

Agronomy Facts No. 32
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2024 Maryland State Soybean Variety Trials

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

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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 2024 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 Revere varieties were identified for use as checks in the test. The inclusion of the performance data for check or reference varieties that are proven performers in the Mid-Atlantic region allows comparisons of newer varieties to proven varieties. During 2024, 56 varieties were tested using three maturity groups: MG 3 (9 varieties, Table 6), early MG 4 (4.0-4.3, 24 varieties, Table 7), and late MG 4 (>4.4, 22 varieties, Table 8). Check varieties were included in each of the maturity groupings. All genetic traits and seed treatments are listed in Tables 6-8.

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 for use in the variety trials. 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. 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 12-14 and double crop varieties in Tables 27-29. Variety performance at individual locations can be found in Tables 15-26. 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 and 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. Lodging was estimated by plot at the time of harvest. 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 (LSD0.1). 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 9-11) 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.

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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.

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Table 1. Production management practices and other information for the full season locations for the 2024 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>18 April</u> 4-20-27-6S @ 367 lb/ac <u>22 April</u> TSP (0-45-0) @ 70 lb/ac <u>Total</u> 15-105-99-22S	<u>8 May</u> Sunphosate 5 Max @ 24 oz/ac Transform + @ 1 qt/100 gal <u>31 May</u> Actamaster SC @ 9 lb/100 gal Fierce XLT @ 4 oz/ac Liberty 280 SL @ 29 oz/ac Metribuzin @ 3 oz/ac Transform + @ 1 qt/100 gal	<u>17 July</u> Envy Six Max @ 24 oz/ac Transverse Surfactant @ 1 qt/100 gal	No-tillage 30" row spacing	<u>Plant</u> 31 May <u>Harvest</u> 25 October	John Draper Thomas Eason Reagan Milby
Lower Eastern Shore R&E Center Poplar Hill Facility Quantico, MD	Mattapex silt loam Soybeans	<u>23 May</u> 1-5-33-11S-6Mg-0.3B @ 415 lb/ac <u>Total</u> 5-22-139-46S-23Mg-1B	<u>9 May</u> Gramoxone @ 1 qt/a 2,4-D @ 1 qt/a Scanner 80/20 @ 6 oz/a <u>5 June</u> Valor @ 4 oz/a Weather Gard @ 8 oz/a Liberty @ 1qt/a	<u>17 July</u> RoundUp @ 1qt/a Dual Magnum @ 12 oz/a <u>18 July</u> Reflex @ 20 oz/a Intensity @ 16 oz/a Scanner 80/20 @ 10 oz/a	No-tillage 30" row spacing	<u>Plant</u> 4 June <u>Harvest</u> 1 November	David Armentrout Vivian Calder Cody Hall Jordan Miller
Central Maryland R&E Center Clarksville Facility Clarksville, MD	Glenville silt loam Corn	<u>2 May</u> 0-0-70-24S	<u>16 April</u> Roundup @ 1 qt/ac 2,4-D @ 1 qt/ac Surfactant @ 1 pt/100gal <u>8 May</u> Cloak @ 5oz/ac Moccasin @ 0.67qt/ac Gramoxone SL 3.0 @ 1qt/ac MSO @ 1 gal/100gal	<u>23 July</u> Roundup @ 1qt/ac Cadet @ 0.5 oz/ac Surfactant @ 1 qt/100gal	No-tillage 30" row spacing	<u>Plant</u> 20 May <u>Harvest</u> 6 November	Ryan McDonald Michael Gray
Western Maryland R&E Center Keedysville, MD	Swanpond silt loam Corn then rye cover crop	<u>25 April</u> 10.5-50-80-15S	<u>17 May</u> Cloak @ 5oz/ac Moccasin II @ 1.33pt/ac Helmquat 3SL @ 1.5pt/ac Sharpen @ 1oz/ac	<u>8 July</u> Roundup @ 24 oz/ac	No-tillage 30" row spacing	<u>Plant</u> 17 May <u>Harvest</u> 7 November	Douglas Price David Wyand

Table 2. Production management practices and other information for the double crop locations for the 2024 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>21 June</u> Ammonium Sulfate (21-0-0) @ 2 lb/ac	<u>21 June</u> Envy Six Max @ 30 oz/ac Transform + @ 1 qt/ac Liberty 280 SL @ 29 oz/ac Fierce XLT @ 4 oz/ac Metribuzin 75 @ 3oz/ac <u>1 August</u> Envy Six Max @ 32 oz/ac Transform + @ 1 qt/ac Liberty 280 SL @ 32 oz/ac Actamaster SC @ 48 oz/100 gal Traverse Surfactant @ 1 at/100 gal	No-tillage 30” row spacing	<u>Plant</u> 20 June <u>Harvest</u> 28 October	John Draper Thomas Eason Reagan Milby
Lower Eastern Shore R&E Center Poplar Hill Facility Quantico, MD	Nassawango silt loam Corn then wheat	-	<u>27 June</u> Envive @ 3 oz/ac Weather Gard @ 8 oz/ac Liberty @ 1 qt/a <u>23 July</u> Roundup @ 1 qt/ac Medal II EC @ 12 oz/ac Scanner 80/20 @ 10 oz/a	No-tillage 30” row spacing	<u>Plant</u> 25 June <u>Harvest</u> 4 November	David Armentrout Vivian Calder Cody Hall Jordan Miller

Table 3. Brands and companies in the 2024 Maryland soybean variety trials

Brand	Address
AgriGold	AgriGold, 5381 Akin Road, St. Francisville, IL, 62460 www.agrigold.com
APEX (SeedKoz)	SeedKoz, 2713 Paula Drive, Ste B, Jonesboro, AR 72404
Catalyst (SeedKoz)	SeedKoz, 2713 Paula Drive, Ste B, Jonesboro, AR 72404
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
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 / Initech	Revere Seed, 802 Rozelle Street, Memphis, TN 38104 revereseed.com
Seedway	Seedway LLC, P.O. Box 250, 1734 Railroad Place Hall, NY 14463
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 2024 at Maryland locations of soybean variety trials

	Wye	Poplar Hill	Keedysville	Clarksville
Month	inches			
June	1.65	8.17	1.70	3.06
July	5.96	1.15	2.04	2.53
August	2.56	5.56	6.93	9.00
September	1.72	2.68	-	3.81
October	-	0.12	-	3.81
2024 Total (5 mos.)	11.89	17.68	10.67	22.21
Long Term Average¹	23.53	21.09	16.02	15.26

¹Long term average precipitation is for the following 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
Agrishield Max	Protects soybean root systems from SDS fungus, white mold and nematodes
CruiserMaxx	Seed treatment to protect against insect, seedborne and seedling diseases
Enlist E3	Soybeans modified to be tolerant to use of 2,4-D choline, glyphosate, and glufosinate herbicides for weed control
Equity Vayo	Protects against damage from early season insects, soil borne and seed borne diseases
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
Liberty	Refers to glufosinate (Liberty) herbicide tolerance
LumiGen	Protects seeds and seedlings from pests, diseases, and soil conditions
LumiTreo	Fungicide seed treatment that protects soybeans from early season diseases
Metalaxyl	Systemic fungicide used to control plant diseases caused by oomycetes or water-mold fungi
Obtayn	Seed treatment providing combination of fungicide and insecticide protectants for early season stresses
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
Rancona	Seed treatment combination of ipconazole and metalaxyl fungicides
Radius Premium	Unspecified seed treatment
Relenya	Seed treatment to control seed and seedling disease caused by Fusarium and Rhizoctonia solani
RR	Has glyphosate herbicide tolerance
Saltro	Seed treatment for protection against sudden death syndrome
STS	Sulfonylurea-tolerant soybeans
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
Agrigold	G3404E3	3.4	Agrishield Max	E3
APEX	AE3850	3.8	Radius Premium	Enlist E3
Dyna-Gro	S38EN75	3.8	Equity Vayo, Saltro	Enlist E3
Mid-Atlantic Seeds	MAS3220E3/STS	3.2	MAS Proshield	E3/STS
Mid-Atlantic Seeds	MAS3525E3	3.5	MAS Proshield	E3
Mid-Atlantic Seeds	MAS3923E3/STS	3.9	MAS Proshield	E3/STS
Pioneer	P37A18E	3.7	Lumisena™, L-2030 G, imidacloprid, ILEVO®, L-120+ inoculant	Enlist
Revere	39-F94	3.9	Radius Premium	XtendFlex/STS
Seedway	SX 3914E3	3.9	Obtayn	Enlist
Syngenta/NK	NK37-R5XF	3.7	Cruisemaxx APX + Saltro	XtendFlex

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
APEX	AE4341S	4.3	Radius Premium	EnlistE3/ STS
Catalyst	CT4413E3S	4.4	Radius Premium	Enlist E3 / STS
Dyna-Gro	S40EN54	4.0	Equity VIP, Saltro & Vayantis	Enlist E3
Dyna-Gro	S43EN61	4.3		Enlist
HiSOY	HS 43E30	4.3	Untreated	E3, LL, RR2
Mid-Atlantic Seeds	MAS4021E3	4.0	MAS Proshield	E3
Mid-Atlantic Seeds	MAS4045E3	4.0	MAS Proshield	E3
Mid-Atlantic Seeds	MAS4215E3	4.2	MAS Proshield	E3
Mid-Atlantic Seeds	MAS4320E3/STS	4.3	MAS Proshield	E3
Mid-Atlantic Seeds	MAS4423E3	4.4	MAS Proshield	E3
Pioneer	P42A84E	4.2	Lumisena™, L-2030G, imidacloprid, L-120+ inoculant	E3
Revere	44-F44	4.4	Radius Premium	XtendFlex/STS
Seedway	SG 4122E3	4.1	Obtayne	Enlist
Southern Harvest	SH 4024 E3	4.0	Maximize	E3
Syngenta/NK	NK42-A6E3S	4.2	Cruisemaxx APX + Saltro	Enlist / STS
Syngenta/NK	NK43-W1XFS	4.3	Cruiser APX + Saltro	XtendFlex
USG	7415ET	4.1	Rancona, Imidicloprid, Metalaxyl	E3
USG	7434XF	4.3	Rancona, Imidicloprid, Metalaxyl	XtendFlex
USG	7435ET	4.3	Rancona, Imidicloprid, Metalaxyl	E3
USG	7435XFS	4.3	Rancona, Imidicloprid, Metalaxyl	XtendFlex/STS
Xitavo	XO 4132E	4.1	Poncho, Votivo, Ileva, Obvius Plus, Relenya	Enlist E3
Xitavo	XO 4255E	4.2	Poncho, Votivo, Ileva, Obvius Plus, Relenya	Enlist E3
Xitavo	XO 4364E	4.3	Poncho, Votivo, Ileva, Obvius Plus, Relenya	Enlist E3
Xitavo	XO 4405E	4.4	Poncho, Votivo, Ileva, Obvius Plus, 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
Apex	AE4640S	4.6	Radius Premium	Enlist E3/ STS
Dyna-Gro	S45EN25	4.5	Equity Vayo, Saltro	Enlist E3
Dyna-Gro	S49XF43S	4.9	Equity Vayo, Saltro	XtendFlex/STS
HiSOY	HS 45E32	4.5	Untreated	E3, LL, RR2
HiSOY	HS 47E32	4.7	Untreated	E3, LL, RR2
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	MAS4823E3/STS	4.8	MAS Proshield	E3
Pioneer	P48A14E	4.8	Lumisena™, L-2030G, imidacloprid, L-120+ inoculant	E3
Revere	46-F57	4.6	Radius Premium	XtendFlex/STS
Revere/Initech	4545E3S	4.5	Radius Premium	Enlist
Seedway	SG 4521E3	4.5	Obtayn	Enlist
Seedway	SX 4594XTF	4.5	Obtayn	XtendFlex
Seedway	SX 4614E3	4.6	Obtayn	Enlist
USG	7461XFS	4.6	Rancona, Imidicloprid, Metalaxyl	XtendFlex/STS
USG	7472ETS	4.7	Rancona, Imidicloprid, Metalaxyl	E3/STS
USG	7483XFS	4.8	Rancona, Imidicloprid, Metalaxyl	XtendFlex/STS
USG	7485ETS	4.8	Rancona, Imidicloprid, Metalaxyl	E3/STS
USG	7494ETS	4.9	Rancona, Imidicloprid, Metalaxyl	E3/STS
USG	7495XFS	4.9	Rancona, Imidicloprid, Metalaxyl	XtendFlex/STS
Xitavo	XO 4522E	4.5	Poncho, Votivo, Ileva, Obvius Plus, Relenya	Enlist E3

Table 9. Relative yield summary for MG 3 soybeans.

Brand	Variety	RM	Full Season				Double Crop	
			Wye	Poplar Hill	Clarksville	Keedysville	Wye	Poplar Hill
Agrigold	G3404E3	3.4	92	103	101	99	96	91
APEX	AE3850	3.8	112	105	106	97	107	108
Dyna-Gro	S38EN75	3.8	103	110	109	106	105	116
Mid-Atlantic Seeds	MAS3220E3/STS	3.2	106	93	105	96	92	91
Mid-Atlantic Seeds	MAS3525E3	3.5	86	74	84	96	98	88
Mid-Atlantic Seeds	MAS3923E3/STS	3.9	98	114	94	96	92	96
Pioneer	P37A18E	3.7	104	108	99	94	103	114
Revere	39-F94	3.9	97	106	103	109	102	97
Seedway	SX 3914E3	3.9	103	102	96	109	104	95
Syngenta/NK	NK37-R5XF	3.7	100	85	98	101	100	105
Trial Mean (bu/ac)			73.3	60.3	69.5	87.3	64.4	64.6

Table 10. Relative yield summary for MG 4 (early) soybeans.

Brand	Variety	RM	Full Season				Double Crop	
			Wye	Poplar Hill	Clarksville	Keedysville	Wye	Poplar Hill
APEX	AE4341S	4.3	96	103	105	107	101	107
Catalyst	CT4413E3S	4.4	116	125	106	109	99	109
Dyna-Gro	S40EN54	4.0	102	112	103	104	107	100
Dyna-Gro	S43EN61	4.3	98	113	104	94	105	86
HiSOY	HS 43E30	4.3	96	98	97	105	83	100
Mid-Atlantic Seeds	MAS4021E3	4.0	100	109	103	97	100	102
Mid-Atlantic Seeds	MAS4045E3	4.0	102	115	96	106	107	103
Mid-Atlantic Seeds	MAS4215E3	4.2	93	117	93	95	97	98
Mid-Atlantic Seeds	MAS4320E3/STS	4.3	95	105	97	101	93	89
Mid-Atlantic Seeds	MAS4423E3	4.4	103	96	105	105	97	101
Pioneer	P42A84E	4.2	97	122	101	97	92	101
Revere	44-F44	4.4	107	126	112	88	100	105
Seedway	SG 4122E3	4.1	98	92	107	106	100	98
Southern Harvest	SH 4024 E3	4.0	96	95	97	92	103	99
Syngenta/NK	NK42-A6E3S	4.2	95	123	103	101	107	104
Syngenta/NK	NK43-W1XFS	4.3	105	119	91	92	101	99
USG	7415ET	4.1	107	122	98	107	109	107
USG	7434XF	4.3	98	115	95	99	101	100
USG	7435ET	4.3	105	121	107	94	91	100
USG	7435XFS	4.3	95	120	93	93	102	99
Xitavo	XO 4132E	4.1	96	110	103	106	105	96
Xitavo	XO 4255E	4.2	99	115	100	107	97	96
Xitavo	XO 4364E	4.3	89	109	93	93	106	103
Xitavo	XO 4405E	4.4	112	122	95	90	98	96
Trial Mean (bu/ac)			77.0	61.2	68.9	81.7	64.5	71.2

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 11. Relative yield summary for MG 4 (late) soybeans.

Brand	Variety	RM	Full Season				Double Crop	
			Wye	Poplar Hill	Clarksville	Keedysville	Wye	Poplar Hill
Apex	AE4640S	4.6	92	99	100	101	96	106
Dyna-Gro	S45EN25	4.5	96	109	107	100	103	109
Dyna-Gro	S49XF43S	4.9	105	103	100	87	102	102
HiSOY	HS 45E32	4.5	93	107	98	98	101	86
HiSOY	HS 47E32	4.7	108	97	101	102	107	94
Mid-Atlantic Seeds	MAS4623E3	4.6	94	89	89	104	101	94
Mid-Atlantic Seeds	MAS4675E3/STS	4.6	99	101	100	94	92	97
Mid-Atlantic Seeds	MAS4723E3	4.7	102	101	99	104	95	98
Mid-Atlantic Seeds	MAS4823E3/STS	4.8	98	95	106	90	89	100
Pioneer	P48A14E	4.8	108	103	116	98	100	117
Revere	46-F57	4.6	101	-	100	104	106	98
Revere/Initech	4545E3S	4.5	102	96	96	100	103	100
Seedway	SG 4521E3	4.5	97	104	102	104	98	96
Seedway	SX 4594XTF	4.5	103	94	105	95	101	108
Seedway	SX 4614E3	4.6	92	100	90	103	102	96
USG	7461XFS	4.6	108	101	98	93	104	104
USG	7472ETS	4.7	96	87	97	95	99	102
USG	7483XFS	4.8	100	101	87	100	98	101
USG	7485ETS	4.8	104	106	112	107	107	103
USG	7494ETS	4.9	100	104	96	106	96	100
USG	7495XFS	4.9	96	115	96	101	94	91
Xitavo	XO 4522E	4.5	105	99	110	109	104	97
Trial Mean (bu/ac)			79.8	71.1	68.3	81.7	64.4	67.8

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 12. Average performance of MG 3 full season soybeans evaluated at four locations (Wye, Poplar Hill, Clarksville, Keedysville) in 2024.

Brand	Variety ²	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹
			2024	2023	2 yr. avg	
Agrigold	G3404E3	3.4	71.5	-	-	49.4
APEX	AE3850	3.8	75.3	-	-	51.7
Dyna-Gro	S38EN75	3.8	76.2	-	-	51.2
Mid-Atlantic Seeds	MAS3220E3/STS	3.2	72.6	49.8	61.2	50.7
Mid-Atlantic Seeds	MAS3525E3	3.5	62.7	-	-	52.4
Mid-Atlantic Seeds	MAS3923E3/STS	3.9	72.5	-	-	51.8
Pioneer	P37A18E	3.7	72.3	47.4	59.9	52.5
Revere	39-F94	3.9	75.3	-	-	52.1
Seedway	SX 3914E3	3.9	72.9	-	-	50.9
Syngenta/NK	NK37-R5XF	3.7	70.0	-	-	49.7
Mean			72.1	46.6	-	51.2
Probability > F			0.4363	-	-	-
LSD_{0.1}			NS*	-	-	-
CV %			17.4	-	-	7.2

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 13. Average performance of MG 4 (early) full season soybeans evaluated at four locations (Wye, Poplar Hill, Clarksville, Keedysville) in 2024.

Brand	Variety ²	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹
			2024	2023	2 yr. avg	
APEX	AE4341S	4.3	74.3	-	-	54.0
Catalyst	CT4413E3S	4.4	82.0	-	-	53.3
Dyna-Gro	S40EN54	4.0	75.8	55.4	65.6	52.4
Dyna-Gro	S43EN61	4.3	72.9	-	-	51.9
HiSOY	HS 43E30	4.3	71.7	54.7	63.2	52.8
Mid-Atlantic Seeds	MAS4021E3	4.0	73.8	57.8	65.8	50.9
Mid-Atlantic Seeds	MAS4045E3	4.0	75.4	-	-	51.8
Mid-Atlantic Seeds	MAS4215E3	4.2	71.2	-	-	53.4
Mid-Atlantic Seeds	MAS4320E3/STS	4.3	71.6	51.3	61.5	52.6
Mid-Atlantic Seeds	MAS4423E3	4.4	74.1	60.8	67.5	52.4
Pioneer	P42A84E	4.2	74.6	62.0	68.3	52.9
Revere	44-F44	4.4	77.7	-	-	53.7
Seedway	SG 4122E3	4.1	71.7	-	-	51.3
Southern Harvest	SH 4024 E3	4.0	68.5	55.0	61.8	52.4
Syngenta/NK	NK42-A6E3S	4.2	75.5	57.7	66.6	52.6
Syngenta/NK	NK43-W1XFS	4.3	74.0	-	-	52.5
USG	7415ET	4.1	77.8	-	-	53.6
USG	7434XF	4.3	73.0	48.8	60.9	54.6
USG	7435ET	4.3	76.5	-	-	53.2
USG	7435XFS	4.3	71.1	-	-	52.5
Xitavo	XO 4132E	4.1	75.5	57.0	66.3	51.9
Xitavo	XO 4255E	4.2	75.8	-	-	51.5
Xitavo	XO 4364E	4.3	68.0	58.9	63.5	52.8
Xitavo	XO 4405E	4.4	75.0	-	-	52.0
Mean			74.2	56.3	-	52.6
Probability > F			0.1339	-	-	-
LSD_{0.1}			NS*	-	-	-
CV %			12.2	-	-	5.2

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 14. Average performance of MG 4 (late) full season soybeans evaluated at four locations (Wye, Poplar Hill, Clarksville, Keedysville) in 2024.

Brand	Variety ²	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹
			2024	2023	2 yr. avg	
Apex	AE4640S	4.6	73.0	-	-	54.0
Dyna-Gro	S45EN25	4.5	75.4	-	-	54.3
Dyna-Gro	S49XF43S	4.9	75.6	64.8	70.2	53.9
HiSOY	HS 45E32	4.5	73.5	53.0	63.3	53.2
HiSOY	HS 47E32	4.7	78.7*	54.1	66.4	58.1
Mid-Atlantic Seeds	MAS4623E3	4.6	72.6	56.8	64.7	53.7
Mid-Atlantic Seeds	MAS4675E3/STS	4.6	71.9	55.3	63.6	53.2
Mid-Atlantic Seeds	MAS4723E3	4.7	76.4	59.0	67.7	52.7
Mid-Atlantic Seeds	MAS4823E3/STS	4.8	74.1	57.2	65.7	53.6
Pioneer	P48A14E	4.8	78.3*	62.1	70.2	55.3
Revere	46-F57	4.6	76.7*	-	-	54.4
Revere/Initech	4545E3S	4.5	76.2	56.0	66.1	52.6
Seedway	SG 4521E3	4.5	75.4	-	-	54.2
Seedway	SX 4594XTF	4.5	76.4	-	-	54.0
Seedway	SX 4614E3	4.6	71.5	-	-	53.1
USG	7461XFS	4.6	75.3	62.0	68.7	54.0
USG	7472ETS	4.7	73.8	64.7	69.3	51.5
USG	7483XFS	4.8	70.8	-	-	54.4
USG	7485ETS	4.8	79.9*	-	-	54.5
USG	7494ETS	4.9	76.9*	55.0	66.0	54.1
USG	7495XFS	4.9	73.9	-	-	54.3
Xitavo	XO 4522E	4.5	83.0*	57.6	70.3	54.5
Mean			75.3	59.6	-	54.0
Probability > F			0.0553	-	-	-
LSD_{0.1}			6.4	-	-	-
CV %			11.9	-	7.7	-

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 15. Performance of MG 3 full season soybeans evaluated at Wye Research and Education Center in 2024.

Brand	Variety ²	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2024	2023	2 yr. avg		
Agrigold	G3404E3	3.4	67.3	-	-	53.6	92
APEX	AE3850	3.8	82.4*	-	-	54.6	112
Dyna-Gro	S38EN75	3.8	75.4*	-	-	53.1	103
Mid-Atlantic Seeds	MAS3220E3/STS	3.2	77.5*	61.3	69.4	54.8	106
Mid-Atlantic Seeds	MAS3525E3	3.5	63.2	-	-	54.1	86
Mid-Atlantic Seeds	MAS3923E3/STS	3.9	71.8	-	-	55.1	98
Pioneer	P37A18E	3.7	76.1*	66.7	71.4	54.4	104
Revere	39-F94	3.9	70.8	-	-	53.5	97
Seedway	SX 3914E3	3.9	75.8*	-	-	54.2	103
Syngenta/NK	NK37-R5XF	3.7	73.2	-	-	53.7	100
Mean			73.3	60.0	-	54.1	-
Probability > F			0.0469	-	-	-	-
LSD_{0.1}			8.6	-	-	-	-
CV %			10.7	-	-	4.0	-

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 16. Performance of MG 4 (early) full season soybeans evaluated at Wye Research and Education Center in 2024.

Brand	Variety ²	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield	Lodging %
			2024	2023	2 yr. avg			
APEX	AE4341S	4.3	74.1	-	-	54.8	96	13
Catalyst	CT4413E3S	4.4	89.6*	-	-	56.0	116	32
Dyna-Gro	S40EN54	4.0	78.4	58.9	68.7	55.7	102	0
Dyna-Gro	S43EN61	4.3	75.4	-	-	54.5	98	0
HiSOY	HS 43E30	4.3	74.3	49.5	61.9	54.4	96	40
Mid-Atlantic Seeds	MAS4021E3	4.0	77.0	63.9	70.5	52.7	100	0
Mid-Atlantic Seeds	MAS4045E3	4.0	78.5	-	-	55.6	102	0
Mid-Atlantic Seeds	MAS4215E3	4.2	71.6	-	-	54.6	93	0
Mid-Atlantic Seeds	MAS4320E3/STS	4.3	73.2	51.5	62.4	53.7	95	0
Mid-Atlantic Seeds	MAS4423E3	4.4	79.2	65.5	72.4	53.8	103	0
Pioneer	P42A84E	4.2	75.0	54.2	64.6	54.0	97	0
Revere	44-F44	4.4	82.7*	-	-	56.8	107	0
Seedway	SG 4122E3	4.1	75.6	-	-	54.4	98	0
Southern Harvest	SH 4024 E3	4.0	73.7	58.5	66.1	53.2	96	0
Syngenta/NK	NK42-A6E3S	4.2	73.5	51.3	62.4	55.4	95	0
Syngenta/NK	NK43-W1XF5	4.3	81.1*	-	-	55.3	105	20
USG	7415ET	4.1	82.5*	-	-	56.5	107	0
USG	7434XF	4.3	75.3	45.7	60.5	57.4	98	0
USG	7435ET	4.3	81.1*	-	-	54.4	105	0
USG	7435XF5	4.3	72.8	-	-	53.6	95	0
Xitavo	XO 4132E	4.1	73.6	57.2	65.4	55.5	96	0
Xitavo	XO 4255E	4.2	76.1	-	-	53.8	99	37
Xitavo	XO 4364E	4.3	68.2	60.2	64.2	56.7	89	0
Xitavo	XO 4405E	4.4	86.5*	-	-	54.7	112	0
Mean			77.0	55.9	-	54.9	-	-
Probability > F			0.0820	-	-	-	-	-
LSD_{0.1}			9.2	-	-	-	-	-
CV %			9.9	-	-	3.3	-	-

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 17. Performance of MG 4 (late) full season soybeans evaluated at Wye Research and Education Center in 2024.

Brand	Variety ²	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield	Lodging %
			2024	2023	2 yr. avg			
Apex	AE4640S	4.6	73.5	-	-	55.5	92	63
Dyna-Gro	S45EN25	4.5	76.4	-	-	54.8	96	20
Dyna-Gro	S49XF43S	4.9	83.8*	67.4	75.6	56.0	105	0
HiSOY	HS 45E32	4.5	74.1	50.3	62.2	55.3	93	0
HiSOY	HS 47E32	4.7	85.9*	57.2	71.6	56.0	108	45
Mid-Atlantic Seeds	MAS4623E3	4.6	74.9	55.1	65.0	55.5	94	0
Mid-Atlantic Seeds	MAS4675E3/STS	4.6	79.0	52.2	65.6	54.9	99	0
Mid-Atlantic Seeds	MAS4723E3	4.7	81.8*	54.3	68.1	54.5	102	0
Mid-Atlantic Seeds	MAS4823E3/STS	4.8	78.5	45.6	62.1	55.5	98	0
Pioneer	P48A14E	4.8	86.5*	49.7	68.1	57.5	108	0
Revere	46-F57	4.6	80.5*	-	-	55.8	101	0
Revere/Initech	4545E3S	4.5	81.4*	52.7	67.1	55.1	102	20
Seedway	SG 4521E3	4.5	77.6	-	-	55.9	97	0
Seedway	SX 4594XTF	4.5	82.0*	-	-	55.6	103	0
Seedway	SX 4614E3	4.6	73.6	-	-	55.3	92	57
USG	7461XFS	4.6	86.5*	57.6	72.1	56.1	108	0
USG	7472ETS	4.7	76.9	58.9	67.9	52.7	96	0
USG	7483XFS	4.8	79.8*	-	-	56.7	100	0
USG	7485ETS	4.8	83.3*	-	-	57.3	104	0
USG	7494ETS	4.9	79.9*	47.8	63.9	56.7	100	0
USG	7495XFS	4.9	76.9	-	-	56.0	96	0
Xitavo	XO 4522E	4.5	83.5*	51.6	67.6	55.1	105	0
Mean			79.8	56.8	-	55.6	-	-
Probability > F			0.0190	-	-	-	-	-
LSD_{0.1}			6.7	-	-	-	-	-
CV %			7.9	-	-	2.9	-	-

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 2024.

Brand	Variety ²	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2024	2023	2 yr. avg		
Agrigold	G3404E3	3.4	61.9*	-	-	51.2	103
APEX	AE3850	3.8	63.5*	-	-	53.5	105
Dyna-Gro	S38EN75	3.8	66.6*	-	-	51.7	110
Mid-Atlantic Seeds	MAS3220E3/STS	3.2	56.2	60.8	58.5	51.2	93
Mid-Atlantic Seeds	MAS3525E3	3.5	44.6	-	-	52.1	74
Mid-Atlantic Seeds	MAS3923E3/STS	3.9	68.9*	-	-	55.0	114
Pioneer	P37A18E	3.7	65.3*	-	-	53.8	108
Revere	39-F94	3.9	64.0*	-	-	53.0	106
Seedway	SX 3914E3	3.9	61.6*	-	-	47.6	102
Syngenta/NK	NK37-R5XF	3.7	51.1	-	-	44.6	85
Mean			60.4	57.9	-	51.4	-
Probability > F			0.0092	-	-	-	-
LSD_{0.1}			9.7	-	-	-	-
CV %			16.2	-	-	9.0	-

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 19. Performance of MG 4 (early) full season soybeans evaluated at Lower Eastern Shore Research and Education Center in 2024.

Brand	Variety ²	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2024	2023	2 yr. avg		
APEX	AE4341S	4.3	63.2	-	-	51.7	103
Catalyst	CT4413E3S	4.4	76.6*	-	-	52.5	125
Dyna-Gro	S40EN54	4.0	68.8*	75.6	72.2	53.5	112
Dyna-Gro	S43EN61	4.3	69.3*	-	-	52.1	113
HiSOY	HS 43E30	4.3	60.0	68.8	64.4	52.6	98
Mid-Atlantic Seeds	MAS4021E3	4.0	67.0	71.9	69.5	50.1	109
Mid-Atlantic Seeds	MAS4045E3	4.0	70.7*	-	-	51.8	115
Mid-Atlantic Seeds	MAS4215E3	4.2	71.7*	-	-	55.1	117
Mid-Atlantic Seeds	MAS4320E3/STS	4.3	64.3	67.6	66.0	53.3	105
Mid-Atlantic Seeds	MAS4423E3	4.4	59.0	74.5	66.8	52.5	96
Pioneer	P42A84E	4.2	74.8*	81.6	78.2	53.6	122
Revere	44-F44	4.4	77.0*	-	-	54.1	126
Seedway	SG 4122E3	4.1	59.3	-	-	52.2	92
Southern Harvest	SH 4024 E3	4.0	57.9	67.1	62.5	52.7	95
Syngenta/NK	NK42-A6E3S	4.2	75.1*	69.5	72.3	51.9	123
Syngenta/NK	NK43-W1XFS	4.3	72.9*	-	-	53.9	119
USG	7415ET	4.1	74.5*	-	-	52.0	122
USG	7434XF	4.3	70.2*	68.4	69.3	53.9	115
USG	7435ET	4.3	74.1*	-	-	52.6	121
USG	7435XFS	4.3	73.7*	-	-	52.4	120
Xitavo	XO 4132E	4.1	67.5	70.7	69.1	52.4	110
Xitavo	XO 4255E	4.2	70.5*	-	-	50.6	115
Xitavo	XO 4364E	4.3	66.7	64.8	65.8	50.5	109
Xitavo	XO 4405E	4.4	74.7*	-	-	52.8	122
Mean			69.2	71.5	-	52.5	-
Probability > F			0.0049	-	-	-	-
LSD_{0.1}			8.9	-	-	-	-
CV %			11.4	-	-	3.6	-

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 20. Performance of MG 4 (late) full season soybeans evaluated at Lower Eastern Shore Research and Education Center in 2024.

Brand	Variety ²	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2024	2023	2 yr. avg		
Apex	AE4640S	4.6	70.7	-	-	52.3	99
Dyna-Gro	S45EN25	4.5	70.5	-	-	53.2	99
Dyna-Gro	S49XF43S	4.9	77.7	80.9	79.3	54.7	109
HiSOY	HS 45E32	4.5	72.9	71.6	72.3	52.4	103
HiSOY	HS 47E32	4.7	76.1	66.8	71.5	70.2	107
Mid-Atlantic Seeds	MAS4623E3	4.6	69.1	73.5	71.3	52.8	97
Mid-Atlantic Seeds	MAS4675E3/STS	4.6	63.5	69.0	66.3	52.4	89
Mid-Atlantic Seeds	MAS4723E3	4.7	71.5	73.1	72.3	53.5	101
Mid-Atlantic Seeds	MAS4823E3/STS	4.8	71.8	74.0	72.9	51.8	101
Pioneer	P48A14E	4.8	67.3	82.0	74.7	55.6	95
Revere	46-F57	4.6	73.3	-	-	52.9	103
Revere/Initech	4545E3S	4.5	-	78.1	-	-	-
Seedway	SG 4521E3	4.5	68.0	-	-	51.7	96
Seedway	SX 4594XTF	4.5	74.1	-	-	51.1	104
Seedway	SX 4614E3	4.6	66.6	-	-	54.5	94
USG	7461XFS	4.6	71.4	77.9	74.7	53.6	100
USG	7472ETS	4.7	71.7	80.2	76.0	51.5	101
USG	7483XFS	4.8	62.0	-	-	53.5	87
USG	7485ETS	4.8	71.9	-	-	54.3	101
USG	7494ETS	4.9	75.3	71.8	73.6	54.1	106
USG	7495XFS	4.9	73.6	-	-	54.4	104
Xitavo	XO 4522E	4.5	81.8	74.1	78.0	54.2	115
Mean			71.1	74.7	-	54.0	-
Probability > F			0.1295	-	-	-	-
LSD_{0.1}			NS*	-	-	-	-
CV %			10.7	-	-	12.7	-

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 21. Performance of MG 3 full season soybeans evaluated at Central Maryland Research and Education Center in 2024.

Brand	Variety ²	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2024	2023	2 yr. avg		
Agrigold	G3404E3	3.4	70.3	-	-	47.7	101
APEX	AE3850	3.8	73.4	-	-	51.2	106
Dyna-Gro	S38EN75	3.8	75.5	-	-	52.2	109
Mid-Atlantic Seeds	MAS3220E3/STS	3.2	73.0	34.0	53.5	49.2	105
Mid-Atlantic Seeds	MAS3525E3	3.5	58.2	-	-	50.1	84
Mid-Atlantic Seeds	MAS3923E3/STS	3.9	65.4	-	-	50.0	94
Pioneer	P37A18E	3.7	69.1	29.4	49.3	50.7	99
Revere	39-F94	3.9	71.7	-	-	51.6	103
Seedway	SX 3914E3	3.9	66.7	-	-	50.3	96
Syngenta/NK	NK37-R5XF	3.7	67.9	-	-	52.2	98
Mean			69.5	31.5	-	50.5	-
Probability > F			0.1254	-	-	-	-
LSD_{0.1}			NS*	-	-	-	-
CV %			9.4	-	-	3.7	-

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 22. Performance of MG 4 (early) full season soybeans evaluated at Central Maryland Research and Education Center in 2024.

Brand	Variety ²	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield	Lodging %
			2024	2023	2 yr. avg			
APEX	AE4341S	4.3	72.3*	-	-	54.8	105	10
Catalyst	CT4413E3S	4.4	72.9*	-	-	54.3	106	0
Dyna-Gro	S40EN54	4.0	70.8*	41.4	56.1	52.1	103	0
Dyna-Gro	S43EN61	4.3	71.3*	-	-	52.8	104	0
HiSOY	HS 43E30	4.3	66.5	48.3	57.4	51.7	97	0
Mid-Atlantic Seeds	MAS4021E3	4.0	70.8*	47.5	59.2	51.1	103	0
Mid-Atlantic Seeds	MAS4045E3	4.0	65.9	-	-	51.0	96	0
Mid-Atlantic Seeds	MAS4215E3	4.2	63.9	-	-	50.9	93	10
Mid-Atlantic Seeds	MAS4320E3/STS	4.3	66.6	41.4	54.0	51.2	97	0
Mid-Atlantic Seeds	MAS4423E3	4.4	72.4*	47.7	60.1	49.6	105	0
Pioneer	P42A84E	4.2	69.7	59.6	64.7	51.3	101	13
Revere	44-F44	4.4	77.2*	-	-	53.1	112	0
Seedway	SG 4122E3	4.1	73.8*	-	-	51.2	107	0
Southern Harvest	SH 4024 E3	4.0	66.8	46.5	56.7	54.0	97	0
Syngenta/NK	NK42-A6E3S	4.2	71.0*	59.4	65.2	52.6	103	0
Syngenta/NK	NK43-W1XFS	4.3	62.6	-	-	52.2	91	15
USG	7415ET	4.1	67.3	-	-	52.7	98	0
USG	7434XF	4.3	65.6	40.6	53.1	53.3	95	0
USG	7435ET	4.3	73.7*	-	-	51.2	107	0
USG	7435XFS	4.3	64.1	-	-	52.1	93	10
Xitavo	XO 4132E	4.1	70.7*	51.8	61.3	50.8	103	0
Xitavo	XO 4255E	4.2	69.0	-	-	51.5	100	0
Xitavo	XO 4364E	4.3	63.9	55.7	59.8	53.0	93	10
Xitavo	XO 4405E	4.4	65.2	-	-	53.2	95	0
Mean			68.9	48.2	-	52.2	-	-
Probability > F			0.0332	-	-	-	-	-
LSD_{0.1}			6.7	-	-	-	-	-
CV %			8.1	-	-	4.1	-	-

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 23. Performance of MG 4 (late) full season soybeans evaluated at Central Maryland Research and Education Center in 2024.

Brand	Variety ²	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield	Lodging %
			2024	2023	2 yr. avg			
Apex	AE4640S	4.6	68.4	-	-	52.9	100	0
Dyna-Gro	S45EN25	4.5	72.8*	-	-	55.5	107	0
Dyna-Gro	S49XF43S	4.9	68.2	61.2	64.7	53.1	100	10
HiSOY	HS 45E32	4.5	66.8	45.4	56.1	52.0	98	0
HiSOY	HS 47E32	4.7	69.3	47.3	58.3	53.1	101	40
Mid-Atlantic Seeds	MAS4623E3	4.6	61.1	50.3	55.7	53.5	89	0
Mid-Atlantic Seeds	MAS4675E3/STS	4.6	68.6	50.6	59.6	53.0	100	0
Mid-Atlantic Seeds	MAS4723E3	4.7	67.6	60.4	64.0	51.8	99	10
Mid-Atlantic Seeds	MAS4823E3/STS	4.8	72.2*	57.8	65.0	51.4	106	0
Pioneer	P48A14E	4.8	79.4*	58.8	69.1	54.4	116	0
Revere	46-F57	4.6	68.1	-	-	54.6	100	0
Revere/Initech	4545E3S	4.5	65.3	48.5	56.9	49.4	96	0
Seedway	SG 4521E3	4.5	69.7	-	-	53.9	102	0
Seedway	SX 4594XTF	4.5	71.6	-	-	53.7	105	0
Seedway	SX 4614E3	4.6	61.4	-	-	49.0	90	37
USG	7461XFS	4.6	67.3	61.3	64.3	53.2	98	0
USG	7472ETS	4.7	66.6	66.8	66.7	47.0	97	0
USG	7483XFS	4.8	59.4	-	-	54.4	87	0
USG	7485ETS	4.8	76.6*	-	-	53.0	112	20
USG	7494ETS	4.9	65.6	46.8	56.2	52.8	96	0
USG	7495XFS	4.9	65.6	-	-	53.7	96	25
Xitavo	XO 4522E	4.5	74.8*	51.7	63.3	55.1	110	0
Mean			68.3	53.8	-	52.8	-	-
Probability > F			0.0045	-	-	-	-	-
LSD_{0.1}			7.3	-	-	-	-	-
CV %			9.3	-	-	5.4	-	-

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 24. Performance of MG 3 full season soybeans evaluated at Western Maryland Research and Education Center in 2024.

Brand	Variety ²	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield
			2024	2023	2 yr. avg		
Agrigold	G3404E3	3.4	86.3	-	-	45.0	99
APEX	AE3850	3.8	84.9	-	-	45.6	97
Dyna-Gro	S38EN75	3.8	92.4	-	-	47.2	106
Mid-Atlantic Seeds	MAS3220E3/STS	3.2	83.8	46.6	65.2	47.6	96
Mid-Atlantic Seeds	MAS3525E3	3.5	83.5	-	-	52.4	96
Mid-Atlantic Seeds	MAS3923E3/STS	3.9	84.0	-	-	47.0	96
Pioneer	P37A18E	3.7	81.8	46.1	64.0	50.2	94
Revere	39-F94	3.9	94.8	-	-	50.3	109
Seedway	SX 3914E3	3.9	95.1	-	-	51.8	109
Syngenta/NK	NK37-R5XF	3.7	87.9	-	-	48.2	101
Mean			87.3	45.0	-	48.5	-
Probability > F			0.6556	-	-	-	-
LSD_{0.1}			NS*	-	-	-	-
CV %			9.7	-	-	6.2	-

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 25. Performance of MG 4 (early) full season soybeans evaluated at Western Maryland Research and Education Center in 2024.

Brand	Variety ²	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield	Lodging %
			2024	2023	2 yr. avg			
APEX	AE4341S	4.3	87.4	-	-	54.7	107	10
Catalyst	CT4413E3S	4.4	88.9	-	-	50.3	109	13
Dyna-Gro	S40EN54	4.0	85.2	45.8	65.5	48.2	104	0
Dyna-Gro	S43EN61	4.3	77.2	-	-	46.5	94	0
HiSOY	HS 43E30	4.3	85.9	51.1	68.5	52.6	105	13
Mid-Atlantic Seeds	MAS4021E3	4.0	79.5	48.1	63.8	49.6	97	0
Mid-Atlantic Seeds	MAS4045E3	4.0	86.6	-	-	48.9	106	0
Mid-Atlantic Seeds	MAS4215E3	4.2	77.7	-	-	53.0	95	10
Mid-Atlantic Seeds	MAS4320E3/STS	4.3	82.4	41.4	61.9	52.3	101	10
Mid-Atlantic Seeds	MAS4423E3	4.4	86.0	55.3	70.7	53.5	105	0
Pioneer	P42A84E	4.2	78.8	47.9	63.4	52.6	97	10
Revere	44-F44	4.4	72.0	-	-	49.1	88	15
Seedway	SG 4122E3	4.1	86.4	-	-	47.0	106	0
Southern Harvest	SH 4024 E3	4.0	75.4	47.7	61.6	49.5	92	0
Syngenta/NK	NK42-A6E3S	4.2	82.3	50.6	66.5	50.6	101	0
Syngenta/NK	NK43-W1XFS	4.3	75.6	-	-	48.5	92	0
USG	7415ET	4.1	87.1	-	-	53.1	107	0
USG	7434XF	4.3	80.7	40.6	60.7	53.9	99	0
USG	7435ET	4.3	77.2	-	-	54.6	94	0
USG	7435XFS	4.3	76.1	-	-	52.2	93	20
Xitavo	XO 4132E	4.1	86.6	48.5	67.6	49.6	106	0
Xitavo	XO 4255E	4.2	87.4	-	-	50.2	107	0
Xitavo	XO 4364E	4.3	75.8	52.7	64.3	50.0	93	0
Xitavo	XO 4405E	4.4	73.5	-	-	47.4	90	10
Mean			81.7	48.9	-	50.8	-	-
Probability > F			0.1058	-	-	-	-	-
LSD_{0.1}			NS*	-	-	-	-	-
CV %			9.4	-	-	6.2	-	-

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 26. Performance of MG 4 (late) full season soybeans evaluated at Western Maryland Research and Education Center in 2024.

Brand	Variety ²	RM	Yield (bu/ac) ¹			Test Weight (lb/bu) ¹	Relative Yield	Lodging %
			2024	2023	2 yr. avg			
Apex	AE4640S	4.6	82.6	-	-	56.0	101	15
Dyna-Gro	S45EN25	4.5	81.7	-	-	53.7	100	0
Dyna-Gro	S49XF43S	4.9	71.5	49.6	60.6	50.9	87	0
HiSOY	HS 45E32	4.5	80.1	44.5	62.3	53.0	98	0
HiSOY	HS 47E32	4.7	83.7	42.6	63.2	53.1	102	10
Mid-Atlantic Seeds	MAS4623E3	4.6	85.4	48.5	67.0	52.8	104	0
Mid-Atlantic Seeds	MAS4675E3/STS	4.6	76.7	49.5	63.1	52.4	94	0
Mid-Atlantic Seeds	MAS4723E3	4.7	84.7	48.2	66.5	51.1	104	0
Mid-Atlantic Seeds	MAS4823E3/STS	4.8	73.4	51.2	62.3	55.1	90	0
Pioneer	P48A14E	4.8	80.2	58.1	69.2	53.7	98	0
Revere	46-F57	4.6	84.8	-	-	54.6	104	0
Revere/Initech	4545E3S	4.5	81.9	44.8	63.4	53.5	100	0
Seedway	SG 4521E3	4.5	84.7	-	-	55.2	104	0
Seedway	SX 4594XTF	4.5	77.9	-	-	55.7	95	0
Seedway	SX 4614E3	4.6	84.3	-	-	53.4	103	13
USG	7461XFS	4.6	76.1	57.3	66.7	53.0	93	0
USG	7472ETS	4.7	77.5	52.9	65.2	53.5	95	0
USG	7483XFS	4.8	81.9	-	-	53.3	100	0
USG	7485ETS	4.8	87.6	-	-	53.5	107	13
USG	7494ETS	4.9	86.7	53.3	70.0	52.9	106	0
USG	7495XFS	4.9	82.3	-	-	53.2	101	17
Xitavo	XO 4522E	4.5	89.1	50.9	70.0	53.9	109	0
Mean			81.7	52.6	-	53.5	-	-
Probability > F			0.4208	-	-	-	-	-
LSD_{0.1}			NS*	-	-	-	-	-
CV %			9.2	-	-	5.2	-	-

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

²Varieties in **bold** are checks.

Table 27. Average performance of MG 3 double crop soybeans evaluated at two locations (Wye, Poplar Hill) in 2024.

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	G3404E3	3.4	62.1	56.0	58.6	54.4	60.3	55.2
APEX	AE3850	3.8	68.7	56.6	69.8	54.7	69.3*	55.6
Dyna-Gro	S38EN75	3.8	67.7	58.3	74.9	54.5	71.3*	56.4
Mid-Atlantic Seeds	MAS3220E3/STS	3.2	59.4	56.2	59.0	52.8	59.2	54.5
Mid-Atlantic Seeds	MAS3525E3	3.5	63.3	56.9	56.9	53.1	59.4	54.6
Mid-Atlantic Seeds	MAS3923E3/STS	3.9	59.5	56.4	62.1	53.4	60.8	54.9
Pioneer	P37A18E	3.7	66.3	57.5	73.5	55.4	69.9*	56.4
Revere	39-F94	3.9	65.7	57.2	62.4	53.1	64.1*	55.2
Seedway	SX 3914E3	3.9	67.2	55.4	61.5	54.5	64.3*	55.0
Syngenta/NK	NK37-R5XF	3.7	64.3	56.0	67.6	52.5	66.0*	54.2
Mean			64.4	56.6	64.6	53.8	64.5	55.2
Probability > F			0.7217	-	0.1525	-	0.0474	-
LSD_{0.1}			NS	-	NS	-	7.4	-
CV %			10.9	2.1	14.4	3.3	12.7	3.8

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.

*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 4 (early) double crop soybeans evaluated at two locations (Wye, Poplar Hill) in 2024.

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)
APEX	AE4341S	4.3	64.8	56.5	76.0	54.1	70.4	55.3
Catalyst	CT4413E3S	4.4	63.9	55.9	77.4	53.5	70.6	54.7
Dyna-Gro	S40EN54	4.0	69.3	57.1	71.4	55.2	70.3	56.1
Dyna-Gro	S43EN61	4.3	67.9	56.0	61.0	54.5	64.5	55.2
HiSOY	HS 43E30	4.3	53.5	57.1	71.6	55.7	62.5	56.4
Mid-Atlantic Seeds	MAS4021E3	4.0	64.5	55.5	72.5	54.3	68.5	54.9
Mid-Atlantic Seeds	MAS4045E3	4.0	68.8	55.6	73.2	56.2	71.5	55.9
Mid-Atlantic Seeds	MAS4215E3	4.2	62.3	55.7	69.6	54.1	65.9	54.9
Mid-Atlantic Seeds	MAS4320E3/STS	4.3	60.3	55.1	63.6	55.6	61.9	55.4
Mid-Atlantic Seeds	MAS4423E3	4.4	62.5	54.7	71.9	54.4	67.2	54.6
Pioneer	P42A84E	4.2	59.4	54.8	72.2	54.5	65.8	54.7
Revere	44-F44	4.4	64.5	50.4	74.6	53.6	69.5	52.0
Seedway	SG 4122E3	4.1	64.8	56.1	69.9	54.0	67.4	55.1
Southern Harvest	SH 4024 E3	4.0	66.7	55.7	70.7	53.7	68.7	54.7
Syngenta/NK	NK42-A6E3S	4.2	69.2	55.5	74.1	53.9	71.7	54.7
Syngenta/NK	NK43-W1XFS	4.3	65.4	53.9	70.7	53.9	68.0	53.9
USG	7415ET	4.1	70.4	55.0	76.3	54.1	73.4	54.6
USG	7434XF	4.3	65.2	56.7	71.3	54.1	68.3	55.4
USG	7435ET	4.3	58.4	51.3	71.4	55.2	64.9	53.2
USG	7435XFS	4.3	65.7	56.3	70.4	52.6	68.1	54.5
Xitavo	XO 4132E	4.1	67.4	55.7	68.6	53.0	68.0	54.3
Xitavo	XO 4255E	4.2	62.5	56.2	68.1	55.1	65.3	55.7
Xitavo	XO 4364E	4.3	68.6	55.9	73.1	55.7	70.8	55.8
Xitavo	XO 4405E	4.4	63.1	55.2	68.4	56.5	65.8	55.9
Mean			64.5	55.3	71.2	54.5	67.8	54.9
Probability > F			0.1953	-	0.1997	-	0.4153	-
LSD_{0.1}			NS*	-	NS	-	NS	-
CV %			9.7	4.2	8.4	3.0	10.3	3.7

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 29. Average performance of MG 4 (late) double crop soybeans evaluated at two locations (Wye, Poplar Hill) in 2024.

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)
Apex	AE4640S	4.6	62.1	56.9	71.5	55.0	66.8	56.0
Dyna-Gro	S45EN25	4.5	66.2*	57.2	74.2	55.5	70.2	56.4
Dyna-Gro	S49XF43S	4.9	65.8*	54.6	69.1	54.4	67.4	54.5
HiSOY	HS 45E32	4.5	65.0*	57.0	58.2	54.6	61.6	55.8
HiSOY	HS 47E32	4.7	69.0*	56.3	63.4	56.3	66.2	56.3
Mid-Atlantic Seeds	MAS4623E3	4.6	65.3*	55.8	63.9	54.6	64.6	55.2
Mid-Atlantic Seeds	MAS4675E3/STS	4.6	59.4	55.2	65.9	55.5	62.6	55.3
Mid-Atlantic Seeds	MAS4723E3	4.7	61.5	54.9	66.6	53.5	64.1	54.2
Mid-Atlantic Seeds	MAS4823E3/STS	4.8	57.3	56.2	68.0	53.8	62.7	55.0
Pioneer	P48A14E	4.8	64.2*	52.4	79.5	57.6	71.8	55.0
Revere	46-F57	4.6	68.4*	53.7	66.6	55.3	67.5	54.5
Revere/Initech	4545E3S	4.5	66.2*	57.1	67.9	53.6	67.0	55.3
Seedway	SG 4521E3	4.5	63.3*	55.9	65.1	55.3	64.2	55.6
Seedway	SX 4594XTF	4.5	65.0*	54.9	73.1	55.0	69.0	55.0
Seedway	SX 4614E3	4.6	65.8*	55.5	65.4	56.0	65.6	55.8
USG	7461XFS	4.6	67.1*	54.7	70.4	54.6	68.7	54.6
USG	7472ETS	4.7	64.0*	52.6	69.0	54.2	66.5	53.4
USG	7483XFS	4.8	63.0	54.1	68.3	56.0	65.6	55.1
USG	7485ETS	4.8	69.0*	54.6	70.2	54.8	69.6	54.7
USG	7494ETS	4.9	61.5	56.0	68.1	55.3	64.8	55.7
USG	7495XFS	4.9	60.4	52.2	61.7	56.5	61.1	54.3
Xitavo	XO 4522E	4.5	66.8*	55.7	65.5	54.4	66.2	55.1
Mean			64.4	55.2	67.8	55.1	66.1	55.1
Probability > F			0.0948	-	0.1847	-	0.2679	-
LSD_{0.1}			5.8	-	NS*	-	NS	-
CV %			8.1	4.4	10.6	2.6	9.8	3.6

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.

*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.