Effect of Establishment Methods and Weed Management Practices on Some Growth Attributes of Rice [PDF]

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摘 要：Studies were carried out for two years to evaluate the effect of methods of sowing and weed control practices on the productivity of transplanted and direct wet-seeded rice in Dera Ismail Khan, NWFP, Pakistan. The experiment was laid out in a randomized complete block design with a split plot arrangement. The planting techniques viz. transplanting and direct seeding were maintained in main plots while weed control practices included the use of granular herbicide Sunstar 15WG (ethoxy sulfuron), Machete 6OEC (butachlor), conventional hand weeding, and the weedy check (control) were assigned to the sub-plots. Data were recorded on weed parameters like weed density and dry weed biomass 60 and 90 days after sowing (DAS); agronomic parameters including plant population, number of panicles and paddy yield and physiological parameters like leaf area index and net assimilation rate 45 and 90 DAS. The planting methods and weed management significantly influenced most of the parameters studied. The data revealed that the paddy yield and its components were significantly higher in the transplanted method than that in direct-seeded method, while the weed density and biomass were lower in the transplanted plots than the direct-seeded plots. Among weed management tools, the maximum paddy yield was obtained in hand weeding, closely followed by herbicide application Machete 6OEC during both cropping seasons.

关键词：rice; transplantation; direct-seeding; herbicides; weed population; leaf area index; net assimilatio

Rice Science. 2006, 13(2): 131-140

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