SHORT COMMUNICATION

IMPACT OF WEED MANAGEMENT PRACTICES ON WEED CONTROL, NODULATION, RHIZOBIUM POPULATION AND YIELD IN SOYBEAN

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Absract: The experiment using JS 97-52 variety of soybean was laid out during *kharif* season of 2013 at the Research Cum Instructional Farm, Indira Gandhi Krishi Vishwavidyalaya, Raipur (C.G.) using Randomized Block Design, comprising four replications and eight treatments. The result revealed that highest number of root nodules plant^{-1} was recorded under hand weeding twice at 20 and 40 DAS, however it was found comparable with Sulfentrazone @ 300 g *a.i.* ha^{-1}as PE + Imazethapyr @ 100 g *a.i.* ha^{-1} as PoE. The lowest root nodules plant^{-1} was registered under untreated control. Maximum dry weight of nodules plant^{-1} was recorded under hand weeding twice at 20 and 40 DAS as compared to other treatments, however it was on par with Sulfentrazone @ 360 g *a.i.* ha^{-1} as PE and Sulfentrazone @ 300 g *a.i.* ha^{-1}as PE + Imazethapyr @ 100g *a.i.* ha^{-1} as PoE . The lowest weight of root nodules plant^{-1} was registered under untreated control. Maximum rhizobial population was observed under treatment untreated control, which was at par with treatment hand weeding twice at 20 and 40 DAS, and minimum rhizobial population was observed under treatment Pendimethalin @ 1 kg *a.i.* ha^{-1} as pre-emergence.Minimum density and dry weight of weeds were also registered under Hand weeding twice at 20 and 40 DAS.

Keywords: Nodule number, rhizobium population, weed control, soybean

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