

Table 1. Continuous flood trial at resistant site.

Treatment	Rate (g ai/ha)	Timing ³	Percent injury ¹				% Weed Control ²										Yield (lb/Acre)					
			7 DAT		14 DAT		19-Jun					6-Jul						25-Jul				
			1st trt	2nd trt	7 DAT	14 DAT	ECHPH	SCPMU	CYPDI	HETLI	BAORO	ECHPH	SCPMU	CYPDI	HETLI	BAORO		ECHPH	SCPMU	CYPDI	HETLI	BAORO
Untreated ⁴	---	---			43	5	3	38	53	4	4	10	9	48	5	7	6	4	2763			
SuperWham + COC	6726 + 1.25% v/v	1-3 Til	6	0	23	6	100	0	30	48	73	13	0	49	66	61	0	0	3603			
Stam + COC	6727 + 1.25% v/v	1-3 Til	3	0	31	29	75	13	54	25	75	0	0	53	64	56	0	0	3912			
Wham 60 DF + COC	6720 + 1.25% v/v	1-3 Til	0	0	19	18	75	0	35	25	73	13	13	79	66	68	0	0	5042			
Regiment + Abolish	37 + 3360	1-3 Til	5	0	56	0	50	45	80	38	73	23	75	79	41	65	13	75	4867			
Bolero fb. Superwham+ COC	4480 fb. 6726 + 1.25% v/v	1-2 lsr fb. 1-3 Til	0	0	35	53	75	41	46	25	98	0	68	60	80	88	13	50	5282			
Bolero fb. Regiment + NIS	4480 fb 44.5 + .125% v/v	1-2 lsr fb. 1-3 Til	0	0	23	6	50	44	66	25	75	23	83	50	60	69	25	75	4586			
Bolero fb. Regiment + Abolish	4480 fb. 37 + 3360	1-2 lsr fb. 1-3 Til	0	0	44	38	75	63	69	75	100	0	98	61	35	96	13	100	4665			
Regiment + NIS fb. SuperWham + COC	4.5 + .125% v/v fb. 6726 + 1.25% v/v	1-2 Til fb. 2-3 Til	0	0	44	19	50	3	45	0	75	13	0	59	95	94	13	0	4691			
Cerano fb. Superwham+ COC	673 fb. 6726 + 1.25% v/v	0.5 lsr fb. 1-3 Til	0	0	6	19	75	21	50	23	75	15	0	64	71	84	0	23	4467			
Cerano fb. Regiment + NIS	673 fb. 44.5 + .125% v/v	0.5 lsr fb. 1-3 Til	0	0	25	29	75	19	39	25	25	13	0	40	38	31	0	0	4001			
Cerano fb. Regiment + Abolish	673 fb. 37 + 3360	0.5 lsr fb. 1-3 Til	0	0	38	6	75	30	69	25	50	0	13	71	25	38	0	25	4247			
Ordram fb. Shark	4485 fb. 224	1 lsr fb. 2-3 lsr	0	0	23	50	75	25	31	25	100	0	98	30	80	94	13	98	3443			
Shark fb. Clincher + COC	224 fb. 315 + 1.25%v/v	2-3 lsr fb. 1-3 Til	0	0	19	29	100	6	21	23	75	0	75	20	45	94	30	100	3375			
Granite GR fb. SuperWham + COC	40 fb 6726 + 1.25% v/v	2-3 lsr fb. 1-3 Til	0	3	23	44	100	54	81	0	75	75	0	84	71	100	81	25	4945			
Shark fb. SuperWham + COC	224 fb. 6726 + 1.25%v/v	2-3 lsr fb. 1-3 Til	0	0	44	44	75	44	71	41	50	13	75	71	83	100	0	63	4343			

LSD (P=0.05)

1184

¹ Percent injury (percent injury to rice)

² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad), LEFFA (Sprangletop), BAORO (Waterhyssop) AMMCO (Redstem), SAGMO (California arrowhead)

³ fb. (followed by), lsr (leaf stage of rice), Til (tillers of rice), PFS (pre-flood surface), PPI (pre-plant incorporated).

⁴ Untreated weed control values represent % cover by the respective weed species

Trial Information

1. Trial seeded May 26, 2005 with 150 lbs per acre of M104.
2. Trial managed as a continuous flood.
3. Treatment dates: 0.5 lsr (June 1), 1-2 lsr (June 3), 2-3 lsr (June 7), 1-3 till (June 21)
4. Watergrass was 1-2 leaf, barnyardgrass was 2 leaf on June 1.
Watergrass was 2 leaf, barnyardgrass was 2 leaf on June 3.
Watergrass was 2-3 leaf, bulrush was 1 inch, ducksalad was 1 inch June 7.
Watergrass was 1 tiller, smallflower was 1 inch, california arrowhead was 2 inches, ducksalad was 2 inches June 21.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on June 1: Air temperature 85° F, wind 2 MPH from the southeast.
Weather conditions on June 3: Air temperature 81° F, wind 5 MPH from the north, northwest.
Weather conditions on June 7: Air temperature 71° F, wind 1-2 MPH from the south.
Weather conditions on June 21: Air temperature 78° F, wind 3-4 MPH from the south.
Weather conditions on July 6: Air temperature 78° F, wind 3-4 MPH from the south.

Table 2. Pinpoint Trial at Resistant off station site

Treatment	Rate (g ai/ha)	Timing ³	Percent injury ¹				Weed Control ²										Yield/Acre (14%)				
			7 DAT	14 DAT	7 DAT	14 DAT	ECHPH	SCPMU	CYPDI	HETLI	ECHPH	SCPMU	HETLI	BAORO	ECHPH	SCPMU		CYPDI	HETLI	BAORO	
			1st trt	2nd trt	16-May				6-Jul				25-Jul				1-Oct				
Untreated ⁴					10	3	3	18	21	2	16	26	14	6	4	6	5	4985			
Regiment+ NIS	37 + 0.125% v/v	3-4 lsr	0	0	80	50	50	40	70	54	71	63	69	88	98	35	35	5074			
Regiment+ Abolish	37 + 3360	3-4 lsr	3	0	80	53	39	78	58	93	81	91	70	78	75	89	100	4982			
Abolish	3360	3-4 lsr	1	0	19	29	10	36	18	72	38	70	23	69	80	61	96	4887			
Clincher+ COC fb. Stam + Granite SC + CG15 + 1.25% v/v fb. 6726 + 35 + 1.25% v/v		3-4 lsr fb. 1 Til	0	0	76	0	0	0	59	39	61	84	68	79	11	30	50	4896			
Clincher+ COC fb. SuperWham + COC	315 + 1.25% v/v fb. 6726 + 1.25% v/v	3-4 lsr fb. 1 Til	0	5	4	0	0	78	3	5	14	74	5	29	46	79	95	31	39	54	5525
SuperWham + COC fb. Clincher+ COC	6726 + 1.25% v/v fb. 315 + 1.25% v/v	3-4 lsr fb. 1 Til	6	0	0	0	0	74	68	69	71	76	63	59	49	83	31	100	43	46	5249
Regiment+ NIS fb. Clincher+ COC	44.5 + .125% v/v fb. 315 + 1.25% v/v	3-4 lsr fb. 1 Til	0	0	0	0	0	71	30	43	49	56	90	79	78	84	78	83	39	73	4467
Regiment+ Abolishfb. Clincher+ COC	37 + 3360 fb. 315 + 1.25% v/v	3-4 lsr fb. 1 Til	1	0	5	0	0	80	69	76	78	38	70	61	74	48	74	100	41	68	4558
Regiment+ Abolishfb. SuperWham+ COC	37 + 3360 fb. 6726 + 1.25% v/v	3-4 lsr fb. 1 Til	0	5	3	0	0	83	54	63	69	79	90	81	93	83	98	100	71	90	5815
Regiment. + NIS fb. Super Wham + COC	44.5 + .125% v/v fb. 6726 + 1.25% v/v	3-4 lsr fb. 1 Til	1	3	0	0	0	68	39	19	46	46	65	60	93	81	95	79	25	68	4814
SuperWham + COC	6726 + 1.25% v/v	1 Til	1	0	0	0	0	68	0	0	3	50	35	18	25	60	71	50	29	25	4317
Regiment+ NIS	44.5 + 0.125% v/v	3-4 lsr	3	0	0	0	0	71	18	21	39	61	90	81	67	64	96	71	34	39	5253
Super Wham + COC fb. Regiment+ NIS	4484 + 1.25% v/v fb. 44.5 + 0.125% v/v	3-4 lsr fb. 1 Til	5	1	1	0	0	79	31	38	40	88	88	83	48	93	55	100	69	25	5596
Regiment+ Whip fb. SuperWham+ COC	44.5 + 32 fb. 6726 + 1.25% v/v	3-4 lsr fb. 1 Til	0	5	5	0	0	43	23	1	6	59	76	26	13	79	83	96	25	20	5058

LSD (P=0.05)

1652

¹ Percent injury (percent injury to rice)

² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad), LEFFA (Sprangletop), BAORO (Waterhyssop) AMMCO (Redstem) SAGMO (California arrowhead)

³ fb. (followed by), lsr (leaf stage of rice), Til (tillers of rice), PFS (pre-flood surface), PPI (pre-plant incorporated).

⁴ Untreated weed control values represent % cover by the respective weed species

Trial Information

1. Trial seeded May 26, 2005 with 150 lbs per acre of M104.
2. Trial managed as a pinpoint flood with drain on June 10 and reflow June 15.
3. Treatment dates: 3-4 lsr (June 13), 1 Till (June 21)
4. Watergrass was 3 leaf, bulrush was 1-2 leaf, smallflower ws 1-2 leaf, ducksalad was 1-2 leaf on June 13.
Watergrass was 1 tiller, smallflower was 1 inch, california arrowhead was 2 inches, waterhyssop was 4 leaf on June 21.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on June 13: Air temperature 91° F, wind 3 MPH from the south, southeast.
Weather conditions on June 21: Air temperature 78° F, wind 3.5 MPH from the south.

Table 3. Prowl H2O Resistant site

Treatment	Rate (g ai/ha)	Timing ³	Percent injury ¹				Weed Control ²						Yield (lb/A)						
			7 DAT		14 DAT		6-Jul			25-Jul									
			1st trt	2nd trt	ECHPH	SCPMU	CYPDI	HETLI	BAORO	AMMCO	ECHPH	SCPMU		CYPDI	HETLI	BAORO	AMMCO		
Untreated ⁴	---	---			14	9	2	10	14	9	21	5	13	5	8	15	3508		
Regiment + NIS	44.5 + 0.125% v/v	5-6 lsr	1	0	71	94	100	38	54	68	51	50	73	41	50	56	4569		
Super Wham + COC	6726 + 1.25% v/v	5-6 lsr	30	5	63	100	100	89	31	56	66	94	94	48	41	56	4491		
Prowl H2O + Regiment + NIS	1120 + 44.5 + 0.125% v/v	5-6 lsr	4	0	70	88	100	25	100	71	50	50	85	31	94	63	4317		
Prowl H2O + Super Wham + COC	1120 + 6726 + 1.25% v/v	5-6 lsr	33	4	91	100	100	60	100	94	86	83	94	50	63	78	4854		
Prowl H2O + Regiment + NIS fb. Clincher + COC	20 + 44.5 + 0.125% v/v fb. 315 + 1.25% v \ 5-6 lsr fb. 2-3 Til		13	1	0	0	63	98	88	45	100	89	58	38	78	25	100	69	4335
Prowl H2O + Super Wham + COC fb. Clincher + CO/20 + 6726 + 1.25% v/v fb. 315 + 1.25% v \ 5-6 lsr fb. 2-3 Til			19	4	0	0	73	69	100	38	85	87	74	98	95	44	100	83	4851
Regiment + Abolish + Prowl H2O	37 + 3360 + 1120	4-5 lsr	3	0	51	75	100	38	100	100	69	63	95	39	100	100	5087		
Cerano	673	DOS			58	0	75	35	0	13	65	0	0	31	0	0	3946		
Cerano fb. Super Wham + COC	673 fb. 6726 + 1.25% v/v	DOS fb. 5-6 lsr		25	5	96	88	100	86	13	31	94	81	93	44	0	25	4537	
Cerano fb. Super Wham + Prowl H2O + COC	673 fb. 6726 + 1120 + 1.25% v/v	DOS fb. 5-6 lsr		35	5	96	94	100	71	100	69	95	100	98	69	100	60	5443	
Cerano fb. Regiment + Prowl H2O + NIS	673 fb. 44.5 + 1120 + 0.125% v/v	DOS fb. 5-6 lsr		5	0	91	75	100	25	98	44	89	35	68	38	100	56	4747	
Cerano fb. Regiment + Abolish	673 fb. 37 + 3360	DOS lsr fb. 4-5 lsr		6	0	86	94	100	75	100	90	84	63	95	75	100	79	3757	

LSD (P=0.05)

1504

¹ Percent injury (percent injury to rice)

² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad), LEFFA (Sprangletop), BAORO (Waterhyssop) AMMCO (Redstem), SAGMO (California arrowhead)

³ PFS (pre-flood surface), PPI (pre-plant incorporated), fb. (followed by), lsr (leaf stage of rice), Til (tillers of rice).

⁴ Untreated weed control values represent % cover by the respective weed species

Trial Information

1. Trial seeded May 26, 2005 with 150 lbs per acre of M104.
2. Trial managed as a pinpoint flood with drain on June 13 and relood June 17.
3. Treatment dates: DOS (May 26), 4-5 lsr (June 16), 5-6 lsr (June 16), 2-3 Till (June 27)
4. Watergrass was 1 leaf on May 26.
Watergrass was 4 leaf, bulrush was 0.5 inch, smallflower was 0.5 inch, ducksalad was 0.75 inch on June 16.
Watergrass was 2 tiller, bulrush was 3 inches, smallflower was 3 inches, ducksalad was 2 inches on June 27.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on May 26: Air temperature 90° F, wind 2 MPH from the west.
Weather conditions on June 16: Air temperature 61° F, wind 3.5 MPH from the south, southeast.
Weather conditions on June 27: Air temperature ° F, wind 0-1 MPH from the south.

Table 4. Continuous flood trial at Hamilton Road.

Treatment	Rate (g ai/ha)	Timing ³	Percent injury ¹					Weed Control ²								Yield (lb/A)				
			7 DAT	14 DAT	7 DAT	14 DAT	7 DAT	EO-PPH	SCPMU	CYPDI	HETLI	EO-PPH	SCPMU	CYPDI	HETLI		EO-PPH	SCPMU	CYPDI	HETLI
			1st trt	2nd trt	3rd trt	24-Jun	14-Jul	2-Aug												
Untreated ⁴	---	---				4	17	1	19	20	12	5	14	42	16	13	14	3320		
Cerano fb. Londax	673 fb. 71	DOS fb. 2-3 lsr	13	75	14	100	99	100	100	100	100	100	100	100	100	93	100	5938		
Cerano fb. Superwham + COC	673 fb. 6726 + 1.25% v/v	DOS fb. 1-3 Til	11	0	0	100	21	75	98	100	98	100	100	98	75	80	100	5823		
Cerano fb. Regiment + NIS	673 fb. 37 + .125% v/v	DOS fb. 1-3 Til	14	0	0	98	45	50	100	100	44	100	96	97	30	8	91	4985		
Cerano fb. Superwham+ Grandstand+ C6	673 fb. 6726 + 280 + 1.25% v/v	DOS fb. 1-3 Til	14	0	0	100	43	100	98	100	100	100	95	99	92	93	100	5737		
Cerano fb. Grandstand	673 fb. 280	DOS fb. 1-3 Til	10	0	0	99	63	75	100	100	80	100	98	98	22	35	99	5664		
Cerano fb. Granite GR	673 fb. 40	DOS fb. 2-3 lsr	11	49	15	100	86	100	100	100	100	100	100	99	100	100	100	5527		
Cerano fb. Granite SC + COC	673 fb. 40 + 2.5% v/v	DOS fb. 1-3 Til	11	0	0	100	56	100	94	100	98	100	100	100	67	83	101	5539		
Cerano fb. Granite GR	448 fb. 40	DOS fb. 2-3 lsr	8	33	8	100	96	100	100	100	96	100	100	99	98	100	100	6194		
Bolero fb. Superwham + COC	4480 fb. 6726 + 1.25% v/v	1-2 lsr fb. 1-3 Til	1	0	0	70	65	100	71	96	99	100	69	89	87	100	75	5737		
Bolero fb. Regiment + NIS	4480 fb. 37 + .125% v/v	1-2 lsr fb. 1-3 Til	0	0	0	75	13	100	54	99	96	100	44	96	87	98	28	4782		
Bolero fb. Granite GR	4480 fb. 40	1-2 lsr fb. 2-3 lsr	1	0	3	1	100	98	100	99	100	96	100	99	97	100	100	5935		
Bolero fb. Granite SC + COC	4480 fb. 40 + 2.5% v/v	1-2 lsr fb. 1-3 Til	0	0	0	76	44	100	41	100	91	100	91	98	91	100	84	5912		
Bolero fb. Shark	4480 fb. 224	1-2 lsr fb. 2-3 lsr	0	0	0	75	90	100	93	61	75	100	98	50	65	100	99	4864		
Bolero fb. Shark fb. SuperWham + COC	4480 fb. 224 fb. 6726 + 1.25% v/v	1-2 lsr fb. 2-3 lsr fb. 1-3 til	0	0	3	1	0	90	73	100	85	100	100	98	92	98	100	6060		
Bolero fb. Shark fb. Regiment + NIS	4480 fb. 224 fb. 37 + .125% v/v	1-2 lsr fb. 2-3 lsr fb. 1-3 til	0	0	1	1	0	91	50	100	93	100	95	100	95	100	91	5476		
Shark fb. Granite GR (fb. Foliar if needed)	224 fb. 40	2-3 lsr	3	3		100	69	100	75	100	98	100	100	99	94	100	100	6297		
Shark fb. Clincher + COC	224 fb. 315 + 1.25% v/v	2-3 lsr fb. 1-3 Til	3	0	0	85	24	100	24	96	38	100	85	86	23	82	92	5244		
Abolish fb. SuperWham + COC	4480 fb. 6726 + 1.25% v/v	PFS bf. 1-3 til	0	0	0	94	64	100	75	100	100	100	85	97	87	100	85	5633		
Abolish fb. Regiment	4480 fb. 37 + .125% v/v	PFS bf. 1-3 til	0	0	0	99	46	100	94	100	70	100	86	97	75	99	75	5098		
Ordram 15G + Londax	4480 fb. 71	1-2 lsr	0	0		91	44	75	13	95	68	75	13	94	38	69	23	5607		
Ordram 15G fb. Shark	4480 fb. 224	1-2 lsr	0	0		91	68	75	60	99	85	50	38	95	58	60	24	5099		
Ordram 15G fb. SuperWham + COC	4480 fb. 6726 + 1.25% v/v	1-2 lsr fb. 1-3 til	0	0	0	100	89	100	78	100	100	100	75	100	99	100	80	5697		
Cerano fb. Shark	673 fb. 224	DOS fb. 2-3 lsr	10	46	9	100	49	100	100	98	31	100	100	93	41	71	100	5512		
Granite GR	40	2-3 lsr	3	1		91	44	75	13	95	68	75	13	94	38	69	23	5934		
Granite GR fb. Stam 80 EDF + COC	40 fb. 6726 + 2.5% v/v	2-3 lsr fb. 1Till	0	1	0	100	69	75	96	100	100	100	100	98	100	100	100	6342		
Granite GR fb. Clincher + COC	40 fb. 280 + 2.5% v/v	2-3 lsr fb. 3-4 lsg	0	0	1	100	69	100	88	100	100	100	100	98	100	100	100	5845		
Abolish fb. Granite GR	4480 fb. 40	PFS fb. 2-3 lsr	0	0	0	100	100	100	100	100	98	100	100	99	97	100	100	6029		

LSD (P=0.05)

952

¹ Percent injury (percent injury to rice)

² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad), LEFFA (Sprangletop), BAORO (Waterhyssop) AMMCO (Redstem), SAGMO (California arrowhead)

³ PFS (pre-flood surface), PPI (pre-plant incorporated), fb. (followed by), lsr (leaf stage of rice), Til (tillers of rice).

⁴ Untreated weed control values represent % cover by the respective weed species

Trial Information

1. Abolish applied June 1 to dry soil prior to flood
2. Trial seeded June 3, 2005 with 150 lbs per acre of M206
3. Treatment dates: PFS (June 1), DOS (June 3), 1-2 lsr (June 14), 2-3 lsr (June 15), 3-4 lsg (June 21), 1-3 Till (June 30)
4. Trial managed as a permanent flood with flood water at 4-5 inches.
5. No weeds were visible when Cerano was applied on day of seeding June 3.
 Watergrass was 3 leaf, ricefield bulrush was 3 leaf, ducksalad was 3 leaf and red stem was 2 leaf on June 13.
 Watergrass was 3 leaf, ricefield bulrush was 3 leaf, ducksalad was 3 leaf and red stem was 2 leaf on June 14.
 Watergrass was 3 leaf, ricefield bulrush was 3 leaf, ducksalad was 3 leaf and red stem was 2 leaf on June 15.
 Watergrass was 3-4 leaf, ricefield bulrush was 4 leaf, ducksalad was 3-4 leaf and smallflower was 2-3 leaf on June 21.
 Watergrass was 1-2 tiller, ricefield bulrush was 5", ducksalad was 6-7" and smallflower was 4" on June 30.
6. Spray applications made with 20 gallons/acre using 8003 nozzles.
7. Weather conditions on June 1: Air temperature 69° F, wind 5-6 MPH from the Northwest.
 Weather conditions on June 3: Air temperature 72° F, wind 5-8 MPH from the northwest.
 Weather conditions on June 13: Air temperature 75° F, wind 4-9 MPH from the northwest.
 Weather conditions on June 14: Air temperature 82° F, wind 1-4 MPH from the west.
 Weather conditions on June 15: Air temperature 71° F, wind 5-6 MPH from the southwest.
 Weather conditions on June 21: Air temperature 68° F, wind 6-8 MPH from southeast.
 Weather conditions on June 30: Air temperature 82° F, water temperature 76°F, wind 2.5 MPH from the west.

Table 6. Prowl H2O pinpoint

Treatment	Rate (g ai/ha)	Timing ³	Percent injury ¹				Weed Control ²										Yield (lb/A)		
			7 DAT		14 DAT		ECHPH	SCPMU	HETLI	ECHPH	SCPMU	HETLI	BAORO	ECHPH	SCPMU	CYPDI		HETLI	LEFFA
			1st trt	2nd trt	24-Jun	14-Jul													
Untreated ⁴	---	---			3	14	1	8	6	5	5	26	6	6	10	7	4268		
Prowl H2O + COC	1120 + 1.25% v/v	3-5 lsr	0	0	0	0	19	59	0	0	94	58	11	7	17	36	5181		
Regiment + NIS	30 + 0.125% v/v	3-5 lsr	0	0	25	3	3	100	63	94	94	95	96	18	55	23	5736		
Super Wham + COC	6726 + 1.25% v/v	3-5 lsr	0	0	75	83	95	98	69	91	94	96	92	71	73	88	5771		
Clincher + COC	315 + 1.25% v/v	3-5 lsr	0	0	45	0	0	100	13	25	56	98	28	18	33	99	5504		
Prowl H2O + Regiment + NIS	1120 + 30 + 0.125% v/v	3-5 lsr	0	0	0	6	5	100	73	85	100	95	95	5	63	39	5653		
Prowl H2O + Super Wham + COC	1120 + 6726 + 1.25% v/v	3-5 lsr	0	0	100	76	89	100	88	75	100	98	89	83	74	94	5996		
Prowl H2O + Clincher + COC	1120 + 315 + 1.25% v/v	3-5 lsr	0	0	63	4	23	100	0	25	100	90	1	3	28	100	5865		
Prowl H2O + Super Wham + Clincher + COC	1120 + 6726 + 315 + 1.25% v/v	3-5 lsr	0	0	100	61	68	100	98	100	100	98	100	74	93	95	6217		
Prowl H2O + Regiment + NIS fb. Clincher + COC	1120 + 30 + 0.125% v/v fb. 315 + 1.25% v/v 3-5 lsr fb. 1-3 Till		0	0	50	23	25	100	60	91	74	98	95	34	78	96	6589		
Prowl H2O + Super Wham + COC fb. Clincher + COC	1120 + 6726 + 1.25% v/v fb. 315 + 1.25% v/v 3-5 lsr fb. 1-3 Till		0	0	100	93	98	100	100	100	100	99	100	100	81	100	6258		
Prowl H2O + Clincher + COC fb. Super Wham + COC	1120 + 315 + 1.25% v/v fb. 6726 + 1.25% v/v 3-5 lsr fb. 1-3 Till		0	21	79	0	19	100	100	100	100	98	100	100	79	98	6495		
Abolish + Super Wham	4480 + 6726	3-5 lsr	0	0	100	91	94	100	100	100	100	97	100	99	82	100	6380		
Untreated ⁴	---	---			2	15	1	11	10	5	2	28	31	3	23	24	4510		

LSD (P=0.05)

970

¹ Percent injury (percent injury to rice)

² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad), LEFFA (Sprangletop), BAORO (Waterhyssop) AMMCO (Redstem), SAGMO (California arrowhead)

³ PFS (pre-flood surface), PPI (pre-plant incorporated), fb. (followed by), lsr (leaf stage of rice), Till (tillers of rice).

⁴ Untreated weed control values represent % cover by the respective weed species

Trial Information

1. Trial seeded June 3, 2005 with 150 lbs per acre of M206
2. Trial managed as a pinpoint flood with flood water drained June 14 re-flood June 22.
3. Treatment dates: 3-5 lsr (June 20), 1-3 Till (June 30)
4. Watergrass was 3 leaf, ricefield bulrush was 1.5 inches and ducksalad was 1.5 inches on June 20.
Watergrass was 1-2 tiller, ricefield bulrush was 5 inches, smallflower umbrellasedge was 4 inches and ducksalad was 6-7 inches on June 30.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on June 20: Air temperature 80° F, wind 0-1 MPH from the south.
Weather conditions on June 30: Air temperature 82° F, wind 3 MPH from the west.

Table 7. Leather's method

Treatment	Rate (g ai/ha)	Timing ³	Percent injury ¹				Weed Control ²										Yield (lb/A)		
			7 DAT		14 DAT		24-Jun				14-Jul			2-Aug					
			1st trt	2nd trt	ECHPH	SCPMU	CYPDI	HETLI	ECHPH	SCPMU	HETLI	BAORO	LEFFA	ECHPH	SCPMU	CYPDI		HETLI	LEFFA
Untreated ⁴	---	---			28	14	1	1	18	5	4	2	5	29	7	1	8	15	4326
Prowl H2O + COC	1120 + 1.25% v/v	1-2 Isr	0	0	81	18	50	25	78	25	38	100	80	66	6	25	34	28	5169
Clincher + COC	280 + 1.25% v/v	1-2 Isr	0	0	90	6	50	48	99	25	25	75	100	99	21	48	25	88	5415
Super Wham + COC	3363 + 1.25% v/v	1-2 Isr	0	0	94	76	100	88	89	50	25	94	100	80	53	92	31	63	5264
Prowl H2O + Clincher + COC	1120 + 280 + 1.25% v/v	1-2 Isr	0	0	91	20	25	25	100	31	50	100	100	97	17	29	42	100	5656
Prowl H2O + Super Wham + COC	1120 + 3363 + 1.25% v/v	1-2 Isr	0	0	94	100	100	100	94	31	69	100	99	91	43	83	52	91	5678
Prowl H2O + Super Wham + Clincher + COC	1120 + 3363 + 315 + 1.25% v/v	1-2 Isr	0	0	98	80	100	100	100	63	50	100	100	97	52	63	66	99	4999
Prowl H2O + Super Wham + COC fb. Clincher + COI120 + 3363 + 1.25% v/v fb. 315 + 1.25% v/v		1-2 Isr fb. 1-3 Til	0	0	100	98	100	100	100	73	100	100	100	93	71	92	84	91	5832
Prowl H2O + Clincher + COC fb. Super Wham + COI120 + 280 + 1.25% v/v fb. 6726 + 1.25% v/v		1-2 Isr fb. 1-3 Til	0	0	75	40	75	50	100	100	100	100	100	98	100	100	88	100	6297
Prowl H2O + Clincher + COC fb. Regiment + NIS	1120 + 280 + 1.25% v/v fb. 30 + 0.125% v/v	1-2 Isr fb. 1-3 Til	0	0	100	45	69	63	100	98	100	100	100	98	91	82	95	99	5838
Prowl H2O + COC fb Regiment + NIS	1120 + 1.25 % v/v fb. 30 + 0.125% v/v	1-2 Isr fb. 1-3 Til	0	0	100	29	100	50	100	90	100	100	50	95	92	79	88	50	5637
Granite SC + COC	30 + 2.5% v/v	1-2 Isr	0	0	100	100	100	100	96	100	100	100	50	97	93	83	93	50	6204
Granite SC + Clincher + COC	30 + 280 + 2.5% v/v	1-2 Isr	0	0	100	74	75	75	100	94	100	100	100	93	80	74	76	100	6100
Clincher + COC fb. Granite GR (Tinned)	280 + 1.25% v/v fb. 40	2-3 Isr fb. Perm. Flood	0	0	75	54	75	50	100	44	75	100	100	98	44	87	59	98	6060
Abolish	4480	1-2 Isr	0	0	100	73	100	100	76	88	94	100	75	73	61	100	70	96	6016
Abolish fb. Super Wham + COC	4480 fb. 6726 + 1.25% v/v	1-2 Isr fb. 1-3 Til	0	0	75	56	75	50	98	100	100	100	100	93	100	100	98	92	6071
Abolish + Super Wham	4480 + 3363	1-2 Isr	1	0	100	94	100	81	96	98	73	100	100	93	73	100	65	97	6144
Clincher + COC fb. Super Wham + COC	280 + 1.25% v/v fb. 6726 + 1.25% v/v	1-2 Isr fb. 1-3 Til	0	0	75	0	0	0	100	100	100	100	100	98	100	100	97	99	6101
Clincher + COC fb. Regiment + NIS	280 + 1.25% v/v fb. 30 + 0.125% v/v	1-2 Isr fb. 1-3 Til	0	0	100	18	75	25	100	94	100	100	100	98	93	60	78	100	5770
Bolero (Tinned) fb Super Wham + COC	4480 fb 6726 + 1.25% v/v	post flood fb 1-3 Till	6	0	100	10	100	50	83	100	100	100	50	80	99	100	97	50	4707
Untreated					1	15	1	1	29	4	23	26	3	27	28	2	12	5	4701

LSD (P=0.05)

996

¹ Percent injury (percent injury to rice)

² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad), LEFFA (Sprangletop), BAORO (Waterhyssop) AMMCO (Redstem), SAGMO (California arrowhead)

³ PFS (pre-flood surface), PPI (pre-plant incorporated), fb. (followed by), Isr (leaf stage of rice), Til (tillers of rice).

⁴ Untreated weed control values represent % cover by the respective weed species

Trial Information

1. Trial seeded June 3, 2005 with 150 lbs per acre of M206
2. Trial managed as a Leathers method with flood water drained June 5, skim of water until relood June 22.
3. Treatment dates: 1-2 Isr (June 14), 2-3 Isr (June 21), post flood (June 29), 1-3 Till (June 30)
4. Watergrass was 3 leaf, ricefield bulrush was 1 inch, redstem was 0.25 inch and ducksalad was 0.75 inch on June 14.
 Watergrass was 4 inches, ricefield bulrush was 1.5 inches, smallflower umbrellasedge was 2-3 inches and ducksalad was 1.5 inches on June 21.
 Watergrass was 1-2 tillers, ricefield bulrush was 5 inches, smallflower umbrellasedge was 4 inches and ducksalad was 6-7 inches on June 29.
 Watergrass was 1-2 tillers, ricefield bulrush was 5 inches, smallflower umbrellasedge was 4 inches and ducksalad was 6-7 inches on June 30.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on June 14: Air temperature 85° F, wind 2 MPH from the southeast.
 Weather conditions on June 21: Air temperature 68° F, wind 5-8 MPH from the southeast.
 Weather conditions on June 29: Air temperature 71° F, wind 1-2 MPH from the east, southeast.
 Weather conditions on June 30: Air temperature 85° F, wind 1-2 MPH from the west, northwest.

Table 8 . Granite SC Foliar

Treatment	Rate (g ai/ha)	Timing ³	% injury ¹		Weed Control ²											Yield (lb/A)		
			7 DAT	14 DAT	ECHPH	SCPMU	CYPDI	HETLI	ECHPH	SCPMU	HETLI	BAORO	ECHPH	SCPMU	CYPDI		HETLI	LEFFA
			1st trt		24-Jun				14-Jul				2-Aug					
Untreated ⁴	---	---			15	21	6	4	39	2	4	5	38	8	2	5	7	4438
Granite SC + COC fb. Clincher + COC	35 + 2.5% v/v fb. 315 +1.25% v/v	3-4 lsr fb. 3-4 lsr	0	1	87	81	100	75	100	100	100	95	98	100	91	98	98	5709
Granite SC + COC fb. Clincher + COC	70 + 2.5% v/v fb. 315 +1.25% v/v	3-4 lsr fb. 3-4 lsr	0	0	35	81	75	50	100	100	100	100	95	100	100	100	90	5728
Regiment + NIS fb. Clincher + COC	38 + 0.125 % v/v fb. 315 +1.25% v/v	3-4 lsr fb. 3-4 lsr	0	5	84	79	102	52	100	100	100	100	96	100	100	77	93	4722
Regiment + NIS fb. Clincher + COC	76 + 0.125 % v/v fb. 315 +1.25% v/v	3-4 lsr fb. 3-4 lsr	0	8	82	76	100	75	100	100	100	100	95	99	83	87	88	5295
Clincher + COC	315 +1.25% v/v	3-4 lsr	0	0	59	76	50	52	100	63	31	23	95	0	49	16	100	5397

LSD (P=0.05)

2514

¹ % Injury (percent injury to rice)² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad), LEFFA (Sprangletop), BAORO (Waterhyssop), AMMCO (Redstem), SAGMO (California arrowhead)³ PFS (pre-flood surface), PPI (pre-plant incorporated), fb. (followed by), lsr (leaf stage of rice), Til (tillers of rice).⁴ Untreated weed control values represent % cover by the respective weed species**Trial Information**

1. Trial seeded June 3, 2005 with 150 lbs per acre of M206
2. Trial managed as a pinpoint flood with flood water drained June 14 relood June 22.
3. Treatment dates: 3-4 lsr (June 20)
4. Watergrass was 3 leaf, ricefield bulrush was 1.5 inches and ducksalad was 1.5 inches on June 20.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on June 20: Air temperature 76° F, wind 0-1 MPH from the south.

Table 9. Granite GR (DE 638) in Water

Treatment	Rate (g ai/ha)	Timing ³	Percent injury ¹				% Weed Control ²						
			7 DAT		14 DAT		ECHOR			SCPMU			Yield (lb/A)
			1st trt	2nd trt	24-Jun	14-Jul	4-Oct						
Untreated ⁴	---	---			10	5	4	10	9	14	4315		
Stam 80 EDF + COC	4480 + 2.5% v/v	5lsg-1Till	0	0	6	11		80	100	79	5494		
Clincher + COC	280 + 2.5% v/v	5lsg-1Till	0	0	6	23	13	91	66	25	5254		
Cerano fb. Granite GR	673 fb. 40	0.5 lsr fb. 2-3 lsr	15	13	10	0		98	81	88	4586		
Shark 40 DF fb. Granite	112 fb. 40	2-3 lsr fb. 2-3 lsr (day after Shark)	0	3				99	26	63	4929		
Granite GR	40	2-3 lsr	0	0				98	79	50	5089		
Granite GR fb. Stam 80 EDF + COC	40 fb. 4480 + 2.5% v/v	2-3 lsr fb. 5lsg-1Till	4	0	0	0		98	44	75	5131		
Granite GR fb. Clincher + COC	40 fb. 280 + 2.5% v/v	2-3 lsr fb. 5lsg-1Till	1	0	0	0		100	81	100	5189		
Granite GR fb. Clincher + Stam 80 EDF + COC	40 fb. 280 + 4480 + 2.5% v/v	2-3 lsr fb. 5lsg-1Till	0	0	0	0		98	78	99	4856		
Granite GR fb. Clincher + COC fb. Stam 80 EDF + COC	40 fb. 280 + 2.5% v/v fb. 4480 + 2.5% v/v	2-3 lsr fb. 5lsg-1Till fb. 1 WA 5 lsg	0	0	0	0		99	38	94	5329		
Granite GR fb. Stam 80 EDF + COC fb. Grandstand	40 fb. 4480 + 2.5% v/v fb. 280	2-3 lsr fb. 5lsg-1Till fb. 3 Til	0	0	0	0		99	31	54	5255		
Granite GR fb. Shark 40 DF	40 fb. 112	2-3 lsr fb. 1-2 till	0	0	0	0		99	26	85	5086		
Bolero fb. Granite GR	4480 fb. 40	2-3 lsr	0	0				96	66	73	5004		
Bolero fb. Granite GR fb. Stam 80 EDF + COC	4480 fb. 40 fb. 4480 + 2.5% v/v	2-3 lsr fb. 1 WA 5 lsg	0	0	0	0		99	73	63	5302		

LSD (P=0.05)

656

¹ Percent injury (percent injury to rice)² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad), LEFFA (Sprangletop), BAORO (Waterhyssop) AMMCO (Redstem), SAGMO (California arrowhead)³ fb. (followed by), lsr (leaf stage of rice), Til (tillers of rice).⁴ Untreated weed control values represent % cover by the respective weed species**Trial Information**

1. Trial seeded June 3, 2005 with 150 lbs per acre of M206
2. Trial managed as a continuous flood with 3-4 inches.
3. Treatment dates: 0.5 lsr (June 10), 2-3 lsr (June 15), 5 lsg-1 Till (June 29), 1 WA 5 lsg (July 7)
4. Watergrass was 1 leaf, ricefield bulrush was 0.75 inch, smallflower umbrellasedge was 0.5 inch and ducksalad was 1.0 inch on June 10.
Watergrass was 2 leaf, ricefield bulrush was 1.0 inch, smallflower umbrellasedge was 1.0 inch and ducksalad was 1.0 inch on June 15.
Watergrass was 1-2 tiller, ricefield bulrush was 5 inches, smallflower umbrellasedge was 4 inches and ducksalad was 6-7 inches on June 29.
Watergrass was 3 tiller, ricefield bulrush was 12 inches, smallflower umbrellasedge was 8 inches and ducksalad was flowering on July 7.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on June 10: Air temperature 69° F, wind 5-6 MPH from the south, southwest.
Weather conditions on June 15: Air temperature 80° F, wind 2-5 MPH from the west, northwest.
Weather conditions on June 29: Air temperature 71° F, wind 1-3 MPH from the east, southeast.
Weather conditions on July 7: Air temperature 70° F, wind 2-3 MPH from the south.

Table 10. Granite GR continuousflood (yield)

Treatment	Rate (g ai/ha)	Timing ³	Percent injury ¹				% Weed Control ²								Yield (lb/A)			
			7 DAT		14 DAT		ECHPH	SCPMU	HETLI	ECHPH	SCPMU	HETLI	BAORO	ECHPH		SCPMU	CYPDI	HETLI
			1st trt	2nd trt	7 DAT	14 DAT	24-Jun			14-Jul				2-Aug				4-Oct
Untreated ⁴	---	---					10	29	8	11	19	11	4	15	15	2	6	4475
Cerano fb. Clincher + COC	673 fb. 315 + 1.25% v/v	1-2 DAS fb. 3-4 lsr	60	11	0	0	98	31	60	100	0	53	65	99	2	0	83	4656
Cerano fb. Clincher + COC	1346 fb. 315 + 1.25% v/v	1-2 DAS fb. 3-4 lsr	85	13	14	0	95	16	80	100	0	86	50	98	0	0	85	3898
Granite GR fb. Clincher + COC	40 fb. 315 + 1.25% v/v	7-12 DAS fb. 3-4 lsr	0	0	0	1	96	79	100	98	96	100	100	98	96	100	100	4981
Granite GR fb. Clincher + COC	80 fb. 315 + 1.25% v/v	7-12 DAS fb. 3-4 lsr	0	0	3	4	98	95	98	100	100	100	100	99	100	100	100	5021
Bolero 15G fb. Clincher + COC	4480 fb. 315 + 1.25% v/v	7-12 DAS fb. 3-4 lsr	0	0	0	0	98	45	49	100	23	9	93	100	33	91	35	4869
Bolero 15G fb. Clincher + COC	8960 fb. 315 + 1.25% v/v	7-12 DAS fb. 3-4 lsr	0	0	0	0	94	59	80	100	63	71	98	99	55	100	75	4750
Ordram 15G fb. Clincher + COC	4480 fb. 315 + 1.25% v/v	7-12 DAS fb. 3-4 lsr	0	0	0	0	96	81	43	99	58	0	25	100	55	89	10	4894
Ordram 15G fb. Clincher + COC	8960 fb. 315 + 1.25% v/v	7-12 DAS fb. 3-4 lsr	0	0	0	0	99	78	81	100	100	46	98	100	97	100	46	4958
Clincher + COC	315 + 1.25% v/v	3-4 lsr	0	0			91	21	24	100	23	10	31	96	25	33	25	5117

LSD (P=0.05)

552

¹ Percent injury (percent injury to rice)

² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad), LEFFA (Sprangletop), BAORO (Waterhyssop) AMMCO (Redstem), SAGMO (California arrowhead)

³ fb. (followed by), lsr (leaf stage of rice), Til (tillers of rice).

⁴ Untreated weed control values represent % cover by the respective weed species

Trial Information

1. Trial seeded June 3, 2005 with 150 lbs per acre of M206
2. Trial managed as a continuousflood with 3-4 inches.
3. Treatment dates: 1-2 DAS (June 6), 7-12 DAS (June 13), 3-4 lsr (June 21)
4. No weeds visible on June 6.
Watergrass was 1-2 leaf, ricefield bulrush was 1.0 inch and ducksalad was 1.0 inch on June 13.
Watergrass was 3 leaf, ricefield bulrush was 2 inches and ducksalad was 2 inches on June 21.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on June 6: Air temperature 66° F, wind 5-6 MPH from the west.
Weather conditions on June 13: Air temperature 80° F, wind 2-5 MPH from the west, northwest.
Weather conditions on June 21: Air temperature 68° F, wind 2-4 MPH from the south, southeast.

Table 11. Shark H2O late seeding

Treatment	Rate (g ai/ha)	Timing ³	Percent injury ¹				Weed Control ²								Yield (lb/A)				
			7 DAT		14 DAT		ECHPH	SCPMU	CYPDI	HETLI	ECHPH	SCPMU	HETLI	BAORO		ECHPH	SCPMU	CYPDI	HETLI
			1st trt	2nd trt	24-Jun	14-Jul													
Untreated ⁴	--	--					28	10	1	9	10	15	6	3	21	17	10	5	3851
Shark 40 DF fb. Clincher + COC	112 fb. 315 + 1.25% v/v	PFS fb. 1-3 Til	0	0	0	0	70	16	79	63	99	0	60	25	96	0	73	70	3628
Shark 40 DF fb. Clincher + COC	224 fb. 315 + 1.25% v/v	PFS fb. 1-3 Til	0	0	0	0	89	0	100	79	99	2	39	31	94	0	100	76	3228
Shark 40 DF fb. Clincher + COC	112 fb. 315 + 1.25% v/v	PWE fb. 1-3 Til	0	0	0	0	64	50	98	23	98	48	6	25	93	6	85	38	5004
Shark 40 DF fb. Clincher + COC	224 fb. 315 + 1.25% v/v	PWE fb. 1-3 Til	0	0	0	0	60	55	100	73	98	88	51	98	95	69	100	94	4897
Shark 40 DF fb. Clincher + COC	112 fb. 315 + 1.25% v/v	1-2 Til fb. 1-3 Til	0	0	0	0	52	94	73	30	91	58	25	25	92	54	90	53	5326
Shark 40 DF fb. Clincher + COC	224 fb. 315 + 1.25% v/v	1-2 lsr fb. 1-3 Til	0	0	0	0	63	68	50	68	90	50	63	98	93	37	92	79	5052
Shark 40 DF fb. Clincher + COC	224 fb. 315 + 1.25% v/v	3-4 lsr fb. 1-3 Til	0	0	0	0	69	79	50	50	95	48	24	94	97	31	94	76	5310
Shark 40 DF (repackaged) F4826 (RP) 40 DF fb. Clincher + C	224 fb. 315 + 1.25% v/v	1-2 Til	0	0	0	0	71	52	79	81	100	23	13	50	95	19	99	54	4270
Shark 0.6mm granule F8426 (RD) 40 DF fb. Clincher + COC	112 fb. 315 + 1.25% v/v	1-2 Til fb. 1-3 Til	0	0	0	0	58	53	79	60	98	40	24	50	96	20	58	41	4814
Shark 0.6mm granule F8426 (RD) 40 DF fb. Clincher + COC	224 fb. 315 + 1.25% v/v	1-2 lsr fb. 1-3 Til	0	0	0	0	84	78	77	85	99	61	31	100	98	45	100	58	4783
Shark 2% Clay granule F8426 (ASC) 2G fb. Clincher + COC	224 fb. 315 + 1.25% v/v	1-2 lsr fb. 1-3 Til	0	0	0	0	64	95	102	61	98	61	35	100	97	37	100	86	4951
Londax fb. Clincher + COC	71 fb. 315 + 1.25% v/v	1-2 lsr fb. 1-3 Til	0	0	0	0	70	99	100	85	100	100	83	25	98	99	82	94	5221
Untreated	--	--					21	8	1	6	3	23	6	2	18	13	25	20	4565

LSD (P=0.05)

557

¹ Percent injury (percent injury to rice)

² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad), LEFFA (Sprangletop), BAORO (Waterhyssop) AMMCO (Redstem), SAGMO (California arrowhead)

³ fb. (followed by), PFS (pre-flood surface), PWE (pre-weed emergence), lsr (leaf stage of rice), Til (tillers of rice).

⁴ Untreated weed control values represent % cover by the respective weed species

Trial Information

1. Trial seeded June 3, 2005 with 150 lbs per acre of M206
2. Trial managed as a continuous flood with 3-4 inches.
3. Treatment dates: PFS (June 1), PWE (June 10), 1-2 lsr (June 14), 3-4 lsr (June 21), 1-3 Till (June 30)
4. No weeds visible on June 1 prior to flood.
No weeds visible on June 10.
Watergrass was 3 leaf, ricefield bulrush was 0.75 inch and ducksalad was 1 inch and redstem 0.25 inch on June 14.
Watergrass was 3 leaf, ricefield bulrush was 2 inches and ducksalad was 2 inches on June 21.
Watergrass was 1-2 tiller, ricefield bulrush was 5 inches and ducksalad was 6-7 inches on June 30.
Watergrass was 1-2 tiller, ricefield bulrush was 5 inches and ducksalad was 6-7 inches on July 1.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on June 1: Air temperature 69° F, wind 5-6 MPH from the north northwest.
Weather conditions on June 10: Air temperature 80° F, wind 2-5 MPH from the west, northwest.
Weather conditions on June 14: Air temperature 80° F, wind 3-5 MPH from the south, southwest.
Weather conditions on June 21: Air temperature 68° F, wind 2-4 MPH from the south, southeast.
Weather conditions on June 30: Air temperature 85° F, wind 2-3 MPH from the west, northwest.
Weather conditions on July 1: Air temperature 85° F, wind 2-3 MPH from the west, northwest.

Table 12. Drill seeded trial

Treatment	Rate (g ai/ha)	Timing ³	Percent injury ¹				Weed Control ²						Yield (lb/A)					
			7 DAT		14 DAT		ECHPH	ECHPH	SCPMU	CYPDI	LEFFA	ECHPH		SCPMU	CYPDI	HETLI	LEFFA	
			1st trt	2nd trt	24-Jun	14-Jul												2-Aug
Untreated ⁴	---	---																
Prowl H2O	1120	DPRE	0	0		41	79	1	1	33	59	2	1	11	44			1737
Prowl H2O + Clincher + COC	1120 + 315 + 1.25 % v/v	EPE	4	0		74	78	44	52	88	72	30	50	86	92			4574
Prowl H2O + Super Wham + COC	1120 + 4484 + 1.25 % v/v	EPE	20	0		90	91	19	25	98	93	0	38	91	96			5336
Prowl H2O + Super Wham + Whip + COC	1120 + 4484 + 42 + 1.25 % v/v	EPE	28	0		90	94	100	100	79	93	53	83	73	85			5295
Prowl H2O + Regiment + NIS	1120 + 37 + 0.125 % v/v	EPE	1	0		91	88	100	100	93	88	53	83	79	85			4905
Prowl H2O + Regiment + Whip + NIS	1120 + 37 + 42 + 0.125 % v/v	EPE	5	0		69	71	69	75	33	84	55	58	58	72			4161
Prowl H2O fb. Super Wham + COC	1120 fb. 6726 + 1.25 % v/v	DPRE fb. 5-6 lsr	0	0	0	75	78	25	25	91	75	26	42	94	94			4207
Prowl H2O fb. Clincher + COC	1120 fb. 315 + 1.25 % v/v	DPRE fb. 5-6 lsr	0	0	0	74	76	38	50	86	79	43	67	80	94			4841
Prowl H2O fb. Regiment + NIS	1120 fb. 12.5 + 0.125% v/v	DPRE fb. PPF	0	0	1	86	100	0	25	100	99	4	41	87	97			4969
Abolish	4480	DPRE	0	0		81	91	100	100	93	95	54	90	95	98			5264
Abolish + Super Wham + COC	4480 + 4484 + 1.25 % v/v	EPE	39	0		64	6	81	100	93	28	86	100	99	64			3740
Regiment + Abolish	25 + 3360	EPE(3+lsr)	3	0		93	88	100	100	95	92	62	92	91	98			5727
Abolish fb. Super Wham + COC	4480 fb. 6726 + 1.25 % v/v	DPRE fb. 5-6 lsr	0	0	0	48	15	100	100	90	35	94	100	93	96			3508
Abolish fb. Clincher + COC	4480 fb. 315 + 1.25 % v/v	DPRE fb. 5-6 lsr	0	0	0	65	63	98	100	95	72	64	92	99	99			4581
Abolish fb. Regiment + NIS	4480 fb. 12.5 + 0.125% v/v	DPRE fb. PPF	0	0	4	65	98	81	100	100	100	40	92	98	92			5806
Regiment + Abolish fb. Clincher + COC	15 + 2240 fb. 315 + 1.25 % v/v	4-5 lsr fb. PPF	4	0	0	53	94	100	100	96	95	83	100	98	97			5153
Regiment + Abolish fb. Clincher + COC	25 + 3360 fb. 315 + 1.25 % v/v	4-5 lsr fb. PPF	1	0	0	10	94	44	50	80	99	48	67	90	95			5733
Shark fb. Clincher + COC	168 fb. 315 + 1.25% v/v	5-6 lsr fb. PPF	0	0	6	10	94	98	100	94	100	79	92	93	94			5929
Shark fb. Super Wham + COC	168 fb. 6726 + 1.25% v/v	5-6 lsr fb. PPF	4	0	4	3	91	98	100	86	94	73	83	81	78			5711
Shark fb. Regiment + NIS	168 fb. 12.5 + 0.125% v/v	5-6 lsr fb. PPF	1	0	5	29	83	100	100	14	94	92	100	67	38			3677
Super Wham + COC fb. Clincher + COC	6726 + 1.25% v/v fb. 315 + 1.25% v/v	5-6 lsr fb. PPF	0	0	3	21	84	100	100	5	73	98	100	69	38			3010
Clincher + COC fb. Superwham + COC	280 + 1.25% v/v fb. 6726 + 1.25% v/v	5-6 lsr fb. PPF	6	0	4	99	99	25	50	96	98	32	67	73	72			5460
			6	0	4	4	99	63	75	99	99	79	79	100	91			5655

LSD (P=0.05)

1057

¹ Percent injury (percent injury to rice)² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad), LEFFA (Sprangletop), BAORO (Waterhyssop), AMMCO (Redstem), SAGMO (California arrowhead)³ fb. (followed by), lsr (leaf stage of rice), Til (tillers of rice), DPRE (pre emergent), EPE (early post emergent), PPF (post permanent flood).⁴ Untreated weed control values represent % cover by the respective weed species**Trial Information**

1. Trial seeded June 3, 2005 with 150 lbs per acre of M206
2. Trial managed as a drill/dry seeded with initial flush on June 3, additional flush on June 13 and final flood on June 28.
3. Treatment dates: 4-5 lsr (June 22), 5-6 lsr (June 27), PPF (June 30)
4. No weeds visible on June 10.
Watergrass was 1.5 leaf, ricefield bulrush was 0.5cm on June 15.
Watergrass was 4 leaf on June 22.
Watergrass was 1-2 tiller on June 27.
Watergrass was 2+ tiller, sprangletop was 4 leaf on June 30.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on June 10: Air temperature 80° F, wind 2-5 MPH from the west, northwest.
Weather conditions on June 15: Air temperature 68° F, wind 4-6 MPH from the south, southwest.
Weather conditions on June 22: Air temperature 84° F, wind 1-3 MPH from the west.
Weather conditions on June 27: Air temperature 65° F, wind 2-4 MPH from the south, southeast.
Weather conditions on June 30: Air temperature 85° F, wind 2-3 MPH from the west, northwest.

Table 13. IR5878 following Cerano

Treatment	Rate (g ai/ha)	Timing ³	Percent injury ¹				% Weed Control ²										Yield (lb/A)				
			7 DAT		14 DAT		14-Jun				1-Jul				22-Jul						
			1st trt	2nd trt	ECHPH	SCPMU	CYPDI	HETLI	ECHPH	SCPMU	CYPDI	HETLI	BAORO	ECHPH	SCPMU	CYPDI		HETLI	AMMCO		
Control (Cerano applied to entire basin) ⁴	673	0.5 lsr	0	0	0	0	3	3	6	1	16	3	3	8	5	8	14	13	4	5	3846
Cerano fb IR5878 50WG + NIS	673 fb 73.5 + 0.15%v/v	0.5 lsr fb 3-4 lsr	0	0	0	0	63	65	61	75	46	98	70	76	93	44	91	48	19	13	4586
Cerano fb IR5878 50WG + SuperWHAM + NIS	673 fb 73.5 + 4484 + 0.15%v/v	0.5 lsr fb 3-4 lsr	0	0	0	0	88	100	96	100	70	100	100	85	98	51	98	100	86	100	5850
Cerano fb IR5878 50WG + Abolish	673 fb 73.5 + 3363	0.5 lsr fb 3-4 lsr	0	0	0	0	66	23	19	75	61	100	84	81	98	48	65	39	19	54	5386
Cerano fb IR5878 50WG + Prowl H2O + NIS	673 fb 73.5 + 1171 + 0.15%v/v	0.5 lsr fb 3-4 lsr	0	0	0	0	44	13	0	0	64	84	31	74	100	40	89	19	0	0	4561

LSD (P=0.05)

1400

¹ Percent injury (percent injury to rice)

² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad), LEFFA (Sprangletop), BAORO (Waterhyssop), AMMCO (Redstem), SAGMO (California arrowhead)

³ fb. (followed by), lsr (leaf stage of rice), Til (tillers of rice), DPRE (pre emergent), EPE (early post emergent), PPF (post permanent flood).

⁴ Control weed control values represent % cover by the respective weed species

Trial Information

1. Trial seeded May 22, 2005 with 150 lbs per acre of M205
2. Trial managed as a pinpoint flood after initial water hold for Cerano. Water drained June 9 and final flood on June 13.
3. Treatment dates: 0.5 lsr (May 28), 3-4 lsr (June 10)
4. Watergrass was 2 leaf, bulrush was 3 leaf, small flower was 3 leaf, duck salad was 4 leaf and redstem was 3 leaf on May 28.
Watergrass was 1-2 tiller, rice field bulrush was 3-4 leaf, small flower was 3-4 leaf, duck salad was 4 leaf and redstem was 3 leaf on June 10.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on May 28: Air temperature 76° F, wind 10-22 MPH from the south, southeast.
Weather conditions on June 10: Air temperature 73° F, wind 1-2 MPH from the south, southwest.

Table 14. IR5878 Leather's method

Treatment	Rate (g ai/ha)	Timing ³	% injury ¹		% Weed Control ²										Yield (lb/A)
			7 DAT	14 DAT	ECHPH	SCPMU	CYPDI	HETLI	BAORO	ECHPH	SCPMU	CYPDI	HETLI	LEFFA	
			1st trt		1-Jul					22-Jul					
Untreated					76	3	23	6	6	58	14	33	1	3	830
IR587850WG + NIS	73.5 + 0.15%v/v	Prior to perm. Flood	1	0	58	95	9	98	98	15	96	0	50	0	1000
IR587850WG + NIS	147 + 0.15%v/v	Prior to perm. Flood	0	0	56	93	6	98	91	28	96	0	50	0	1298
IR587850WG + Clincher + NIS	73.5 + 280 + 0.15%v/v	Prior to perm. Flood	1	0	70	93	4	100	76	43	98	0	50	13	1890
IR587850WG + SuperWHAM + NIS	73.5 + 4484 + 0.15%v/v	Prior to perm. Flood	3	0	58	100	76	73	96	33	98	69	25	0	2967
IR587850WG + Abolish	73.5 + 3363	Prior to perm. Flood	0	0	59	98		100	100	30	98	0	100	0	1453
IR587850WG + ProwlH2O + NIS	73.5 + 1171 + 0.15%v/v	Prior to perm. Flood	0	0	69	98	44	100	100	20	95	16	100	0	2252
Granite SC + Clincher + COC	35 + 280 + 0.15% v/v	Prior to perm. Flood	0	0	69	100	66	75	75	61	74	25	75	25	3315
Clincher + COC	280 + 0.15% v/v	Prior to perm. Flood	0	0	58	41	13	38	54	13	0	0	0	0	1362
LSD (P=0.05)															1566

¹ % Injury (percent injury to rice)

² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad), LEFFA (Sprangletop)
BAORO (Waterhyssop), AMMCO (Redstem), SAGMO (California arrowhead)

³ fb. (followed by), lsr (leaf stage of rice), Til (tillers of rice), DPRE (pre emergent), EPE (early post emergent), PPF (post permanent flood).

⁴ Untreated weed control values represent % cover by the respective weed species

Trial Information

1. Trial seeded May 22, 2005 with 150 lbs per acre of M205
2. Trial managed as a Leathers method with flood water dropped after seeding and held with a skim until final flood on June 16.
3. Treatment dates: Prior to perm. Flood (June 15)
4. Watergrass was 1-2 tiller, bulrush was 3 leaf, smallflower was 3 leaf, arrowhead 3 leaf, waterhyssop 4-6 leaf, sprangletop 2-3 leaf on June 15.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on June 15: Air temperature 65° F, wind 1-3 MPH from the southwest.

Table 15. IR5878 pinpoint flood

Treatment	Rate (g ai/ha)	Timing ³	% injury ¹		% Weed Control ²										Yield (lb/A)				
			7 DAT	14 DAT	ECHPH	SCPMU	CYPDI	HETLI	ECHPH	SCPMU	CYPDI	HETLI	BAORO	ECHPH		SCPMU	CYPDI	LEFFA	AMMCO
			1st trt		14-Jun				1-Jul				22-Jul						
Untreated					25	11	18	3	59	8	6	9	5	40	14	13	9	1	2007
IR5878 50WG + NIS	73.5 + 0.15%v/v	3-4 lsr	0	0	15	16	16	0	36	99	18	85	88	18	100	23	18	25	2342
IR5878 50WG + NIS	147 + 0.15%v/v	3-4 lsr	0	0	43	55	51	50	56	98	50	98	100	11	100	50	37	50	1222
IR5878 50WG + Clincher + NIS	73.5 + 280 + 0.15%v/v	3-4 lsr	0	0	34	44	48	38	45	95	60	93	100	28	100	61	70	50	731
IR5878 50WG + NIS fb. Clincher + COC	73.5 + 0.15%v/v fb. 280 + 1.25%v/v	3-4 lsr fb. 3-4 lsr	0	0	43	16	24	0	58	98	58	85	84	34	100	43	98	44	3124
Granite SC + Clincher + COC	40.4 + 280 + 1.25% v/v	3-4 lsr	3	1	40	41	51	30	91	100	95	100	100	89	100	76	98	98	3313
IR5878 50WG + SuperWHAM + NIS	73.5 + 3363 (4484) + 0.15%v/v	3-4 lsr	0	0	46	95	94	98	69	100	100	93	100	48	100	100	68	100	3088
IR5878 50WG + Abolish	73.5 + 3363	3-4 lsr	0	0	43	61	59	94	26	100	71	88	100	19	99	70	69	88	1399
IR5878 50WG + Prowl H2O + NIS	73.5 + 1171 + 0.15%v/v	3-4 lsr	0	0	13	23	43	27	34	98	45	76	100	18	100	44	25	75	433
Regiment + Abolish	30 + 3363	3-4 lsr	0	0	54	68	73	54	84	98	95	96	100	78	78	94	48	100	4293

LSD (P=0.05)

2665

¹ % Injury (percent injury to rice)

² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad), LEFFA (Sprangletop), BAORO (Waterhyssop) AMMCO (Redstem), SAGMO (California arrowhead)

³ fb. (followed by), lsr (leaf stage of rice), Til (tillers of rice), DPRE (pre emergent), EPE (early post emergent), PPF (post permanent flood).

⁴ Untreated weed control values represent % cover by the respective weed species

Trial Information

1. Trial seeded May 22, 2005 with 150 lbs per acre of M205
2. Trial managed as a pinpoint flood, water dropped June 5 and final flood on June 13.
3. Treatment dates: 3-4 lsr (June 10)
4. Watergrass was 1-2 tiller, bulrush was 3 leaf, smallflower was 3 leaf, duck salad was 4 leaf, redstem was 3 leaf on June 10.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on June 10: Air temperature 71° F, wind 1-2 MPH from the south.

Table 16. IR5878 perm. Flood for Phyto.

Treatment	Rate (g ai/ha)	Timing ³	Percent injury ¹						% Weed Control ²								Yield (lb/A)			
			7 DAT 1st trt	14 DAT 2nd trt	7 DAT 3rd trt	14 DAT 3rd trt	7 DAT 14 DAT	14 DAT 14 DAT	ECHPH SCPMU CYPDI HETLI	14-Jun	ECHPH SCPMU HETLI	1-Jul	ECHPH SCPMU HETLI AMMCO	22-Jul						
Untreated								13	16	26	4	30	11	9	31	19	16	5	1467.4	
Cerano	673	0.5 lsr	5	5				19	25	100	0	46	0	6	48	16	0	25	2931.5	
Cerano + IR5878 0.5GR fb Clincher + COC	673 + 74.5 fb 315 + 0.15%v/v	0.5 lsr fb 1-3 Till	4	4	0	0		83	38	100	98	96	25	38	100	18	44	25	5809.4	
Cerano + IR5878 0.5GR fb Clincher + COC	673 + 149 fb 315 + 0.15%v/v	0.5 lsr fb 1-3 Till	6	6	0	0		80	61	100	100	94	38	86	100	36	31	0	5612	
Cerano + IR5878 0.5GR fb Clincher + COC	1346 + 149 fb 315 + 0.15%v/v	0.5 lsr fb 1-3 Till	5	5	0	0		68	91	100	75	96	28	83	100	54	50	0	6264.9	
Cerano fb IR5878 0.5GR fb Clincher + COC	673 fb 74.5 fb 315 + 0.15%v/v	0.5 fb 1-2 lsr fb 1-3 Till	5	5	5	6	0	0	44	51	100	100	78	0	64	93	44	38	0	5929.1
Cerano fb IR5878 0.5GR fb Clincher + COC	673 fb 149 fb 315 + 0.15%v/v	0.5 fb 1-2 lsr fb 1-3 Till	5	5	2	4	0	0	44	60	75	70	93	90	64	98	80	49	0	7219.7
Cerano fb IR5878 0.5GR fb Clincher + COC	673 fb 84 fb 315 + 0.15%v/v	0.5 fb 1-2 lsr fb 1-3 Till	4	4	0	3	0	0	65	73	100	98	79	25	33	98	29	6	6	6558.9
Granite GR	40.4	2-3 lsr	4	5				74	53	75	63	98	84	95	95	89	40	0	6516.7	

LSD (P=0.05)

1161.4

¹ Percent injury (percent injury to rice)² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad), LEFFA (Sprangletop), BAORO (Waterhyssop) AMMCO (Redstem), SAGMO (California arrowhead)³ fb. (followed by), lsr (leaf stage of rice), Till (tillers of rice), DPRE (pre emergent), EPE (early post emergent), PPF (post permanent flood).⁴ Untreated weed control values represent % cover by the respective weed species**Trial Information**

1. Trial seeded May 22, 2005 with 150 lbs per acre of M205
2. Trial managed as a continuous flood.
3. Treatment dates: 0.5 lsr (May 28), 1-2 lsr (June 2), 2-3 lsr (June 6), 1-3 Till (June 27)
4. Watergrass was 2-3 leaf, bulrush was 1 leaf, smallflower was 1 leaf on May 28.
Watergrass was 3 leaf, bulrush was 3 leaf, smallflower was 3 leaf, ducksalad was 2 leaf on June 2.
Watergrass was 4 leaf, bulrush was 4 leaf, smallflower was 4 leaf, ducksalad was 3 leaf on June 6.
Watergrass was 2 tiller, bulrush was 5 leaf, smallflower was 5 leaf, ducksalad was 6 inches, redstem was 8-10 leaf on June 27.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on May 28: Air temperature 76° F, wind 10-22 MPH from the south, southeast.
Weather conditions on June 2: Air temperature 80° F, wind 15 MPH from the north, northwest.
Weather conditions on June 6: Air temperature 59° F, wind 10 MPH from the northwest.
Weather conditions on June 27: Air temperature 64° F, wind 2-5 MPH from the south, southeast.

Table 17. IR5878 Perm. Flood for Program

Treatment	Rate (g ai/ha)	Timing ³	Percent injury ¹						% Weed Control ²										Yield (lb/A)		
			7 DAT		14 DAT		3rd trt		14-Jun				1-Jul				22-Jul				
			1st trt	2nd trt	1st trt	2nd trt	1st trt	2nd trt	ECHPH	SCPMU	CYPDI	HETLI	ECHPH	SCPMU	CYPDI	HETLI	BAORO	ECHPH		SCPMU	CYPDI
Untreated							17	11	2	1	48	8	1	5	20	23	20	1	3	1796	
Cerano+ IR5878 0,5GR fb SuperWHAM + COC	673 + 74.5 fb 6726 + 1.25%v/v	0.5 lsr fb 2-3 Till	4	0	0	0	63	55	93	100	76	83	100	79	91	73	99	100	94	6049	
Cerano fb IR5878 0,5GR fb SuperWHAM + COC	673 fb 74.5 fb 6726 + 1.25%v/v	0.5 lsr fb 1-2 lsr fb 2-3 Till	4	0	13	9	50	74	75	100	74	95	100	98	91	78	88	100	75	5188	
IR5878 0,5GR fb SuperWHAM + COC	74.5 fb 6726 + 1.25%v/v	0.5 lsr fb 2-3 Till	3	1	0	0	38	76	98	100	54	91	100	88	93	36	100	100	88	4038	
IR5878 0,5GR fb SuperWHAM + COC	74.5 fb 6726 + 1.25%v/v	1-2 lsr fb 2-3 Till	3	4	0	0	69	90	75	100	63	100	100	100	99	58	100	100	100	4769	
Cerano fb Granite GR fb Super WHAM + COC	673 fb 40.4 fb 6726 + 1.25%v/v	0.5 lsr fb 2-3 lsr fb 2-3 Till	8	6	13	6	98	98	100	100	96	100	100	100	100	98	98	100	100	5467	
Granite GR fb SuperWHAM + COC	40.4 fb 6726 + 1.25%v/v	2-3 lsr fb 2-3 Till	3	5			61	94	100	109	95	100	100	100	100	86	96	100	100	5441	
LSD (P=0.05)																				1584	

¹ Percent injury (percent injury to rice)

² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad), LEFFA (Sprangletop), BAORO (Waterhyssop) AMMCO (Redstem), SAGMO (California arrowhead)

³ fb. (followed by), lsr (leaf stage of rice), Til (tillers of rice), DPRE (pre emergent), EPE (early post emergent), PPF (post permanent flood).

⁴ Untreated weed control values represent % cover by the respective weed species

Trial Information

1. Trial seeded May 22, 2005 with 150 lbs per acre of M205
2. Trial managed as a continuous flood.
3. Treatment dates: 0.5 lsr (May 28), 1-2 lsr (June 2), 2-3 lsr (June 6), 2-3 Till (June 29)
4. Watergrass was 2-3 leaf, bulrush was 1 leaf, smallflower was 1 leaf on May 28.
 Watergrass was 3 leaf, bulrush was 3 leaf, smallflower was 3 leaf, ducksalad was 2 leaf on June 2.
 Watergrass was 4 leaf, bulrush was 4 leaf, smallflower was 4 leaf, ducksalad was 3 leaf on June 6.
 Watergrass was 2 tiller, bulrush was 5 leaf, ducksalad was 6 inches, waterhyssop 3-4 inches on June 29.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on May 28: Air temperature 76° F, wind 10-22 MPH from the south, southeast.
 Weather conditions on June 2: Air temperature 80° F, wind 15 MPH from the north, northwest.
 Weather conditions on June 6: Air temperature 59° F, wind 10 MPH from the northwest.
 Weather conditions on June 29: Air temperature 84° F, wind 1-2 MPH from the southeast.

Table 18. Wilbur-Ellis WH 105

Treatment	Rate (g ai/ha)	Timing ³	Percent injury ¹				Weed Control ²										Yield (lb/A)				
			7 DAT		14 DAT		ECHPH	SCPMU	CYPDI	HETLI	ECHPH	SCPMU	CYPDI	HETLI	BAORO	LEFFA		ECHPH	SCPMU	CYPDI	HETLI
			1st trt	2nd trt	14-Jun	1-Jul	22-Jul														
Untreated ⁴	--	--			18	29	3	6	39	29	0	24	1	8	48	48	0	6	559		
W.H. 105	600	DOS-0.5Isr	4	0	76	0	100	63	91	13	100	56	100	100	93	6	100	0	4532		
W.H. 105	700	DOS-0.5Isr	5	0	65	30	100	100	90	19	100	81	100	73	98	23	100	0	4903		
W.H. 105	800	DOS-0.5Isr	8	0	78	45	100	100	85	25	100	50	100	100	84	0	100	43	3306		
W.H. 105 fb. Bolero	600 fb. 4480	DOS-0.5Isr fb. 1-2Isr	5	0	0	5	80	25	100	63	95	19	100	56	100	100	100	13	100	18	5211
W.H. 105 fb. Shark	600 fb. 224	DOS-0.5Isr fb. 2-3Isr	5	0	1	0	66	0	75	91	91	0	75	46	100	98	98	0	100	13	4374
W.H. 105 fb. Shark	400 fb. 150	DOS-0.5Isr fb. 2-3Isr	4	0	1	1	63	0	75	50	73	0	100	0	75	75	81	0	100	13	2713
W.H. 105 + Cerano	600 + 673	DOS- 0.5 Isr fb. 0.5 Isr	5	0	0	8	95	30	75	98	99	13	100	71	100	100	100	18	100	23	4720
Abolishfb. W.H. 105	4480 fb. 600	PFS fb. DOS-0.5Isr	0	4	5	0	93	30	75	100	96	31	100	55	100	100	100	6	100	45	5496
Abolishfb. W.H. 105	3000 fb. 400	PFS fb. DOS-0.5Isr	0	0	4	0	93	13	75	100	96	25	100	66	100	100	100	13	100	35	5154
Abolishfb. Cerano fb. W.H. 105	4480 fb. 673 fb. 600	PFS fb. 0.5 Isr fb. 0.5 Isr	0	4	0	3	99	36	75	100	99	58	100	56	100	98	100	64	100	13	6878
Abolishfb. Cerano fb. W.H. 105	4480 fb. 336 fb. 600	PFS fb. 0.5 Isr fb. 0.5 Isr	0	4	0	10	93	58	75	100	99	68	100	78	75	100	100	68	100	55	6824
W.H. 105 fb. SuperWham+ COC	600 fb. 6726 + 1.24% v/v	DOS-0.5Isr fb. 1-3 Till	5	0	0	0	65	0	75	63	96	53	100	66	75	100	96	83	100	45	6771
W.H. 105 + Cerano	600 + 673	0.5 Isr	0	9			88	35	75	75	96	44	100	13	100	98	96	64	75	0	5624
W.H. 405	600 + 673	0.5 Isr	3	0	56	0	75	13	83	0	75	25	100	50	93	0	100	0			2426
W.H. 305	--	--	19	4	64	20	75	13	88	8	100	15	75	25	98	0	100	0			3252

LSD (P=0.05)

1501

¹ Percent injury (percent injury to rice)

² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad) LEFFA (Sprangletop), BAORO (Waterhyssop), AMMCO (Redstem), SAGMO (California arrowhead)

³ fb. (followed by), PFS (pre-flood surface), Isr (leaf stage of rice), Till (tillers of rice).

⁴ Untreated weed control values represent % cover by the respective weed species

Trial Information

1. Trial seeded May 22, 2005 with 150 lbs per acre of M205
2. Trial managed as a continuous flood.
3. Treatment dates: PFS (May 23), DOS (May 23), 0.5 Isr (May 28-29), 1-2 Isr (June 2), 2-3 Isr (June 7), 1-3 Till (June 27)
4. No weeds visible on May 18.
 - Watergrass was 1 leaf on May 23.
 - Watergrass was 2-3 leaf, bulrush was 1 leaf, smallflower was 1 leaf on May 28.
 - Watergrass was 2-3 leaf, bulrush was 1 leaf, smallflower was 1 leaf on May 29.
 - Watergrass was 3 leaf, bulrush was 3 leaf, smallflower was 3 leaf, ducksalad was 2 leaf on June 2.
 - Watergrass was 3-4 leaf, bulrush was 3-4 leaf, smallflower was 3-4 leaf, ducksalad was 3 leaf on June 7.
 - Watergrass was 2 tiller, bulrush was 3-5 leaf, smallflower was 4-5 leaf, redstem was 8 leaf, ducksalad was 6 inches, waterhyssop was 6 inches on June 30.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on May 18: Air temperature 56° F, wind 4-6 MPH from the southeast.
 - Weather conditions on May 23: Air temperature 77° F, wind 5 MPH from the west, northwest.
 - Weather conditions on May 28: Air temperature 76° F, wind 15 MPH from the south, southeast.
 - Weather conditions on May 29: Air temperature 62° F, wind 2-4 MPH from the southeast.
 - Weather conditions on June 2: Air temperature 80° F, wind 15 MPH from the north, northwest.
 - Weather conditions on June 7: Air temperature 59° F, wind 1-2 MPH from the west, southwest.
 - Weather conditions on June 27: Air temperature 64° F, wind 2-5 MPH from the south, southeast.

Table 19. Gowan GWN-3040 Pinpoint

Treatment	Rate (g ai/ha)	Timing ³	Date	% injury ¹		Weed Control ²										Yield (lb/A)				
				7 DAT	14 DAT	ECHPH	SCPMU	CYPDI	HETLI	ECHPH	SCPMU	CYPDI	HETLI	BAORO	ECHPH		SCPMU	CYPDI	HETLI	LEFFA
				1st trt		14-Jun				1-Jul				22-Jul						
Untreated ⁴	--	--				19	10	6	2	34	1	1	9	4	21	10	5	4	5	1975
GWN-3040 + 0.25% v/v NIS	70 + 0.25% v/v	3-5 Isr	10-Jun	0	0	8	19	26	3	90	100	81	63	85	59	100	100	27	25	4605
GWN-3040 + SuperWham + 0.25% v/v NIS	70 + 4484 + 0.25% v/v	3-5 Isr	10-Jun	0	0	71	100	100	98	94	100	100	100	100	75	100	100	75	63	5225
GWN-3040 + SuperWham + 0.25% v/v NIS	70 + 6726 + 0.25% v/v	1-2 Til	23-Jun	8	0	3	30	40	35	60	100	100	100	100	71	100	100	75	25	3594
GWN-3040 + Grandstand + 0.25% v/v NIS	70 + 280 + 0.25% v/v	1-2 Til	23-Jun	0	0	6	25	34	8	69	100	100	94	100	16	100	70	70	44	2123
GWN-3040 + Regiment + 0.25% v/v NIS	70 + 30 + 0.25% v/v	1-2 Til	23-Jun	6	0	0	33	44	29	66	100	98	100	100	94	100	96	100	0	6353

LSD (P=0.05)

1411

¹ % Injury (percent injury to rice)² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad)
LEFFA (Sprangletop), BAORO (Waterhyssop), AMMCO (Redstem), SAGMO (California arrowhead)³ fb. (followed by), PFS (pre-flood surface), Isr (leaf stage of rice), Til (tillers of rice).⁴ Untreated weed control values represent % cover by the respective weed species**Trial Information**

1. Trial seeded May 22, 2005 with 150 lbs per acre of M205
2. Trial managed as a pinpoint flood with water drained June 5 and permanent flood beginning June 13.
3. Treatment dates: 3-5 Isr (June 10), 1-2 Till (June 23)
4. Watergrass was 1-2 tiller, bulrush was 3-4 leaf, smallflower was 3-4 leaf, ducksalad was 4 leaf, redstem was 3 leaf June 10.
Watergrass was 2-3 tiller, bulrush was 4 leaf, smallflower was 4 leaf, ducksalad was 2-3 leaf on June 23.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on June 10: Air temperature 73° F, wind 2 MPH from the west, southwest.
Weather conditions on June 23: Air temperature 66° F, wind 1-2 MPH from the southeast.

Table 20. Gowan GWN-3040 & GWN 3039

Treatment	Rate (g ai/ha)	Timing ³	Percent injury ¹				Weed Control ²										Yield (lb/A) 14% moisture					
			7 DAT		14 DAT		ECHPH	SCPMU	CYPDI	HETLI	ECHPH	SCPMU	CYPDI	HETLI	LEFFA	BAORO		ECHPH	SCPMU	CYPDI	HETLI	LEFFA
			1st trt	2nd trt	14-Jun	1-Jul																
Untreated ⁴	--	--			25	26	5	6	33	19	1	23	0	4	44	26	2	10	0	1511.47		
GWN-3040	35	1-3 lsr	6	4	39	68	100	50	43	98	100	19	75	44	41	100	50	31	75	2566.71		
GWN-3040	70	1-3 lsr	8	4	71	65	100	76	89	100	100	59	75	48	79	100	96	46	75	5396.67		
GWN-3039	35 + 154	1-3 lsr	6	3	50	35	100	59	66	100	100	15	75	48	65	100	73	29	50	4440.28		
Dicamba	154	1-3 lsr	1	0	53	0	100	78	25	0	100	44	100	0	44	0	94	53	100	2569.63		
Dicamba	325	1-3 lsr	4	0	13	0	100	19	13	0	100	0	100	25	29	6	100	48	100	1717.39		
Dicamba	650	1-3 lsr	4	1	46	0	100	71	19	0	100	25	100	52	33	0	88	24	100	3009.54		
GWN-3040 + Dicamba	35 + 325	1-3 lsr	3	1	50	53	75	70	33	98	100	15	100	100	34	98	50	43	25	2280.88		
GWN-3040 + Dicamba	35 + 650	1-3 lsr	4	1	80	75	100	51	63	100	100	19	100	75	69	100	63	30	100	4609.18		
GWN-3040 + Shark + 0.25% v/v NIS	70 + 224 + 0.25% v/v	1-3 lsr	6	1	85	66	100	73	78	100	100	36	75	100	68	102	100	24	0	5153.01		
GWN-3040 + Abolish + 0.25% v/v NIS	70 + 4480 + 0.25% v/v	1-3 lsr	8	0	86	75	100	93	88	100	100	76	100	100	85	100	100	64	100	6364.9		
Cerano	673	0.5 - 1 lsr	10	6	90	0	100	69	74	25	100	25	100	25	93	0	69	28	100	4439.54		
Cerano + GWN-3040	673 + 35	0.5 - 1 lsr	12	8	81	86	100	90	69	100	100	60	100	98	74	96	0	66	75	5205.81		
Cerano fb. GWN-3040	673 fb. 70	0-1 lsr fb. 1-3 lsr	8	13	13	6			89	46	100	76	78	100	100	100	38	100	100	5875.79		
GWN-3040	70	0.5 - 1 lsr	4	5	83	43	100	91	59	100	100	70	100	73	69	100	100	81	75	4351.97		
GWN-3040	35	0.5 - 1 lsr	4	3	80	50	100	95	59	98	100	53	100	75	71	98	63	44	75	4650.83		

LSD (P=0.05)

1928.7

¹ Percent injury (percent injury to rice)

² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad) LEFFA (Sprangletop), BAORO (Waterhyssop), AMMCO (Redstem), SAGMO (California arrowhead)

³ fb. (followed by), PFS (pre-flood surface), lsr (leaf stage of rice), Til (tillers of rice).

⁴ Untreated weed control values represent % cover by the respective weed species

Trial Information

1. Trial seeded May 22, 2005 with 150 lbs per acre of M205
2. Trial managed as a continuous flood.
3. Treatment dates: 0.5 lsr (May 28-29), 1-3 lsr (June 7)
4. Watergrass was 2-3 leaf, bulrush was 1 leaf, smallflower was 1 leaf on May 28.
Watergrass was 2-3 leaf, bulrush was 1 leaf, smallflower was 1 leaf on May 29.
Watergrass was 3 leaf, bulrush was 3 leaf, smallflower was 4 leaf, california arrowhead was 4 leaf, waterhyssop was 3 leaf on June 7.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on May 28: Air temperature 76° F, wind 22 MPH from the south, southeast.
Weather conditions on May 29: Air temperature 62° F, wind 7 MPH from the southeast.
Weather conditions on June 7: Air temperature 72° F, wind 2-3 MPH from the south.

Table 21. Shark H2O Early seeding

Treatment	Rate (g ai/ha)	Timing ³	Percent injury ¹				Weed Control ²						Yield (lb/A)		
			7 DAT		14 DAT		ECHPH	SCPMU	HETLI	ECHPH	SCPMU	CYPDI		SAGMO	BAORO
			1st trt	2nd trt	1st trt	2nd trt									
Untreated ⁴	--	--					100	1	1	70	1	1	27	10	NA
Shark 40 DF fb. Clincher + COC	112 fb. 315 + 1.25% v/v	PFS fb. 1-3 Til	0	0	0	0	21	0	100	9	50	3	66	9	NA
Shark 40 DF fb. Clincher + COC	224 fb. 315 + 1.25% v/v	PFS fb. 1-3 Til	0	0	0	0	21	0	100	4	25	6	56	15	NA
Shark 40 DF fb. Clincher + COC	112 fb. 315 + 1.25% v/v	PWE fb. 1-3 Til	0	0	0	0	20	50	75	10	50	28	100	0	NA
Shark 40 DF fb. Clincher + COC	224 fb. 315 + 1.25% v/v	PWE fb. 1-3 Til	0	0	0	0	40	50	100	20	100	100	75	85	NA
Shark 40 DF fb. Clincher + COC	112 fb. 315 + 1.25% v/v	1-2 Til fb. 1-3 Til	0	0	0	0	25	100	100	10	28	25	45	43	NA
Shark 40 DF fb. Clincher + COC	224 fb. 315 + 1.25% v/v	1-2 Lsr fb. 1-3 Til	0	0	0	0	28	75	100	13	98	100	98	88	NA
Shark 40 DF fb. Clincher + COC	224 fb. 315 + 1.25% v/v	3-4 Lsr fb. 1-3 Til	0	0	0	0	23	50	100	4	75	100	96	84	NA
Shark 40 DF (repackaged) F4826 (RP) 40 DF fb. Clincher + COC	224 fb. 315 + 1.25% v/v	3-4 Lsr fb. 1-3 Til	0	0	0	0	19	25	100	5	69	75	64	85	NA
Shark 0.6mm granule F8426 (RD) 40 DF fb. Clincher + COC	112 fb. 315 + 1.25% v/v	1-2 Til fb. 1-3 Til	0	0	0	0	20	100	100	11	75	70	25	29	NA
Shark 0.6mm granule F8426 (RD) 40 DF fb. Clincher + COC	224 fb. 315 + 1.25% v/v	1-2 Lsr fb. 1-3 Til	0	0	0	0	28	100	100	6	100	100	100	100	NA
Shark 2% Clay granule F8426 (ASC) 2G fb. Clincher + COC	224 fb. 315 + 1.25% v/v	1-2 Lsr fb. 1-3 Til	0	0	0	0	23	100	100	9	100	100	95	96	NA
Londax fb. Clincher + COC	71 fb. 315 + 1.25% v/v	1-2 Lsr fb. 1-3 Til	0	0	0	0	40	75	50	9	100	100	6	73	NA
Untreated	--	--	0	0	0	0	100	1	1	73	1	2	1	11	NA

NA

¹ Percent injury (percent injury to rice)
² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad) LEFFA (Sprangletop), BAORO (Waterhyssop), AMMCO (Redstem), SAGMO (California arrowhead)
³ fb. (followed by), PFS (pre-flood surface), PWE (prior to weed emergence), Lsr (leaf stage of rice), Til (tillers of rice).
⁴ Untreated weed control values represent % cover by the respective weed species

Trial Information

1. Trial seeded April 29, 2005 with 150 lbs per acre of M 104
2. Trial managed as a continuous flood with 3-4 inches.
3. Treatment dates: PFS (April 27), PWE (May 6), 1-2 Lsr (May 13), 3-4 Lsr (May 23), 1-3 Till (May 24)
4. No weeds visible on April 27 prior to flood.
 Watergrass was 1 leaf on May 6.
 Watergrass was 2 leaf on May 13.
 Watergrass was 4 leaf, ricefield bulrush was 3 leaf and california arrowhead was 3 leaf on May 23.
 Watergrass was 4-5 leaf, ricefield bulrush was 3 leaf, california arrowhead was 4 leaf and waterhyssop was 1.5 inches on May 24.
 Watergrass was 1-2 tiller, ricefield bulrush was 5 inches on June 4.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on April 27: Air temperature 69° F, wind 5-6 MPH from the north northwest.
 Weather conditions on May 6: Air temperature 64° F, wind 5-6 MPH from the southwest.
 Weather conditions on May 13: Air temperature 75° F, wind 0-1 MPH from the west.
 Weather conditions on May 23: Air temperature 90° F, wind 1-2 MPH from the southwest.
 Weather conditions on May 24: Air temperature 84° F, wind 3-5 MPH from the northwest.
 Weather conditions on June 4: Air temperature 85° F, wind 2-3 MPH from the south
7. No harvest due to poor watergrass control.

Table 22. Continuous flood Red soil

Treatment	Rate (g ai/ha)	Timing ³	Percent injury ¹				Weed Control ²								Yield (lb/A)	
			7 DAT		14 DAT		ECHPH	SCPMU	CYPDI	BAORO	HETLI	ECHPH	SCPMU	CYPDI		HETLI
			1st trt	2nd trt	8-Jun	27-Jun										
Untreated ⁴	--	--					59	2	1	2	20	90	1	1	1	0
Cerano fb. Shark	673 fb. 224	DOS fb. 2-3 Isr	0	0	3	0	93	100	100	100	100	94	75	100	100	4819
Cerano fb. Shark	336 fb. 224	DOS fb. 2-3 Isr	0	0	0	0	71	100	100	98	100	43	100	100	100	3877
Bolero fb. Superwham + COC	4480 fb. 6726 + 1.25% v/v	1-2 Isr fb. 1-3 Til	0	0	3	0	54	100	100	48	99	70	100	100	100	3947
Bolero fb. Superwham + COC	2240 fb. 6726 + 1.25% v/v	1-2 Isr fb. 1-3 Til	0	0	6	0	45	100	100	23	99	65	100	100	100	4502
Abolish fb. Superwham + COC	4480 fb. 6726 + 1.25% v/v	PFS bf. 1-3 til	0	0	5	0	45	100	75	0	94	71	100	100	100	4076
Abolish fb. Superwham + COC	2240 fb. 6726 + 1.25% v/v	PFS bf. 1-3 til	0	0	5	0	64	100	100	50	89	76	100	100	100	4435
Granite GR fb. SuperWham + Whip + COC	40 fb. 6726 + 32 + 1.25% v/v	2-3 Isr fb. 1Till	0	5	4	0	91	100	100	100	100	99	100	100	100	5148
Granite GR fb. SuperWham + Whip + COC	20 fb. 6726 + 32 + 1.25% v/v	2-3 Isr fb. 1Till	0	0	3	0	74	75	75	38	66	81	100	100	100	4506

LSD (P=0.05)

1074

¹ Percent injury (percent injury to rice)² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad) LEFFA (Sprangletop), BAORO (Waterhyssop), AMMCO (Redstem), SAGMO (California arrowhead)³ fb. (followed by), PFS (pre-flood surface), PWE (prior to weed emergence), Isr (leaf stage of rice), Til (tillers of rice).⁴ Untreated weed control values represent % cover by the respective weed species**Trial Information**

1. Trial seeded April 29, 2005 with 150 lbs per acre of M 104
2. Trial managed as a continuous flood with 3-4 inches.
3. Treatment dates: PFS (April 27), DOS (April 29), 1-2 Isr (May13), 2-3 Isr (May 16), 1-3 Till (June 4)
4. No weeds visible on April 27 prior to flood.
No weeds visible on April 29
Watergrass was 2 leaf on May 13.
Watergrass was 0.5 leaf, smallflower umbrellasedge was 2 leaf, ducksalad was 2 leaf, waterhyssop was 2 leaf on May 16.
Watergrass was 1-2 tiller, ricefield bulrush was 5 inches on June 4.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on April 27: Air temperature 69° F, wind 5-6 MPH from the north northwest.
Weather conditions on May 6: Air temperature 64° F, wind 5-6 MPH from the southwest.
Weather conditions on May 13: Air temperature 75° F, wind 0-1 MPH from the west.
Weather conditions on May 23: Air temperature 90° F, wind 1-2 MPH from the southwest.
Weather conditions on May 24: Air temperature 84° F, wind 3-5 MPH from the northwest.
Weather conditions on June 4: Air temperature ° F, wind MPH from the west, northwest.

Table 23. Pinpoint Trial Red soil

Treatment	Rate (g ai/ha)	Timing ³	Percent injury ¹				Weed Control ²				Yield (lb/A)	
			7 DAT	14 DAT	7 DAT	14 DAT	ECHPH	SCPMU	CYPDI	HETLI		
			1st trt		2nd trt		27-Jun					
Untreated ⁴								91	1	1	1	0
Regiment+ NIS fb. SuperWham + Whip + COC	44.5 + .125% v/v fb. 6726 + 42 + 1.25% v/v	4-5 lsr fb. 1-3 Til	0	0	5	4	89	100	100	100		4343
Regiment+ NIS fb. SuperWham + Whip + COC	30 + .125% v/v fb. 6726 + 42 + 1.25% v/v	4-5 lsr fb. 1-3 Til	0	0	5	4	84	100	100	100		3748
Prowl H20 + Super Wham + COC	1120 + 4484 + 1.25% v/v	4-5 lsr	0	0			33	100	100	100		945
Prowl H20 + Super Wham + COC	560 + 4484 + 1.25% v/v	4-5 lsr	0	0			13	100	100	100		1548
Regiment+ Abolish	37 + 3360	4-5 lsr	0	0			24	100	75	100		2053
Regiment+ Abolish	30 + 2240	4-5 lsr	0	0			25	100	75	100		2210

LSD (P=0.05)

1278

¹ Percent injury (percent injury to rice)² ECHPH (Late watergrass), SCPMU (Rice field bulrush), CYPDI (Small flower Umbrellaplant), HETLI (Duck salad)
LEFFA (Sprangletop), BAORO (Waterhyssop), AMMCO (Redstem), SAGMO (California arrowhead)³ fb. (followed by), PFS (pre-flood surface), PWE (prior to weed emergence), lsr (leaf stage of rice), Til (tillers of rice).⁴ Untreated weed control values represent % cover by the respective weed species**Trial Information**

1. Trial seeded April 29, 2005 with 150 lbs per acre of M 104
2. Trial managed as a pinpoint flood.
3. Treatment dates: 4-5 lsr (May 24), 1-3 Till (June 4)
4. Watergrass was 4-5 leaf, bulrush was 3 leaf, california arrowhead was 4 leaf, and waterhyssom was 1.2 inches on May 24.
Watergrass was 1-2 tiller, ricefield bulrush was 5 inches on June 4.
5. Spray applications made with 20 gallons/acre using 8003 nozzles.
6. Weather conditions on May 24: Air temperature 84° F, wind 3-5 MPH from the northwest.
Weather conditions on June 4: Air temperature ° F, wind MPH from the west, northwest.

Table 24. Dates of water management procedures and planting in 2004 and 2005.

Treatment	Weed emergence flush		Plant		Permanent flood	
	2004	2005	2004	2005	2004	2005
1	-	-	May 15	May 30	May 14	May 28
2	-	-	May 15	May 30	June 5	June 28
3	May 14 & 26	May 5-11	June 4	May 30	June 2	May 28
4	May 14 & 26	May 5-11	June 4	May 30	June 2	May 28
5	May 14 & 26	May 5-11	June 4	May 30	June 23	June 28

Table 25. Rice and weed densities (plants m⁻²) associated with each rice establishment system in 2004 and 2005. Weed densities were measured in areas that did not receive herbicide treatments after rice emergence, but the stale-seedbed treatments (3-5) were exposed to glyphosate prior to rice planting. Locations of these weedy check areas were similar each year.

	Treatment									
	1		2		3		4		5	
	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005
Rice	278	208	225	223	209	241	225	224	230	241
Echinochloa	0	0	41	79	0	0	0	0	<1	10
Sprangletop	0	0	3	5	1	0	0	0	<1	25
Smallflower	198	1,480	3	4	8	645	7	70	6	1
Bulrush	1	<1	0	0	0	<1	0	2	0	0
Redstem	32	70	0	0	1	70	0	70	0	0