reported at 13% moisture content.

²Varieties in **bold** are checks.

*Varieties with an asterisk next to yield are not statistically different (Probability > F ≤ 0.1) compared to the top yielding variety (highlighted in blue) at this location

Table 32. Relative yield summary for MG 3 soybeans

Brand	Variety	Full Season				Double Crop	
		Wye	Poplar Hill	Clarksville	Keedysville	Wye	Poplar Hill
Hubner	H37-31XF	111	87	115	106	104	105
Mid-Atlantic Seeds	MAS3220E3	102	105	108	104	99	90
Mid-Atlantic Seeds	MAS3600E3/STS	94	105	135	112	103	104
Mid-Atlantic Seeds	MAS3884GT/LL	89	-	72	92	103	109
NK	37-B7XFS	97	99	84	88	110	108
NK	37-C1E3	114	-	100	102	110	96
Pioneer	P37A18E	111	-	93	102	90	104
Pioneer	P38A54E	95	-	116	101	101	89
Revere	3908XFS	91	-	115	100	120	111
Xitavo	XO 3224E	106	104	100	90	86	99
Xitavo	XO 3483E	102	-	59	89	89	87
Xitavo	XO 3651E	95	-	102	103	80	98
Xitavo	XO 3752E	107	105	109	108	84	89
Xitavo	XO 3803E	100	95	93	94	101	99
Xitavo	XO 3922E	87	-	95	106	121	109
Trial Mean (bu/ac)		60.0	57.9	31.5	45.0	48.1	48.9

Varieties highlighted in green have relative yield ratings of 100 or greater at all sites (or both DC sites)

Varieties highlighted in yellow have relative yield ratings of 100 or greater at three of four full season testing sites

Table 33. Relative yield summary for MG 4 (early) soybeans.

Brand	Variety	Full Season				Double Crop	
		Wye	Poplar Hill	Clarksville	Keedysville	Wye	Poplar Hill
Agrigold	G4350XF	104	103	93	102	99	103
Agrigold	G4430XF	93	104	102	109	123	94
Agrigold	G4459E3	95	105	79	101	110	105
Agrigold	G44XF	108	94	122	100	94	93
Dyna-Gro	S40EN54	105	106	86	94	105	88
Dyna-Gro	S41EN72	85	101	95	107	111	99
HiSOY	HS40E30	108	92	89	94	106	99
HiSOY	HS41E20	92	105	112	105	105	111
HiSOY	HS41F30	103	113	110	96	90	100
HiSOY	HS43E30	89	96	100	104	102	99
HiSOY	HS44F30	106	104	93	110	106	100
Hubner	H40-53XF	103	110	109	96	92	95
Hubner	H43-53XF	86	106	108	105	89	103
Mid-Atlantic Seeds	MAS4021E3	114	101	99	98	107	109
Mid-Atlantic Seeds	MAS4077GT/STS	90	102	103	87	82	93
Mid-Atlantic Seeds	MAS4123E3	101	90	86	91	93	96
Mid-Atlantic Seeds	MAS4320E3/STS	92	95	86	85	93	88
Mid-Atlantic Seeds	MAS4423E3	117	104	99	113	93	96
NK/Syngenta	40-P5E3	112	109	101	110	106	103
NK/Syngenta	42-A6E3	92	97	123	103	114	111
Pioneer	P42A84E	97	114	124	98	106	106
Revere	4299XS	113	105	127	108	107	103
Southern Harvest	SH 4024	105	94	97	98	95	98
USG	7424ETS	88	88	99	99	96	96
USG	7434XF	82	96	84	83	86	95
USG	7431ET	104	95	80	111	99	102
Xitavo	XO 4084E	106	86	78	92	93	106
Xitavo	XO 4132E	102	99	107	99	107	111
Xitavo	XO 4364E	108	91	116	108	96	97
Trial Mean (bu/ac)		55.9	71.5	48.2	48.9	55.2	58.2

Varieties highlighted in green have relative yield ratings of 100 or greater at all sites (or both DC sites)

Varieties highlighted in yellow have relative yield ratings of 100 or greater at three of four full season testing sites

Table 34. Relative yield summary for MG 4 (late) soybeans

Brand	Variety	Full Season				Double Crop	
		Wye	Poplar Hill	Clarksville	Keedysville	Wye	Poplar Hill
Agrigold	G4655E3	98	107	111	98	105	90
Agrigold	G4615XF	115	95	101	103	88	95
Agrigold	G4742XF	116	103	85	97	94	94
Dyna-Gro	S45ES10	102	98	101	86	103	96
Dyna-Gro	S47XF23S	87	103	117	110	100	105
Dyna-Gro	S48EN73	113	100	95	106	106	104
Dyna-Gro	S49XF43S	119	108	114	94	109	109
HiSOY	HS45E00	102	102	68	87	91	102
HiSOY	HS45E32	89	96	84	85	99	95
HiSOY	HS46F00	74	92	97	103	95	90
HiSOY	HS46E92	105	107	104	116	102	106
HiSOY	HS47E32	101	89	88	81	96	107
Hubner	H47-43XF	106	105	102	109	93	99
Mid-Atlantic Seeds	MAS4623E3	97	98	94	92	101	89
Mid-Atlantic Seeds	MAS4675E3/STS	92	92	94	94	99	94
Mid-Atlantic Seeds	MAS4723E3	96	98	112	92	100	105
Mid-Atlantic Seeds	MAS4822ES	103	98	96	112	98	106
Mid-Atlantic Seeds	MAS4823E3	80	99	107	97	101	97
NK/Syngenta	46-B4XFS	93	103	97	111	107	108
NK/Syngenta	48-H3XFS	118	106	106	111	113	101
NK/Syngenta	49-C2XFS	120	98	109	104	107	104
Pioneer	P48A14E	88	110	109	110	112	102
Revere	4606XFS	115	111	104	98	98	109
Revere	4821XFS	95	82	112	99	97	97
Revere	4983E3S	117	99	76	107	107	99
Revere	IS4545E3	93	105	90	85	97	92
Southern Harvest	SH 4622	85	95	91	89	100	96
USG	7461XFS	123	104	92	103	98	99
USG	7464ET	111	98	104	97	98	111
USG	7461XTS	101	96	114	109	94	97
USG	7474XFS	83	97	103	100	110	101
USG	7472ETS	104	107	124	100	87	103
USG	7494ETS	84	96	87	101	96	100
Xitavo	XO 4522E	91	99	96	97	94	98
Xitavo	XO 4772E	85	102	107	108	99	101
Xitavo	XO 4894E	99	104	91	105	106	93
Trial Mean (bu/ac)		56.8	74.7	53.8	52.6	56.0	57.4

Varieties highlighted in green have relative yield ratings of 100 or greater at all sites (or both DC sites)
 Varieties highlighted in yellow have relative yield ratings of 100 or greater at three of four full season testing sites

Table 35. Relative yield summary for MG 5 soybeans

Brand	Variety	Full Season		Double Crop	
		Wye	Poplar Hill	Wye	Poplar Hill
HiSOY	HS50E21	99	101	107	108
Pioneer	P53T90E	90	97	99	92
Southern Harvest	SH 5124	90	108	94	111
Southern Harvest	SH 5321	111	89	106	102
USG	7542ET	110	105	94	87
Trial Mean (bu/ac)		58.9	72.5	47.7	53.0

Varieties highlighted in green have relative yield ratings of 100 or greater at both FS or DC sites