

## **Integration of herbicides with manual weeding for controlling the weeds in rice under saline environment**

### **ABSTRACT**

The pot experiment was conducted to select appropriate integrated weed management method in rice under different salinity levels (0,4 and 8 dS m<sup>-1</sup>). All the parameters including rice and weed measured were significantly influenced by weed control treatments at all salinity levels. Treatments including weed-free condition, Pretilachlor @ 0.375 kg ai ha<sup>-1</sup> + hand weeding, Propanil + Thiobencarb @ 0.9 kg ai ha<sup>-1</sup> and 1.8 kg ai ha<sup>-1</sup> + hand weeding performed better under all salinity levels. Pretilachlor @ 0.375 kg ai ha<sup>-1</sup> with one round of hand weeding and propanil + thiobencarb 0.9 kg ai ha<sup>-1</sup> + 1.8 kg ai ha<sup>-1</sup> with one round of hand weeding were comparable to weed-free yields, and were superior to other treatments under salinity condition. Considering all the parameters, pretilachlor @ 0.375 kg ai ha<sup>-1</sup> + one round of hand weeding (at 65 DAT), propanil + thiobencarb 0.9 kg ai ha<sup>-1</sup> + 1.8 kg ai ha<sup>-1</sup> + one round of hand weeding (at 65 DAT) gave the most effective control of weeds in rice under saline environments.

**Keyword:** Hand weeding; Herbicides; Integration; Rice; Saline environment; Weed management