



Effect of different weed management treatments on growth of groundnut

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ABSTRACT

The present experiments was carried out at Water Management Centre, Marathwada Agricultural University, Parbhani during 2005-2006. Growth of groundnut crop measured in terms of number of branches, number of leaves, leaf area, number of pegs, canopy spread, number of nodes per plant were recorded significantly more in weed free check. This was followed by two hand weeding and hoeing at 15 and 30 DAS. The integrated methods *i.e.* (PE) pendomethelin or (PPI) fluchloralin followed by hand weeding at 15 DAS were also effective. The treatment with hoeing at 15 and 30 DAS and post emergence imazethapyr @ 150 g a.i./ha and POE imazethapyr 100 g a. i./ha at 15 DAS, were next in order of merit for above character.

KEY WORDS : Groundnut, *Arachis hypogaea* L. weed and IWM

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INTRODUCTION

Groundnut (*Arachis hypogaea* L.) is an important oil seed crop in India. The groundnut kernels are rich source of thiamine, riboflavin, nicotinic acid etc. The oil cube of groundnut is the valuable organic manure and animal feed. Groundnut is used for manufacture of soap, hydrogenated vegetable oil and for culinary purpose.

Among all the oil seed crop, groundnut accounts for more than 40% average and 60% production in the country. Its high oil and protein, control ability to withstand water deficient condition and remunerative price in the market make it an attractive crop to farmer. In spite of this crop being so important, it is alarming to note that the average production of this crop has a decline trend. Low productivity of this crop is due to any reason such as, non implementation of proper package of practices, inadequate effects in plant protection measures *viz.*, heavy infestation due of irrigated crop condition and also low yield is the

completion of crop plant with the unwanted associated weed flora. Uncontrolled weed reduced groundnut yield up to 75% (Gananamurthy and Balasubrahmaniyan 1998).

The first 3 to 4 weeks of crop growth period is critical for weed competition in groundnut (Kalaiselven *et al.*, 1991). By considering this view, the present experiment was conducted.

MATERIALS AND METHODS

The field experiment was conducted in plot No. A – 8 of Water Management Centre, Marathwada Agricultural University, Parbhani during *Rabi* season of the year 2005 – 2006 in Randomised Block Design (RBD) with three replications and nine treatments. The application of treatments is given in (Table 1). For recording the observations, five plants were selected randomly from each plot and periodical growth and development characters at different stages were studied.

RESULTS AND DISCUSSION

The data generated (Table 2) indicated that the emergence and final plant population of groundnut was not affected due to various weed control treatments. Maximum height was observed in weedy check (unweeded control) at harvest. This may be due to competition for light with weeds and resulted in increased height. These results are in confirmity with result obtained by Kulandaivelu and Sankaran (1976).

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