

Biological activities of aqueous leaf extract of *Datura stramonium* and *Convolvulus arvensis* on two wheat cultivars

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We examined in vitro the effect leaf aqueous extract (0.1, 0.5, 1% g d. wt) of two weeds (*Datura stramonium* and *Convolvulus arvensis*) on germination, seedling growth and metabolites of two wheat cultivars (*Triticum vulgare* L. Cv. Sohag 1 and *Triticum vulgare* L.cv. Benyswef 3). The two weeds are common tropical and subtropical and their leaves fall down into soil. Leaf aqueous extract of the two weed leaves of 0.5 and 1% significantly reduced germination and seedling growth of two wheat cultivars. The decrease in length of root length was much more obvious than in shoot with increasing concentration of crude leaf extract. Fresh weight of whole-wheat seedling significantly decreased with increasing concentration of leaf extract, while the dry weight was unaffected. Carbohydrate and protein constituent contents of both wheat seedling cultivars showed a considerable variation in response to weeds aqueous extract treatments. Proline and total amino acids contents of two wheat cultivars in most cases, increased with treatments. Untreated wheat seedling of Sohag 1 had low proline and total amino acids contents than that of Bensyeef 3. Accumulation of proline in treated wheat Sohag 1 with both aqueous weeds was occurred. In Benysweef 3 cultivar, the seedling proline content only was accumulated due to *Datura* aqueous extract treatments.

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