RESEARCH ARTICLE

EFFECT OF IRRIGATION SCHEDULES AND BALANCED FERTILIZATION ON GROWTH AND PRODUCTIVITY OF TARAMIRA

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Received-14.05.2021, Revised-28.05.2021, Accepted-12.06.2021

Abstract: A field experiment was conducted to study the impact of irrigation levels and balanced fertilization on growth parameters and yield of taramira [*Eruca sativa* (L.) Mill] during *rabi* season of 2017-18 at Agronomy Farm, S.K.N. College of Agriculture, Jobner. The experiment comprising three levels of irrigation (one irrigation at branching stage, two irrigation at branching and flowering and three irrigations at branching, flowering and pod formation stage) and five treatment comparisons for balanced fertilization (control, N_{30}, $N_{30} + P_{15}$, $N_{30} + P_{15} + K_{30}$ and $N_{30} + P_{15} + K_{30} + S_{40}$ kg/ha) there by making 15 treatment combinations was laid out in split plot design and replicated four times. Results showed that two irrigations the first at branching and the second at flowering stage significantly increased the growth characters *viz*., plant height at harvest (118.6 cm), dry matter accumulation at harvest (172.59 g/metre row length), chlorophyll content (0.991 mg/g), LAI (1.05), CGR during 60 DAS-at harvest (2.820 g/m/day), grain (1199 kg/ha), straw (3344 kg/ha) and biological (4543 kg/ha) yield of taramira. Although, three irrigations increased the yield over two irrigations but the increment was statistically not significant. Results further revealed that fertilization with nitrogen and phosphorous in taramira brought significant improvement in all the growth characters, grain (1153 kg/ha) straw (3095 kg/ha) and biological yields (4248 kg/ha) over control. Increase in growth parameters and yield owing to application of potassium as well as sulphur over N and P remained marginal.

Keywords: Growth, Fertilization, Flowering, Irrigation, Nitrogen, Taramira

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