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RESEARCH ARTICLE

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Summer sesame response to moisture and thermal regimes

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ABSTRACT : A field experiment was conducted at instructional farm of soil and water engg., CAET, JAU, Junagadh during summer season (Feb.-May), 2012 to study the summer sesame response to moisture and thermal regimes with three Factorial Strip Plot Design. The crop was exposed to different thermal regimes by four dates of sowing *i.e.*, 1st Feb., 14th Feb., 1st March and 14th March with moisture regimes by varying the irrigation interval (3, 4 and 5 days irrigation interval). Results revealed that the seasonal depth of irrigation decreased with delay in sowing from 1st February and the growing days requirement decreased with delaying sowing after 1st February. The more number of growing days were required to mature the crop with less total thermal heat unit. The sesame yield is significantly influenced by the thermal regimes. The highest and lowest sesame grain yield of 1131.59 kg/ha and 555.20 kg/ha was observed for the dates of sowing of 16th February and 1st February, respectively. The grain yield increased rapidly by delaying the sowing from 1st Feb. to 21st Feb., then after it decreased slowly and continously. The vegetative stage was found the most sensitive stage to thermal regimes followed by establishment stage, flowering stage, ripening stage and reproductive stage. The highest grain yield of 991.27 kg/ha was found under drip irrigation at 3-days interval which was higher by the tune of 10.33 per cent, 17.32 per cent and 20.86 per cent as compared to that of under 4, 5 days under drip and 7-days under surface irrigation, respectively.

KEY WORDS : Summer, Sesame, Moisture, Thermal regimes

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