

Herbicide performance in soybeans at Morris, MN - 2009. Jeffery L. Gunsolus, George Nelson, and Thomas Hoverstad

The study site was located in range E16-6W, the previous crop was soybeans. The site was field cultivated on May 13th and seeded to P-90M80 soybeans on May 14th at 168,000 seeds per acre. Pre-emergence treatments were applied on May 18th, 8-10:30 am, with the wind out of the south at 15 mph, 65°F. Post-emergence 4-inch treatments were applied on June 18th, 8-9 am, with the wind out of the SE at 5 mph, 70°F (90% lambsquarter, 10% pigweed, some grasses). Post-emergence 6-inch treatments were applied on June 24th, 8-9:30 am, with the wind out of the SE at 10-15 mph, 70°F. Canopy treatments were applied on July 17th, 8-8:30 am, with the wind out of the NW at 15-20 mph, 55°F. Warrior II was applied at 1.2 oz/ac on August 5th for soybean aphid control. The study was harvested on September 29th, 137.5 sq feet. Data are presented in the following table.

Table. Herbicide performance in soybeans at Morris, MN - 2009. (Gunsolus, Nelson, and Hoverstad)

Treatment	Rate (Product/A or % v/v)	Common		Soybean Stand		Soybean		Soybean Yield (Bu/A)
		Lambsquarters		Reduction		Injury		
		6/11	6/30	6/11	6/30	6/11	6/30	
<u>Preemergence on May 18 / POST on June 18 (4-inch weeds)</u>								
Boundary / Flexstar + Fusion + Harmony SG + MSO + 28%N	1.5 pt / 16 oz + 8 oz + 0.125 oz + 1.0% + 2.5%	39	100	0	0	0	9	41
Authority First / Raptor + Select + COC + 28%N	6.4 oz / 4 oz + 6 oz + 1% + 2.5%	60	96	0	0	0	6	40
Gangster V + Gangster FR / Raptor + Select + COC + 28%N	2.5 oz + 0.5 oz / 4 oz + 6 oz + 1% + 2.5%	73	99	0	0	13	14	38
<u>Preemergence on May 18 / POST on June 24 (6-inch weeds)</u>								
Authority First / Roundup Original Max + AMS	3.2 oz / 22 oz + 3qt	35	96	0	0	0	0	42
Authority Assist / Roundup Original Max + AMS	5 oz / 22 oz + 3 qt	60	100	0	0	0	0	38
Intrro / Roundup Weathermax + AMS	2 qt / 22 oz + 3 qt	40	100	0	0	0	0	43
Gangster V + Gangster FR / Roundup Original Max + AMS	2 oz + 0.4 oz / 22 oz + 3 qt	69	100	0	0	10	0	45
Prefix / Touchdown Total + AMS	1 qt / 24 oz + 3 qt	20	96	0	0	0	3	41
Boundary / Touchdown Total + AMS	1.5 pt / 24 oz + 3 qt	16	97	0	0	0	0	40
V-10233 / Roundup Original Max + AMS	3 oz / 22 oz + 3 qt	65	100	0	0	19	1	45
Valor SX + Python / Roundup Original Max + AMS	2 oz + 0.5 oz / 22 oz + 3 qt	70	100	0	0	9	0	40
Valor SX + Intrro/ Roundup Original Max + AMS	2 oz + 1 pt / 22 oz + 3 qt	68	100	0	0	20	3	44
Sonic / Durango + AMS	4.5 oz / 24 oz + 3 qt	55	100	0	0	0	0	49
Enlite / Roundup PowerMax + AMS	2.8 oz / 22 oz + 3 qt	68	100	0	0	18	0	46
Enlite / Roundup PowerMax + Harmony SG + AMS	2.8 oz / 22 oz + 0.125 oz + 3 qt	61	100	0	0	16	16	47
<u>POST on June 18 (4-inch weeds) / POST on July 17 (soybean canopy)</u>								
Roundup Weathermax + AMS / Roundup Weathermax + AMS	22 oz + 3 qt / 22 oz + 3 qt	--	100	--	0	--	0	42
Durango DMA + FirstRate + AMS / Durango DMA + AMS	24 oz + 0.3 oz + 3 qt / 24 oz + 3 qt	--	98	--	0	--	0	42
Flexstar GT + AMS / Touchdown Total + AMS	3 pt + 3 qt / 24 oz + 3 qt	--	98	--	0	--	4	45
<u>POST on June 24 (6-inch weeds)</u>								
Synchrony XP + Roundup Original Max + AMS	0.375 oz + 22 oz + 3 qt	--	97	--	0	--	16	40
Roundup Original Max + Resource + NIS + AMS	22 oz + 3 oz + 0.25% + 3 qt	--	100	--	0	--	5	33
Roundup Original Max + Cadet + NIS + AMS	22 oz + 0.6 oz + 0.25% + 3 qt	--	96	--	0	--	5	35
Roundup Weathermax + AMS	22 oz + 3 qt	--	94	--	0	--	0	35
Weedy Check	--	--	--	0	0	0	0	11
Weed-free Check	--	100	100	0	0	0	0	40
LSD (0.05)	--	24.1	ns	ns	ns	4.8	3.6	8.2

Boundary 6.5L = s-metolachlor (5.25 lb ai/gal) & metribuzin (1.25 lb ai/gal).

Flexstar 1.88L = fomesafen.

Fusion 2.56E = fluazifop-P (2.0 lb ai/gal) & fenoxaprop (0.56 lb ai/gal).

Harmony SG 50SG = thifensulfuron-methyl.

MSO = Destiny (methylated soybean oil and nonionic surfactant blend).

28% = 28% UAN (urea ammonium nitrate solution).

Authority First 70DF = chloransulam-methyl (8%) & sulfentrazone (62%).

Raptor 1S = imazamox.

Select 2E = clethodim.

COC = crop oil concentrate.

Gangster V 51DG = flumioxazin (component #1 of Gangster Multi-Pack).

Gangster FR 84DG = chloransulam-methyl (component #2 of Gangster Multi-Pack).

Roundup Original Max 4.5S = glyphosate.

AMS = N-PaK AMS 34% ammonium sulfate solution (3.4 lbs ammonium sulfate/gal).

Authority Assist 4SC = sulfentrazone (3.3 lb ai/gal) & imazethapyr(0.67 lb ai/gal).

Intrro 4EC = alachlor.

Roundup Weathermax 4.5S = glyphosate.

Prefix 5.29E = s-metolachlor (4.34 lb ai/gal) & fomesafen (0.95 lb ai/gal).

Touchdown Total 4.17L = glyphosate.

V-10233 76DF = experimental.

Valor SX 51WDG = flumioxazin.

Python 80WDG = flumetsulam.

Sonic 70DF = cloransulam-methyl (8) & sulfentrazone (62).

Durango 4S = glyphosate.

Enlite 47.48DG = clorimuron-ethyl (2.85%) & flumioxazin (36.21%) & thifensulfuron-methyl (8.8%).

Roundup Powermax 4.5S = glyphosate.

Durango DMA 4S = glyphosate.

FirstRate 84DG = cloransulam-methyl.

Flexstar GT 3.29L = fomesafen (0.66 lbs ai/gal) & glyphosate (2.63 lbs ae/gal).

Synchrony XP 28.4DF = chlorimuron-ethyl (21.5%) & thifensulfuron-methyl (6.9%).

Resource 0.86L = flumiclorac.

NIS = Preference nonionic surfactant.

Cadet 0.91EC = fluthiacet-methyl.