

EFFECT OF SOIL INCORPORATION METHODS OF *SESBANIA ACULEATA* (DHAINCHA) OF VARYING AGES ON RICE YIELD

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ABSTRACT

Soil-incorporation of Sesbania green manure (GM) has been a major constraint to its widespread adoption in the rice tract. Thus, a field experiment was conducted to investigate an easy, effective and economical method of Dhaincha (Sesbania aculeata) incorporation and its effect on the grain yield of following rice crop, during 1995-97. Dhaincha was grown upto 30, 45, or 60 days and incorporated into soil with five different methods as animal-drawn implement, tractor-operated rotavator in moist or flooded soil, and chained-wheel tractor with or without cultivator. The results showed that use of rotavator proved a time and cost-effective method, followed by chained-wheel tractor without the cultivator. A 60 days old Sesbania produced high organic material and biological nitrogen. Age of Sesbania GM significantly affected the paddy yield while methods of incorporation had no effect on rice grain yield in all the years. The results suggested that mechanized ways of GM-incorporation into the soil should be adopted to avoid any delay in rice transplanting in a GM-rice farming system.