

EFFECT OF FYM AND WEED MANAGEMENT AND THEIR INTERACTION EFFECT ON WEED DYNAMICS, GROWTH, YIELD ATTRIBUTES AND YIELD OF DIRECT SEEDED RICE (*ORYZA SATIVA* L.) UNDER MINIMUM TILLAGE

Kamla Gandharv*, Navneet Kumar Mishra, Damini Thawait and N.K. Choubey

Department of Agronomy, Indira Gandhi Krishi Vishwavidyalaya, Raipur (C.G.), India

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Abstract: Results revealed that, FYM @ 5 t ha⁻¹ (F1) has significant impact on dry matter accumulation of crop, total tillers m⁻² and effective tillers m⁻². Among weed management practices, hand weeding twice at 25 & 45 DAS (W7) produced significantly highest plant height, dry matter accumulation, total No. of tillers meter⁻², leaf area, leaf area index, number of effective tillers meter⁻², test weight (g), Crop growth rate, Absolute growth rate. Highest grain yield (4.21 t ha⁻¹), straw yield (5.52 t ha⁻¹) and harvest index (51.54 %) was recorded under hand weeding twice at 25 & 45 DAS (W7), followed by Chemical weeding with bispyribac Sodium @ 20 g ha⁻¹ 25 DAS (W1), gave grain yield (4.03 t ha⁻¹), straw yield (5.25 t ha⁻¹) and harvest index (51.37 %). The lowest was recorded under unweeded check (W8). In the experimental field, *Commelina benghalensis* L., *Cyanotis axillaris* Schult. F., *Cyperus difformis* L., *Echinochloa colona* (L.) Link, *Monochoria vaginalis* (Burm.f.) Kunth were dominant weeds. The lowest weed density, weed dry matter production and relative weed density were recorded under hand weeding twice at 25 & 45 DAS (W7), followed by Chemical weeding with bispyribac Sodium @ 20 g ha⁻¹ 25 DAS (W1). The highest economic return in terms of gross income (Rs. 42949.00) were obtained from hand weeding twice 25 & 45 DAS (W7), highest net income (26063.00) and B:C ratio (1.69) were obtained under chemical weeding with bispyribac sodium @ 20 g ha⁻¹ 25 DAS (W1).

Keywords: Growth, Yield, Weed dynamics

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*Corresponding Author