Effect of weed management practices on weed parameters and yield of rice fallow sorghum

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ABSTRACT

A field experiment was conducted during *rabi* 2023-24 at the Agricultural College Farm, Bapatla. The experiment was laid out in a randomized block design with eleven treatments and replicated thrice. Data on weed dynamics revealed that hand weeding at 20 and 40 DAS and pendimethalin @ 0.75 kg a.i./ha + paraquat @ 0.6 kg a.i./ha applied immediately after dibbling *fb* halosulfuron-methyl @ 67.5 g a.i./ha at 20 DAS recorded significantly lower total weed count and dryweight and higher weed control efficiency at harvest. Hand weeding at 20 and 40 DAS recorded highest grain yield of sorghum. However, atrazine @ 1.0 kg a.i. ha^{-1} + paraquat @ 0.6 kg a.i. kg ha^{-1} immediately after dibbling *fb* 2,4-D @ 0.8 kg a.i. ha^{-1} at 20 DAS as PoE and pendimethalin @ 0.75 kg a.i. ha^{-1} + paraquat @ 0.6 kg a.i. ha^{-1} immediately after dibbling *fb* 2,4- D @ 0.8 kg a.i. ha^{-1} at 20 DAS as PoE resulted in comparable grain yield with hand weeding at 20 and 40 DAS.

Keywords: *Halo-sulfuron methyl, Phytotoxicity, Rice fallow Sorghum and Pre emergence herbicides*