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Effect of weed management practices on weed control, growth attributes, yield and economics in *Rabi* groundnut (*Arachis hypogaea* L.)

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ABSTRACT

A field trial was conducted during *Rabi* season of 2013-14 in farmer's field in Sandhapal village of Chhendipada block in Angul district in Odisha to study the effect of weed management practices on weed control, growth attributes, yield and economics in *Rabi* groundnut .The treatments comprised of different weed management practices *viz.*, T_1- Post-emergence application of quizalofop ethyl 0.05 kg ha^{-1} *fb* one hand weeding at 25 DAS, T_2- Farmers practice of one hand weeding at 25 DAS and T_3-Weedy check. The experimental trial was laid out in Randomized Block Design with thirteen replications. The results revealed that post-emergence application of quizalofop ethyl 0.05 kg ha^{-1} *fb* one hand weeding at 25 DAS recorded maximum weed control efficiency (71.4 %) with minimum dry weed biomass (79.2 g m^{-2}) at harvest. The same treatment also produced significantly higher pod yield (22.34 q ha^{-1}), plant height (40.13 cm), number of pods plant^{-1} (19.5), 100 pod weight (81.7 g), 100 seed weight (36.2 g), total dry matter accumulation(2.16 to 25.5 g plant^{-1}), CGR (5.32 to 26.40 g m^{-2} day^{-1}), gross return (Rs.89360 ha^{-1}) and B:C ratio(2.20) with additional net return of Rs.10280 ha^{-1} as compared to farmers practice and weedy check. Thus, application of quizalofop ethyl 5 per cent 1.0 kg ha^{-1} *fb* one hand weeding appeared to be effective, economically viable for weed control, crop growth, higher pod yield and net profit.

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