



## Evaluation of Benzyl-butyl phthalate Induced Germination and Early Growth Vulnerability to Barley Seedlings (*Hordeum vulgare* L.)

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**Abstract:** Phthalates are dialkyl or alkyl/aryl esters of 1, 2 benzene dicarboxylic acid and well avowed for their widespread applications. In agricultural soil they were reported in considerable amount and through dietary route they enter into animals and human beings posing serious threat to their well being. The present study was designed to understand phthalates induced toxicity in cereal crops. The germination parameters such as germination percentage, speed of germination, peak value, mean daily germination, germination value, mean germination time, seed vigour index, germination rate index declined significantly. The increase in benzyl-butyl phthalate (BBP) concentration enhanced the seed mortality and phytotoxicity index in the barley seedlings. The effect of BBP on barley revealed that the roots were more vulnerable to toxicity than shoot of seedlings.

**Keywords:** Barley, Benzyl butyl phthalate, Growth, Germination vulnerability

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