

Efficacy of Sea Water with Reduced Rate Herbicide to Control Weeds in Tropical Turf

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Abstract : Seawater with reduced herbicide could be considered as a low cost environment friendly alternative method for weed control in turfgrass. Different concentration of sea water in combination with trifloxysulfuron-sodium and quinclorac were used to determine weed control level in turfgrass field. The weed species *S. diander*, *C. aromaticus*, and *C. rotundus* except *E. atrovirens* were fully controlled when treated with $\frac{3}{4}$ recommended trifloxysulfuron-sodium with sea water, $\frac{3}{4}$ recommended trifloxysulfuron-sodium with $\frac{3}{4}$ sea water, $\frac{1}{2}$ recommended trifloxysulfuron-sodium with sea water, $\frac{3}{4}$ recommended quinclorac with sea water and $\frac{3}{4}$ recommended quinclorac with $\frac{3}{4}$ sea water. *Eragrostis atrovirens* showed maximum 48% injury when treated with $\frac{3}{4}$ recommended trifloxysulfuron-sodium and sea water. Among the tested turf grasses, *P. vaginatum* showed only 8% injury to sea water in combination with $\frac{3}{4}$ recommended quinclorac, indicating greater salt tolerance. *Zoysia japonica* also showed no more than 14% injury when treated with sea water in combination with $\frac{3}{4}$ recommended trifloxysulfuron-sodium or quinclorac.

Keywords : sea water, trifloxysulfuron-sodium, quinclorac, turf

Conference Title : ICAES 2015 : International Conference on Agriculture and Environmental Systems

Conference Location : Sydney, Australia

Conference Dates : December 10-11, 2015