

Metribuzin (Tricor, Trivence, Fierce MTZ, etc.) is a PSII inhibitor (HRAC/WSSA Group 5) herbicide that provides residual control of an assortment of annual grasses and broadleaf weeds in soybean, including Palmer amaranth. With the extensive use of PPO inhibitors (HRAC/WSSA Group 14) and chloroacetamide (HRAC/WSSA Group 15) herbicides in soybean and rotational crops such as corn and cotton, the use of an additional mode of action (MOA) is a sound strategy to reduce the risk of resistance to these other herbicides MOAs.

The handicap to metribuzin use is the sensitivity of soybean varieties to this herbicide. Other environmental factors, including soil texture, organic matter, rainfall, soil pH, and product use rate, may also play a part in sensitivity. The University of Arkansas System Division of Agriculture conducted a greenhouse screening of soybean varieties, testing their tolerance **to metribuzin at a rate of 0.5 lb ai/ac or 10.67 oz/ac of a 75DF metribuzin product**. In 2023, varieties were screened in Captina silt loam soil with a soil pH of 6.8. The following tables break down into an injury scale:

Slight (Table 1) – Some symptoms observed in the greenhouse but unlikely to injure soybean plants in the field at a 1X rate if applied to the correct soil texture at the appropriate soil pH (**Figure 1**). It is recommended that these soybean varieties be planted if metribuzin is intended to be applied.
Moderate (Table 2) – Likely to observe some injury in the field, even when applying a premix product containing a lower metribuzin rate.
Severe (Table 3) – Do not spray any formulation or rate of metribuzin if these varieties are planted as severe injury and yield loss would be expected. (**Figure 2**).

Please note that most varieties show an acceptable tolerance to metribuzin. Choose a variety with a high level of tolerance. Please read and follow all labels.

Figure 1. Soybean plants showing slight injury to 0.5 lb ai/ac of metribuzin.



Figure 2. Soybean plants showing severe injury to 0.5 lb ai/ac of metribuzin.



Table 1. 2023 Soybean varieties that tested Slight injury to metribuzin at 0.5 lb ai/ac.

Variety Name	Herb. Tech.	MG	Rating	Variety Name	Herb. Tech.	MG	Rating	Variety Name	Herb. Tech.	MG	Rating
Asgrow AG42XF4	RR2XF	4.2	Slight	Dyna-Gro S49XF82	RR2XF	4.9	Slight	Progeny P4623XFS	RR2XF	4.6	Slight
Asgrow AG44XF4	RR2XF	4.4	Slight	Eagle Seed ES4800E3	Enlist E3	4.8	Slight	Progeny P4691XFS	RR2XF	4.6	Slight
Asgrow AG45XF3	RR2XF	4.5	Slight	Eagle Seed ES4875XF	RR2XF	4.8	Slight	Progeny P4755XFS	RR2XF	4.7	Slight
Asgrow AG46XF3	RR2XF	4.6	Slight	Innotech 4233E3S	Enlist E3	4.2	Slight	Progeny P4775E3S	Enlist E3	4.7	Slight
Asgrow AG47XF2	RR2XF	4.7	Slight	Innotech 4545E3S	Enlist E3	4.5	Slight	Progeny P4778XFS	RR2XF	4.7	Slight
Asgrow AG48XF3	RR2XF	4.8	Slight	Innotech 4983E3S	Enlist E3	4.9	Slight	Progeny P4798XF	RR2XF	4.7	Slight
Asgrow AG52XF0	RR2XF	5.2	Slight	Innvictis A5813XF	RR2XF	5.8	Slight	Progeny P4850E3	Enlist E3	4.8	Slight
Asgrow AG56XF2	RR2XF	5.6	Slight	Integra X4660	RR2X	4.6	Slight	Progeny P4947XFS	RR2XF	4.9	Slight
Axis 4613XF	RR2XF	4.6	Slight	Integra XF4142S	RR2XF	4.1	Slight	Progeny P4999E3S	Enlist E3	4.9	Slight
Axis 4641XFS	RR2XF	4.6	Slight	Integra XF4454S	RR2XF	4.4	Slight	Progeny P5441XF	RR2XF	5.4	Slight
Axis 4813XFS	RR2XF	4.8	Slight	Integra XF4621S	RR2XF	4.6	Slight	Progeny P5641XF	RR2XF	5.6	Slight
DELTA GROW 44XF75/STS	RR2XF	4.4	Slight	Integra XF4634S	RR2XF	4.6	Slight	Progeny P5751XF	RR2XF	5.7	Slight
DELTA GROW 46E10	Enlist E3	4.6	Slight	Integra XF4893S	RR2XF	4.8	Slight	R18-10491	Conv.	5.4	Slight
DELTA GROW 46E30	Enlist E3	4.6	Slight	Integra XF4914S	RR2XF	4.9	Slight	R19-410712	Conv.	5.4	Slight
DELTA GROW 47E20/STS	Enlist E3	4.7	Slight	NK44-J4XFS	RR2XF	4.4	Slight	R19-411424	Conv.	5.2	Slight
DELTA GROW 48X45	RR2X	4.8	Slight	NK46-B4XFS	RR2XF	4.6	Slight	R19-42447b	Conv.	5.3	Slight
DELTA GROW 48XF42	RR2XF	4.8	Slight	NK48-A8XFS	RR2XF	4.8	Slight	R19-4593	Conv.	5.3	Slight
DELTA GROW 49E30/STS	Enlist E3	4.9	Slight	NK49-C2XFS	RR2XF	4.9	Slight	R19-45980	Conv.	5.4	Slight
DELTA GROW 49XF85/STS	RR2XF	4.9	Slight	NK49-T6E3S	Enlist E3	4.9	Slight	R19-46252	Conv.	5.4	Slight
DELTA GROW 53XF95/STS	RR2XF	5.3	Slight	NK54-J9XFS	RR2XF	5.4	Slight	R19C-1001	Conv.	4.9	Slight
DELTA GROW 55X25	RR2X	5.5	Slight	NK56-Z6XFS	RR2XF	5.6	Slight	R19C-1012	Conv.	4.4	Slight
DELTA GROW 55XF23	RR2XF	5.5	Slight	Pioneer P44A60LX	RR2XF	4.4	Slight	R19C-1081	Conv.	4.3	Slight
DONMARIO DM48F53	RR2XF	4.8	Slight	Pioneer P45A70LX	RR2XF	4.5	Slight	R19C-2678	Conv.	4.8	Slight
Dyna-Gro S46XF31S	RR2XF	4.6	Slight	Pioneer P47A64X	RR2X	4.7	Slight	R19C-3085	Conv.	5.1	Slight
Dyna-Gro S49XF43S	RR2XF	4.9	Slight	Progeny P4604XFS	RR2XF	4.6	Slight	R19C-3147	Conv.	4.9	Slight
R19C-3194	Conv.	5.3	Slight	Revere 4731XF	RR2XF	4.7	Slight	S18-6328	Conv.	5.0	Slight
Revere 4237XFS	RR2XF	4.2	Slight	Revere 5143E3	Enlist E3	5.1	Slight	S19-10701	Conv.	4.5	Slight
Revere 4415XF	RR2XF	4.4	Slight	S17-17644	Conv.	4.8	Slight	USG 7461XFS	RR2XF	4.6	Slight
Revere 4526XFS	RR2XF	4.5	Slight	S18-6013	Conv.	5.2	Slight	USG 7474XFS	RR2XF	4.7	Slight
Revere 4727XF	RR2XF	4.7	Slight								

Table 2. 2023 Soybean varieties that tested Moderate injury to metribuzin at 0.5 lb ai/ac.

Variety Name	Herb. Tech.	MG	Rating	Variety Name	Herb. Tech.	MG	Rating	Variety Name	Herb. Tech.	MG	Rating
Asgrow AG43XF2	RR2XF	4.3	Moderate	Dyna-Gro S47XF23S	RR2XF	4.7	Moderate	Progeny P5056XFS	RR2XF	5.0	Moderate
Asgrow AG48XF2	RR2XF	4.8	Moderate	Innvictis A5003XF	RR2XF	5.0	Moderate	R18-10919	Conv.	5.4	Moderate
Asgrow AG53XF2	RR2XF	5.3	Moderate	NK42-A6E3S	Enlist E3	4.2	Moderate	R18C-13665	Conv.	4.9	Moderate
DELTA GROW 46X65/STS	RR2X	4.6	Moderate	NK44-Q5E3S	Enlist E3	4.4	Moderate	R19-424115b	Conv.	5.2	Moderate
DELTA GROW 46XF54	RR2XF	4.6	Moderate	NK52-D6E3	Enlist E3	5.2	Moderate	R19C-1035	Conv.	4.5	Moderate
DELTA GROW 47XF38	RR2XF	4.7	Moderate	Pioneer P44A21X	RR2X	4.4	Moderate	Revere 4826XF	RR2XF	4.8	Moderate
DELTA GROW 48E59	Enlist E3	4.8	Moderate	Pioneer P46A20LX	RR2XF	4.6	Moderate	Revere 4925XFS	RR2XF	4.9	Moderate
DELTA GROW 48XF33/STS	RR2XF	4.8	Moderate	Pioneer P46A90LX	RR2XF	4.6	Moderate	Revere 4934XF	RR2XF	4.9	Moderate
DELTA GROW 52XF22	RR2XF	5.2	Moderate	Pioneer P48A04LX	RR2XF	4.8	Moderate	Revere 5029XF	RR2XF	5.0	Moderate
DONMARIO DM45F23	RR2XF	4.5	Moderate	Progeny P4665XFS	RR2XF	4.6	Moderate	USG 7463XF	RR2XF	4.6	Moderate
Dyna-Gro S42XF93S	RR2XF	4.2	Moderate	Progeny P4806XFS	RR2XF	4.8	Moderate				

Table 3. 2023 Soybean varieties that tested Severe injury to metiribuzin at 0.5 lb ai/ac.

Variety Name	Herb. Tech.	MG	Rating	Variety Name	Herb. Tech.	MG	Rating	Variety Name	Herb. Tech.	MG	Rating
Asgrow AG47XF4	RR2XF	4.7	Severe	Innvictis B4903E	Enlist E3	4.9	Severe	Osage	Conv.	5.6	Severe
Innvictis B4603E	Enlist E3	4.6	Severe	Innvictis B5013E	Enlist E3	5.0	Severe	R19-39444	Conv.	4.8	Severe

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Metribuzin Tolerance Testing of Soybean Varieties - 2021

Metribuzin (Tricor, Canopy, etc.) is a PSII inhibitor (Group 5) herbicide that provides residual control of an assortment of annual grasses and broadleaf weeds in soybean, including Palmer amaranth. With the extensive use of PPO inhibitors (Group 14) and chloroacetamide (Group 15) herbicides in soybean and rotational crops such as corn and cotton, use of an additional mode of action (MOA) is a sound strategy to reduce the risk of resistance to these other herbicides MOAs.

The handicap to metribuzin use is the sensitivity of soybean varieties to this herbicide. Other environmental factors, including: soil texture, organic matter, rainfall, soil pH, and product use rate, may also play a part in sensitivity. The University of Arkansas System Division of Agriculture conducted a greenhouse screening of soybean varieties, testing their tolerance **to metribuzin at a rate of 0.5 lb ai/ac or 10.67 oz/ac of a 75DF metribuzin product**. In 2021, varieties were screened in a Captina silt loam soil with a soil pH of 6.8. The following tables break down into an injury scale:

Slight (Table 1) – Some symptoms observed in the green house but unlikely to injure soybean plants in the field at a 1X rate if applied to the correct soil texture at the appropriate soil pH (**Figure 1**). It is recommended that these soybean varieties be planted if metribuzin is intended to be applied.
Moderate (Table 2) – Likely to observe some injury in the field, even when applying a premix product that contains a lower rate of metribuzin.
Severe (Table 3) – Do not spray any formulation or rate of metribuzin if these varieties are planted as severe injury and yield loss would be expected. (**Figure 2**).

Please note that most varieties show an acceptable tolerance to metribuzin. Choose a variety with a high level of tolerance. Please read and follow all labels.

Figure 1. Soybean plants showing slight injury to 0.5 lb ai/ac of metribuzin.



Figure 2. Soybean plants showing severe injury to 0.5 lb ai/ac of metribuzin.



Table 1. 2021 Soybean varieties that tested Slight injury to metribuzin at 0.5 lb ai/ac.											
Variety Name	Herb. Tech.	MG	Rating	Variety Name	Herb. Tech.	MG	Rating	Variety Name	Herb. Tech.	MG	Rating
AgriGold G4615XF	RR2XF	4.6	Slight	DONMARIO DM46F62	RR2XF	4.6	Slight	NK S47-Y9X	RR2X	4.7	Slight
AgriGold G4813XF	RR2XF	4.8	Slight	DONMARIO DM48F61	RR2XF	4.8	Slight	Progeny P4431E3	Enlist E3	4.4	Slight
AgriGold G4900XF	RR2XF	4.9	Slight	Dyna-Gro S43XS70	RR2X	4.3	Slight	Progeny P4505RXS	RR2X	4.5	Slight
Amp 4448X	RR2X	4.4	Slight	Dyna-Gro S46ES91	Enlist E3	4.6	Slight	Progeny P4521XFS	RR2XF	4.5	Slight
Amp 4690XF	RR2XF	4.6	Slight	Dyna-Gro S46XS60	RR2X	4.6	Slight	Progeny P4604XFS	RR2XF	4.6	Slight
Amp 4850XF	RR2XF	4.8	Slight	Dyna-Gro S48XF61S	RR2XF	4.8	Slight	Progeny P4775E3S	Enlist E3	4.7	Slight
Armor 44-D49	RR2X	4.4	Slight	Dyna-Gro S48XT40	RR2X	4.8	Slight	Progeny P5003XF	RR2X	5	Slight
Armor 45-F81	RR2XF	4.5	Slight	Dyna-Gro S48XT90	RR2X	4.8	Slight	R13-13997	Conv	5L	Slight
Armor 46-D09	RR2X	4.6	Slight	Dyna-Gro S56XT99	RR2X	5.6	Slight	R14-1422	Conv	5	Slight
Armor 46-F13	RR2XF	4.6	Slight	Integra 54891NS	RR2X	4.8	Slight	R18-14142	Conv	4.6	Slight
Armor 48-F01	RR2XF	4.8	Slight	Integra 74551NS	RR2XF	4.5	Slight	R18-14147	Conv	4E	Slight
Asgrow AG43XF2	RR2XF	4.3	Slight	Local IS4324E3	Enlist E3	4.3	Slight	R18-14229	Conv	4.3	Slight
Asgrow AG47XF0	RR2XF	4.7	Slight	Local LS4506XS	RR2X	4.5	Slight	R18-14272	Conv	4L	Slight
Asgrow AG48XF2	RR2XF	4.8	Slight	Local LS4517XFS	RR2XF	4.5	Slight	R18C-13283	Conv	4.6	Slight
Asgrow AG52XF0	RR2XF	5.2	Slight	Local LS5418XFS	RR2XF	5.4	Slight	S16-7922C	Conv	4.9	Slight
Axis 4611ES	Enlist E3	4.6	Slight	NK 43-V8XF	RR2XF	4.3	Slight	S17-2243C	Conv	4.5	Slight
Axis 4641XFS	RR2XF	4.6	Slight	NK 44-J4XFS	RR2XF	4.4	Slight	UA46i20C	Conv	4.6	Slight
Delta Grow DG50E10	Enlist E3	5	Slight	NK 45-P9XF	RR2XF	4.5	Slight	USG 7461XFS	RR2XF	4.6	Slight
Delta Grow DG52E80	Enlist E3	5.2	Slight	NK 45-V9E3	Enlist E3	4.5	Slight	XO 4371E	Enlist E3	4.3	Slight
DONMARIO DM45X61	RR2X	4.5	Slight	NK S44-C7X	RR2X	4.4	Slight				

Table 2. 2021 Soybean varieties that tested Moderate injury to metribuzin at 0.5 lb ai/ac.											
Variety Name	Herb. Tech.	MG	Rating	Variety Name	Herb. Tech.	MG	Rating	Variety Name	Herb. Tech.	MG	Rating
AgriGold G4820RX	RR2X	4.8	Moderate	Delta Grow DG49E20	Enlist E3	4.9	Moderate	NK S51-E3	Enlist E3	5.1	Moderate
Amp 4950X	RR2X	4.9	Moderate	Delta Grow DG51E60	Enlist E3	5.1	Moderate	Pioneer P48A60X	RR2X	4.8	Moderate
Armor 47-E03	Enlist E3	4.7	Moderate	DONMARIO DM46E62	Enlist E3	4.6	Moderate	Progeny P4501XFS	RR2XF	4.5	Moderate
Armor 48-D03	RR2X	4.8	Moderate	DONMARIO DM48E62S	Enlist E3	4.8	Moderate	Progeny P4541E3S	Enlist E3	4.5	Moderate
Armor 48-E82	Enlist E3	4.8	Moderate	Dyna-Gro S45ES10	Enlist E3	4.5	Moderate	Progeny P4806XFS	RR2XF	4.8	Moderate
Armor 48-F22	RR2XF	4.8	Moderate	Dyna-Gro S52XT91	RR2X	5.2	Moderate	Progeny P4931E3S	Enlist E3	4.9	Moderate
Asgrow AG42XF0	RR2XF	4.2	Moderate	Eagle Seed ES4890XF	RR2XF	4.8	Moderate	Progeny P4970RX	RR2X	4.9	Moderate
Asgrow AG45XF0	RR2XF	4.5	Moderate	Integra 54606NS	RR2X	4.6	Moderate	Progeny P5521E3	Enlist E3	5.5	Moderate
Asgrow AG48XF0	RR2XF	4.8	Moderate	Integra 54660NS	RR2X	4.6	Moderate	R13- 14635RR:0010	RR1	4L	Moderate
Asgrow AG55XF0	RR2XF	5.5	Moderate	Integra 54816N	RR2X	4.8	Moderate	R15-1587	Conv	5E	Moderate
Axis 4522XF	RR2XF	4.5	Moderate	Integra 74621NS	RR2XF	4.6	Moderate	R15-2422	Conv	4.7	Moderate
Credenz CZ 4202XF	RR2XF	4.2	Moderate	Integra 74731NS	RR2XF	4.7	Moderate	R15-5695	Conv	5M	Moderate
Credenz CZ 4562XF	RR2XF	4.5	Moderate	Integra 74852NS	RR2XF	4.8	Moderate	R16-253	Conv	4.6	Moderate
Credenz CZ 4742XF	RR2XF	4.7	Moderate	Local IS4684E3S	Enlist E3	4.6	Moderate	R17-283F	Conv	5E	Moderate
Credenz CZ 4892XF	RR2XF	4.8	Moderate	Local IS5067E3	Enlist E3	5	Moderate	R18-14287	Conv	4.3	Moderate
Credenz CZ 4912XF	RR2XF	4.9	Moderate	Local IS5232E3	Enlist E3	5.2	Moderate	R18-14502	Conv	4.9	Moderate
Credenz CZ 5282XF	RR2XF	5.2	Moderate	Local LS4415XF	RR2XF	4.4	Moderate	R18-14753	Conv	4L	Moderate
Delta Grow DG45E10	Enlist E3	4.4	Moderate	Local LS4606XFS	RR2XF	4.6	Moderate	R18-3048	Conv	5E	Moderate
Delta Grow DG46F17/STS	RR2XF	4.6	Moderate	Local LS4707XF	RR2XF	4.9	Moderate	R18-3250	Conv	5E	Moderate
Delta Grow DG46X65/STS	RR2X	4.6	Moderate	Local LS4806XS	RR2X	4.8	Moderate	R18C-1450	Conv	4E	Moderate
Delta Grow DG47E20/STS	Enlist E3	4.7	Moderate	Local LS4919XFS	RR2XF	4.9	Moderate	UA54i19GT	RR1	5.4	Moderate
Delta Grow DG48E49/STS	Enlist E3	4.8	Moderate	Local LS5119XF	RR2XF	5.1	Moderate	USG 7481XF	RR2XF	4.8	Moderate
Delta Grow DG48E59	Enlist E3	4.8	Moderate	NK S45-J3X	RR2X	4.5	Moderate	USG 7489XT	RR2X	4.8	Moderate
Delta Grow DG48F20	RR2XF	4.8	Moderate	NK S46-E3S	Enlist E3	4.6	Moderate	USG 7491XFS	RR2XF	4.9	Moderate
Delta Grow DG48X45	RR2X	4.8	Moderate	NK S49-F5X	RR2X	4.9	Moderate	XO 4681E	Enlist E3	4.6	Moderate

Table 3. 2021 Soybean varieties that tested Severe injury to metribuzin at 0.5 lb ai/ac.											
Variety Name	Herb. Tech.	MG	Rating	Variety Name	Herb. Tech.	MG	Rating	Variety Name	Herb. Tech.	MG	Rating
Armor 48-D25	RR2X	4.8	Severe	Local LS4795XS	RR2X	4.7	Severe	Progeny P4921XFS	RR2XF	4.9	Severe
Asgrow AG53XF2	RR2XF	5.3	Severe	Local LS4805XFS	RR2XF	4.8	Severe	Progeny P5121E3S	Enlist E3	5.1	Severe
Asgrow AG54XF0	RR2XF	5.4	Severe	Local LS5009Xs	RR2X	5	Severe	Progeny P5424XF	RR2X	5.4	Severe
Delta Grow DG46E10	Enlist E3	4.6	Severe	Local LS5614XF	RR2XF	5.6	Severe	R16-1445	Conv	5M	Severe
Delta Grow DG49E90	Enlist E3	4.9	Severe	NK 42-T5XF	RR2XF	4.2	Severe	R17-3488	Conv	5M	Severe
Delta Grow DG49F22/STS	RR2XF	4.8	Severe	NK S48-2E3S	Enlist E3	4.8	Severe	R17-4177	Conv	5L	Severe
Delta Grow DG53E30	Enlist E3	5.3	Severe	Pioneer P47A64X	RR2X	4.7	Severe	S16-14801C	Conv	5	Severe
Delta Grow DG54F20	RR2XF	5.4	Severe	Progeny P4816RX	RR2X	4.8	Severe				
Dyna-Gro S46XF31S	RR2XF	4.6	Severe	Progeny P4821RX	RR2X	4.8	Severe				

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Metribuzin Tolerance Testing of Soybean Varieties - 2020

Metribuzin (Tricor, Canopy, etc.) is a PSII inhibitor (Group 5) herbicide that provides residual control of an assortment of annual grasses and broadleaf weeds in soybean, including Palmer amaranth. With the extensive use of PPO inhibitors (Group 14) and chloroacetamide (Group 15) herbicides in soybean and rotational crops such as corn and cotton, use of an additional mode of action (MOA) is a sound strategy to reduce the risk of resistance to these other herbicide MOAs.

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Slight (Table 1) – Some symptoms observed in the greenhouse but unlikely to injure soybean plants in the field at a 1X rate if applied to the correct soil texture at the appropriate soil pH. It is recommended that these soybean varieties be planted if metribuzin is intended to be applied.

Moderate (Table 2) – Likely to observe some injury in the field, even when applying a premix product that contains a lower rate of metribuzin.

Severe (Table 3) – Do not spray any formulation or rate of metribuzin if these varieties are planted as severe injury and yield loss would be expected.

Please note most varieties show an acceptable tolerance to metribuzin. Choose a variety with a high level of tolerance. Please read and follow all labels.

Table 1. 2020 Soybean Varieties that tested Slight injury to metribuzin at 0.5 lb ai/A.

Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating
AgriGold G4620RX	RR2X	4.6	Slight	Asgrow AG 53X9	RR2X	5.3	Slight	Delta Grow DG52E22	Enlist E3	5.2	Slight
AgriGold G4820RX	RR2X	4.8	Slight	Credenz CZ 3930GTLL	LLGT27	3.9	Slight	Delta Grow DG54X25	RR2X	5.4	Slight
AgriGold G4995RX	RR2X	4.9	Slight	Credenz CZ 4410GTLL	LLGT27	4.4	Slight	DM 51X61	RR2X	5.1	Slight
Armor 44-D49	RR2X	4.4	Slight	Credenz CZ 4730X	RR2X	4.7	Slight	Dyna-Gro S43EN61	Enlist E3	4.3	Slight
Armor 44-D92	RR2X	4.4	Slight	Credenz CZ 5000X	RR2X	5.0	Slight	Dyna-Gro S43XS70	RR2X	4.3	Slight
Armor 44-E44	Enlist E3	4.4	Slight	Credenz CZ 5251X	RR2X	5.3	Slight	Dyna-Gro S47XT20	RR2X	4.7	Slight
Armor 46-E50	Enlist E3	4.6	Slight	Credenz CZ 5299X	RR2X	5.2	Slight	Dyna-Gro S48XT90	RR2X	4.8	Slight
Armor 48-E81	Enlist E3	4.8	Slight	Credenz CZ 6020X	RR2X	6.0	Slight	Dyna-Gro S49EN79	Enlist E3	4.9	Slight
Armor 49-D14	RR2X	4.9	Slight	Delta Grow DG4880	RR2	4.8	Slight	Eagle Seed ES4640RYX	RR2X	4.6	Slight
Armor 51-E53	Enlist E3	5.1	Slight	Delta Grow DG48E10	Enlist E3	4.8	Slight	Eagle Seed ES4772R2Y	RR2	4.7	Slight
Asgrow AG 45X8	RR2X	4.5	Slight	Delta Grow DG48X05	RR2X	4.8	Slight	Eagle Seed ES4880RYX	RR2X	4.8	Slight
Asgrow AG 48X9	RR2X	4.8	Slight	Delta Grow DG49X25	RR2X	4.9	Slight	Go Soy 481E19	Enlist E3	4.8	Slight
Asgrow AG 49X0	RR2X	4.9	Slight	Delta Grow DG50E10XP	Enlist E3	5.0	Slight	Go Soy 491E19S	Enlist E3	4.9	Slight

Table 1 (Continued). 2020 Soybean Varieties that tested Slight injury to metribuzin at 0.5 lb ai/A.

Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating
Go Soy 512E21	Enlist E3	5.1	Slight	Mission A4950X	RR2X	4.9	Slight	R13-14635RR:0013	RR1	4.8	Slight
GT Ireane	RR1	4.9	Slight	Petrus Seed 4619 GTS	RR1	4.6	Slight	R14-1422	Conv	5.4	Slight
Integra 54606NS	RR2X	4.6	Slight	Petrus Seed 4916 GT	RR1	4.9	Slight	R15-1587	Conv	5.1	Slight
Integra 54660NS	RR2X	4.6	Slight	Petrus Seed 5319 GT	RR1	5.3	Slight	R16-247	Conv	4.9	Slight
Integra 54816N	RR2X	4.8	Slight	Pioneer P46A86X	RR2X	4.6	Slight	R16-259	Conv	4.6	Slight
Integra 54891NS	RR2X	4.8	Slight	Pioneer P47A76L	LL	4.7	Slight	R17-2000	Conv	4.7	Slight
Integra 54920NS	RR2X	4.9	Slight	Pioneer P48A60X	RR2X	4.8	Slight	R17-2069	Conv	4.8	Slight
LGS4464RX	RR2X	4.4	Slight	Pioneer P49A41L	LL	4.9	Slight	R17C-1182	Conv	4.7	Slight
LGS4899RX	RR2X	4.8	Slight	Pioneer P49T62E	Enlist E3	4.9	Slight	R17C-1266	Conv	4.9	Slight
Local LS3976X	RR2X	3.9	Slight	Progeny 4265RXS	RR2X	4.2	Slight	S16-11651C	Conv	5.3	Slight
Local LS4299XS	RR2X	4.2	Slight	Progeny 4444RXS	RR2X	4.6	Slight	S16-3747RY	RR2	5.0	Slight
Local LS4795XS	RR2X	4.7	Slight	Progeny 4505RXS	RR2X	4.5	Slight	S16-5504R	RR1	4.6	Slight
Local LS5009XS	RR2X	5.0	Slight	Progeny 4700RXS	RR2X	4.7	Slight	Taylor T4880XS	RR2X	4.8	Slight
Local LS5087X	RR2X	5.0	Slight	Progeny 4807E3S	Enlist E3	4.8	Slight	Taylor T4990XS	RR2X	4.9	Slight
Local LSX3911GL	LLGT27	3.9	Slight	Progeny 4902E3	Enlist E3	4.9	Slight	USG 7461XT	RR2X	4.6	Slight
Local LSX4711GL	LLGT27	4.7	Slight	Progeny 4908E3S	Enlist E3	4.9	Slight	USG 7471ETS	Enlist E3	4.7	Slight
Local LSX4812XS	RR2X	4.8	Slight	Progeny 4970RX	RR2X	4.9	Slight	USG 7480XT	RR2X	4.8	Slight
Local ZS4694E3S	Enlist E3	4.6	Slight	Progeny 5016RXS	RR2X	5.0	Slight	USG 7491ETS	Enlist E3	4.9	Slight
Local ZS5098E3	Enlist E3	5.0	Slight	Progeny 5554RX	RR2X	5.5	Slight	USG 7496XTS	RR2X	4.9	Slight
Mission A4448X	RR2X	4.4	Slight	R13-13997	Conv	5.5	Slight				
Mission A4828X R	RR2X	4.8	Slight	R13-14635RR:0010	RR1	4.8	Slight				

Table 2. 2020 Soybean Varieties that tested Moderate injury to metribuzin at 0.5 lb ai/A.

Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating
Armor 46-D09	RR2X	4.6	Moderate	Delta Grow DG48E49/STS	Enlist E3	4.8	Moderate	Progeny 4241E3	Enlist E3	4.2	Moderate
Armor 47-E02	Enlist E3	4.7	Moderate	Delta Grow DG48X45	RR2X	4.8	Moderate	Progeny 4602LR	LLGT27	4.6	Moderate
Armor 48-D25	RR2X	4.8	Moderate	Delta Grow DG49E00/STS	Enlist E3	4.7	Moderate	Progeny 4620RXS	RR2X	4.6	Moderate
Asgrow AG 43X0	RR2X	4.3	Moderate	Delta Grow DG49X15	RR2X	4.9	Moderate	Progeny 4682E3	Enlist E3	4.6	Moderate
Asgrow AG 46X0	RR2X	4.6	Moderate	Delta Grow DG51E60	Enlist E3	5.1	Moderate	Progeny 4775E3S	Enlist E3	4.7	Moderate
Asgrow AG 46X6	RR2X	4.6	Moderate	Delta Grow DG52X05/STS	RR2X	5.2	Moderate	Progeny 4816RXS	RR2X	4.8	Moderate
Asgrow AG 52X9	RR2X	5.2	Moderate	DM 45X61	RR2X	4.5	Moderate	Progeny 4821RX	RR2X	4.8	Moderate
Asgrow AG 53X0	RR2X	5.3	Moderate	DM 47X39	RR2X	4.7	Moderate	Progeny 4851RX	RR2X	4.8	Moderate
Credenz CZ 4280X	RR2X	4.2	Moderate	DM 49X13	RR2X	4.9	Moderate	Progeny 5211E3	Enlist E3	5.2	Moderate
Credenz CZ 4341X	RR2X	4.3	Moderate	Dyna-Gro S45ES10	Enlist E3	4.5	Moderate	Progeny 5252RX	RR2X	5.2	Moderate
Credenz CZ 4570X	RR2X	4.5	Moderate	Dyna-Gro S46ES91	Enlist E3	4.6	Moderate	R13-14635RR	RR1	5.4	Moderate
Credenz CZ 4600X	RR2X	4.6	Moderate	Dyna-Gro S46XS60	RR2X	4.6	Moderate	R13-14635RR:0009	RR1	4.8	Moderate
Credenz CZ 4770X	RR2X	4.7	Moderate	Dyna-Gro S48XT40	RR2X	4.8	Moderate	R15-2422	Conv	4.7	Moderate
Credenz CZ 4810X	RR2X	4.8	Moderate	Dyna-Gro S49XT70	RR2X	4.9	Moderate	R16-1445	Conv	5.4	Moderate
Credenz CZ 4869X	RR2X	4.8	Moderate	Go Soy 463E20S	Enlist E3	4.6	Moderate	R16-253	Conv	4.6	Moderate
Delta Grow DG45E10	Enlist E3	4.5	Moderate	LGS4632RX	RR2X	4.6	Moderate	R17-7443RR	RR1	5.2	Moderate
Delta Grow DG45E28XP	Enlist E3	4.5	Moderate	Local LS4407X	RR2X	4.4	Moderate	R17C-1056	Conv	4.7	Moderate
Delta Grow DG46X05/STS	RR2X	4.6	Moderate	Local LS4565XS	RR2X	4.5	Moderate	R17C-1308	Conv	4.7	Moderate
Delta Grow DG47E20/STS	Enlist E3	4.7	Moderate	Local LS4999X	RR2X	4.9	Moderate	USG 7447XTS	RR2X	4.4	Moderate
Delta Grow DG47E80/STS	Enlist E3	4.7	Moderate	Local LSX4612XS	RR2X	4.6	Moderate	USG 7489XT	RR2X	4.8	Moderate
Delta Grow DG47X95/STS	RR2X	4.7	Moderate	Mission A4618X	RR2X	4.6	Moderate				

Table 3. 2020 Soybean Varieties that tested Severe injury to metribuzin at 0.5 lb ai/A.

Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating
Credenz CZ 4941X	RR2X	4.9	Severe	Delta Grow DG46X65/STS	RR2X	4.6	Severe	Dyna-Gro S52XS39	RR2X	5.2	Severe
Credenz CZ 4979X	RR2X	4.9	Severe	Delta Grow DG52E15/STS	Enlist E3	5.2	Severe	Local LS5386X	RR2X	5.3	Severe
Credenz CZ 5700X	RR2X	5.7	Severe	DM 44X31	RR2X	4.2	Severe	Progeny 5170RX	RR2X	5.1	Severe

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Metribuzin Tolerance Testing of Soybean Varieties - 2019

Metribuzin (Tricor, Canopy, etc.) is a PSII inhibitor (Group 5) herbicide that provides residual control of an assortment of annual grasses and broadleaf weeds in soybean, including Palmer amaranth. With the extensive use of PPO inhibitors (Group 14) and chloroacetamide (Group 15) herbicides in soybean and rotational crops such as corn and cotton, use of an additional mode of action (MOA) is a sound strategy to reduce the risk of resistance to these other herbicide MOAs.

The handicap to metribuzin use is the sensitivity of soybean varieties to this herbicide. Other environmental factors, including: soil texture, organic matter, rainfall, soil pH, and product use rate, may also play a part in sensitivity. The University of Arkansas System Division of Agriculture conducted a greenhouse screening of soybean varieties, testing their tolerance **to metribuzin at a rate of 0.5 lb ai/ac or 10.67 oz/ac of a 75DF metribuzin product**. The following tables break down into an injury scale:

Slight (Table 1) – Some symptoms observed in the greenhouse but unlikely to injure soybean plants in the field at a 1X rate if applied to the correct soil texture at the appropriate soil pH. It is recommended that these soybean varieties be planted if metribuzin is intended to be applied.

Moderate (Table 2) – Likely to observe some injury in the field, even when applying a premix product that contains a lower rate of metribuzin.

Severe (Table 3) – Do not spray any formulation or rate of metribuzin if these varieties are planted as severe injury and yield loss would be expected.

Please note most varieties show an acceptable tolerance to metribuzin. Choose a variety with a high level of tolerance. Please read and follow all labels.

Table 1. 2019 Soybean Varieties that tested Slight injury to metribuzin at 0.5 lb ai/A.											
Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating
Armor 42-D27	RR2X	4.2	Slight	Delta Grow DG45E23	E3	4.4	Slight	DONMARIO DM 48E73	E3	4.8	Slight
Armor 44-D92	RR2X	4.4	Slight	Delta Grow DG46E29	E3/STS	4.6	Slight	DONMARIO DM Exper	RR2X	4.9	Slight
Armor 45-D51	RR2X	4.5	Slight	Delta Grow DG46X25	RR2X	4.6	Slight	Dyna-Gro S41XS98	RR2X/STS	4.1	Slight
Armor 46-D30	RR2X	4.6	Slight	Delta Grow DG47E19	E3	4.7	Sight	Dyna-Gro S45XS37	RR2X/STS	4.5	Slight
Armor 47-D86	RR2X	4.7	Slight	Delta Grow DG48E10	E3	4.8	Slight	Dyna-Gro S46EN29	E3	4.6	Slight
Armor 48-D88	RR2X	4.8	Slight	Delta Grow DG48E39	E3	4.8	Slight	Dyna-Gro S46XS60	RR2X/STS	4.6	Slight
Armor 51-D77	RR2X	5.1	Slight	Delta Grow DG48E49	E3/STS	4.8	Slight	Dyna-Gro S47XT20	RR2X	4.7	Slight
Armor 55-D57	RR2X	5.5	Slight	Delta Grow DG48X05	RR2X	4.8	Slight	Dyna-Gro S48XT56	RR2X	4.8	Slight
Asgrow AG47X0	RR2X	4.7	Slight	Delta Grow DG4977LL/STS	LL/STS	4.9	Slight	Dyna-Gro S49EN79	E3	4.9	Sight
Asgrow AG48X9	RR2X	4.8	Slight	Delta Grow DG49X15	RR2X	4.9	Slight	Dyna-Gro S56XT99	RR2X	5.6	Slight
Credenz CZ 4938LL	LL	4.9	Slight	Delta Grow DG52E22	E3	5.2	Slight	Eagle Seed ES4460RYX	RR2X	4.4	Slight
Credenz CZ 5150LL	LL	5.1	Slight	Delta Grow DG54X25	RR2X	5.4	Slight	Eagle Seed ES4680RYX	RR2X	4.6	Slight
Credenz CZ 5299X	RR2X	5.2	Slight	Delta Grow DG5585RR2	RR2	5.5	Slight	Eagle Seed ES4840RYX	RR2X	4.8	Slight

Table 1 (Continued). 2019 Soybean Varieties that tested Slight injury to metribuzin at 0.5 lb ai/A.

Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating
Eagle Seed ES5155RYX	RR2X	5.1	Slight	MorSoy 4447 RXT	RR2X	4.4	Slight	R13-13997	Conv	5.4	Slight
GoSoy 44GL18	LLGT27	4.4	Slight	MorSoy 4706 RXT	RR2X	4.7	Slight	R13-14635RR	RR1	5.4	Slight
GoSoy 481E19	E3	4.8	Slight	MorSoy 4846 RXT	RR2X	4.8	Slight	R13-818	Conv	5.3	Slight
GoSoy 49G16	RR1	4.9	Slight	NK S49-F5X	RR2X	4.9	Slight	R14-1422	Conv	5.4	Slight
GoSoy 50G17	RR1	5.0	Slight	Petrus Seed 4916 GT	RR1	4.9	Slight	R15-1587	Conv	5.1	Slight
Hefty H51E9	E3	5.1	Slight	Pioneer P48A60X	RR2X	4.8	Slight	R16-1445	Conv	5.4	Slight
LG Seeds LGS4420RX	RR2X	4.6	Slight	Pioneer P48A99L	LL	4.8	Slight	R16-253	Conv	4.6	Slight
LG Seeds LGS4899RX	RR2X	4.8	Slight	Progeny P4255 RX	RR2X	4.2	Slight	R16-2546C	Conv	5.1	Slight
Local LS3976X	RR2X	3.9	Slight	Progeny P4265 RXS	RR2X/STS	4.2	Slight	R16-259	Conv	4.6	Slight
Local LS4299XS	RR2X	4.2	Slight	Progeny P4291 LR	LLGT27	4.2	Slight	R16-378	Conv	5.4	Slight
Local LS4487XS	RR2X	4.4	Slight	Progeny P4444 RXS	RR2X/STS	4.4	Slight	R16-39	Conv	5.1	Slight
Local LS4583X	RR2X	4.5	Slight	Progeny P4710 E3	E3	4.7	Slight	REV 4310X	RR2X	4.3	Slight
Local LS4596GLS	LLGT27	4.5	Slight	Progeny P4775 E3S	E3/STS	4.7	Slight	REV 4679X	RR2X	4.6	Slight
Local LS4677X	RR2X	4.6	Slight	Progeny P4799 RXS	RR2X/STS	4.7	Slight	REV 4927X	RR2X	4.9	Slight
Local LS4795XS	RR2X	4.6	Slight	Progeny P4821 RX	RR2X	4.8	Slight	REV 4940X	RR2X	4.9	Slight
Local LS4798X	RR2X	4.7	Slight	Progeny P4833 E3	E3	4.8	Slight	S13-2743C	Conv	4.1	Slight
Local LS5087X	RR2X	5.0	Slight	Progeny P4999 RX	RR2X	4.9	Slight	S13-3851C	Conv	4.4	Slight
Local LS5588X	RR2X	5.5	Slight	Progeny P5016 RXS	RR2X/STS	5.0	Slight	Taylor EXP 47-90	RR2X	4.7	Slight
Local ZS4694E3S	E3	4.6	Slight	Progeny P5252 RX	RR2X	5.2	Slight	Taylor EXP 48-80	RR2X	4.8	Slight
Local ZS4797E3	E3	4.7	Slight	Progeny P5554 RX	RR2X	5.5	Slight	USG 7460ET	E3	4.6	Slight
Mission A4448X	RR2X	4.4	Slight	Progeny P5688 RX	RR2X	5.6	Slight	USG 7480ET	E3	4.8	Slight

Table 2. 2019 Soybean Varieties that tested Moderate injury to metribuzin at 0.5 lb ai/A.											
Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating
AgriGold G4440RX	RR2X	4.4	Moderate	Credenz CZ 4649LL	LL	4.6	Moderate	Local LS5386X	RR2X	5.3	Moderate
AgriGold G4579RX	RR2X	4.5	Moderate	Credenz CZ 4770X	RR2X	4.7	Moderate	Mission A4618x	RR2X	4.6	Moderate
AgriGold G4605RX	RR2X	4.6	Moderate	Credenz CZ 4820LL	LL	4.8	Moderate	Mission A4950X	RR2X	4.9	Moderate
AgriGold G4815RX	RR2X	4.8	Moderate	Credenz CZ 4869X	RR2X	4.8	Moderate	NK S39-G2X	RR2X	3.9	Moderate
AgriGold G5000RX	RR2X	5.0	Moderate	Credenz CZ 4918LL	LL	4.9	Moderate	Pioneer P42A96X	RR2X	4.2	Moderate
AGS GS48X19	RR2X	4.8	Moderate	Credenz CZ 4979X	RR2X	4.9	Moderate	Pioneer P46A57BX	RR2X	4.6	Moderate
AGS GS49X19	RR2X	4.9	Moderate	Delta Grow DG47E25	E3	4.7	Moderate	Progeny P4241 E3	E3	4.2	Moderate
Armor 46-D09	RR2X	4.6	Moderate	Delta Grow DG48X45	RR2X	4.8	Moderate	Progeny P4525 E3	E3	4.5	Moderate
Armor 47-D18	RR2X	4.7	Moderate	Delta Grow DG52X05	RR2X/STS	5.2	Moderate	Progeny P4565 LR	LLGT27	4.5	Moderate
Armor 47-D85	RR2X	4.7	Moderate	DONMARIO DM 47X39	RR2X	4.7	Moderate	Progeny P4620 RXS	RR2X/STS	4.6	Moderate
Armor 48-D25	RR2X	4.8	Moderate	Dyna-Gro S42EN89	E3	4.2	Moderate	Progeny P4670 RX	RR2X	4.6	Moderate
Armor 52-D71	RR2X	5.2	Moderate	Dyna-Gro S45XS66	RR2X/STS	4.5	Moderate	Progeny P4816 RX	RR2X	4.9	Moderate
Asgrow AG43X0	RR2X	4.3	Moderate	Dyna-Gro S49XT39	RR2X	4.9	Moderate	Progeny P4851 RX	RR2X	4.8	Moderate
Asgrow AG46X0	RR2X	4.6	Moderate	Dyna-Gro S49XT70	RR2X	4.9	Moderate	Progeny P4891 E3	E3	4.8	Moderate
Asgrow AG46X6	RR2X	4.6	Moderate	Dyna-Gro S52XS39	RR2X/STS	5.2	Moderate	Progeny P5211 E3	E3	5.2	Moderate
Asgrow AG47X9	RR2X	4.7	Moderate	GoSoy 46GL18	LLGT27	4.6	Moderate	Progeny P5335 RX	RR2X	5.3	Moderate
Asgrow AG52X9	RR2X	5.2	Moderate	GoSoy 482E18	E3	4.8	Moderate	R15-2422	Conv	4.7	Moderate
Asgrow AG53X0	RR2X	5.3	Moderate	GoSoy 48C17S	Conv	4.8	Moderate	R16-2547	Conv	5.2	Moderate
Credenz CZ 3841LL	LL	3.8	Moderate	GoSoy 512E18	E3	5.1	Moderate	S14-15138R	RR1/STS	4.8	Moderate
Credenz CZ 3929GTLL	LLGT27	3.9	Moderate	Hefty H42E9	E3	4.7	Moderate	USG 7470XT	RR2X	4.7	Moderate
Credenz CZ 4222LL	LL	4.2	Moderate	Hefty H46X0S	RR2X	4.6	Moderate	USG 7479ET	E3	4.9	Moderate
Credenz CZ 4280X	RR2X	4.2	Moderate	Hefty H48E0	E3	4.8	Moderate	USG 7480XT	RR2X	4.8	Moderate
Credenz CZ 4539GTLL	LLGT27	4.5	Moderate	Hefty H48E9	E3	4.8	Moderate	USG 7489XT	RR2X	4.8	Moderate
Credenz CZ 4540LL	LL	4.5	Moderate	LG Seeds LGS4931RX	RR2X	4.9	Moderate	USG 7496XTS	RR2X/STS	4.9	Moderate
Credenz CZ 4570X	RR2X	4.5	Moderate	Local LS4407X	RR2X	4.5	Moderate				
Credenz CZ 4600X	RR2X	4.6	Moderate	Local LS4889XS	RR2X	4.8	Moderate				

Table 3. 2019 Soybean Varieties that tested Severe injury to metribuzin at 0.5 lb ai/A.											
Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating
Armor 49-D67	RR2X	4.9	Severe	LG Seeds LG C4845RX	RR2X	4.8	Severe	Progeny P4682 E3	E3	4.6	Severe
Asgrow AG42X9	RR2X	4.2	Severe	Local LS4565XS	RR2X	4.5	Severe	Progeny P5170 RX	RR2X	5.1	Severe
Asgrow AG49X9	RR2X	4.9	Severe	Local LS4894X	RR2X	4.8	Severe	USG 7478XTS	RR2X/STS	4.7	Severe
Delta Grow DG46X65	RR2X/STS	4.6	Severe	Local LS4999X	RR2X	4.9	Severe				
Delta Grow DG49E29	E3	4.9	Severe	NK S44-C7X	RR2X	4.4	Severe				

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Metribuzin Tolerance Testing of Soybean Varieties - 2018

Metribuzin (Sencor, Canopy, etc.) is a PSII inhibitor (Group 5) herbicide that provides residual control of an assortment of annual grasses and broadleaf weeds in soybean, including Palmer amaranth. With the extensive use of PPO inhibitors (Group 14) and chloroacetamide (Group 15) herbicides in soybean and rotational crops such as corn and cotton, use of an additional mode of action (MOA) is a sound strategy to reduce the risk of resistance to these other herbicide MOAs.

The handicap to metribuzin use is the sensitivity of soybean varieties to this herbicide. Other environmental factors, including: soil texture, organic matter, rainfall, soil pH, and product use rate, may also play a part in sensitivity. The University of Arkansas System Division of Agriculture conducted a greenhouse screening of soybean varieties, testing their tolerance to metribuzin at a rate of 0.5 lb ai/ac or 10.67 oz/ac of a 75DF metribuzin product. The following tables break down into an injury scale:

Slight (Table 1) – Some symptoms observed in the greenhouse but unlikely to injure soybean plants in the field at a 1X rate if applied to the correct soil texture at the appropriate soil pH. It is recommended that these soybean varieties be planted if metribuzin is intended to be applied.

Moderate (Table 2) – Likely to observe some injury in the field, even when applying a premix product that contains a lower rate of metribuzin.

Severe (Table 3) – Use of any metribuzin-containing product would likely cause considerable injury to these soybean varieties.

Please note that most varieties show an acceptable tolerance to metribuzin. Choose a variety with a high level of tolerance. Please read and follow all labels.

Table 1. 2018 Soybean Varieties that tested Slight injury to metribuzin at 0.5 lb ai/A.											
Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating
16UARK-52	RR1	5.7	Slight	Credenz CZ 3601 LL	LL	3.6	Slight	Delta Grow DG45X35	RR2X	4.3	Slight
AgriGold G5288RX	RR2X	5.2	Slight	Credenz CZ 3738 LL	LL	3.7	Slight	Delta Grow DG4670RR2	RR2	4.6	Slight
AGS GS51X18	RR2X/STS	5.1	Slight	Credenz CZ 4540 LL	LL	4.5	Slight	Delta Grow DG4880RR	RR1	4.8	Slight
Armor 39-D39	RR2X	3.9	Slight	Credenz CZ 4649 LL	LL	4.6	Slight	Delta Grow DG4970RR	RR1	4.8	Slight
Armor 42-D27	RR2X	4.2	Slight	Credenz CZ 4748 LL	LL	4.7	Slight	Delta Grow DG4977LL/STS	LL/STS	4.9	Slight
Armor 45-D43	RR2X	4.3	Slight	Credenz CZ 4938 LL	LL	4.9	Slight	Delta Grow DG5170RR2	RR2	5.1	Slight
Armor 45-D50	RR2X	4.5	Slight	Credenz CZ 5147 LL	LL	5.1	Slight	Delta Grow DG5580RR2	RR2	5.5	Slight
Armor 49-D31	RR2X	4.9	Slight	Credenz CZ 5150 LL	LL	5.1	Slight	Delta Grow DG5585RR2	RR2	5.5	Slight
Armor 55-D57	RR2X	5.5	Slight	Credenz CZ 5225 LL	LL	5.2	Slight	Dyna-Gro S41XS98	RR2X/STS	4.1	Slight
Armor X40D	RR2X	4.0	Slight	Credenz CZ 5328 LL	LL	5.3	Slight	Dyna-Gro S43XS27	RR2X/STS	4.3	Slight
Armor X44D36	RR2X	4.4	Slight	Credenz CZ 5445 LL	LL	5.4	Slight	Dyna-Gro S45XS37	RR2X/STS	4.5	Slight
Asgrow AG 43X8	RR2X	4.3	Slight	Croplan RX4928	RR2X	4.9	Slight	Dyna-Gro S45XS66	RR2X/STS	4.5	Slight
Asgrow AG 48X9	RR2X/SR	4.8	Slight	Delta Grow DG44X25	RR2X	4.4	Slight	Dyna-Gro S49LL34	LL	4.9	Slight
Asgrow AG 55X7	RR2X	5.5	Slight	Delta Grow DG44X50	RR2X	4.4	Slight	Dyna-Gro S56XT99	RR2X	5.6	Slight

Table 1 (Continued). 2018 Soybean Varieties that tested Slight injury to metribuzin at 0.5 lb ai/A.

Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating
Dyna-Gro SX18652XS	RR2X/STS	5.2	Slight	Mission MEX4608	RR2X	4.6	Slight	R13-818	Conv	5.3	Slight
Dyna-Gro SX18845XT	RR2X	4.5	Slight	Mission MEX4619X	RR2X	4.6	Slight	R14-10150	Conv	5.3	Slight
Eagle Seed ES4060RYX	RR2X	4.0	Slight	Mission MEX4808	RR2X	4.8	Slight	R14-1422	Conv	5.4	Slight
Eagle Seed ES4460RYX	RR2X	4.4	Slight	Mission MEX4908	RR2X	4.9	Slight	R14-14648	Conv	6.2	Slight
Eagle Seed ES4680RYX	RR2X	4.6	Slight	NK S39-R9X	RR2X	3.9	Slight	R14-14797RR	RR1	5.2	Slight
Eagle Seed ES4777RR	RR1	4.7	Slight	NK S43-V3X	RR2X	4.3	Slight	R14-15079	Conv	5.3	Slight
Eagle Seed ES4840RYX	RR2X	4.8	Slight	NK S45-J3X	RR2X	4.5	Slight	R14-356	Conv	5.2	Slight
Eagle Seed ES4870RYX	RR2X	4.8	Slight	NK S50-G9X	RR2X	5.0	Slight	R14-898	Conv	5.3	Slight
Eagle Seed ES5220RYX	RR2X	5.2	Slight	NSGA DrewSoy 5.0	Conv	5.0	Slight	R15-1150	Conv	4.7	Slight
Eagle Seed ES5420RYX	RR2X	5.4	Slight	Petrus Seed 479 GTS	RR1/STS	4.7	Slight	R15-1194	Conv	5.2	Slight
Eagle Seed ES5519RR	RR1	5.5	Slight	Petrus Seed 4916 GTS	RR1	4.9	Slight	R15-1587	Conv	5.1	Slight
Eagle Seed ES5930RYX	RR2X	5.9	Slight	Pioneer P44A08L	LL	4.4	Slight	R15-1687	Conv	5.3	Slight
EXP3X18	RR2X	4.9	Slight	Pioneer P45A19X	RR2X	4.5	Slight	R15-2422	Conv	4.7	Slight
EXP4X18	RR2X	5.2	Slight	Pioneer P46A16R	RR1	4.6	Slight	R15-2465RR	RR1	5.1	Slight
Go Soy 43C17S	Conv/STS	4.3	Slight	Pioneer P46A57BX	RR2X	4.6	Slight	R15-489	Conv	5.4	Slight
Go Soy 49G16	RR1	4.9	Slight	Pioneer P48A60X	RR2X	4.8	Slight	R15-5695	Conv	5.5	Slight
Go Soy 50G17	RR1	5.0	Slight	Pioneer P50A78L	LL	5.0	Slight	R15-818	Conv	4.6	Slight
Go Soy 51C17	Conv	5.1	Slight	Progeny P4247LL	LL	4.2	Slight	REV 46L99	LL	4.6	Slight
Go Soy 56C16	Conv	5.6	Slight	Progeny P4255RX	RR2X	4.2	Slight	REV 47L38	LL	4.7	Slight
Go Soy E4510S	Conv/STS	4.5	Slight	Progeny P4444RXS	RR2X/STS	4.4	Slight	REV 4857X	RR2X	4.8	Slight
Go Soy Ireane	Conv	4.9	Slight	Progeny P4570RXS	RR2X/STS	4.5	Slight	REV 4927X	RR2X	4.9	Slight
Go Soy Leland	Conv	5.0	Slight	Progeny P4799RXS	RR2X/STS	4.7	Slight	REV 49L88	LL	4.9	Slight
Hefty H43x8	Xtend	4.3	Slight	Progeny P4851RX	RR2X	4.8	Slight	REV 54L18	LL	5.4	Slight
Hefty H45x8s	RR2X/STS	4.5	Slight	Progeny P4955RX	RR2X	4.9	Slight	S13-10590C	Conv	4.3	Slight
Hefty H46x6	RR2X/STS	4.6	Slight	Progeny P4994RX	RR2X	4.9	Slight	S14-9051R	RR1	4.7	Slight
Local Seed AV44U4LL	LL	4.4	Slight	Progeny P5252RX	RR2X	5.2	Slight	TN16-520R1	RR1	4.9	Slight
Local Seed AV49W3X	RR2X	4.9	Slight	Progeny P5279RXS	RR2X/STS	5.2	Slight	USG 7489XTS	RR2X/STS	4.8	Slight
Local Seed AV51W1LL	LL	5.1	Slight	Progeny P5414LLS	LL/STS	5.4	Slight	USG 7568XT	RR2X	5.6	Slight
Local Seed LS4388XS	RR2X	4.3	Slight	Progeny P5554RX	RR2X	5.4	Slight	USG 75B75R	RR2	5.7	Slight
Local Seed LS4889XS	RR2X/STS	4.8	Slight	Progeny P5688RX	RR2X	5.6	Slight	VIRTUE EX203	Conv	4.7	Slight
Local Seed LS4968XS	RR2X/STS	4.9	Slight	R12-6751RR	RR1	5.2	Slight	VIRTUE EX206	Conv	4.5	Slight
Local Seed LS4988X	RR2X	4.9	Slight	R13-13997	RR	5.0	Slight	VIRTUE V46C202	Conv	4.6	Slight

Table 2. 2018 Soybean Varieties that tested Moderate injury to metribuzin at 0.5 lb ai/A.											
Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating
AgriGold G4440RX	RR2X	4.4	Moderate	Croplan RX4927	RR2X	4.9	Moderate	Local Seed AV47W2X	RR2X	4.7	Moderate
AgriGold G4579RX	RR2X	4.5	Moderate	Delta Grow DG4587LL/STS	LL/STS	4.5	Moderate	Local Seed AV47W3LL	LL	4.7	Moderate
AgriGold G4605RX	RR2X	4.6	Moderate	Delta Grow DG46X25	RR2X	4.6	Moderate	Local Seed LS4583X	RR2X	4.5	Moderate
AgriGold G4995RX	RR2X	4.9	Moderate	Delta Grow DG4790RR2	RR2	4.7	Moderate	Local Seed LS4677X	GT/LL	4.6	Moderate
AgriGold G5000RX	RR2X	5.0	Moderate	Delta Grow DG48X45	RR2X	4.8	Moderate	Local Seed LS4689X	RR2X	4.6	Moderate
AGS GS46X17	RR2X	4.6	Moderate	Delta Grow DG4967LL	LL	4.9	Moderate	Local Seed LS4966X	RR2X	4.9	Moderate
AGS GS48X18	RR2X	4.8	Moderate	Delta Grow DG52X15	RR2X	5.0	Moderate	Local Seed LS5087X	RR2X	5.0	Moderate
Armor 47-D22	RR2X	4.7	Moderate	Dyna-Gro S48XS78	RR2X/STS	4.8	Moderate	Mission A4447NSXR2	RR2X	4.4	Moderate
Armor 49-D13	RR2X	5.0	Moderate	Dyna-Gro S48XT56	RR2X	4.8	Moderate	Mission A4637NSXR2	RR2X	4.6	Moderate
Armor X46D63	RR2X	4.6	Moderate	Dyna-Gro S49XS76	RR2X/STS	4.9	Moderate	NK S45-K5X	RR2X	4.5	Moderate
Armor X48D02	RR2X	4.8	Moderate	Dyna-Gro S49XT39	RR2X	4.9	Moderate	Progeny P4318RX	RR2X	4.3	Moderate
Armor X51D77	RR2X	5.1	Moderate	Dyna-Gro SX18854XT	RR2X	5.4	Moderate	Progeny P4620RXS	RR2X/STS	4.6	Moderate
Asgrow AG 42X9	RR2X	4.2	Moderate	Eagle Seed ES4211RYX	RR2X	4.2	Moderate	Progeny P4816RX	RR2X	4.9	Moderate
Asgrow AG 45X8	RR2X	4.5	Moderate	Eagle Seed ES4998RR	RR1	4.9	Moderate	Progeny P4930LL	LL	4.9	Moderate
Asgrow AG 46X6	RR2X	4.6	Moderate	EXP1X18	RR2X	4.1	Moderate	Progeny P5016RXS	RR2X/STS	5.0	Moderate
Asgrow AG 47X9	RR2X	4.7	Moderate	EXP2X18	RR2X	4.8	Moderate	Progeny P5018RX	RR2X	5.0	Moderate
Asgrow AG 52X9	RR2X/SR	5.2	Moderate	Hefty H48x7	RR2X	4.8	Moderate	REV 4679X	RR2X	4.6	Moderate
Credenz CZ 3841 LL	LL	3.8	Moderate	Hefty H49x7s	RR2X/STS	4.9	Moderate	S13-2743C	Conv	4.1	Moderate
Credenz CZ 4222 LL	LL	4.2	Moderate	LG C4710RX	RR2X	4.7	Moderate	S15-10434C	Conv	5.5	Moderate
Credenz CZ 4308 LL	LL	4.3	Moderate	LG LGS4597RX	RR2X	4.5	Moderate	USG 7487XTS	RR2X/STS	4.8	Moderate
Credenz CZ 4820 LL	LL	4.8	Moderate	LG LGS4624RX	RR2X	4.6	Moderate	USG 7496XTS	RR2X/STS	4.9	Moderate
Credenz CZ 4918 LL	LL	4.9	Moderate	LG LGS4989RX	RR2X	4.9	Moderate				

Table 3. 2018 Soybean Varieties that tested Severe injury to metribuzin at 0.5 lb ai/A.											
Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating
Armor 52-D71	RR2X	5.2	Severe	Credenz CZ 4044 LL	LL	4.0	Severe	LG C4845RX	RR2X	4.8	Severe
Armor X41D	RR2X	4.1	Severe	Credenz CZ 4548 LL	LL	4.5	Severe	Local Seed LS4565XS	RR2X/STS	4.5	Severe
Asgrow AG 49X9	RR2X/SR	4.9	Severe	Croplan RX4825	RR2X	4.8	Severe	NK S45-Z5XS	RR2X/STS	4.5	Severe
Asgrow AG 53X9	RR2X	5.3	Severe	Dyna-Gro S52XT08	RR2X	5.2	Severe				
Asgrow AG 54X9	RR2X	5.4	Severe	Eagle Seed ES5660RYX	RR2X	5.6	Severe				

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Metribuzin Tolerance Testing of Soybean Varieties - 2017

Metribuzin (Sencor, Canopy, etc.) is a PSII inhibitor (Group 5) herbicide that provides residual control of an assortment of annual grasses and broadleaf weeds in soybean, including Palmer amaranth. With the extensive use of PPO inhibitors (Group 14) and chloroacetamide (Group 15) herbicides in soybean and rotational crops such as corn and cotton, use of an additional mode of action (MOA) is a sound strategy to reduce the risk of resistance to these other herbicide MOAs.

The handicap to metribuzin use is the sensitivity of soybean varieties to this herbicide. Other environmental factors, including: soil texture, organic matter, rainfall, soil pH, and product use rate, may also play a part in sensitivity. The University of Arkansas System Division of Agriculture conducted a greenhouse screening of soybean varieties, testing their tolerance to metribuzin at a rate of 0.5 lb ai/ac or 10.67 oz/ac of a 75DF metribuzin product. The following tables break down into an injury scale:

Slight (Table 1) – Some symptoms observed in the greenhouse but unlikely to injure soybean plants in the field at a 1X rate if applied to the correct soil texture at the appropriate soil pH. It is recommended that these soybean varieties be planted if metribuzin is intended to be applied.

Moderate (Table 2) – Likely to observe some injury in the field, even when applying a premix product that contains a lower rate of metribuzin.

Severe (Table 3) – Use of any metribuzin-containing product would likely cause considerable injury to these soybean varieties.

Please note that most varieties show an acceptable tolerance to metribuzin. Choose a variety with a high level of tolerance. Please read and follow all labels.

Table 1. 2017 Soybean Varieties that tested Slight injury to metribuzin at 0.5 lb ai/A.

Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating
AgriGold G4440 RX	RR2Xtend	4.4	Slight	Armor ARX4907	RR2Xtend	4.9	Slight	Bayer CZ 4748 LL	LL	4.7	Slight
AGS GS45R216	RR2Y	4.5	Slight	Armor ARX5107	RR2Xtend	5.1	Slight	Bayer CZ 5147 LL	LL	5.1	Slight
AGS GS46X17	RR2Xtend	4.6	Slight	Armor ARX5607	RR2Xtend	5.6	Slight	Bayer CZ 5150 LL	LL	5.1	Slight
Armor 44-D40	RR2Xtend/STS	4.4	Slight	Asgrow AG43X7	RR2Xtend/SR	4.3	Slight	Delta Grow DG4825	RR2Xtend	4.8	Slight
Armor 44-D51	RR2Xtend	4.4	Slight	Asgrow AG43X8	RR2Xtend	4.3	Slight	Delta Grow DG4880	RR1	4.8	Slight
Armor 44L20	LL	4.4	Slight	Asgrow AG45X8	RR2Xtend/SR	4.5	Slight	Delta Grow DG4967	LL	4.9	Slight
Armor 48L30	LL	4.8	Slight	Asgrow AG46X8	RR2Xtend/SR	4.6	Slight	Delta Grow DG4977	LL/STS	4.9	Slight
Armor 53-D04	RR2Xtend	5.3	Slight	Asgrow AG47X6	RR2Xtend/SR	4.7	Slight	Delta Grow DG5580	RR2Y	5.5	Slight
Armor ARX4507	RR2Xtend	4.5	Slight	Asgrow AG48X8	RR2Xtend/SR	4.8	Slight	Dyna-Gro S44XS57	RR2Xtend/STS	4.4	Slight
Armor ARX4607	RR2Xtend	4.6	Slight	Asgrow AG51X8	RR2Xtend/SR	5.1	Slight	Dyna-Gro S45LL97	LL	4.5	Slight
Armor ARX4807	RR2Xtend	4.8	Slight	Asgrow AG55X8	RR2Xtend/SR	5.6	Slight	Dyna-Gro S45XS66	RR2Xtend/STS	4.5	Slight
Armor ARX4817	RR2Xtend	4.8	Slight	Bayer CZ 4540 LL	LL	4.7	Slight	Dyna-Gro S49LL34	LL	4.9	Slight

Table 1 (Continued). 2017 Soybean Varieties that tested Slight injury to metribuzin at 0.5 lb ai/A.											
Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating
Dyna-Gro S55LS75	LL/STS	5.5	Slight	NK S45-K5X Brand	RR2Xtend	4.5	Slight	R13-14635RR	RR1	5.5	Slight
Dyna-Gro S56RY84	RR2Y	5.6	Slight	NK S48-R2X Brand	RR2Xtend	4.8	Slight	R13-4638RY	RR2Y	5.6	Slight
Dyna-Gro S56XT98	RR2Xtend	5.6	Slight	Pioneer P42A52X	RR2Xtend	4.2	Slight	R14-14797RR	RR1	5.4	Slight
Dyna-Gro SX17648XT	RR2Xtend	4.8	Slight	Pioneer P46A16R	RR2Y	4.6	Slight	R14-2893RR	RR1	5.4	Slight
Dyna-Gro SX17651XS	RR2Xtend/STS	5.1	Slight	Pioneer P46A93X	RR2Xtend	4.6	Slight	S13-10590C	Conv	4.3	Slight
Dyna-Gro SX17846XS	RR2Xtend/STS	4.6	Slight	Pioneer P48A60X	RR2Xtend	4.8	Slight	S13-1805C	Conv	4.8	Slight
Dyna-Gro SX17852XT	RR2Xtend	5.2	Slight	Pioneer P50T78L	LL	5	Slight	S14-1955C	Conv	5.3	Slight
Eagle Seed ES 4840RY	RR2Y	4.8	Slight	Pioneer P54A54X	RR2Xtend	5.4	Slight	S14-6391C	Conv/STS	4.7	Slight
Eagle Seed ES4460RYX	RR2Xtend	4.4	Slight	Progeny 5157RXS	RR2Xtend/STS	5.1	Slight	S14-9017R	RR1	5.3	Slight
Eagle Seed ES4660RYX	RR2Xtend	4.6	Slight	Progeny P4255RX	RR2Xtend	4.2	Slight	S14-9051R	RR1	4.5	Slight
Eagle Seed ES4772RY	RR2Y	4.7	Slight	Progeny P4444RXS	RR2Xtend/STS	4.4	Slight	Terral REV 45L57	LL	4.5	Slight
Eagle Seed ES4870RYX	RR2Xtend	4.8	Slight	Progeny P4516RXS	RR2Xtend/STS	4.5	Slight	Terral REV 4857X	RR2Xtend	4.8	Slight
Eagle Seed ES5030RYX	RR2Xtend	5	Slight	Progeny P4716LL	LL	4.7	Slight	Terral REV 48A26	RR1	4.8	Slight
Eagle Seed ES5420RYX	RR2Xtend	5.4	Slight	Progeny P4757RY	RR2Y	4.7	Slight	Terral REV 48L63	LL	4.8	Slight
Eagle Seed ES5508RY	RR2	5.5	Slight	Progeny P4851RX	RR2Xtend	4.8	Slight	Terral REV 4927X	RR2Xtend	4.9	Slight
Eagle Seed ES5660RYX	RR2Xtend	5.6	Slight	Progeny P4929RXS	RR2Xtend/STS	4.9	Slight	Terral REV 49L88	LL	4.9	Slight
GoSoy 49L17	LL	4.9	Slight	Progeny P4930LL	LL	4.9	Slight	Terral REV 49R94	RR1	4.9	Slight
GoSoy 5115LL	LL	5.1	Slight	Progeny P5279RXS	RR2Xtend/STS	5.2	Slight	Terral REV 51A56	RR1	5.1	Slight
GoSoy 56C16	Conv	5.6	Slight	Progeny P5414LLS	LL/STS	5.4	Slight	Terral REV 52A98	RR1	5.2	Slight
GoSoy Ireane	Conv	4.9	Slight	Progeny P5417RX	RR2Xtend	5.4	Slight	Terral REV 55A67	RR1	5.5	Slight
GoSoy Leland	Conv	5.1	Slight	Progeny P5555RY	RR2Y	5.5	Slight	Terral REV 56A58	RR1	5.6	Slight
HBK LL 4953	LL	4.9	Slight	Progeny P5623LL	LL	5.6	Slight	Terral REV 56R63	RR1	5.6	Slight
Hefty H45x8s	RR2Xtend	4.4	Slight	Progeny P5688RX	RR2Xtend	5.6	Slight	UA 5014C	Conv	5	Slight
Hefty H46x6	RR2Xtend	4.6	Slight	R09-430	Conv	5.1	Slight	UA 5414RR	RR1	5.4	Slight
JTN-5110	Conv	5.5	Slight	R11-328	Conv	4.9	Slight	UA 5715GT	RR1	5.7	Slight
MorSoy 4426 RXT	RR2Xtend/STS	4.4	Slight	R11-7999	Conv	5.7	Slight	UA 5814HP	Conv	5.8	Slight
MorSoy 4616 RXT	RR2Xtend/STS	4.6	Slight	R12-226	Conv	4.9	Slight	UAX 51010C	Conv	5.2	Slight
MorSoy 4667 RXT	RR2Xtend/STS	4.6	Slight	R12-712	Conv	4.9	Slight	USG 7547XT	RR2Xtend	5.4	Slight
MorSoy 4846 RXT	RR2Xtend	4.8	Slight	R13-1019	Conv	4.9	Slight	USG 7568XT	RR2Xtend	5.6	Slight
MorSoy 4857 RXT	RR2Xtend/STS	4.8	Slight	R13-13433	Conv	4.9	Slight				
NK S43-V3X Brand	RR2Xtend	4.3	Slight	R13-13997	Conv	5.3	Slight				

Table 2. 2017 Soybean Varieties that tested Moderate injury to metribuzin at 0.5 lb ai/A.

Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating
AgriGold G4380RX	RR2Xtend	4.3	Moderate	Delta Grow DG5067	LL	5	Moderate	MorSoy 4777 RXT	RR2Xtend	4.7	Moderate
AgriGold G4685RX	RR2Xtend	4.6	Moderate	Delta Grow DG5170	RR2Y/STS	5.1	Moderate	MorSoy 4807 RXT	RR2Xtend	4.8	Moderate
AgriGold G4835RX	RR2Xtend	4.8	Moderate	Delta Grow DG5585	RR2Y	5.6	Moderate	MorSoy 4997 RXT	RR2Xtend/STS	4.9	Moderate
AgriGold G4990RX	RR2Xtend	4.9	Moderate	Dyna-Gro 31RY45	RR2Y	4.5	Moderate	MorSoy 5050 RXT	RR2Xtend/STS	5	Moderate
AgriGold G5000RX	RR2Xtend	5	Moderate	Dyna-Gro S43RY95	RR2Y	4.3	Moderate	Petrus Seed 479 GTS	RR1/STS	4.7	Moderate
AGS GS48R216	RR2Y	4.8	Moderate	Dyna-Gro S45XS37	RR2Xtend/STS	4.5	Moderate	Petrus Seed 4916 GT	RR1	4.9	Moderate
Armor 46-D08	RR2Xtend/STS	4.6	Moderate	Dyna-Gro S48XT56	RR2Xtend	4.8	Moderate	Pfister 48RS01	RR2Y	4.8	Moderate
Armor ARX4827	RR2Xtend	4.8	Moderate	Dyna-Gro S49XS88	RR2Xtend/STS	4.9	Moderate	Progeny P4247LL	LL	4.2	Moderate
Asgrow AG46X6	RR2Xtend	4.6	Moderate	Dyna-Gro S52RY75	RR2Y	5.2	Moderate	Progeny P4620RXS	RR2Xtend/STS	4.6	Moderate
Asgrow AG46X7	RR2Xtend/SR	4.6	Moderate	Eagle Seed ES4680RYX	RR2Xtend	4.6	Moderate	Progeny P4799RXS	RR2Xtend/STS	4.7	Moderate
Asgrow AG53X6	RR2Xtend	5.3	Moderate	Eagle Seed ES4998RR	RR1	4.9	Moderate	Progeny P4816RX	RR2Xtend	4.8	Moderate
Asgrow AG55X7	RR2Xtend	5.5	Moderate	GoSoy 43L16	LL	4.3	Moderate	Progeny P5016RXS	RR2Xtend/STS	5	Moderate
Bayer CZ 4222 LL	LL	4.2	Moderate	GoSoy 47B17	Balance GT	4.7	Moderate	Progeny P5752RY	RR2Y	5.7	Moderate
Croplan R2C4775	RR1	4.7	Moderate	GoSoy 49G16	RR1	4.9	Moderate	S13-2743C	Conv	4.1	Moderate
Croplan RX4817	RR2Xtend	4.8	Moderate	GoSoy 54G16	RR1	5.4	Moderate	S13-3851C	Conv	4.3	Moderate
Croplan RX4825	RR2Xtend	4.8	Moderate	HBK LL 4950	LL	4.9	Moderate	S14-15146R	RR1/STS	4.7	Moderate
Delta Grow DG4587	LL/STS	4.5	Moderate	Hefty H29x7s	RR2Xtend	5	Moderate	Terral REV 48A76	RR1	4.8	Moderate
Delta Grow DG4670	RR2Y	4.6	Moderate	Hefty H43x8	RR2Xtend	4.3	Moderate	Terral REV 50A47	RR1	5	Moderate
Delta Grow DG4680	RR2Y	4.6	Moderate	Hefty H47L5	LL	4.8	Moderate	USG 7478XTS	RR2Xtend/STS	4.7	Moderate
Delta Grow DG4781	LL	4.7	Moderate	Hefty H48L3	LL	4.8	Moderate	USG 7487XTS	RR2Xtend/STS	4.8	Moderate
Delta Grow DG4790	RR2Y	4.7	Moderate	Hefty H49x7	RR2Xtend	4.9	Moderate	USG 7496XTS	RR2Xtend/STS	4.9	Moderate
Delta Grow DG4835	RR2Xtend	4.8	Moderate	LG C4710RX	RR1/STS	4.7	Moderate	USG 7497XT	RR2Xtend	4.9	Moderate
Delta Grow DG4845	RR2Xtend	4.8	Moderate	LG C4845RX	RR1	4.8	Moderate	USG 74K95RS	RR2Y/STS	4.9	Moderate
Delta Grow DG4940	RR1	4.9	Moderate	LG C4922RX	RR1/STS	4.9	Moderate	USG Ellis	Conv	4.9	Moderate
Delta Grow DG4970	RR1	4.9	Moderate	MorSoy 3907 RXT	RR2Xtend	3.9	Moderate				
Delta Grow DG4995	RR1	4.9	Moderate	MorSoy 4535 RXT	RR2Xtend/STS	4.5	Moderate				

Table 3. 2017 Soybean Varieties that tested Severe injury to metribuzin at 0.5 lb ai/A.											
Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating	Variety Name	Herbicide Technology	MG	Rating
Bayer CZ 4044 LL	LL	4	Severe	Eagle Seed ES5225RY	RR2Y	5.2	Severe	R11-8346	Conv	5.6	Severe
Bayer CZ 5242 LL	LL	5.2	Severe	OSAGE	Conv	5.6	Severe	USG 75B75R	RR2Y	5.7	Severe
Dyna-Gro S49XS76	RR2Xtend/STS	4.9	Severe	Progeny P5376RX	RR2Xtend	5.3	Severe				

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Metribuzin Tolerance Testing of Soybean Varieties - 2016

Metribuzin (Sencor, Canopy, etc.) is a PSII inhibitor (Group 5) herbicide that provides residual control of an assortment of annual grasses and broadleaf weeds in soybean, including Palmer amaranth. With the extensive use of PPO inhibitors (Group 14) and chloroacetamide (Group 15) herbicides in soybean and rotational crops such as corn and cotton, use of an additional mode of action (MOA) is a sound strategy to reduce the risk of resistance to these other herbicide MOAs.

The handicap to metribuzin use is the sensitivity of soybean varieties to this herbicide. Other environmental factors, including: soil texture, organic matter, rainfall, soil pH, and product use rate, may also play a part in sensitivity. The University of Arkansas System Division of Agriculture conducted a greenhouse screening of soybean varieties, testing their tolerance to metribuzin at a rate of 0.5 lb ai/ac or 10.67 oz/ac of a 75DF metribuzin product. The following tables break down into an injury scale:

Slight (Table 1) – Some symptoms observed in the greenhouse but unlikely to injure soybean plants in the field at a 1X rate if applied to the correct soil texture at the appropriate soil pH. It is recommended that these soybean varieties be planted if metribuzin is intended to be applied.

Moderate (Table 2) – Likely to observe some injury in the field, even when applying a premix product that contains a lower rate of metribuzin.

Severe (Table 3) – Use of any metribuzin-containing product would likely cause considerable injury to these soybean varieties.

Please note that most varieties show an acceptable tolerance to metribuzin. Choose a variety with a high level of tolerance. Please read and follow all labels.

Table 1. 2016 Soybean Varieties that Tested Slight Injury to Metribuzin at 0.5 lb ai/ac.											
Variety Name	Herbicide Tolerance	MG	Rating	Variety Name	Herbicide Tolerance	MG	Rating	Variety Name	Herbicide Tolerance	MG	Rating
Armor 39-D90	RR2Xtend	4.0	Slight	Armor ARX4706	RR2Xtend	4.7	Slight	CZ 4540 LL	LL	4.5	Slight
Armor 44-D40	RR2Xtend	4.4	Slight	Armor ARX4906	RR2Xtend	4.9	Slight	CZ 4656 RY	RR2Y	4.6	Slight
Armor 47-D17	RR2Xtend	4.7	Slight	Asgrow AG 42X6	RR2Xtend	4.2	Slight	CZ 5147 LL	LL	5.1	Slight
Armor 47-R70	RR2Y	4.7	Slight	Asgrow AG 47X6	RR2Xtend	4.7	Slight	CZ 5150 LL	LL	5.1	Slight
Armor 49-D66	RR2Xtend	4.9	Slight	Asgrow AG 48X7	RR2Xtend	4.8	Slight	Delta Grow DG4825 RR2/STS	RR2Y	4.8	Slight
Armor 49-D90	RR2Xtend	4.9	Slight	Asgrow AG 49X6	RR2Xtend	4.9	Slight	Delta Grow DG4855 RR2X/STS	RR2Xtend	4.8	Slight
Armor AR491	RR1	4.9	Slight	AvDx-D514	RR	4.5	Slight	Delta Grow DG4880 RR	RR	4.8	Slight
Armor 53-D04	RR2Xtend	5.3	Slight	AvDx-E816	RR	3.8	Slight	Delta Grow DG4967 LL	LL	4.9	Slight
Armor 55-R68	RR2	5.5	Slight	AvZx-D515	LL	4.5	Slight	Delta Grow DG4977 LL/STS	LL	4.9	Slight
Armor AR4906	RR2	4.9	Slight	Blue River EXP 4	Conv.	4.7	Slight	Delta Grow DG5230 RR2	RR2Y	5.2	Slight
Armor AR5206C	Conv.	5.2	Slight	Blue River 50SK7	Conv.	5.1	Slight	Delta Grow DG5580 RR2	RR2Y	5.5	Slight

Table 1 (Continued). 2016 Soybean Varieties that Tested Slight Injury to Metribuzin at 0.5 lb ai/ac.

Variety Name	Herbicide Tolerance	MG	Rating	Variety Name	Herbicide Tolerance	MG	Rating	Variety Name	Herbicide Tolerance	MG	Rating
Delta Grow DG5625 RR2	RR2Y	5.6	Slight	Hutcheson	Conv.	5.3	Slight	REV® 56R63™	RR	5.6	Slight
Dyna-Gro S45LL97	LL	4.5	Slight	JTN-5110	Conv.	5.5	Slight	REV® 57R21™	RR	5.7	Slight
Dyna-Gro S45XS66	RR2Xtend	4.5	Slight	MSX 48XDS1	RR2Xtend	4.8	Slight	S11-17025	Conv.	5.2	Slight
Dyna-Gro S49LL34	LL	4.9	Slight	MSX 49XD1	RR2Xtend	4.9	Slight	S11-20124	Conv.	5.2	Slight
Dyna-Gro S55LS75	LL	5.5	Slight	MSX 49XD3	RR2Xtend	4.9	Slight	S12-2418	Conv.	4.8	Slight
Dyna-Gro S56RY84	RR2Y	5.6	Slight	NK S42-P6 Brand	RR2Y	4.2	Slight	S12-3782	Conv.	4.6	Slight
Eagle Seed ES4460RYX	RR2Xtend	4.4	Slight	NK S45-R7 Brand	RR2/STS	4.5	Slight	S12-3791	Conv.	4.5	Slight
Eagle Seed ES4772RY	RR2Y	4.7	Slight	NK S52-Y2 Brand	RR2Y	5.2	Slight	S12-4718	Conv.	5.3	Slight
Eagle Seed ES4840RY	RR2Y	4.8	Slight	NK S56-M8 Brand	RR2Y	5.6	Slight	Schillinger e4510	Conv.	4.5	Slight
Eagle Seed ES4870RYX	RR2Xtend	4.8	Slight	Pioneer P47T89R	RR	4.7	Slight	Schillinger e4993	Conv.	4.9	Slight
Eagle Seed ES5420RYX	RR2Xtend	5.4	Slight	Progeny P 4211RY	RR2Y	4.2	Slight	UA 5014C	Conv.	5.0	Slight
Eagle Seed ES5508RY	RR2Y	5.5	Slight	Progeny P 4516RXS	RR2Xtend	4.5	Slight	UA 5213C	Conv.	5.2	Slight
Eagle Seed ES5650RR	RR	5.6	Slight	Progeny P 4930LL	LL	4.9	Slight	UA 5414RR	RR	5.4	Slight
Eagle Seed ES5930RYX	RR2Xtend	5.9	Slight	Progeny P 4944RX	RR2Xtend	4.9	Slight	UA 5612	Conv.	5.6	Slight
Go Soy 42L16	LL	4.2	Slight	Progeny P 5414LLS	LL	5.4	Slight	UA 5814HP	Conv.	5.8	Slight
Go Soy 483.C	Conv.	4.8	Slight	Progeny P 5417RX	RR2Xtend	5.4	Slight	UAX 51010	Conv.	5.1	Slight
Go Soy 4912LL	LL	4.9	Slight	Progeny P 5555RY	RR2Y	5.5	Slight	UAX 5102	Conv.	5.1	Slight
Go Soy 4913LL	LL	4.9	Slight	R09-430	Conv.	5.1	Slight	UAX 59012C	Conv.	5.9	Slight
Go Soy 5115LL	LL	5.1	Slight	R10-230	Conv.	5.6	Slight	UAX 59013C	Conv.	5.9	Slight
Go Soy Ireane	Conv.	4.9	Slight	REV® 45A46™	RR	4.5	Slight	UAX 59111C	Conv.	5.9	Slight
Go Soy Leland	Conv.	5.0	Slight	REV® 47R34™	RR	4.7	Slight	UAX 59113GT	RR	5.9	Slight
GS47R216	RR	4.7	Slight	REV® 48A26™	RR	4.8	Slight	USG 7536XT	RR2Xtend	5.3	Slight
GS48R216	RR	4.8	Slight	REV® 49L49™	LL	4.9	Slight	USG 7547XT	RR2Xtend	5.4	Slight
GS4915R2	RR	4.9	Slight	REV® 51A56™	RR	5.1	Slight				
HBK LL4953	LL	4.9	Slight	REV® 52A94™	RR	5.2	Slight				

Table 2. 2016 Soybean Varieties that Tested Moderate Injury at 0.5 lb ai/ac Metribuzin.

Variety Name	Herbicide Tolerance	MG	Rating	Variety Name	Herbicide Tolerance	MG	Rating	Variety Name	Herbicide Tolerance	MG	Rating
Armor 46-D08	RR2Xtend	4.6	Moderate	Delta Grow DG4970 RR	RR	4.9	Moderate	LG C4900RX	RR2Xtend	4.9	Moderate
Armor 48-D24	RR2Xtend	4.8	Moderate	Delta Grow DG4995 RR	RR	4.9	Moderate	MorSoy Xtra 4535 RXT	RR2Y	4.3	Moderate
Armor AR4606	RR2Y	4.6	Moderate	Delta Grow DG5067 LL	LL	5.0	Moderate	MorSoy Xtra 47X12	RR2Y	4.7	Moderate
Armor ARX5506	RR2Xtend	5.5	Moderate	Delta Grow DG5170 RR2/STS	RR2Y	5.1	Moderate	MorSoy Xtra 48X02	RR2Y	4.8	Moderate
Asgrow AG 44X6	RR2Xtend	4.4	Moderate	Delta Grow DG5461 LL	LL	5.4	Moderate	Mycogen 5N414R2	RR2Y	4.1	Moderate
Asgrow AG 45X6	RR2Xtend	4.5	Moderate	Dyna-Gro 31RY45	RR2Y	4.5	Moderate	Mycogen 5N424R2	RR2Y	4.2	Moderate
Asgrow AG 4632	RR2Y	4.6	Moderate	Dyna-Gro 39RY43	RR2Y	4.3	Moderate	Mycogen 5N433R2	RR2Y	4.3	Moderate
Asgrow AG 46X6	RR2Xtend	4.6	Moderate	Dyna-Gro S43RY95	RR2Y	4.3	Moderate	Mycogen 5N480R2	RR2Y	4.8	Moderate
Asgrow AG 46X7	RR2Xtend	4.6	Moderate	Dyna-Gro S45XS37	RR2Xtend	4.5	Moderate	NK S42-E5 Brand	RR2Y	4.2	Moderate
Asgrow AG 53X6	RR2Xtend	5.3	Moderate	Dyna-Gro S48RS53	RR2Y	4.8	Moderate	NK S45-W9 Brand	RR2Y	4.5	Moderate
Asgrow AG 54X6	RR2Xtend	5.43	Moderate	Dyna-Gro S48XT56	RR2Xtend	4.8	Moderate	Osage	Conv.	5.6	Moderate
Asgrow AG 55X7	RR2Xtend	5.5	Moderate	Dyna-Gro S49XT07	RR2Xtend	4.9	Moderate	Pioneer P41T33R	RR	4.1	Moderate
AvDx-D714	RR	4.7	Moderate	Dyna-Gro S52LL66	LL	5.2	Moderate	Pioneer P47T36R	RR	4.7	Moderate
AvDx-D814	RR	4.8	Moderate	Dyna-Gro SX16844XS	RR2Xtend	4.4	Moderate	Pioneer P50T64R	RR	5.0	Moderate
AvDx-D916	RR	4.9	Moderate	Eagle Seed ES4680RYX	RR2Xtend	4.6	Moderate	Pioneer P52T50R	RR	5.2	Moderate
AvDx-F216	RR	5.2	Moderate	Eagle Seed ES4998RR	RR	4.9	Moderate	Pioneer P53T73SR	RR	5.3	Moderate
CZ 4818 LL	LL	4.8	Moderate	Eagle Seed ES5015RYX	RR2Xtend	5.0	Moderate	Progeny P 4247LL	LL	4.2	Moderate
CZ 4898 RY	RR2Y	4.8	Moderate	Go Soy 43L16	LL	4.3	Moderate	Progeny P 4588RY	RR2Y	4.5	Moderate
CZ 5445 LL	LL	5.4	Moderate	Go Soy 4714LL	LL	4.7	Moderate	Progeny P 4757RY	RR2Y	4.7	Moderate
Delta Grow DG4587 LL/STS	LL	4.5	Moderate	Go Soy 4814GTS	RR	4.8	Moderate	Progeny P 4788RY	RR2Y	4.7	Moderate
Delta Grow DG4670 RR2	RR2Y	4.6	Moderate	Go Soy 49G16	RR	4.9	Moderate	Progeny P 4799RXS	RR2Xtend	4.7	Moderate
Delta Grow DG4680 RR2	RR2Y	4.6	Moderate	Go Soy 5214GTS	RR	5.2	Moderate	Progeny P 4814LLS	LL	4.8	Moderate
Delta Grow DG4781 LL	LL	4.7	Moderate	GS45R216	RR	4.5	Moderate	Progeny P 4816RX	RR2Xtend	4.8	Moderate
Delta Grow DG4790 RR2	RR2Y	4.7	Moderate	HBK RY4721	RR2Y	4.7	Moderate	Progeny P 4900RY	RR2Y	4.9	Moderate
Delta Grow DG4845 RR2X	RR2Xtend	4.8	Moderate	LG C4615RX	RR2Xtend	4.6	Moderate	Progeny P 5016RXS	RR2Xtend	5.0	Moderate
Delta Grow DG4940 RR	RR	4.9	Moderate	LG C4845RX	RR2Xtend	4.8	Moderate	Progeny P 5226RYS	RR2Y	5.2	Moderate

Table 2 (Continued). 2016 Soybean Varieties that Tested Moderate Injury at 0.5 lb ai/ac Metribuzin.											
Variety Name	Herbicide Tolerance	MG	Rating	Variety Name	Herbicide Tolerance	MG	Rating	Variety Name	Herbicide Tolerance	MG	Rating
Progeny P 5752RY	RR2Y	5.7	Moderate	UAX 59011C	Conv.	5.9	Moderate	USG 74K95RS	RR2Y	4.9	Moderate
R07-6614RR	RR	5.7	Moderate	UAX 59313GT	RR	5.9	Moderate	USG 7506XTS	RR2Xtend	5.0	Moderate
R10-197RY	RR2Y	5.6	Moderate	USG 7487XTS	RR2Xtend	4.8	Moderate	USG 7557XT	RR2Xtend	5.5	Moderate
REV® 48A76™	RR	4.8	Moderate	USG 7496XTS	RR2Xtend	4.9	Moderate	USG 7576XT	RR2Xtend	5.7	Moderate
REV® 49R94™	RR	4.9	Moderate	USG 7497XT	RR2Xtend	4.9	Moderate	USG Ellis	Conv.	4.9	Moderate
Shillinger e4892	Conv.	4.6	Moderate	USG 74B83RS	RR2Y	4.8	Moderate				

Table 3. 2016 Soybean Varieties that Tested Severe Injury at 0.5 lb ai/ac Metribuzin.											
Variety Name	Herbicide Tolerance	MG	Rating	Variety Name	Herbicide Tolerance	MG	Rating	Variety Name	Herbicide Tolerance	MG	Rating
Armor 43-D34	RR2Xtend	4.3	Severe	Delta Grow DG4545 RR2X/STS	RR2Xtend	4.5	Severe	NK S49-B1 Brand	RR2Y	4.9	Severe
Armor 48-D80	RR2Xtend	4.7	Severe	Dyna-Gro S49XS76	RR2Xtend	4.9	Severe	Progeny P 4613RYS	RR2Y	4.6	Severe
CZ 4044 LL	LL	4.0	Severe	Eagle Seed ES5225RY	RR2Y	5.2	Severe	Progeny P 4620RXS	RR2Xtend	4.6	Severe
CZ 4222 LL	LL	4.2	Severe	Go Soy 4714GTS	RR	4.7	Severe	Progeny P 5768RX	RR2Xtend	5.7	Severe
CZ 4590 RY	RR2Y	4.5	Severe	MSX 46XDS1	RR2Xtend	4.6	Severe	R11-89RY	RR2	5.4	Severe
CZ 4748 LL	LL	4.7	Severe	Mycogen 5N406R2	RR2Y	4.0	Severe	REV® 48L63™	LL	4.8	Severe
CZ 4959 RY	RR2Y	4.9	Severe	NK S47-C8 Brand	RR2Y	4.7	Severe	USG 75B75R	RR2	5.7	Severe
CZ 5225 LL	LL	5.2	Severe	NK S47-K5 Brand	RR2Y	4.7	Severe				
CZ 5242 LL	LL	5.2	Severe	NK S48-D9 Brand	RR2Y	4.8	Severe				

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Metribuzin Tolerance Testing of Soybean Varieties - 2015

Metribuzin (Sencor, Canopy, etc.) is a PSII inhibitor (Group 5) herbicide that provides residual control of an assortment of annual grasses and broadleaf weeds in soybean, including Palmer amaranth. With the extensive use of PPO inhibitors (Group 14) and chloroacetamide (Group 15) herbicides in soybean and rotational crops such as corn and cotton, use of an additional mode of action (MOA) is a sound strategy to reduce the risk of resistance to these other herbicide MOAs.

The handicap to metribuzin use is the sensitivity of soybean varieties to this herbicide. Other environmental factors, including: soil texture, organic matter, rainfall, soil pH, and product use rate, may also play a part in sensitivity. The University of Arkansas Division of Agriculture conducted a greenhouse screening of soybean varieties, testing their tolerance to metribuzin at a rate of 0.5 lb ai/ac. The following tables break down into an injury scale:

Slight (Table 1) – Some symptoms observed in the greenhouse but unlikely to injure soybean plants in the field at a 1X rate if applied to the correct soil texture at the appropriate soil pH. It is recommended that these soybean varieties be planted if metribuzin is intended to be applied.

Moderate (Table 2) – Likely to observe some injury in the field, even when applying a premix product that contains a lower rate of metribuzin.

Severe (Table 3) – Use of any metribuzin-containing product would likely cause considerable injury to these soybean varieties.

Please note that most varieties show an acceptable tolerance to metribuzin. Choose a variety with a high level of tolerance. Please read and follow all labels.

Table 1. Soybean Varieties that Tested Slight Injury to Metribuzin at 0.5 lb ai/ac.

Variety Name	Herbicide Tolerance	MG	Rating	Variety Name	Herbicide Tolerance	MG	Rating	Variety Name	Herbicide Tolerance	MG	Rating
Armor 43-R51	RR2	4.3	Slight	Croplan R2C4873S	RR2/STS	4.8	Slight	Delta Grow DG4985 RR2	RR2	4.9	Slight
Armor 48-C5	Conv./STS	4.8	Slight	Croplan R2C4914S	RR2	4.9	Slight	Delta Grow DG4990 LL	LL	4.9	Slight
Armor 55-R68	RR2	5.6	Slight	Delta Grow DG4670 RR2	RR2	4.6	Slight	Delta Grow DG5170 RR2	RR2/STS	5.2	Slight
Armor AR4615	RR2	4.6	Slight	Delta Grow DG4755 RR2	RR2	4.7	Slight	Delta Grow DG5230 RR2	RR2	5.2	Slight
Armor AR53X	RR2	5.3	Slight	Delta Grow DG4775 RR2	RR2	4.7	Slight	Delta Grow DG5461 LL	LL	5.4	Slight
Asgrow AG4632	RR2/STS	4.6	Slight	Delta Grow DG4825 RR2/STS	RR2/STS	4.8	Slight	Delta Grow DG5575 RR2	RR2	5.5	Slight
Asgrow AG5233	RR2/STS	5.2	Slight	Delta Grow DG4880 RR	RR1	4.8	Slight	Dyna-Gro 31RY45	RR2	4.5	Slight
Asgrow AG5335	RR2/STS	5.3	Slight	Delta Grow DG4940 RR	RR1	4.9	Slight	Dyna-Gro 39RY43	RR2	4.3	Slight
Asgrow AG5535	RR2/STS	5.5	Slight	Delta Grow DG4970 RR	RR1	4.9	Slight	Dyna-Gro S42RY46	RR2	4.2	Slight
Bayer CZ 4540LL	LL	4.5	Slight	Delta Grow DG4977 LL/STS	LL/STS	4.9	Slight	Dyna-Gro S47RY13	RR2	4.7	Slight
Croplan R2C4700S	RR2/STS	4.7	Slight	Delta Grow DG4981 LL/STS	LL/STS	4.9	Slight	Dyna-Gro S52RY75	RR2	5.2	Slight

Table 1 (Continued). Soybean Varieties that Tested Slight Injury to Metribuzin at 0.5 lb ai/ac.											
Variety Name	Herbicide Tolerance	MG	Rating	Variety Name	Herbicide Tolerance	MG	Rating	Variety Name	Herbicide Tolerance	MG	Rating
Dyna-Gro S54RY43	RR2	5.4	Slight	Mycogen 5N490R2	RR2/STS	4.9	Slight	R09-430	Conv.	5.0	Slight
Dyna-Gro S55LS75	LL/STS	5.5	Slight	Mycogen 5N522R2	RR2	5.2	Slight	R10-197RY	RR2	5.6	Slight
Dyna-Gro S56RY84	RR2	5.6	Slight	NK S41-J6 Brand	RR2	4.1	Slight	R10-230	Conv.	5.6	Slight
Eagle Seed ES4777RR	RR1	4.7	Slight	NK S45-R7 Brand	RR2/STS	4.5	Slight	REV® 44A14™	RR2	4.4	Slight
Eagle Seed ES4840RY	RR2	4.8	Slight	NK S45-V8 Brand	RR2	4.5	Slight	REV® 48A46™	RR1	4.8	Slight
Eagle Seed ES5400RR	RR1	5.4	Slight	NK S46-L2 Brand	RR2	4.6	Slight	REV® 49A14™	RR2/STS	4.9	Slight
Eagle Seed ES5507RR	RR1	5.5	Slight	NK S52-Y2 Brand	RR2	5.2	Slight	REV® 49A55™	RR1	4.9	Slight
Eagle Seed ES5508RY	RR2	5.5	Slight	NK S55-Q3 Brand	RR2	5.5	Slight	REV® 49A75™	RR1	4.9	Slight
GoSoy 4714LL	LL	4.7	Slight	Pioneer P47T89R	RR1	4.7	Slight	REV® 49R94™	RR1	4.9	Slight
GoSoy 5315LL	LL	5.3	Slight	Pioneer P48T53R	RR1	4.8	Slight	REV® 52A94™	RR1/STS	5.2	Slight
GoSoy Glider	Conv.	4.7	Slight	Pioneer P49T80R	RR1	4.9	Slight	REV® 54R84™	RR1	5.4	Slight
HALO 4:95	LL	4.9	Slight	Pioneer P50T64R	RR1	5.0	Slight	REV® 55R53™	RR1	5.5	Slight
HALO 4:98	LL/STS	4.9	Slight	Pioneer P52T50R	RR1	5.2	Slight	REV® 56R63™	RR1	5.6	Slight
HALO 5:26	LL	5.2	Slight	Pioneer P53T73SR	RR1/STS	5.3	Slight	REV® 57R21™	RR1	5.7	Slight
HBK 4653LL	LL	4.6	Slight	Progeny P4211RY	RR2	4.2	Slight	S11-16653	Conv.	5.2	Slight
HBK 4950LL	LL	4.9	Slight	Progeny P4214RY	RR2	4.3	Slight	S11-17025	Conv.	5.3	Slight
HBK 4953LL	LL	4.9	Slight	Progeny P4757RY	RR2	4.7	Slight	S11-20124	Conv.	5.2	Slight
Hutcheson	Conv.	5.3	Slight	Progeny P4788RY	RR2	4.7	Slight	S11-20337	RR1	4.9	Slight
JTN-5110	Conv.	5.5	Slight	Progeny P4814LLS	LL/STS	4.8	Slight	S12-3791	Conv.	4.7	Slight
LG Seeds C4322R2	RR2	4.3	Slight	Progeny P4850RYS	RR2/STS	4.8	Slight	Schillinger 495.RC	RR1	4.9	Slight
LG Seeds C4780R2	RR2/STS	4.7	Slight	Progeny P4900RY	RR2	4.9	Slight	UA 5014C	Conv.	4.9	Slight
LG Seeds C4867R2	RR2/STS	4.8	Slight	Progeny P4930LL	LL	4.9	Slight	UA 5213C	Conv.	5.2	Slight
MorSoy Xtra 46X95	RR2	4.6	Slight	Progeny P5460LL	LL	5.4	Slight	UA 5612	Conv.	5.6	Slight
MorSoy Xtra 47X12	RR2/STS	4.7	Slight	Progeny P5555RY	RR2	5.5	Slight	USG 74A74RS	RR2/STS	4.7	Slight
MorSoy Xtra 48X02	RR2	4.8	Slight	Progeny P5610RY	RR2	5.6	Slight	USG 74G99L	LL	4.9	Slight
MorSoy Xtra 55X75	RR2	5.5	Slight	Progeny P5752RY	RR2	5.7	Slight	Willcross WXR2524N	RR2	5.2	Slight
Mycogen 5N452R2	RR2	4.5	Slight	R09-1589	Conv.	4.9	Slight				

Table 2. Soybean Varieties that Tested Moderate Injury to Metribuzin at 0.5 lb ai/ac.											
Variety Name	Herbicide Tolerance	MG	Rating	Variety Name	Herbicide Tolerance	MG	Rating	Variety Name	Herbicide Tolerance	MG	Rating
Agventure AvDx-D415	RR1	4.4	Moderate	Delta Grow DG4765 RR2/STS	RR2/STS	4.7	Moderate	NK S58-Z4 Brand	RR2	5.8	Moderate
Agventure AvDx-D514	RR1	4.5	Moderate	Delta Grow DG4967 LL	LL	4.9	Moderate	Pioneer P41T33R	RR1	4.1	Moderate
Agventure AvDx-D714	RR1	4.7	Moderate	Delta Grow DG5128	Conv.	5.1	Moderate	Pioneer P47T36R	RR1	4.7	Moderate
Agventure AvDx-D814	RR1	4.8	Moderate	Delta Grow DG5267 LL	LL	5.1	Moderate	Pioneer P49T09BR	RR1/BOLT	4.9	Moderate
Agventure AvDx-D914	RR1	4.9	Moderate	Delta Grow DG5625 RR2	RR2	5.6	Moderate	Pioneer P50T15BR	RR1/BOLT	5.0	Moderate
Armor 41X5L	LL	4.1	Moderate	Dyna-Gro S43RY95	RR2	4.3	Moderate	Progeny P4613RYS	RR2/STS	4.6	Moderate
Armor 44X5L	LL	4.4	Moderate	Dyna-Gro S44LS76	LL/STS	4.4	Moderate	Progeny P5333RY	RR2	5.3	Moderate
Armor 47-L10	LL	4.7	Moderate	Dyna-Gro S46RY85	RR2	4.6	Moderate	Progeny P5414LL	LL	5.4	Moderate
Armor 47-R10	RR2	4.7	Moderate	Dyna-Gro S48RS53	RR2/STS	4.8	Moderate	REV® 47R34™	RR1	4.7	Moderate
Armor 49-R44	RR2	4.9	Moderate	Dyna-Gro S49LL34	LL	4.9	Moderate	REV® 47R53™	RR1	4.7	Moderate
Armor 49X5L	LL	4.9	Moderate	Eagle Seed ES4772RY	RR2	4.7	Moderate	REV® 49L29™	LL	4.9	Moderate
Armor 57-R17	RR2	5.7	Moderate	Eagle Seed ES4960RY	RR2	4.9	Moderate	REV® 51A56™	RR1	5.1	Moderate
Armor AR4205	RR2	4.2	Moderate	Eagle Seed ES4998RR	RR1	4.9	Moderate	REV® 55L95™	LL	5.5	Moderate
Armor AR4504	RR2	4.5	Moderate	Eagle Seed ES5225RY	RR2	5.2	Moderate	S11-20195	RR1	5.3	Moderate
Armor AR49-X	RR2	4.9	Moderate	Eagle Seed ES5335RY	RR2	5.3	Moderate	UA 5414RR	RR1	5.4	Moderate
Armor AR5205	RR2	5.2	Moderate	Eagle Seed ES5650RR	RR1	5.6	Moderate	UA 5814HP	Conv.	5.8	Moderate
Armor AR5605	RR2	5.5	Moderate	GoSoy 4415LL	LL	4.4	Moderate	USG 74B83RS	RR2/STS	4.8	Moderate
Asgrow AG4835	RR2/STS	4.8	Moderate	GoSoy 483C	Conv.	4.8	Moderate	USG 74D95RS	RR2/STS	4.9	Moderate
Asgrow AG4934	RR2/STS	4.9	Moderate	GoSoy 5115LL	LL	5.1	Moderate	USG 74F24RS	RR2/STS	4.2	Moderate
Bayer CZ 4105LL	LL	4.1	Moderate	GoSoy 5515LL	LL	5.5	Moderate	USG 74F53RS	RR2/STS	4.5	Moderate
Bayer CZ 4181RY	RR2	4.1	Moderate	GoSoy Ireane	Conv.	4.9	Moderate	USG 74K95RS	RR2/STS	4.9	Moderate
Bayer CZ 4818LL	LL	4.8	Moderate	HALO 4:80	LL	4.8	Moderate	USG 75G24L	LL	5.2	Moderate
Bayer CZ 5147LL	LL	5.1	Moderate	LG Seeds C4994R2	RR2	4.9	Moderate	USG 75J45R	RR2	5.4	Moderate
Bayer CZ 5150LL	LL	5.1	Moderate	MorSoy Xtra 49X85	RR2/STS	4.9	Moderate	USG Ellis	Conv.	4.9	Moderate
Bayer CZ 5445LL	LL	5.4	Moderate	Mycogen 5N404R2	RR2	4.0	Moderate	Willcross WXE2495N	RR2	4.9	Moderate
Croplan R2C4654	RR2	4.6	Moderate	Mycogen 5N433R2	RR2	4.3	Moderate	Willcross WXE2535NS	RR2/STS	5.3	Moderate
Delta Grow DG4567 LL	LL	4.5	Moderate	Mycogen 5N479R2	RR2/STS	4.7	Moderate	Willcross WXR2494NS	RR2/STS	4.9	Moderate
Delta Grow DG4587 LL/STS	LL/STS	4.5	Moderate	Mycogen 5N501R2	RR2	5.0	Moderate				

Table 3. Soybean Varieties that Tested Severe Injury to Metribuzin at 0.5 lb ai/ac.

Variety Name	Herbicide Tolerance	MG	Rating	Variety Name	Herbicide Tolerance	MG	Rating	Variety Name	Herbicide Tolerance	MG	Rating
Armor 50-R21	RR2	5.0	Severe	Delta Grow DG4790 RR2	RR2	4.7	Severe	GoSoy Leland	Conv.	5.0	Severe
Armor 51X5L	LL	5.1	Severe	Delta Grow DG4935 RR2/STS	RR2/STS	4.9	Severe	NK S47-K5 Brand	RR2	4.7	Severe
Armor 53-L55	LL/STS	5.2	Severe	Delta Grow DG4995 RR	RR1	4.9	Severe	NK S48-D9 Brand	RR2	4.8	Severe
Asgrow AG4135	RR2/STS	4.1	Severe	Delta Grow DG5067 LL	LL	5.2	Severe	OSAGE	Conv.	5.5	Severe
Bayer CZ 4044LL	LL	4.0	Severe	Delta Grow DG5367 LL	LL	5.3	Severe	Progeny P5160LL	LL	5.1	Severe
Bayer CZ 4590RY	RR2	4.5	Severe	Dyna-Gro S49RY25	RR2	4.9	Severe	Progeny P5213RY	RR2	5.2	Severe
Bayer CZ 4748LL	LL	4.7	Severe	Dyna-Gro S52LL66	LL	5.2	Severe	Progeny P5226RYS	RR2/STS	5.2	Severe
Bayer CZ 4959RY	RR2	4.9	Severe	GoSoy 4714GTS	RR1	4.7	Severe	R11-89RY	RR2	5.4	Severe
Bayer CZ 5225LL	LL/STS	5.2	Severe	GoSoy 4914GTS	RR1	4.9	Severe	USG 75B75R	RR2	5.7	Severe
Bayer CZ 5242LL	LL	5.2	Severe	GoSoy 4915R2	RR1	4.9	Severe	USG 75T40R	RR1	5.4	Severe
Delta Grow DG4781 LL	LL	4.7	Severe	GoSoy 5215LL	LL	5.2	Severe				

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Metribuzin Tolerance Testing of Soybean Varieties - 2014

Metribuzin (Sencor, Canopy, etc.) is a PSII inhibitor (Group 5) herbicide that provides residual control of an assortment of annual grasses and broadleaf weeds in soybean, including Palmer amaranth. With the extensive use of PPO inhibitors (Group 14) and chloroacetamide (Group 15) herbicides in soybean and rotational crops such as corn and cotton, use of an additional mode of action (MOA) is a sound strategy to reduce the risk of resistance to these other herbicide MOAs.

The handicap to metribuzin use is the sensitivity of soybean varieties to this herbicide. Other environmental factors, including: soil texture, organic matter, rainfall, soil pH, and product use rate, may also play a part in sensitivity. The University of Arkansas Division of Agriculture ran a screen of soybean varieties testing their tolerance to metribuzin. The following tables break down into an injury scale: tolerant (<1), slight (1-3), moderate (4-6), severe (7-9), and death (10). Please note that most varieties show an acceptable tolerance to metribuzin. Choose a variety with a high level of tolerance.

Below is the response of soybean varieties to 0.5 lb ai/A metribuzin on a silt loam soil.

Soybean Varieties that Tested Tolerant to Metribuzin (<1)								
Variety	Herbicide Technology	Mat. Group	Variety	Herbicide Technology	Mat. Group	Variety	Herbicide Technology	Mat. Group
AgVenture 55K5RR	RR	5.5	Hoegemeyer 5280 NRS	RR1/STS	5.2	REV@ 49A55™	RR1	4.9
Armor 48-R66	RR2/STS	4.8	JTN-4307	CONV	5	REV@ 49A75™	RR1	4.9
Armor AX4550	RR2	5.5	MorSoy Extra 48X02	RR2	4.8	REV@ 51R53™	RR1	5.1
Asgrow AG5335 GENRR2Y/SR	RR2/SR	5.3	MorSoy Extra 48X34	RR2/STS	4.8	REV@ 52R74™	RR1	5.2
Asgrow AG5535 GENRR2Y	RR2	5.5	NK S52-Y2 Brand	RR2	5.2	REV@ 55R53™	RR1	5.5
Croplan R2C4873S	RR2	4.8	OZARK	CONV	5.2	S09-6262	CONV	4.8
Delta Grow DG4880RR	RR1	4.8	Progeny P 5555 RY	RR2	5.5	S11-20356	CONV	4.9
Delta Grow DG5461LL	LL	5.4	R05-3239	CONV	4.9	USG 74B94RS	RR2,STS	4.9
Dulaney Seed AvDx-D814	RR	4.8	R09-4571	CONV	4.9	USG 74G74LS	LL, STS	4.7
Go Soy 4914	LL	4.9	R10-130RY	RR	5.2	Willcross RY2494NS	RR2/STS	4.9
HALO 4:94	LL	4.9	R10-366RY	RR	5			
HALO 4:97	LL/STS	4.9	R10-428RY	RR	5.1			

Soybean Varieties that Tested with Slight Injury to Metribuzin (1-3)								
Variety	Herbicide Technology	Mat. Group	Variety	Herbicide Technology	Mat. Group	Variety	Herbicide Technology	Mat. Group
Armor 44-R08	RR2	4.4	Delta Grow DG4670GENRR2Y	RR2	4.6	Dyna-Gro S46RY85	RR2	4.6
Armor 47-R13	RR2	4.7	Delta Grow DG4755GENRR2Y	RR2	4.7	Dyna-Gro S47RY13	RR2	4.7
Armor 49-C3	CONV	4.9	Delta Grow DG4767LL/STS	LL/STS	4.7	Dyna-Gro S49LS65	LL/STS	4.9
Armor 49-R56	RR2	4.9	Delta Grow DG4775GENRR2Y	RR2	4.7	Dyna-Gro S52RY75	RR2	5.2
Armor 51-R50	RR2	5.1	Delta Grow DG4825GENRR2Y/STS	RR2/STS	4.8	Dyna-Gro S54RY43	RR2	5.4
Armor AX4390	RR2	3.9	Delta Grow DG4867LL	LL	4.8	Dyna-Gro S56RY84	RR2	5.6
Armor AX4410	RR2	4.1	Delta Grow DG4930GENRR2Y	RR2	4.9	Eagle Seed ES4720RY	RR2	4.7
Armor AX4480	RR2	4.8	Delta Grow DG4940RR	RR1	4.9	Eagle Seed ES4777RR	RR1	4.7
Armor AX4490	RR2	4.9	Delta Grow DG4970RR	RR1	4.9	Eagle Seed ES4840RY	RR2	4.8
Armor AX4520	RR2	5.2	Delta Grow DG4981LL/STS	LL/STS	4.9	Eagle Seed ES5400RR	RR1	5.4
Armor X447C	CONV.		Delta Grow DG4985GENRR2Y	RR2	4.9	Eagle Seed ES5650RY	RR2	5.6
Armor X47C	CONV/STS	4.7	Delta Grow DG4990LL	LL	4.9	ELLIS	CONV	4.9
Armor X49C	CONV/STS	4.9	Delta Grow DG5230GENRR2Y	RR2	5.2	Go Soy 4713	LL	4.7
Asgrow AG4534 GENRR2Y/SR	RR2/STS	4.5	Delta Grow DG5480GENRR2Y	RR2	5.4	Go Soy 5213	LL	5.2
Asgrow AG4632 GENRR2Y/SR	RR2/STS	4.6	Delta Grow DG5481LL	LL	5.4	Go Soy 5214	LL	5.2
Asgrow AG5233 GENRR2Y/SR	RR2/STS	5.2	Delta Grow DG5565GENRR2Y	RR2	5.5	HALO 4:95	LL	4.9
Asgrow AG5332 GENRR2Y	RR2	5.3	Delta Grow DG5575GENRR2Y	RR2	5.5	HALO 5:01	LL	5.0
Bayer CropScience BX 5150 LL	LL	5.1	Delta Grow DG5625GENRR2Y	RR2	5.6	HALO 5:26	LL	5.2
Bayer CropScience BX 5242 LL	LL	5.2	Dulaney Seed AvDx-D514	RR	4.5	HALO X445	LL	4.5
Croplan LC4713S	LL	4.7	Dulaney Seed AvDx-D613	RR	4.6	HALO X448	LL	4.8
Croplan LC5253S	LL	5.2	Dulaney Seed AvDx-D914	RR	4.9	HALO X449	LL/STS	4.9
Croplan R2C4493	RR2	4.4	Dulaney Seed AvDx-V213	RR	5.2	HALO X451	LL	5.1
Croplan R2C4801S	RR2	4.8	Dyna-Gro 31RY45	RR2	4.5	HBK LL4653	LL	4.6
Davis 4148RR2YS	RR2/STS	4.8	Dyna-Gro 32RY55	RR2	5.5	HBK LL4850	LL	4.8
Davis 4447RR2YS	RR2/STS	4.7	Dyna-Gro 39RY43	RR2	4.3	HBK LL4950	LL	4.9



Soybean Varieties that Tested with Slight Injury to Metribuzin (1-3)								
Variety	Herbicide Technology	Mat. Group	Variety	Herbicide Technology	Mat. Group	Variety	Herbicide Technology	Mat. Group
HBK LL4953	LL	4.9	NK S55-C3 Brand	RR2	5.5	R08-2797	CONV	4.7
HBK RY4620	RR2/STS	4.6	Pioneer 95L01	LL	5	R09-430	CONV	5
HBK RY5221	RR2	5.2	Pioneer P45T11R	RR1	4.5	R10-197RY	RR	5.6
HBK RY5421	RR2/STS	5.4	Pioneer P47T89R	RR1	4.7	REV® 44A15™	RR2	4.4
Hoegemeyer 4822 NRR	RR1	4.8	Pioneer P48T53R	RR1	4.8	REV® 46R64™	RR1	4.6
Hoegemeyer 4904 NR2S	RR2/STS	4.9	Pioneer P48T67L	LL	4.8	REV® 47R53™	RR1	4.7
Hutcheson	CONV	5.5	Pioneer P49T97R	RR1	4.9	REV® 48R22™	RR1	4.8
JTN-5110	CONV	5.5	Pioneer P50T64R	RR1	5	REV® 48R44™	RR1	4.8
Leland	CONV	5.1	Pioneer P52T50R	RR1	5.3	REV® 49A14™	RR2/STS	4.9
MorSoy Extra 47X12	RR2/STS	4.7	Pioneer P53T73SR	RR1/STS	5.3	REV® 49R94™	RR1	4.9
MorSoy Extra 49X54	RR2	4.9	Pioneer P56T03R2	RR2	5.6	REV® 52A94™	RR2/STS	4.9
MorSoy Extra 51X31	RR2	5.1	Progeny P 4211 RY	RR2	4.2	REV® 53R23™	RR1	5.3
MorSoy Extra 53X82	RR2	5.3	Progeny P 4440 RY	RR2	4.4	REV® 54R84™	RR1	5.4
MorSoy Extra 54X41	RR2	5.4	Progeny P 4510 RYS	RR2/STS	4.5	REV® 55L95™	LL	5.5
MPG 4714	RR1	4.7	Progeny P 4747 RY	RR2	4.7	REV® 56A54™	RR2	5.6
MPG 483C	CONV	4.8	Progeny P 4788 RY	RR2	4.7	REV® 56R63™	RR1	5.6
MPG 5214NRR	RR1	5.2	Progeny P 4819 LL	LL	4.8	REV® 57R21™	RR1	5.7
Mycogen 5N451R2	RR2	4.5	Progeny P 4848 RYS	RR2/STS	4.8	S11-20124	Conv.	5.2
Mycogen 5N452R2	RR2	4.5	Progeny P 4850 RYS	RR2/STS	4.8	Seedway SG 4513	RR2	4.5
Mycogen 5N478R2	RR2/STS	4.7	Progeny P 4900 RY	RR2	4.9	Seedway SG 4713	RR2/STS	4.7
Mycogen 5N540R2	R2	5.4	Progeny P 4928 LL	LL	4.9	UA 5213C	CONV	5.2
Mycogen 5N550R2	R2	5.5	Progeny P 4930 LL	LL	4.9	UA 5612	CONV	5.6
Mycogen X54522NR2	R2	5.2	Progeny P 5220 LLS	LL/STS	5.2	USG 74B83R	RR2/STS	4.8
NK S40-N2 Brand	RR2	4.0	Progeny P 5333 RY	RR2	5.3	USG 75G24L	LL	5.2
NK S41-J6 Brand	RR2	4.1	Progeny P 5460 LL	LL	5.4	USG 75Q42R	RR2	5.4
NK S43-K1 Brand	RR2	4.3	Progeny P 5610 RY	RR2	5.6	Willcross WX 2524N	RR2	5.2
NK S45-V8 Brand	RR2	4.5	R04-1250RR	RR	5.5	Willcross WX 2534N	RR2	5.2
NK S46-L2 Brand	RR2	4.6	R04-1268RR	RR	5.4	Willcross WX2454N	RR2	4.5
NK S49-F8 Brand	RR1	4.9	R05-374	CONV	5.1	Willcross WX2495N	RR2	4.9
NK S51-C5 Brand	RR2	5.1	R07-6614RR	RR	5.8			

Soybean Varieties that Tested with Moderate Injury to Metribuzin (4-6)								
Variety	Herbicide Technology	Mat. Group	Variety	Herbicide Technology	Mat. Group	Variety	Herbicide Technology	Mat. Group
Armor 46-R65	RR2	4.6	Delta Grow DG5367LL	LL	5.3	MorSoy Extra 46X04	RR2	4.6
Armor 50-R44	RR2	5.0	Dulaney Seed AvDx-D714	RR	4.7	Mycogen 5N479R2	RR2/STS	4.8
Armor 53-R16	RR2	5.3	Dyna-Gro S43RY95	RR2	4.3	Mycogen X54480NR2	RR2/STS	4.7
Armor AX4450	RR2	4.5	Dyna-Gro S48RS53	RR2/STS	4.8	Mycogen X54490NR2	RR2	4.9
Armor AX4460	RR2	4.6	Eagle Seed ES4960RY	RR2	4.9	Pioneer P47T36R	RR1	4.7
Armor AX4471	RR2	4.7	Eagle Seed ES4998RY	RR!	4.9	Pioneer P54T94R	RR1	5.4
Armor AX4500	RR2	5.0	Eagle Seed ES5225RY	RR2	5.2	Progeny P 4560 LL	LL	4.5
Armor X48C	CONV/STS	4.8	Eagle Seed ES5335RY	RR2	5.3	Progeny P 4613 RYS	RR2/STS	4.6
Asgrow AG4835 GENRR2Y/SR	RR2/SR	4.8	Eagle Seed ES5507RY	RR1	5.5	Progeny P 4620 LLS	LL/STS	4.6
Asgrow AG4934 GENRR2Y/SR	RR2/SR	4.9	HALO 4:40	LL	4.4	R10-453RY	RR	5.6
Bayer CropScience BX 4748 LL	LL	4.7	HALO X440	LL	4.0	REV® 47R34™	RR1	4.7
Croplan R2C4752S	RR2	4.7	HBK RY4721	RR2/STS	4.7	REV® 49L29™	LL	4.9
Croplan R2C5103	RR2	5.1	LG Seeds C4696R2	RR2	4.6	USG 74F24RS	RR2/STS	4.2
Davis 4146RR2YS	RR2 STS	4.6	LG Seeds C4919R2	RR2	4.9	USG 74F53R	RR2/STS	4.5
Delta Grow DG4765GENRR2Y/STS	RR2/STS	4.7	LG Seeds C5122R2	RR2	5.1	USG 75J23R	RR2	5.2
Delta Grow DG4925GENRR2Y	RR2	4.9	LG Seeds C5252R2	RR2	5.2	Willcross WX2464NS	RR2/STS	4.6
Delta Grow DG4967LL	LL	4.9	MorSoy Extra 44X82	RR2	4.4			

Soybean Varieties that Tested with Severs Injury to Metribuzin (7-9)								
Variety	Herbicide Technology	Mat. Group	Variety	Herbicide Technology	Mat. Group	Variety	Herbicide Technology	Mat. Group
Armor 43-R43	RR2	4.3	Delta Grow DG4685GENRR2Y	RR2	4.6	HBK LL4650	LL	4.6
Armor AX4440	RR2	4.4	Delta Grow DG5267LL	LL	5.2	NK S47-K5 Brand	RR2	4.7
Armor AX4470	RR2	4.7	Delta Grow DG5475GENRR2Y	RR2	5.4	OSAGE	CONV	5.6
Asgrow AG4135 GENRR2Y/SR	RR2/SR	4.1	Dyna-Gro S49RY25	RR2	4.9	Progeny P 5213 RY	RR2	5.2
Asgrow AG4232 GENRR2Y/SR	RR2/SR	4.2	HALO 4:76	LL	4.7			
Bayer CropScience BX 4959 RY	R2	4.9	HALO X452	LL	5.2			

Soybean Varieties that Ended in Death to Metribuzin (10)								
Variety	Herbicide Technology	Mat. Group	Variety	Herbicide Technology	Mat. Group	Variety	Herbicide Technology	Mat. Group
Armor AX4430	RR2	4.0	HALO 5:45	LL	5.4	Progeny P 5160 LL	LL	5.1
HALO 5:25	LL	5.2	MPG 5314NRR	RR1	5.3	Progeny P 5960 LL	LL	5.9

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Metribuzin Tolerance Testing of Soybean Varieties - 2013

Metribuzin (Sencor, Canopy, etc.) is a PSII inhibitor (Group 5) herbicide that provides residual control of an assortment of annual grasses and broadleaf weeds in soybean, including Palmer amaranth. With the extensive use of PPO inhibitors (Group 14) and chloroacetamide (Group 15) herbicides in soybean and rotational crops such as corn and cotton, use of an additional mode of action (MOA) is a sound strategy to reduce the risk of resistance to these other herbicide MOAs.

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Below is the response of soybean varieties to 0.5 lb ai/A metribuzin on a silt loam soil.

Soybean Varieties that Tested Tolerant to Metribuzin (<1)								
Variety	Herbicide Technology	MG	Variety	Herbicide Technology	MG	Variety	Herbicide Technology	MG
AgVenture 50K5RR™	RR1	5.0	HALO 5:26	LL	5.1	Progeny P 5610 RY	RR2	5.6
AgVenture AvDX - D613	RR1	4.6	HBK RY4620	RR2/STS	4.6	R04-1250RR	RR1	5.5
ARMOR 44-R08	RR2	4.4	JTN-4307	Conv.	5.0	R10-197RY	RR2	5.6
ARMOR 4744	RR2/STS	4.7	JTN-5203	Conv.	5.3	REV® 51R53™	RR1	5.1
ARMOR X1408	RR2/STS	4.8	NK S44-D5 Brand	RR1	4.4	REV® 55R53™	RR1	5.5
Delta Grow 4880RR	RR1	4.8	NK S49-F8 Brand	RR1	4.9	REV® 56R21™	RR1	5.6
Delta Grow 5125GENRR2Y	RR2	5.1	Pioneer 94Y23	RR2	4.2	S09-13635	Conv.	5.0
Delta Grow 5461LL	LL	5.4	Pioneer P43T14L™	LL	4.3	S09-6201R	RR1	5.1
Go Soy 5410 LL	LL	5.2	Pioneer P55T57R	RR2	5.5	Schillinger 557.RC	RR1	5.5

Soybean Varieties that Tested with Slight Injury to Metribuzin(1-3)								
Variety	Herbicide Technology	MG	Variety	Herbicide Technology	MG	Variety	Herbicide Technology	MG
AgBorn ABX 2174	RR1	4.7	Delta Grow 4970RR	RR1	4.9	JTN-5110	Conv.	5.5
AGS 45R212	RR2	4.5	Delta Grow 4990LL	LL	4.9	Leland	Conv.	5.1
AGS 47R212	RR2	4.7	Delta Grow 5130GENRR2Y	RR2	5.1	LG C4544R2	RR2	4.5
AgVenture AvDX - D913	RR1	4.9	Delta Grow 5361LL	LL	5.3	LG C4625R2	RR2/STS	4.6
ARMOR 45-R60	RR2/STS	4.5	Delta Grow 5480GENRR2Y	RR2	5.4	LG C4867R2	RR2/STS	4.8
ARMOR 48-R40	RR2/STS	4.7	Delta Grow 5481LL	LL	5.4	Morsoy EXP 55	RR2	5.5
ARMOR 53-R88	RR2/STS	5.4	Delta Grow 5565GENRR2Y	RR2	5.5	Morsoy Xtra 44X82	RR2	4.4
ARMOR 55-R22	RR2	5.5	Delta Grow 5625GENRR2Y	RR2	5.6	Morsoy Xtra 46X29	RR2	4.6
ARMOR X1312	RR2	5.0	Dyna-Gro 32RY55	RR2	5.5	Morsoy Xtra 47X12	RR2	4.7
ARMOR X1354	RR2	5.4	Dyna-Gro 39RY43	RR2	4.3	Morsoy Xtra 48X02	RR2	4.8
ARMOR X1401	RR2	4.2	Dyna-Gro 39RY57	RR2	5.7	Morsoy Xtra 49X14	RR2	4.9
ARMOR X1414	RR2	5.3	Dyna-Gro S44RS93	RR2/STS	4.4	Morsoy Xtra EXP 44	RR2	4.4
ARMOR X47C	Conv./STS	4.8	Dyna-Gro S49LL34	LL	4.9	MPG 4514NRR/STS	RR1/STS	4.6
ARMOR X49C	Conv./STS	4.9	Dyna-Gro S53RY23	RR2	5.3	Mycogen 5N431R2	RR2	4.3
ASGROW AG5533 GENRR2Y/STS	RR2/STS	5.5	Eagle Seed 5400RR	RR1	5.4	Mycogen 5N451R2	RR2	4.5
Croplan R2C4391	RR2	4.3	Go Soy 4711 LL	LL	4.7	Mycogen 5N478RR2	RR1/STS	4.7
Croplan R2C4412	RR2	4.4	Go Soy 5010 LL	LL	5.0	NK S43-K1 Brand	RR2	4.3
Croplan R2C4541	RR2	4.5	Go Soy 5111 LL	LL	5.1	NK S45-V8 Brand	RR2	4.5
Croplan R2C4772	RR2	4.7	Go Soy 5312 LL	LL	5.3	NK S46-L2 Brand	RR2	4.6
Croplan R2C5081	RR2	5.0	HALO 4:94	LL	4.9	NK S47-N3 Brand	RR2	4.7
Croplan R2C5342	RR2	5.3	HALO 5:01-5	LL	5.0	NK S51-H9 Brand	RR2	5.1
Davis 4148RR2YS	RR2/STS	4.8	HALO X466	LL	4.6	NK S52-Y2 Brand	RR2	5.2
Davis 4347RR2YS	RR2/STS	4.7	HALO X477	LL/STS	4.7	Ozark	Conv.	5.2
Delta Grow 4670GENRR2Y	RR2	4.6	HALO X530	LL/STS	5.3	Pioneer 95Y10	RR2	5.1
Delta Grow 4755GENRR2Y	RR2	4.7	HBK LL4950	LL	4.9	Pioneer 95Y80	RR2	5.8
Delta Grow 4825GENRR2Y/STS	RR2/STS	4.8	HBK RY5221	RR2	5.2	Pioneer P46T21R	RR2	4.6
Delta Grow 4867LL	LL	4.8	HBK XLL4665	LL	4.6	Pioneer P49T80R	RR2	4.9
Delta Grow 4925GENRR2Y	RR2	4.9	HBK XLL4969	LL	4.9	Pioneer P49T97R	RR2	4.9
Delta Grow 4967LL	LL	4.9	Hutcheson	Conv.	5.3	Pioneer P50T64R	RR2	5.0

Soybean Varieties that Tested with Slight Injury to Metribuzin(1-3)								
Variety	Herbicide Technology	MG	Variety	Herbicide Technology	MG	Variety	Herbicide Technology	MG
Pioneer P53T51L™	LL	5.3	R10-130RY	RR2	5.2	S09-9943	Conv.	4.6
Pioneer P54T94R	RR2	5.4	R10-428RY	RR2	5.1	Schillinger 4712R2	RR2	4.7
Progeny P 4211 RY	RR2	4.2	REV® 46R64™	RR1	4.6	Schillinger 478.RCS	RR1/STS	4.7
Progeny P 4313 RY	RR2	4.3	REV® 47R34™	RR1	4.7	Schillinger 495.RC	RR1	4.9
Progeny P 4510 RY	RR2	4.5	REV® 47R53™	RR1	4.7	Schillinger 4990.RC	RR1	4.9
Progeny P 4710 RY	RR2	4.7	REV® 48R22™	RR1	4.8	Schillinger 5220.RC	RR1	5.2
Progeny P 4928 LL	LL	4.9	REV® 48R33™	RR1	4.8	UA 4913C	Conv.	4.9
Progeny P 5111 RY	RR2	5.1	REV® 49R94™	RR1	4.9	UA 5213C	Conv.	5.2
Progeny P 5210 RY	RR2	5.2	REV® 52R74™	RR1	5.2	UA 5612	Conv.	5.6
Progeny P 5555 RY	RR2	5.5	REV® 53R23™	RR1	5.3	USG 74B83R	RR2/STS	4.8
Progeny P 5711 RY	RR2	5.7	REV® 56R63™	RR1	5.6	USG 75J62R	RR2/STS	5.6
R05-374	Conv.	5.1	REV® 57R21™	RR1	5.7	Willcross RY2460S	RR2	4.6
R08-2797	Conv.	4.7	REV® 59R13™	RR1	5.9	Willcross RY2494NS	RR2/STS	4.9
R09-430	Conv.	5.0	S09-10871	Conv.	4.8	Willcross RY2543N	RR2	5.4

Soybean Varieties that Tested with Moderate Injury to Metribuzin(4-6)								
Variety	Herbicide Technology	MG	Variety	Herbicide Technology	MG	Variety	Herbicide Technology	MG
AgBorn ABX 2105	RR1	4.9	Dyna-Gro 31RY45	RR2	4.5	Mycogen 5N423R2	RR2/STS	4.2
AgBorn ABX 2499	RR1	4.7	Dyna-Gro S47RY13	RR2	4.7	NK S48-P4 Brand	RR2	4.8
AgVenture 55K5RR™	RR1	5.5	Dyna-Gro S54RY43	RR2	5.4	NK S56-G6 Brand	RR1	5.6
AgVenture AvDX - V213	RR1	5.2	Dyna-Gro S56RY84	RR2	5.6	Pioneer P47T36R	RR2	4.7
ARMOR 49-C3	Conv.	4.9	Eagle Seed 4777RR	RR1	4.7	Pioneer P48T53R	RR2	4.8
ARMOR 49-R56	RR2	4.9	Eagle Seed 4818RR	RR1	4.8	Pioneer P50T40R	RR2	5.0
ARMOR X1307	RR2/STS	4.8	Eagle Seed 5507RR	RR1	5.5	Progeny P 4560 LL	LL	4.5
ARMOR X1316	RR2	5.4	Eagle Seed 5519RR	RR1	5.5	Progeny P 4747 RY	RR2	4.7
ARMOR X1404	RR2/STS	4.6	Eagle Seed 5650RR	RR1	5.6	Progeny P 4819 LL	LL	4.8
ARMOR X1406	RR2/STS	4.6	Go Soy 4411 LL	LL	4.4	Progeny P 4850 RY	RR2	4.8
ARMOR X1409	RR2	4.9	Go Soy 4812 LL	LL	4.8	Progeny P 4900 RY	RR2	4.9
ARMOR X1410	RR2	5.0	Go Soy 4912 LL	LL	4.9	Progeny P 4930 LL	LL	4.9
ASGROW AG4232 GENRR2Y/STS	RR2/STS	4.2	HALO 4:40	LL	4.2	Progeny P 5213 RY	RR2	5.2
ASGROW AG4534 GENRR2Y/STS	RR2/STS	4.5	HALO 4:65	LL	4.6	Progeny P 5333 RY	RR2	5.3
ASGROW AG4632 GENRR2Y/STS	RR2/STS	4.6	HALO 4:95	LL	4.9	Progeny P 5460 LL	LL	5.4
ASGROW AG4633 GENRR2Y	RR2	4.6	HALO 5:01	LL	4.9	R04-1268RR	RR1	5.4
ASGROW AG4832 GENRR2Y/STS	RR2/STS	4.8	HALO X496	LL	4.9	REV® 46R73™	RR1	4.6
ASGROW AG5233 GENRR2Y/STS	RR2/STS	5.2	HBK LL4650	LL	4.6	REV® 48R44™	RR1	4.8
ASGROW AG5332 GENRR2Y	RR2	5.3	HBK LL4850	LL	4.8	REV® 54R84™	RR1	5.4
Croplan R2C4752S	RR2/STS	4.7	HBK 5421	RR2	5.4	S09-13608	Conv.	4.8
Croplan R2C4801S	RR2/STS	4.8	LG C4780R2	RR2/STS	4.7	Schillinger 458.RCS	RR1/STS	4.6
Delta Grow 4765GENRR2Y/STS	RR2/STS	4.7	LG C5122R2	RR2	5.1	USG 74A33R	RR2	4.3
Delta Grow 4940RR	RR1	4.9	Morsoy RT 5429	RR1	5.4	USG 74H92R	RR2	4.9
Delta Grow 4981LL	LL/STS	4.9	Morsoy Xtra 53X82	RR2	5.3	USG 75Q42R	RR2	5.4
Delta Grow 5475GENRR2Y	RR2	5.4	MPG 4714NRR	RR1	4.7	Willcross RY2513N	RR2	5.1
Delta Grow 5575GENRR2Y	RR2	5.5	MPG-S-5214NRR	RR1	5.2	Willcross RY2533N	RR2	5.3

Soybean Varieties that Tested with Severe Injury to Metribuzin(7-9)								
Variety	Herbicide Technology	MG	Variety	Herbicide Technology	MG	Variety	Herbicide Technology	MG
AgBorn ABX 27041	RR1	4.6	ASGROW AG4934 GENRR2Y/STS	RR2/STS	4.9	Progeny P 4613 RY	RR2	4.6
AgBorn ABX 2784	RR1	4.8	Davis 4146RR2YS	RR2/STS	4.6	Progeny P 5160 LL	LL	5.1
AGS 43R212	RR2	4.3	Eagle Seed 4998RR	RR1	4.9	REV® 49R22™	RR1	4.9
ARMOR X1413	RR2	5.1	Go Soy 4512 LL	LL	4.5	USG 74B81R	RR2/STS	4.8
ARMOR X48C	Conv./STS	4.8	HBK RY4721	RR2/STS	4.7	Willcross WX2464N	RR2	4.6
ASGROW AG4933 GENRR2Y	RR2	4.9	Osage	Conv.	5.6			

Soybean Varieties that ended in Death to Metribuzin(10)								
Variety	Herbicide Technology	MG	Variety	Herbicide Technology	MG	Variety	Herbicide Technology	MG
Dyna-Gro 34LL53	LL	5.3	HALO 5:45	LL	5.4	Progeny P 5960 LL	LL	5.9
Dyna-Gro S48RS53	RR2/STS	4.8	HBK LL5350	LL	5.3	USG 74E88	RR1/STS	4.8

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Metribuzin Tolerance Testing of Soybean Varieties-2012

Due to the increase of glyphosate-resistance in the Midsouth, producers have a renewed interest in the use of metribuzin as a part of their soybean weed control program. Metribuzin is a PSII inhibitor (Group 5) herbicide that provides residual control of an assortment of annual grasses and broadleaf weeds in soybean, including Palmer amaranth. With the extensive use of PPO inhibitors (Group 14) and chloroacetamide (Group 15) herbicides in soybean and rotational crops such as corn and cotton, use of an additional mode of action (MOA) is a sound strategy to reduce the risk of resistance to these other herbicide MOAs.

The handicap to metribuzin use is the sensitivity of some soybean varieties to this herbicide. Other environmental factors, including: soil type, organic matter, rainfall, and product use rate, may also play a part in sensitivity. The University of Arkansas ran a screening of selected soybean varieties testing their tolerance to metribuzin. The following tables break the results down into an injury scale: tolerant (<1), slight (1-3), moderate (4-6), severe (7-9) and death (10). Please note that most varieties show an acceptable tolerance to metribuzin. Choose a variety with a high level of tolerance (<1).

Varieties that Tested Tolerant (<1)										
Brand	Variety	MG		Brand	Variety	MG		Brand	Variety	MG
Armor	46-R64	4E		Glenn	Glenn	5E		Progeny	4510RY	4E
Armor	DK 4744	4L		GO SOY	4411 LL	4E		Progeny	4710RY	4L
Armor	X1308	4L		HALO	X51	5E		Progeny	5460LL	5E
Armor	X1310	4L		HBK	R4924	4L		U of A	R04-1268RR	5E
Armor	X1311	4L		HBK	RY4620	4E		U of A	R05-3239	4L
Armor	X1315	5E		HBK	RY5421	5E		U of A	R07-10322	6
Armor	X1316	5E		HBK	RY5521	5E		U of A	R07-1826	5E
Asgrow	AG3833	4E		U of A	Hutcheson	5E		U of A	R08-1178	6
Asgrow	AG4932	4L		JGL Inc.	JGL EXP 480	4L		U of A	R09-1589	5
Asgrow	AG5633	5L		USDA-ARS	JTN-4307	5E		U of A	R09-1607RR	5E
AgVenture	AvDX-E112	5E		USDA-ARS	JTN-4408	5E		U of A	R09-1822	5
AgVenture	AvEX-E513	5E		USDA-ARS	JTN-5108	5E		U of A	R09-209	5
Croplan	LC 4880	4L		USDA-ARS	JTN-5203	5E		U of A	R09-430	5
Croplan	R2C4541	4E		MorSoy	XTRA 46X29	4E		U of A	R09-4571	5
Croplan	R2C4801S	4L		MorSoy	XTRA 48X00	4L		U of A	R09-5225	5
Croplan	R2C5371	5E		MorSoy	XTRA 48X02	4L		Terral Seed	REV®47R53	4L
Croplan	R2C5482	5E		MorSoy	XTRA 51X52	5E		Terral Seed	REV®49R10	4L
Croplan	R2T4799S	4L		MorSoy	XTRA 54X41	5E		Terral Seed	REV®49R11	4L
Davis	4148RR2Y	4L		NK Syngenta	NK S41-J6	4E		Terral Seed	REV®49R22	4L
Davis	D-147RRCNS	4L		NK Syngenta	NK S44-D5	4E		Terral Seed	REV®49R43	4L
Delta Grow	4870RR2	4L		NK Syngenta	NK S46-A1	4E		Terral Seed	REV®49R54	4L
Delta Grow	4880RR	4L		NK Syngenta	NK S46-T3	4E		Terral Seed	REV®51R53	5E
Delta Grow	4975RR	4L		NK Syngenta	NK S49-AS	4L		Terral Seed	REV®52R74	5E
Dyna-Gro	32RY55	5E		NK Syngenta	NK46-V6	4L		Terral Seed	REV®53R23	5E
Dyna-Gro	33RY47	4		NK Syngenta	NK S57-K3	5L		Terral Seed	REV®54R84	5E
Dyna-Gro	S44RS93	4E		U of A	Ozark	5E		Terral Seed	REV®55R83	5E
Dyna-Gro	S53RY23	5E		Pioneer	94Y23	4E		Terral Seed	REV®56R63	5L
Dyna-Gro	S54RY43	5E		Pioneer	94Y40	4E		Schillinger	457.RCP	4E
Eagle Seed	ES4777	4L		Pioneer	95Y40	5E		Schillinger	478.RCS	4L
Eagle Seed	ES4818	4L		Progeny	4211RY	4E		Schillinger	5220.RC	5E

Schillinger	478.RCS	4L	
Schillinger	5220.RC	5E	
Schillinger	557.RC	5E	
USG	USG 74A79R	4L	
USG	USG 75B21R	5E	
Willcross	RR2547N	5E	
	X2R 5220		

Varieties Tested with Slight Injury (1-3)										
Brand	Variety	MG		Brand	Variety	MG		Brand	Variety	MG
Agborn	S08-X78041	4L		Delta Grow	4925RR2	4L		Pioneer	94Y70	4L
AGS	AGS 43R212	4E		Delta Grow	4980RR2	4L		Pioneer	95Y01	5E
AGS	AGS 45R212	4E		Delta Grow	4990LL	4L		Pioneer	95Y10	5E
AGS	AGS 47R212	4L		Delta Grow	5175RR2	5E		Pioneer	95Y50	5E
AGS	AGS 553LL	5E		Delta Grow	5535RR2	5E		Progeny	4611RY	4E
AGS	AGS 554RR	5E		Delta Grow	4970RR	4L		Progeny	4747RY	4L
AGS	AGS 568RR	5L		Dyna-Gro	35RY51	5E		Progeny	4814RY	4L
Armor	44-R08	4E		Dyna-Gro	39D48	4L		Progeny	4900RY	4L
Armor	48-R40	4L		Dyna-Gro	39RY43	4E		Progeny	4920RY	4L
Armor	48-R91	4L		Dyna-Gro	39RY57	5L		Progeny	4928LL	4L
Armor	53-R15	5E		Dyna-Gro	S47RY13	4L		Progeny	5210RY	5E
Armor	55-R22	5E		Eagle Seed	ES5400	5E		Progeny	5412RY	5E
Armor	X1217	5E		Eagle Seed	ES5507	5E		Progeny	5610RY	5L
Armor	X1304	4E		Go Soy	5111 LL	5E		Progeny	5655RY	5L
Armor	X1305	4E		Go Soy	5410	5E		Progeny	5711RY	5L
Armor	X1306	4L		Go Soy	4711LL	4L		Progeny	5811RY	5L
Armor	X1309	4L		Go Soy	4812LL	4L		U of A	R02-3065	5L
Armor	X1312	4L		Go Soy	4910LL	4L		U of A	R03-1250	5L
Armor	X1312-5	5E		Go Soy	4912LL	4L		U of A	R05-374	5E
Armor	X1313	5E		HALO	4:94	4L		U of A	R05-4114	4L
Armor	X1314	5E		HALO	X49	4L		U of A	R05-4433	5L
Asgrow	AG4531	4E		HALO	X50	5E		U of A	R06-4475	5L
Asgrow	AG4933	4L		HBK	HBK RY5221	5E		U of A	R07-1685	4L
Asgrow	AG5232	5E		JGL Inc.	JGL EXP 481	4L		U of A	R07-1857	5L
Asgrow	AG5332	5E		USDA-ARS	JTN-5110	5E		U of A	R07-6654	5L
Asgrow	AG5533	5E		LG Seeds	LG C4625R2	4E		U of A	R07-6669	5L
Asgrow	AG5632	5L		MorSoy	5429	5E		U of A	R08-2776	5E
Asgrow	AG5732	5L		MorSoy	XTRA 44X82	4E		U of A	R08-2797	4L
AgVenture	AvDX-D613	4E		MorSoy	XTRA 46X71	4E		U of A	R08-47	5E
AgVenture	AvDX-D812	4L		MorSoy	XTRA 47X12	4L		U of A	R08-527	5E
AgVenture	AvDX-V411	5E		MorSoy	XTRA 53X82	5E		U of A	R09-1607	5
Croplan	R2C4391	4E		NK Syngenta	NK S49-F8	4L		U of A	R09-1827	5
Croplan	R2C5081	5E		NK Syngenta	NK S51-H9	5E		U of A	R09-2567	5
USDA-ARS	DB03-8416	5E		NK Syngenta	NK S56-G6	5L		U of A	R09-319	6
USDA-ARS	DB04-10836	5E		NK Syngenta	NK S 39-VZ	4E		U of A	R09-400	5
Delta Grow	4670RR2	4E		NK Syngenta	NK S 52-F2	5E		U of A	R09-5088	5
Delta Grow	4755RR2	4L		NK Syngenta	NK S 54-V4	5E		U of A	R09-886	5
Delta Grow	4815RR2	4L		NK Syngenta	NK S49-H7	4L		Terral Seed	REV®47R74	4L
Delta Grow	4825 RR2/STS	4L		U of A	Osage	5L		Terral Seed	REV®4833	4L

Varieties Tested with Slight Injury (1-3)										
Brand	Variety	MG		Brand	Variety	MG		Brand	Variety	MG
Terral Seed	REV®48R10	4L		Schillinger	458.RCS	4E		Willcross	RR2477N	4L
Terral Seed	REV®48R22	4L		Schillinger	495.RC	4L		Willcross	RR2507NS	5E
Terral Seed	REV®55R53	5E		U of A	UA 5612	5L		Willcross	RR2544NS	5E
Terral Seed	REV®56R21	5L		USG	USG 74G99L	4L		Willcross	RY2460S	4E
Terral Seed	REV®57R21	5L		USG	USG 7553nRS	5E			X2R 4728	
Terral Seed	REV®59R13	5L		USG	USG 75J62R	5L			X2R 5822	
U of Missouri	S08-X17371	5E		USG	USG 75Q52R	5E			XR 5621	
U of Missouri	S08-X7279	5E		USG	USG 75Z98	5L				

Varieties Tested with Moderate Injury (4-6)										
Brand	Variety	MG		Brand	Variety	MG		Brand	Variety	MG
Agborn	G. S08-X27041	4L		Delta Grow	5556RR1	5E		MorSoy	XTRA 47X31	4L
AGS	AGS 597RR	5L		Delta Grow	5625RR2	5L		Progeny	4819LL	4L
Armor	46-R42	4E		Delta Grow	4575RR2	4E		Progeny	4850RY	4L
Armor	49-C3	4L		Dyna-Gro	31RY45	4E		Progeny	5111RY	5E
Armor	50-C3	5E		Dyna-Gro	37RY52	5E		Progeny	5388RY	5E
Armor	X1303	4E		Dyna-Gro	S48LL23	4L		U of A	R08-141	4L
Armor	X1307	4L		Eagle Seed	ES4998	4L		U of A	R09-107	5
Asgrow	AG4433	4E		Eagle Seed	ES5519	5E		U of A	R09-2988	5
Asgrow	AG4632	4E		Eagle Seed	ES5650	5L		U of Missouri	S08-X14117	4E
Asgrow	Asgrow AG4832	4L		Go Soy	5010	5E		U of Missouri	S08-X2499	4L
Asgrow	AG5532	5E		HALO	X456	4E		U of Missouri	S08-X6399	5E
Delta Grow	4715RR2	4L		HALO	X478	4L		USG	USG 74A91	4L
Delta Grow	4765RR2/STS	4L		HALO	X48	4L		USG	USG 74B81R	4L
Delta Grow	4875RR2/STS	4L		HBK	HBK RY4721	4L		USG	USG 74H92R	4L
Delta Grow	4967LL	4L		LG	LG C4411R2	4E		USG	USG 75Q42R	5E
Delta Grow	5461LL	5E		LG	LG C4780R2	4L		Willcross	RY2482N	4L
Delta Grow	5475RR2	5E		LG	LG C4885R2	4L				

Varieties Tested with Severe Injury (7-9)						Varieties Tested that ended in Death			
Brand	Variety	MG		Brand	Variety	MG	Brand	Variety	MG
Agborn	S08-X0448	4E		HALO	4:65	4E	Agborn	S06-X9464	5E
AGS	AGS 5911LL	5L		HALO	X51:25	5E	HALO	5:45	5E
Asgrow	AG4232	4E		NK Syngenta	NK S48-P4 Brand	4L	HALO	X55	5E
Asgrow	AG4533	4E		NK Syngenta	NK S42-W8	4E	NK Syngenta	NK S 56-W5	
Asgrow	AG4633	4E		Progeny	5160LL	5E	Progeny	5960LL	5L
Asgrow	AG5233	5E		U of A	R07-5351	4L	Willcross	RR2878NS	4L
Delta Grow	4867LL	4L		Terral Seed	REV®46R73	4E			
Dyna-Gro	34LL53	5E		USG	USG 74E88	4L			
Dyna-Gro	S48RS53	4L		USG	USG 74G82L	4L			

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2011 Soybean Variety Screening for Metribuzin Sensitivity

With the increase in acreage infested with glyphosate-resistant Palmer amaranth in Arkansas, metribuzin containing herbicides have had resurgence in use in the past couple of years. In 2011, soybean varieties were screened for metribuzin sensitivity by the University of Arkansas Division of Agriculture (Dr. Jason Norsworthy) and Mississippi State University (Dr. Tom Eubank). Ratings for metribuzin sensitivity were: 1-3 = Slight; 4-6 = Moderate; 7-9 = Severe; and 10 = Death. When using metribuzin containing herbicides, particular attention should be paid to the soil texture, soil organic matter and soil pH. Products containing metribuzin include: Canopy (DuPont), Boundary (Syngenta), Authority MTZ (FMC), TriCor (UPI), and Metribuzin (MANA).

Variety	Brand	Rating	Scale
AV 50X6RR	AgVenture	4	Moderate
AV 51X5RR	AgVenture	5	Moderate
AV 54X4RR	AgVenture	3	Slight
Armor 44-K6	Armor	2	Slight
Armor 53-Z5	Armor	3	Slight
DK 4866	Armor	6	Moderate
DK 4968	Armor	4	Moderate
DK GP-500	Armor	5	Moderate
DKR 4440	Armor	5	Moderate
AG4403	Asgrow	6	Moderate
AG4605	Asgrow	4	Moderate
AG4903	Asgrow	3	Slight
AG5503	Asgrow	5	Moderate
AG5606	Asgrow	4	Moderate
DP 4888	Asgrow	2	Slight
31RY34	Dyna-Gro	3	Slight
31RY37	Dyna-Gro	3	Slight
31RY45	Dyna-Gro	3	Slight
32A53	Dyna-Gro	2	Slight
32LL48	Dyna-Gro	1	Slight
32RY34	Dyna-Gro	3	Slight
32RY39	Dyna-Gro	3	Slight
32RY55	Dyna-Gro	5	Moderate
33A40	Dyna-Gro	1	Slight
33C59	Dyna-Gro	3	Slight
33G48	Dyna-Gro	2	Slight
33LL49	Dyna-Gro	4	Moderate
33LL58	Dyna-Gro	10	Death
33RY37	Dyna-Gro	3	Slight
33RY47	Dyna-Gro	3	Slight

Variety	Brand	Rating	Scale
33X55	Dyna-Gro	5	Moderate
34LL37	Dyna-Gro	8	Severe
34LL53	Dyna-Gro	10	Death
34RY36	Dyna-Gro	5	Moderate
34RY46	Dyna-Gro	2	Slight
34RY75	Dyna-Gro	2	Slight
35F55	Dyna-Gro	2	Slight
35K73	Dyna-Gro	3	Slight
35P53	Dyna-Gro	2	Slight
35RY51	Dyna-Gro	2	Slight
35X43	Dyna-Gro	1	Slight
36C44	Dyna-Gro	2	Slight
36LL39	Dyna-Gro	4	Moderate
36RY38	Dyna-Gro	3	Slight
36RY68	Dyna-Gro	2	Slight
37LL50	Dyna-Gro	1	Slight
37P37	Dyna-Gro	3	Slight
37P49	Dyna-Gro	4	Moderate
37RY33	Dyna-Gro	2	Slight
37RY39	Dyna-Gro	4	Moderate
37RY47	Dyna-Gro	3	Slight
37RY52	Dyna-Gro	4	Moderate
38C42	Dyna-Gro	3	Slight
38LL42	Dyna-Gro	1	Slight
38RY32	Dyna-Gro	2	Slight
38RY35	Dyna-Gro	4	Moderate
38RY45	Dyna-Gro	4	Moderate
39D48	Dyna-Gro	3	Slight
39LL43	Dyna-Gro	7	Severe
39RY30	Dyna-Gro	8	Severe

Variety	Brand	Rating	Scale
39RY43	Dyna-Gro	3	Slight
39RY57	Dyna-Gro	3	Slight
V39N9RR	Dyna-Gro	6	Moderate
V42N9RS	Dyna-Gro	3	Slight
V47N8RR	Dyna-Gro	9	Severe
V48N7RS	Dyna-Gro	2	Slight
V51N7RS	Dyna-Gro	1	Slight
V61N9RR	Dyna-Gro	3	Slight
V76N9RR	Dyna-Gro	2	Slight
HBK R4924	Hornbeck	3	Slight
HBK R5525	Hornbeck	5	Moderate
NK S44-D5	NK Brand	5	Moderate
NK S49-H7	NK Brand	3	Slight
P 94Y80	Pioneer	6	Moderate
P 94Y90	Pioneer	6	Moderate
P 95Y01	Pioneer	5	Moderate
P 95Y30	Pioneer	4	Moderate
P 4906RR	Progeny	5	Moderate
P 4949RR	Progeny	6	Moderate
SCH 495 RC	Schillinger	3	Slight
46LC03	Stine	5	Moderate
48LC08	Stine	7	Severe
49LA02	Stine	4	Moderate
49LA28	Stine	3	Slight
49LA82	Stine	3	Slight
49LC08	Stine	4	Moderate
50LC32	Stine	5	Moderate
50LC82	Stine	6	Moderate
51LA02	Stine	10	Death
52LA02	Stine	4	Moderate
52LC08	Stine	5	Moderate
58LA02	Stine	9	Severe
LL 1716-24	Stine	5	Moderate
TV47R18	Terral	7	Severe
TV55R15	Terral	5	Moderate

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