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Supplementary data

Efficacy of sea water in combination with trifloxysulfuron and quinclorac to control weeds in salt tolerant tropical turfgrass

Table 3-Supplementary data. Effect of combinations of sea water and trifloxysulfuron-sodium on turf grass injury

Turfgrass species	Treatment	Injury (%) 3 DAT	7 DAT	14 DAT	21 DAT
(*Paspalum vaginatum*)	FW	0 i	0 h	0 g	0 i
(Seashore paspalum)	SW	10 gh	5 gh	0 g	0 i
	¾ SW	5 hi	0 h	0 g	0 i
	½ SW	0 i	0 h	0 g	0 i
	¼ SW	0 i	0 h	0 g	0 i
	RT	15 d-g	21 b-e	25 b-d	31 a-e
	RT+SW	26 a	33 a	36 a	40 a
	RT+¾ SW	23 ab	28 b-d	32 ab	35 ab
	RT+½ SW	20 a-e	26 a- c	30 a-c	34 a-c
	RT+¼ SW	16 c-g	19 c-e	27 a-d	30 a-f
	¾ RT	15 d-g	18 de	23 b-e	27 b-g
	¾ RT+ SW	22 a-c	25 b-d	32 ab	34 a-c
	¾ RT+¾ SW	21 a-d	27 ab	30 a-c	33 a-d
	¾ RT+½ SW	20 a-e	25 b-d	27 a-d	29 b-f
	¾ RT+¼ SW	18 b-f	20 b-e	23 b-e	25 b-g
	½ RT	14 e-g	19 c-e	23 c-f	23 d-g
	½ RT+ SW	23 ab	25 b-d	27 a-d	29 b-f
	½ RT+¾ SW	20 a-e	22 b-d	25 b-d	27 b-g
	½ RT+½ SW	15 d-g	20 b-e	22 c-e	23 d-g
	½ RT+¼ SW	15 d-g	18 de	20 d-f	20 f-h
	¼ RT	10 gh	10 fg	15 ef	17 gh
	¼ RT+ SW	12 fg	18de	21 c-f	24 c-g
	¼ RT+¾ SW	12fg	14 ef	20d-f	22 e-h
	¼ RT+½ SW	10 gh	10 fg	15 ef	18 gh
	¼ RT+¼ SW	10 gh	10 fg	12 f	13 h
LSD $_{0.05}$		7	8	10	10
Zoysia Japonica	FW	0 d	0 e	0 e	0
	SW	5 a-c	10 a	10 ab	10 ab
	¾ SW	5 a-c	5 b-d	7 a-c	5 cd
	½ SW	0 d	0 e	0 e	0 e
	¼ SW	0 d	0 e	0 e	0 e
	RT	3 b-d	5 a-d	7 a-c	7 a-c
	RT+SW	8 a	10 ab	11 a	8 a-c
	RT+¾ SW	6 ab	8 a-c	8 a-c	6 b-d
	RT+½ SW	5 a-c	6 a-d	6 b-d	5 cd
	RT+¼ SW	2 cd	4 c-e	4 c-e	5 cd
	¾ RT	3 b-d	5 b-d	6 b-d	6 b-d
	¾ RT+ SW	6 ab	8 a-c	8 a-c	8 a-c
	¾ RT+¾ SW	4 bc	6 a-d	6 b-d	6 b-d
	¾ RT+½ SW	2 cd	2 de	2 de	6 b-d
	¾ RT+¼ SW	0 d	0 e	0 e	2 de
	½ RT	0 d	0 e	0 e	0 e
	½ RT+ SW	0 d	0 e	11 a	11 a
	½ RT+¾ SW	0 d	8 e	8 a-c	8 a-c
	½ RT+½ SW	0 d	0 e	0	0 e
	½ RT+¼ SW	0 d	0 e	0	0 e
	¼ RT	0 d	0 e	0	0 e
	¼ RT+ SW	5 a-c	5 b-d	5	5 cd
	¼ RT+¾ SW	0 d	0 e	0	0 e
	¼ RT+½ SW	0 d	0 e	0	0 e
	¼ RT+¼ SW	0 d	0 e	0	0 e
LSD $_{0.05}$		4	5	5	5
C. dactylon 'satiri'	FW	0 d	0 d	0 g	0 i
	SW	10 ab	10 a-c	14 c	18 e
	¾ SW	5 b-d	5 cd	5 e-g	0 i
	½ SW	0 d	0 d	0 g	0 i
	¼ SW	0 d	0 d	0 g	0 i
	RT	10 ab	10 a-c	5 e-g	5 g-i
	RT+SW	15 a	15 a	25 a	35 a
	RT+¾ SW	10 ab	14 ab	21 a	29 bc
	RT+½ SW	8 bc	10 a-c	13 cd	15 ef
	RT+¼ SW	5 b-d	8 bc	8 d-f	10 fg
	¾ RT	8 bc	6 cd	6 ef	6 gh
	¾ RT+ SW	10 ab	15 a	20 ab	31 ab
	¾ RT+¾ SW	8 bc	10 a-c	15 bc	20 de
	¾ RT+½ SW	6 bc	8 bc	8 d-f	12 f
	¾ RT+¼ SW	5 b-d	5 cd	5 e-g	5 g-i
	½ RT	0 d	0 d	0 g	0 i
	½ RT+ SW	7 bc	10 a-c	12 cd	25 cd
	½ RT+¾ SW	7 bc	8 bc	10 c-e	15 ef
	½ RT+½ SW	4 cd	4 cd	4 fg	4 hi
	½ RT+¼ SW	0 d	0 d	0 g	0 i
	¼ RT	0 d	0 d	0 g	0 i
	¼ RT+ SW	6 bc	8 bc	10 c-e	18 e
	¼ RT+¾ SW	4 cd	4 cd	4 fg	4 hi
	¼ RT+½ SW	0 d	0 d	0 g	0 i
	¼ RT+¼ SW	0 d	0 d	0 g	0 i
LSD $_{0.05}$		6	7	6	8

FW = fresh water, RT = recommended trifloxysulfuron-sodium herbicide, SW = seawater
Means within columns followed by same letter are not significantly different at $P = 0.05$ (LSD test).

Table 4-Supplementary data. Effect of combinations of sea water and trifloxysulfuron-sodium on weed injury

Weed species		Injury (%)			
	Treatment	3 DAT	7 DAT	14 DAT	21 DAT
Eragrostis atrovirens	FW	0 e	0 g	0 h	0 g
	SW	10 bc	17 ab	18 bc	25 bc
	¾ SW	0 e	0 g	5 f-h	5 fg
	½ SW	0 e	0 g	0 h	0 g
	¼ SW	0 e	0 g	0 h	0 g
	RT	10 bc	12 cd	15 b-d	17 d
	RT+SW	15 a	20 a	25 a	34 a
	RT+¾ SW	12 ab	12 cd	18 b	30 ab
	RT+½ SW	8 b-d	10 de	15 b-d	25 bc
	RT+¼ SW	7 cd	8 d-f	8 e-g	21 cd
	¾ RT	8 b-d	12 cd	16 bc	20 cd
	¾ RT+ SW	12 ab	15 cd	20 ab	25 bc
	¾ RT+¾ SW	10 bc	10 de	15 b-d	20 cd
	¾ RT+½ SW	8 b-d	10 de	12 c-e	15 de
	¾ RT+¼ SW	8 b-d	8 d-f	10 d-e	10 ef
	½ RT	0 e	4 fg	4 gh	6 fg
	½ RT+ SW	6 cd	8 d-f	8 e-g	10 ef
	½ RT+¾ SW	4 de	6 ef	6 fg	8 f
	½ RT+½ SW	4 de	5 f	5 f-h	5 fg
	½ RT+¼ SW	0 e	0 g	4 gh	4 fg
	¼ RT	0 e	0 g	0 h	0 g
	¼ RT+ SW	5 d	5 f	5 f-h	5 fg
	¼ RT+¾ SW	0 e	0 g	0 h	0 g
	¼ RT+½ SW	0 e	0 g	0 h	0 g
	¼ RT+¼ SW	0 e	0 g	0 h	0 g
$LSD_{0.05}$		4	4	6	6
Sporobolus diander	FW	0 g	0 j	0 n	0 n
	SW	10 d-f	15 f-h	27 g-i	38 g-i
	¾ SW	7 ef	10 g-i	21 i-k	28 jk
	½ SW	0 g	5 ij	10 lm	15 m
	¼ SW	0 g	0 j	5 mn	0 n
	RT	10 d-f	18 ef	34 e-g	50 ef
	RT+SW	28 a	51 a	73 a	100 a
	RT+¾ SW	25 ab	32 b-d	52 bc	74 c
	RT+½ SW	15 cd	25 de	45 cd	55 de
	RT+¼ SW	10 d-f	20 ef	35 ef	52 ef
	¾ RT	8 ef	15 f-h	30 f-h	40 gh
	¾ RT+ SW	23 ab	39 b	59 b	91 b
	¾ RT+¾ SW	20 bc	35 bc	55 b	85 b
	¾ RT+½ SW	15 cd	30 cd	40 de	62 d
	¾ RT+¼ SW	15 cd	25 de	30 f-h	45 fg
	½ RT	5f g	10 g-i	15 kl	23 kl
	½ RT+ SW	15 cd	25 de	52 bc	71 c
	½ RT+¾ SW	12 de	19 ef	46 cd	62 d
	½ RT+½ SW	5 fg	8 hi	23 h-j	38 g-i
	½ RT+¼ SW	5 fg	5 ij	17 j-l	28 kj
	¼ RT	0 g	5 ij	4 mn	5 n
	¼ RT+ SW	10 d-f	22 ef	27 g-i	37 hi
	¼ RT+¾ SW	5 fg	17 fg	21 i-k	32 ij
	¼ RT+½ SW	5 fg	10 g-i	14 kl	18 lm
	¼ RT+¼ SW	0 g	0 j	0 n	6 n
$LSD_{0.05}$		7	7	9	7
Cyperus aromaticus	FW	0 f	0 k	0 l	0 l
	SW	5 ef	10 g-j	17 g-i	30 gh
	¾ SW	0 f	5 jk	10 i-k	15 jk
	½ SW	0 f	5 jk	5 lk	0 l
	¼ SW	0 f	0 k	0 l	0 l
	RT	20 bc	30 cd	40 cd	45 e
	RT+SW	33 a	50 a	69 a	85 ab
	RT+¾ SW	30 a	35 bc	51 b	65 c
	RT+½ SW	25 ab	30 cd	45 bc	55 d
	RT+¼ SW	20 bc	25 de	30 ef	45 e
	¾ RT	10 de	30 cd	45 bc	40 ef
	¾ RT+ SW	33 a	41 ab	52 b	93 a
	¾ RT+¾ SW	25 ab	30 cd	40 cd	85 ab
	¾ RT+½ SW	20 bc	25 de	33 de	45 e
	¾ RT+¼ SW	15 cd	21 d-f	25 e-g	40 ef
	½ RT	10 de	15 f-i	21 gh	31 f-h
	½ RT+ SW	15 cd	25 de	45 bc	80 b
	½ RT+¾ SW	10 de	15 f-i	30 ef	45 e
	½ RT+½ SW	10 de	18 e-g	25 e-g	35 fg
	½ RT+¼ SW	10 de	16 e-h	24 fg	31 f-h
	¼ RT	5 ef	7 h-k	7 j-l	10 k
	¼ RT+ SW	10 de	15 f-i	20 hj	25 hi
	¼ RT+¾ SW	10 de	10 g-i	15 h-j	20 ij
	¼ RT+½ SW	6 d-f	6 i-k	10 j-l	10 k
	¼ RT+¼ SW	5 ef	7 h-k	7j-l	8 lk
$LSD_{0.05}$		9	10	9	9
Cyperus rotundus	FW	0 j	0 h	0j	0 j
	SW	10 f-i	20 c-e	23fg	43 fg
	¾ SW	8 g-i	12 e-g	19g	36 g
	½ SW	7 h-j	8 f-h	10hi	15 i
	¼ SW	0 j	5 gh	5ij	5 j
	RT	20 b-d	25 bc	50b	70 cd
	RT+SW	30 a	35 a	60a	100 a
	RT+¾ SW	25 ab	29 ab	49b	85 b
	RT+½ SW	23 a-c	29 ab	39c-e	75 c
	RT+¼ SW	21 b-d	25 bc	35de	67 d
	¾ RT	14 d-h	15d-f	31ef	54e
	¾ RT+ SW	20 b-d	30ab	51b	95a
	¾ RT+¾ SW	16 c-f	26bc	45bc	86b
	¾ RT+½ SW	15 d-g	25bc	40cd	56e
	¾ RT+¼ SW	12 e-i	20c-e	35de	45f
	½ RT	8 g-i	12e-g	23fg	40fg
	½ RT+ SW	20 b-d	29ab	45bc	83b
	½ RT+¾ SW	18 b-e	22b-d	39c-e	72cd
	½ RT+½ SW	8 g-i	10fg	20g	25h
	½ RT+¼ SW	6 ij	10fg	15gh	17i
	¼ RT	5 ij	8f-h	15gh	20ih
	¼ RT+ SW	11 e-i	20c-e	32de	44f

	¼ RT+¾ SW	8 g-i	15d-f	34 de	38fg
	¼ RT+½ SW	7 h-j	7f-h	10ih	21hi
	¼ RT+¼ SW	5 ij	15d-f	17gh	20hi
LSD $_{0.05}$		7	9	8	8
Emilia sonchifolia	FW	0 g	0 g	0 j	0 j
	SW	21 a-c	35 a	40 de	45 fg
	¾ SW	10 ef	18 d-e	23 gh	32 h
	½ SW	5 fg	8 fg	10 i	15 i
	¼ SW	0 g	0 g	0 j	0 j
	RT	18 a-d	30 ab	45 cd	65 d
	RT+SW	25 a	35 a	60 a	100 a
	RT+¾ SW	20 a-c	25 a-e	50 bc	85 bc
	RT+½ SW	16 b-e	20 b-e	45 cd	70 d
	RT+¼ SW	15 b-e	25 a-e	45 cd	65 d
	¾ RT	10 ef	25 a-e	50 bc	70 d
	¾ RT+ SW	22 ab	33 a	55 ab	100 a
	¾ RT+¾ SW	20 a-c	30 ab	45 cd	90 b
	¾ RT+½ SW	16 b-e	28 a-d	40 de	65 d
	¾ RT+¼ SW	15 b-e	25 a-e	37 ef	55 e
	½ RT	10 ef	19 c-e	34 ef	49 ef
	½ RT+ SW	22 ab	35 a	45 cd	90 b
	½ RT+¾ SW	20 a-c	29 a-c	40 de	80 c
	½ RT+½ SW	16 b-e	25 a-e	35 ef	65 d
	½ RT+¼ SW	14 c-e	25 a-e	40 de	55 e
	¼ RT	12 d-e	22 b-e	30 fg	45 fg
	¼ RT+ SW	10 ef	25 a-e	35 ef	55 e
	¼ RT+¾ SW	9 ef	20 b-e	30 fg	50 ef
	¼ RT+½ SW	6 fg	15 ef	25 gh	45 fg
	¼ RT+¼ SW	5 fg	15 ef	20 h	41 g
LSD $_{0.05}$		7	11	8	8

Means within columns followed by same letter are not significantly different at $P = 0.05$ (LSD

Table 5-Supplementary data. Effect of combinations of sea water and quinclorac on turf grass injury

		Injury (%)			
Turfgrass species	Treatment	3 d	7 d	14 d	21 d
Paspalum vaginatum	FW	0 d	0 c	0 c	0 c
	SW	10 a	8 a	5 b	5 b
	¾ SW	6 bc	8 a	5 b	0 c
	½ SW	0 d	0 c	0 c	0 c
	¼ SW	0 d	0 c	0 c	0 c
	RQ	8 ab	8 a	0 c	0 c
	RQ+SW	5 c	10 a	10 a	10 a
	RQ+¾ SW	5 c	5 b	5 b	5 b
	RQ+½ SW	0 d	0 c	0 c	0 c
	RQ+¼ SW	0 d	0 c	0 c	0 c
	¾ RQ	0 d	0 c	0 c	0 c
	¾ RQ+ SW	0 d	5 b	5 b	5 c
	¾ RQ+¾ SW	0 d	0 c	0 c	0 c
	¾ RQ+½ SW	0 d	0 c	0 c	0 c
	¾ RQ+¼ SW	0 d	0 c	0 c	0 c
	½ RQ	0 d	0 c	0 c	0 c
	½ RQ+ SW	0 d	0 c	0 c	0 c
	½ RQ+¾ SW	0 d	0 c	0 c	0 c
	½ RQ+½ SW	0 d	0 c	0 c	0 c
	½ RQ+¼ SW	0 d	0 c	0 c	0 c
	¼ RQ	0 d	0 c	0 c	0 c
	¼ RQ+ SW	0 d	0 c	0 c	0 c
	¼ RQ+¾ SW	0 d	0 c	0 c	0 c
	¼ RQ+½ SW	0 d	0 c	0 c	0 c
	¼ RQ+¼ SW	0 d	0 c	0 c	0 c
LSD $_{0.05}$		2	3	3	3
Zoysia Japonica	FW	0 c	0 c	0	0 c
	SW	8 ab	10 a	10 a	10 ab
	¾ SW	6 bc	6 b	6 b	0 d
	½ SW	0 d	0 c	0 c	0 d
	¼ SW	0 d	0 c	0 c	0 d
	RQ	0 d	0 c	0 c	0 d
	RQ+SW	10 a	10 a	10 a	12 a
	RQ+¾ SW	0 d	5 b	5 b	5 c
	RQ+½ SW	0 d	0 c	0 c	0 d
	RQ+¼ SW	0 d	0 c	0 c	0 d
	¾ RQ	0 d	0 c	0 c	0 d
	¾ RQ+ SW	8 ab	10 a	10 a	10 ab
	¾ RQ+¾ SW	5 c	5 b	7 ab	8 b
	¾ RQ+½ SW	5 c	0 c	0 c	0 d
	¾ RQ+¼ SW	0 d	0 c	0 c	0 d
	½ RQ	0 d	0 c	0 c	0 d
	½ RQ+ SW	0 d	0 c	0 c	0 d
	½ RQ+¾ SW	0 d	0 c	0 c	0 d
	½RQ+½ SW	0 d	0 c	0 c	0 d
	½ RQ+¼ SW	0 d	0 c	0 c	0 d
	¼ RQ	0 d	0 c	0 c	0 d
	¼ RQ+ SW	8 ab	8 c	10 a	10 ab
	¼ RQ+¾ SW	0 d	0 c	0 c	0 d
	¼ RQ+½ SW	0 d	0 c	0 c	0 d
	¼ RQ+¼ SW	0 d	0 c	0 c	0 d
LSD $_{0.05}$		3	3	4	3
Cynodon dactylon 'satiri'	FW	0 f	0 j	0 l	0 n
	SW	10 de	15 f-h	15 ij	20 ij
	¾ SW	5 ef	5 ij	5 kl	5 mn
	½ SW	0 f	0 j	0 l	0 n

	¼ SW	0 f	0 j	0 l	0 n
	RQ	21 bc	31 cd	42 de	53 de
	RQ+SW	30 a	45 a	60 a	79 a
	RQ+¾ SW	29 a	40 ab	50 bc	69 b
	RQ+½ SW	23 ab	37 bc	47 b-d	61 c
	RQ+¼ SW	20 bc	40 ab	50 bc	55 c-e
	¾ RQ	15 cd	31 cd	36 ef	41 g
	¾ RQ+ SW	25 ab	35 bc	55 ab	75 ab
	¾ RQ+¾ SW	20 bc	30 cd	50 bc	59 cd
	¾ RQ+½ SW	15 cd	25 de	45 cd	50 ef
	¾ RQ+¼ SW	10 de	19 ef	29 fg	45 fg
	½ RQ	8 de	8 hi	8 jk	10 lm
	½ RQ+ SW	10 de	21 ef	25 gh	31 h
	½ RQ+¾ SW	10 de	16 fg	23 gh	29 h
	½ RQ+½ SW	10 de	15 f-h	20 hi	26 hi
	½ RQ+¼ SW	8 de	16 fg	20 hi	20 ij
	¼ RQ	0 f	0 j	0 l	0 n
	¼ RQ+ SW	15 cd	20 ef	25 gh	31 h
	¼ RQ+¾ SW	8 de	10 g-i	15 ij	18 jk
	¼ RQ+½ SW	8 de	10 g-i	13 ij	15 j-l
	¼ RQ+¼ SW	6 ef	8 hi	10 jk	12 k-m
LSD $_{0.05}$		8	8	8	7

FW = fresh water, RQ= recommended quinclorac herbicide, SW = seawater

Means within columns followed by same letter are not significantly different at $P = 0.05$ (LSD test).

Table 6-Supplementary data. Effect of combinations of sea water and quinclorac on weed injury

Weed species		Injury (%)			
	Treatment	3 d	7 d	14 d	21 d
Eragrostis atrovirens	FW	0 d	0 g	0 i	0 i
	SW	10 b	10 e	15 g	21 e-g
	¾ SW	8 bc	10 e	10 h	10 h
	½ SW	0 d	0 g	0 i	0 i
	¼ SW	0 d	0 g	0 i	0 i
	RQ	10 b	16 c	21 de	27 c-e
	RQ+SW	15 a	25 a	35 a	40 a
	RQ+¾ SW	12 ab	20 b	28 bc	38 a
	RQ+½ SW	10 b	15 cd	25 cd	35 ab
	RQ+¼ SW	8 bc	12 de	25 cd	30 bc
	¾ RQ	8 bc	16 c	20 ef	23 d-g
	¾ RQ+ SW	10 b	20 b	30 b	35 ab
	¾ RQ+¾ SW	8 bc	16 c	20 ef	30 bc
	¾ RQ+½ SW	8 bc	14 cd	18 e-g	25 e-g
	¾ RQ+¼ SW	8 bc	10 e	15 g	20 fg
	½ RQ	10 b	12 de	16 fg	20 fg
	½ RQ+ SW	12 ab	12 de	25 cd	31 bc
	½ RQ+¾ SW	10 b	20 b	20 ef	25 c-g
	½ RQ+½ SW	10 b	12 de	18 e-g	25 c-g
	½ RQ+¼ SW	8 bc	10 e	15 g	19 g
	¼ RQ	10 b	5 f	0 i	0 i
	¼ RQ+ SW	10 b	15 cd	20 ef	29 b-d
	¼ RQ+¾ SW	8 bc	12 de	20 ef	26 c-f
	¼ RQ+½ SW	5 c	12 de	15 g	20 fg
	¼ RQ+¼ SW	5 c	0 g	0 i	0 i
LSD $_{0.05}$		4	4	5	6
Sporobolus diander	FW	0 i	0 l	0 m	0 o
	SW	15 de	20 f	25 i	35 jk
	¾ SW	10 fg	18 f	20 j	27 l
	½ SW	0 i	6 k	8 l	15 mn
	¼ SW	0 i	0 l	0 m	0 o
	RQ	10 fg	15 gh	32 f-h	45 f-h
	RQ+SW	30 a	42 a	70 a	93 a
	RQ+¾ SW	30 a	39 ab	62 b	79 bc
	RQ+½ SW	25 b	28 de	36 ef	64 e
	RQ+¼ SW	20 c	25 e	34 e-g	48 fg
	¾ RQ	10 fg	15 gh	30 gh	40 h-j
	¾ RQ+ SW	20 c	35 bc	61 b	85 b
	¾ RQ+¾ SW	20 c	31 cd	54 c	75 cd
	¾ RQ+½ SW	18 cd	25 e	48 d	71 d
	¾ RH+¼ SW	10 fg	16 f-h	28 hi	42 g-i
	½ RQ	10 fg	12 h-j	25 i	36 i-k
	½ RQ+ SW	25 b	32 cd	50 cd	71d
	½ RQ+¾ SW	15 de	20 f	38 e	49 f
	½ RQ+½ SW	12 ef	15 gh	20 j	39 h-j
	½ RH+¼ SW	8 f-h	10 i-k	15 k	30 kl
	¼ RQ	5 h	8 jk	8 l	10 n
	¼ RQ+ SW	10 fg	10 g-i	20 j	36 i-k
	¼ RQ+¾ SW	8 fg	12 h-j	18 jk	28 l
	¼ RQ+½ SW	6 gh	10 i-k	15 k	20 m
	¼ RQ+¼ SW	0 i	0 l	0 m	0 o
LSD $_{0.05}$		4	6	6	6
Cyperus aromaticus	FW	0 i	0 k	0 m	0 n
	SW	10 fg	20 ef	30 g	37 hi
	¾ SW	8 f-h	15 f-i	20 i-k	31 j
	½ SW	0 i	0 k	0 m	0 n
	¼ SW	0 i	0 k	0 m	0 n
	RQ	12 ef	18 fg	38 f	45 fg
	RQ+SW	30 a	50 a	65 a	90 a
	RQ+¾ SW	26 ab	40 b	62 a	84 b

	RQ+½ SW	23 bc	38 b	50 cd	69 d
	RQ+¼ SW	20 cd	30 cd	40 ef	55 e
	¾ RQ	10 fg	15 f-h	30 g	42 gh
	¾ RQ+ SW	20 cd	35 bc	60 ab	79 bc
	¾ RQ+¾ SW	15 e	29 d	48 d	70 d
	¾ RQ+½ SW	10 fg	16 f-h	27 gh	40 h
	¾ RH+¼ SW	10 fg	15 f-i	22 h-j	33 ij
	½ RQ	10 fg	12 h-j	20 i-k	37 hi
	½ RQ+ SW	23 bc	35 bc	55 bc	74 cd
	½ RQ+¾ SW	22 bc	25 de	45 de	50 ef
	½ RQ+½ SW	16 de	20 ef	29 g	50 ef
	½ RH+¼ SW	10 fg	15 f-i	25 g-i	37 hi
	¼ RQ	8 f-h	10 ij	15 kl	20 l
	¼ RQ+ SW	10 fg	15 f-i	20 i-k	29 jk
	¼ RQ+¾ SW	8 f-h	13 g-i	17 jk	25 kl
	¼ RQ+½ SW	6 gh	10 ij	18 jk	20 l
	¼ RQ+¼ SW	5 h	7 j	10 l	10 m
$LSD_{0.05}$		5	5	5	5
Cyperus rotundus	FW	0 i	0 j	0 n	0 o
	SW	18 c-e	25 ef	40 gh	51 f-i
	¾ SW	16 de	20 fg	35 hi	46 h-k
	½ SW	10 fg	16 g	20 l	34 m
	¼ SW	0 i	0 j	0 n	0 o
	RQ	30 a	40 bc	49 d-f	59 de
	RQ+SW	30 a	50 a	70 a	98 a
	RQ+¾ SW	32 a	48 a	65 ab	87 b
	RQ+½ SW	30 a	49 a	59 bc	76 c
	RQ+¼ SW	25 b	30 de	40 gh	56 ef
	¾ RQ	14 ef	35 cd	46 e-g	52 f-h
	¾ RQ+ SW	20 cd	45 ab	65 ab	82 bc
	¾ RQ+¾ SW	22 bc	40 bc	60 bc	65 d
	¾ RQ+½ SW	20 cd	39 c	50 de	61 de
	¾ RQ+¼ SW	15 e	30 de	40 gh	55 f-h
	½ RQ	14 ef	25 ef	35 hi	44 jk
	½ RQ+ SW	22 bc	35 cd	55 cd	75 c
	½ RQ+¾ SW	15 e	25 ef	43 fg	61de
	½ RQ+½ SW	10 fg	18 g	28 jk	41 kl
	½ RQ+¼ SW	10 fg	15 gh	25 kl	33 m
	¼ RQ	6 gh	8 i	10 m	10 n
	¼ RQ+ SW	15 e	20 fg	32 ij	49 g-j
	¼ RQ+¾ SW	10 fg	15 gh	29 i-k	45 i-k
	¼ RQ+½ SW	6 gh	10 hi	25 kl	35 lm
	¼ RQ+¼ SW	5 h	7 i	8 m	10 n
$LSD_{0.05}$		4	6	6	7
Emilia sonchifolia	FW	0 j	0 j	0 l	0 m
	SW	19 fg	29 de	40 fg	50 h
	¾ SW	20 e-g	25 ef	35 gh	43 i
	½ SW	13 hi	20 f-h	25 ij	30 k
	¼ SW	8 i	10 i	12 k	20 l
	RQ	30 bc	45 ab	60 bc	80 f
	RQ+SW	40 a	50 a	75 a	100 a
	RQ+¾ SW	40 a	45 ab	65 b	95 ab
	RQ+½ SW	30 bc	40 bc	60 bc	88 cd
	RQ+¼ SW	25 c-e	35 cd	65 b	85 d-f
	¾ RQ	29 d	35 cd	55 cd	65 g
	¾ RQ+ SW	33 b	39 bc	59 c	93 bc
	¾ RQ+¾ SW	30 bc	35 cd	55 d	86 de
	¾ RQ+½ SW	30 bc	35 cd	60 bc	82 ef
	¾ RQ+¼ SW	30 bc	40 bc	50 de	65 g
	½ RQ	10 hi	20 f-h	30 hi	41 i
	½ RQ+ SW	25 c-e	40 bc	80 a	85 d-f
	½ RQ+¾ SW	24 d-f	40 bc	65 b	80 f
	½ RQ+½ SW	21 ef	34 cd	49 e	70 g
	½ RQ+¼ SW	15 gh	25 ef	30 hi	50 h
	¼ RQ	10 hi	17 gh	20 j	30 k
	¼ RQ+ SW	15 gh	22 fg	30 hi	55 h
	¼ RQ+¾ SW	20 e-g	40 bc	45 ef	50 h
	¼ RQ+½ SW	15 gh	20 f-h	30 hi	39 ij
	¼ RQ+¼ SW	10 hi	15 hi	25 ij	35 jk
$LSD_{0.05}$		6	7	5	6

FW = fresh water, RQ= recommended quinclorac herbicide, SW = seawater Means within columns followed by same letter are not significantly different at $P = 0.05$ (LSD test).