

## PHYSIOLOGICAL RESPONSE OF IRANIAN WHEAT LANDRACES UNDER IRRIGATED, RESTRICTED IRRIGATED AND RAINFED CONDITIONS

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**Abstract:** Drought is major abiotic stress that induce alterations in wheat physiology. The aim of present study was to investigate the effect of water stress on canopy temperature and chlorophyll content of 27 Iranian landraces along with commercial relevant checks under irrigated, Restricted irrigated and Rain-fed condition. Lines were selected on the basis of minimum reduction of vigor index under water stress induced by Polyethylene glycol (6000) as compared to control lines. A field experiment was carried out at experimental area of Department of Plant Breeding & Genetics, Punjab Agricultural University Ludhiana, Punjab during 2016-17 with three replications. Canopy temperature was recorded first at anthesis stage and then 10 days after anthesis. Chlorophyll content was recorded at regular interval from tagged plant from anthesis to maturity. IWA 8600179, IWA 8600064 and IWA 8600542 had lower canopy temperature whereas PETERSONML68-10, IWA 8600596, IWA 8600064 and IWA 8600179 had maximum chlorophyll content under water stress.

**Keywords:** Anthesis, Chlorophyll content, Canopy temperature, Water stress

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