

## Variation in Adaptation Strategies of *Commelina Communis* L. Biotypes under Drought Stress Condition

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**Abstract :** *C. communis* L. is an important weed of many crop, but very little information about the adaptation strategies of *C. communis* L. biotypes under drought stress. We investigated five biotypes of *C. communis* L under drought stress to identify the adaptation mechanism. The expression of drought stress related genes (DRS1, EREB and HRB1) was up-regulated in biotypes, while in some biotypes their expression was down regulated. All five biotypes can thus regulate water balance to consume less water to maintain their status under drought stress condition. This result concluded that *C. communis* L. biotypes can survive longer under drought stress condition. Weed scientist should seek more effective management strategies to deal with *C. communis* L.

**Keywords :** *C. communis*, biotypes, drought stress, gene expression

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