

ORIGINAL ARTICLE



Response of secondary metabolites in *Aristolochia bracteolata* Lam. under water stress regimes

Madhuri P. Patil, Shashikant J. Chavan, Chandrashekhar V. Murumkar

Post Graduate Research Centre, Department of Botany, Tuljaram Chaturchand College,
Baramati, 413102, Maharashtra, India

*E-Mail: patilmadhuri352@gmail.com

Received June 1, 2021

Effect of water stress on leaf water relations and some secondary metabolites in root stem and leaf of *Aristolochia bracteolata* Lam. has been studied. Mature potted plants were imposed to short term water stress. Moisture content, succulence index, mesophyll succulence index showed a very meager decline under water scarcity thereby showing its ability to maintain water status even under water deficiency. Significant rise in proline content in leaf followed by stem and root observed under water stress. Polyphenol and tannin content has increased considerably in all parts but more pronounced effect is seen in root. Maintenance of high succulence even under water stress and concurrent accumulation of secondary metabolites helps in membrane protection and osmoregulation influences for induction of facultative CAM.

Key words: Weed, drought, abiotic, polyphenols, Crassulacean Acid Metabolism