

## AMBIENT TEMPERATURE TREND ANALYSIS FOR THE NORTH SAURASHTRA REGION IN VIEW OF CLIMATE CHANGE

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### ABSTRACT

The paper emphasises the importance of Ambient temperature trend analysis, distinguishing between current climate variability and future changes in climate especially in understanding the agro-economic impact of climate change on Indian agriculture. The long-term change in maximum and minimum temperature has been evaluated by Mann–Kendall rank statistics and linear trend. The significantly increasing trend in maximum weekly temperature was observed in MSW 8, 14-15 and 18, which is initial, pegging and pod formation/development stages of *summer* groundnut in irrigated agriculture, respectively. Whereas significantly decreasing trend in maximum weekly temperature was observed in MSW 28, which is initial growing/establishment stage of *kharif* groundnut, cotton, pearl millet and sesame crops and MSW 37-39, which is pod development stage of *kharif* groundnut and grand growth stage of cotton crops in dry farming area of Saurashtra region. The weekly minimum temperature showed significantly increasing trend in MSW 44-45(Oct.-29 to Nov.-11), which is mid season of cotton and sowing stage of *rabi* season crops and 48<sup>th</sup> MSW, which is establishment stage of *rabi* season crops. This study may useful for management of *kharif*, *rabi* and *summer* season crops for agricultural community.

**KEYWORDS:** Ambient Temperature, Climate Variability, Grand Growth Stage, Agricultural Community