Herbicide Performance in Soybeans at Morris, MN - 2000. Jeffrey L. Gunsolus and George Nelson. Fall fertilizer was applied to the trial site on October 28, 1999 @ 18-46-60 and incorporated via chisel plow. The trial site was field cultivated once on May 15, 2000. PPI treatments were applied on May 17 with the wind out of the south at 15-20 mph and the site was field cultivated for herbicide incorporation and seedbed preparation. The trial site was then seeded to Cropland RT 0933 RR soybeans at 196,000 seeds per acre in 30-inch 4-row plots. Pre-emergence treatments were applied on May 19 with the wind out of the south at 10 mph. Post-emergence treatments 3-4 inch soybeans and 4-6 inch soybeans were applied the same day, due to wet field conditions, on June 27 with the wind out of the northwest at 5-10 mph. The soybeans were in the V4 stage at this time. Post-emergence regrow application was applied to treatment 28 on July 21. Mechanical treatments were applied as follows; the first rotary hoe and harrow on May 31, the second rotary hoe and harrow on June 9, and specified soybeans treatments were row cultivated on June 29. Soybeans were harvested on September 25 and 26, harvest area was 137.5 square feet.

Table. Herbicide performance in soybeans at Morris, MN - 2000. (Gunsolus and Nelson).

Treatment	Rate	Weed Control					Soybean		
		gr/ye[1]	Colq	Ebns	Rrpw	Wimu	Injury	SR[2]	Yield
	(lb/A)	---------- (%) ----------							Bu/A
(Preplant incorporate 2X)									
Imazethapyr & pendimethalin[3]	0.063 & 0.85	94	100	100	99	100	0	0	59
Trifluralin + cloransulam	0.75 + 0.03	96	100	100	100	100	0	0	59
(Preplant incorporate 2X) + (Postemergence 4" weeds)									
(Trifluralin) + (imazethapyr + COC[4] + 28%N[5])	(0.75) + (0.031 + 1.25% + 1.25%)	98	99	96	100	100	0	0	61
(Trifluralin) + (imazethapyr + COC + 28%N)	(0.75) + (0.063 + 1.25% + 1.25%)	95	94	100	100	100	0	1	58
(Trifluralin) + (acifluorfen & bentazon[6] + 28%N)	(0.75) + (0.17 & 0.75 + 2.5%)	90	99	100	100	100	10	0	60
(Clomazone[7]) + (imazethapyr + COC + 28%N)	(0.75) + (0.031 + 1.25% + 1.25%)	97	94	100	97	96	0	0	62
(Imazethapyr & pendimethalin) + (glyphosate + AMS[8])	(0.063 & 0.85) + (0.56 + 2.5)	100	100	100	100	100	0	0	61
(Trifluralin) + (glyphosate + AMS)	(0.75) + (0.56 + 2.5)	100	100	100	100	100	0	0	60
(Imazethapyr & pendimethalin) + (sethoxydim + bentazon + acifluorfen +COC + 28%N)	(0.044 & 0.59) + (0.2 + 1.0 + 0.188 + 0.625% + 1.25%)	100	100	100	100	100	24	0	57
Weedy check		--	--	--	--	--	0	0	26
(Preplant incorporate 2X) + (Postemergence 4 inch weeds) + Cultivation 43 DAP									
(Trifluralin) + (imazethapyr + COC + 28%N)	(0.75) + (0.031 + 1.25% + 1.25%)	96	80	83	100	96	0	0	62
(Trifluralin) + (imazethapyr + COC + 28%N)	(0.75) + (0.063 + 1.25% + 1.25%)	100	91	100	100	100	3	0	62
(Trifluralin) + (acifluorfen & bentazon + 28%N)	(0.75) + (0.17 & 0.75 + 2.5%)	95	100	100	100	100	14	0	60
Handweeded check + cultivation		100	100	100	100	100	0	0	63
(Preemergence)									
Clomazone[9] + sulfentrazone[10]	0.75 + 0.375	100	100	100	100	100	5	0	54
Clomazone + cloransulam	0.75 + 0.03	100	100	99	100	100	0	0	57
(Preemergence) + (Postemergence 4-6 inch weeds)									
(Clomazone) + (glyphosate + AMS)	(0.75) + (0.56 + 2.5)	100	100	100	100	100	0	0	59
(FOE-5043 & metribuzin[11]) + (glyphosate + AMS)	(0.177 & 0.176) + (0.56 + 2.5)	100	100	100	100	100	0	0	58
(s-Metolachlor & metribuzin[12]) + (glyphosate + AMS)	(0.98 & 0.23) + (0.56 + 2.5)	100	100	100	100	100	3	0	60
(Dimethenamid) + (glyphosate + AMS)	(1.125) + (0.56 + 2.5)	100	100	100	100	100	0	0	63
(Sulfentrazone[13]) + (glyphosate + AMS)	(0.19) + (0.56 + 2.5)	100	100	100	100	100	0	0	59
(Sulfentrazone[13]) + (fluazifop-p & fenoxaprop[14] + fomesafen + COC + 28%N)	(0.25) + (0.156 & 0.044 + 0.235 + 1.0% + 2.5%)	99	100	100	100	100	21	0	52
(Flumioxazin[15]) + (glyphosate + AMS)	(0.078) + (0.56 + 2.5)	100	100	100	100	100	1	0	57
(Flumioxazin) + (cloransulam + clethodim + COC + 28%)	(0.078) + (0.016 + 0.094 + 1.0% + 2.5%)	99	30	0	40	100	0	0	48
(FOE-5043 & metribuzin) + (imazethapyr + fomesafen + COC + 28%N)	(0.177 & 0.176) + (0.031 + 0.176 + 0.625% + 1.25%)	100	100	100	100	100	15	0	58
(s-Metolachlor & metribuzin) + (fluazifop-p & fenoxaprop + fomesafen + MSO[16] + AMS)	(1.18 & 0.28) + (0.09 & 0.27 +0.176 +1.0% + 2.0)	100	100	100	100	100	18	0	61
(s-Metolachlor & metribuzin) + (cloransulam + clethodim + MSO + AMS)	(1.18 & 0.28) + (0.016 + 0.094 + 0.625% + 2.0)	100	100	100	98	100	4	0	58
(Postemergence 3-4 inch weeds) + (Postemergence 4 inch regrowth)									
(Glyphosate + AMS) + (glyphosate + AMS)	(0.56 + 2.5) + (0.56 + 2.55)	100	100	100	100	99	0	0	59
Mechanical Treatments									
Rotary Hoe 14 DAP & 23 DAP + Cultivation 43 DAP	--	100	100	100	100	100	0	0	55
Harrow 14 DAP & 23 DAP + Cultivation 43 DAP	--	100	100	100	100	100	0	0	55

(continued)

Table. Herbicide performance in soybeans at Morris, MN - 2000. (continued)

Treatment	Rate	Weed Control gr/ye[1]	Colq	Ebns	Rrpw	Wimu	Soybean Injury	SR[2]	Yield
	(lb/A)	---------- (%) ----------							Bu/A
(Postemergence 4 inch weeds)									
Fluazifop-p & fenoxaprop + fomesafen + COC + 28%N	0.156 & 0.044 + 0.24 + 1% + 2.5%	100	100	100	100	100	15	0	57
Cloransulam + glyphosate	0.016 + 0.56	100	99	100	96	100	0	0	59
Gyphosate & imazethapyr[16] + NIS[18] +AMS	0.75 & 0.063 + 0.125% + 2.5	100	100	100	100	100	14	0	58
Glyphosate + dimethenamid + AMS	0.56 + 0.94 + 2.5	100	100	100	99	100	0	0	57
Glyphosate + AMS	0.75 + 2.5	100	100	100	99	100	0	0	60
ICI 0224 + AMS	1.0 + 2.5	100	100	100	100	100	11	0	60
Sethoxydim + bentazon + fomesafen + COC + 28%N	0.2 + 1.0 + 0.18 + 0.625% + 1.25%	100	98	100	99	100	15	0	56
Imazethapyr + COC + 28%N	0.063 + 1.25% + 1.25%	94	56	98	95	99	3	0	57
(Postemergence 4"weeds) + Cultivation 43 DAP									
Sethoxydim + bentazon + fomesafen + COC + 28%N	0.2 + 1.0 + 0.18 + 0.625% + 1.25%	99	100	100	100	100	20	0	51
Imazethapyr + COC + 28%N	0.063 + 1.25% + 1.25%	97	59	99	97	100	3	0	57
LSD (0.05)		5	8	6	3	2	5	ns	6

[1] Gr/ye = Green and yellow foxtail.
[2] SR = Stand Reduction.
[3] Premix = Pursuit Plus 2.9E.
[4] COC =Class crop oil concentrate.
[5] 28%N = 28% aqueous urea-ammonia solution.
[6] Premix = Galaxy 3.67E.
[7] Command 4E.
[8] AMS = spray grade ammonium sulfate.
[9] Command 3ME.
[10] Spartan 4L.
[11] Premix = Domain 60DF.
[12] Premix = Boundary 7.8L.
[13] Authority 75DF.
[14] Premix = Fusion 2.56L.
[15] MSO = Methylated seed oil.
[16] Valor 50DF.
[17] Premix = Extreme 2.17L..
[18] NIS = Class Preference nonionic surfactant.