

**EFFECT OF MULCHING AND IRRIGATION INTERVALS ON
GROWTH AND YIELD OF OKRA (*Abelmoschus esculentus*)
GROWN IN SANDY SOIL OF PALACHOLAI AREA**



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ABSTRACT

An experiment was conducted at Agricultural Engineering field, faculty of agriculture, Eastern University, Sri Lanka to assess the effect of mulching and irrigation interval on vegetative growth and yield of okra (Haritha). The experiment evolved into a factorial complete randomized design. There were 06 treatments comprising T1- black polythene mulch with daily irrigation, T2- black polythene mulch with once in a two days irrigation, T3- paddy straw mulch with daily irrigation, T4- without mulch with daily irrigation (control), T5- paddy straw mulch with once in a two days irrigation and T6- without mulch with once in two days irrigation which was replicated three times. Mulching and irrigation interval showed significant effect on all growth and yield parameters. The study revealed that plant height, number of leaves, number of flowers per plant, number of pods per plant, pods length, total yield, plant biomass and water use efficiency (WUE) among the different treatments were statistically significant at 0.05 probability level. Among the treatments, the black polythene mulch with daily irrigation treatment produced the maximum fruit yield (12060 t/ha), and had better plant height (25.11 cm), number of leaves per plant (9), number of fruits per plant (11), average fruit length (16.082cm), root fresh and dry mean weight (6.733g and 3.733g), shoot fresh and dry mean weight (45.500g and 36.17g) and water use efficiency (WUE) (1.9879 kg/ha-mm). Thus, black polythene mulch with daily irrigation is better for okra production at palacholai area of Batticaloa district, Sri Lanka.

Key words: Irrigation interval, Mulching, Okra and Water use efficiency.

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