

Integrated Weedy Rice Management Package; Farmers' Fields Adoption

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Weedy rice (*Oryza sativa* f. *spontanea*) is one of the economically important pest in rice cultivation. Department of Agriculture, Sri Lanka recommended an Integrated Package for Weedy Rice Management (IWRMP). This study was conducted with the objectives of farmers' field validation of recommended technological package for weedy rice management and to demonstrate farmers' how to implement the package. A field demonstration experiment was conducted adopting randomized completely block design with five replicates at *Kalinga-ela* during 2016 minor season. *Bg352* variety was used. IWRMP was compared with the farmer's practice. All the crop management activities except mentioned activities were done as per the recommendations of Department of Agriculture, Sri Lanka. Number of weedy rice panicles per square meter at harvesting maturity stage, weed dry weight (gm^{-2}) and Final grain yield (tha^{-1}) were measured. Weed Controlling Efficiency (WCE) and Weedy rice Controlling Efficiency (WrCE) was calculated using standard formula. Data were analyzed using SAS software employing GLM procedure. Weed dry weights of IWRMP was significantly lower compared to control. WCE of IWRMP was 56.26 % in comparison with control where herbicide application was also practiced. Weedy rice infestation level i.e. weedy rice panicle count per square meter was significantly lower in IWRMP compared to control. WrCE of IWRMP was 99.53 % over control. IWRMP showed the significantly highest average final grain yield of 6.52 tha^{-1} where as control showed the yield of 5 tha^{-1} . Yield increment of IWRMP over control was 23 %. IWRMP was effective in farmers' fields because it showed a weedy rice controlling efficiency of 99 % and yield increment of 23 % over control. Weed controlling efficiency of tested activities of IWRMP was also acceptable (56 % over the herbicide treated control).

Keywords: Weed Controlling Efficiency, Weedy Rice, IWRMP, WrCE, WEC