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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 ¾ recommended trifloxysulfuron–sodium with sea water, ¾ recommended trifloxysulfuron–sodium with ¾ sea water, ½ recommended trifloxysulfuron–sodium with sea water, ¾ recommended quinclorac with sea water and ¾ recommended quinclorac with ¾ sea water. Eragrostis atrovirens showed maximum 48% injury when treated with ¾ recommended trifloxysulfuron–sodium and sea water. Among the tested turf grasses, P. vaginatum showed only 8% injury to sea water in combination with ¾ recommended quinclorac, indicating greater salt tolerance. Zoysia japonica also showed no more than 14% injury when treated with sea water in combination with ¾ recommended trifloxysulfuron–sodium or quinclorac.

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