RESEARCH ARTICLE

EFFECT OF 2-BENZOXAZOLINONE (BOA) ON MORPHO-PHYSIOLOGICAL AND BIOCHEMICAL ASPECTS OF *CASSIA OCCIDENTALIS* L.

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Abstract: The present laboratory experimental study was carried about to evaluate the allelopathic potential of an allelochemical, 2-benzoxazolinone (BOA) on some morpho-physiological and biochemical parameters of *Cassia occidentalis*. 100, 500, 1000 µM concentrations of BOA were applied to determine their effect on morpho-physiological parameters(seed germination, root length, shoot length, fresh weight, dry weight etc.) and biochemical parameters (chlorophyll, carotenoids, protein and α-amylase) of test plant under laboratory condition. Study was conducted on 10 day seedlings of *Cassia occidentalis*. Not only seedling growth parameters even the chlorophyll, carotenoids, protein and α-amylase were appreciably reduced, thereby indicating that BOA negatively affects the growth of *Cassia occidentalis*. The study was concluded that BOA possesses weed suppressing ability.

Keywords: Allelopathy, Allelochemical, Weed, BOA, *Cassia occidentalis*

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