

# Genotypic Response to Salt Stress: I–Relative Tolerance of Certain Wheat Cultivars to Salinity

Ravi Sharma\*

Eco-physiology Laboratory Department of Post-graduate Studies and Research in Botany K R College Mathura Formerly Head Department of Botany K R College, Mathura and Ex-Principal ESS ESS College, Agra (Dr B R Ambedkar University formerly Agra University, Agra) 281 001 UP India

### **Abstract :**

Forty two wheat (*Triticum aestivum* L) cultivars screened for their relative salt resistance raising seedlings in half-Hoagland solution (control) salinized with NaCl and maintained at 4, 8, 12 and 16 dsm-1 showed a wide range of salt resistance. The growth response to salinity, judged by the shoot and root lengths, ranged from a stimulation in the case of some cultivars at lower salinity levels (4 and 8 EC) to a severe suppression in most of the cultivars at higher levels (12 and 16 EC). It was further observed that the shoot growth was often suppressed more than the root growth with this a level of 12 EC also found to be critical for most of the cultivars except HD-2160 which showed good stand even at a salinity level of 16 EC. Based on these observations, cultivar IWP-72 of the 42 cultivars tested was found to have the maximum sensitivity to salt stress whereas cultivar HD-2160 showed highest salt tolerance. The remaining 40 cultivars fell between the two extremes and were categorized into sal-sensitive, moderately salt – tolerant and salt – tolerant groups exhibiting more than 60%, 40 – 60% and less than 40% reduction respectively in shoot length at 12 EC dsm-1 over control.

### **Key Word :**

Wheat (*Triticum aestivum* L); Salt stress; Critical level; Salt-tolerant; Moderately salt-tolerant; Salt-sensitive genotypes

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