Effects of sea water and herbicide for salt toelarnt weed mangement in turfgrass

ABSTRACT

Sea water in combination with trifloxysulfuron-sodium and quinclorac were used to observe weed injury level in turfgrass field. The weed species *viz.*, *Sporobolus diander* (L.) R. Br., *Croton aromaticus* L., *Croton rotundus* and *Emilia sonchifolia* (L.) DC. *ex* Wight except *Emilia atrovirens* were fully controlled when treated with 3/4 recommended trifloxysulfuron-sodium with sea water, 3/4 recommended trifloxysulfuronsodium with 3/4 sea water, 1/2 recommended trifloxysulfuron-sodium with sea water, 3/4 recommended quinclorac with sea water and 3/4 recommended quinclorac with 3/4 sea water. *Eragrostis atrovirens* (Desf.) Trin. *ex* Steud. exposed maximum (48%) injury when treated with 3/4 recommended trifloxysulfuron-sodium and sea water. *Paspalum vaginatum* Sw. showed only 8% injury to sea water in combination with 3/4 recommended quinclorac, indicating greater salt tolerance among the three turfgrass. *Zoysia japonica* Steud. also exposed no more than 14% injury when treated with sea water in combination with 3/4 recommended trifloxysulfuron-sodium or quinclorac. *Cynodon dactylon* (L.) Pers. 'Satiri' had up to 21% salt injury with 3/4 sea water in combination with 3/4 recommended trifloxysulfuron-sodium.

Keyword: Sea water; Herbicide; Weeds control; Tropical turfgrass