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Biostimulatort Effect of Aqueous Extract of Flower and Pods of *Senna occidentalis,* on Wheat Seedling

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Abstract—*To replace the harsh effect of the fertilizers in the agricultural field, use of the biostimulants is rapidly being used (Calvo et. al., 2014). Plant-biostimulants as "Substances and materials, with the exception of nutrients and pesticides, which, when applied to plants, Seeds or growing substrates in specific formulations, have the capacity to modify physiological processes of plants in a way that provides potential benefits to growth, development and/or stress response"(du Jardin,2015). Thus, they can be used as a substance for improving crop quality.*

Senna occidentalis, a weed plant, an erect herb commonly found in road side, ditches and waste dumping sites was chosen for this study. Effect Aqueous extract of flower and legume of Senna occidentalis six in different concentrations (10 mg/ml, 25 mg/ml, 50 mg/ml and 100 mg/ml, 150 mg/ml and 200 mg/ml along with Control) were tested on wheat seedling. Physical Parameters, like root length, shoot length, wet weight and dry weight of wheat seedling were measured and found to have growth stimulating effect on wheat seedlings (In case of leaf extract 10mg/ml and 50 mg/ml shows stimulatory effects). Biochemical Parameters were also measured like chlorophyll estimation, proline content, sugar content and protein estimation were further done on selected concentrations. Our study suggests that, effect of weed plant extract has stimulatory effect on wheat crops at concentration studied.

Keywords*: Biostimulant, weed, aqueous extract, Senna occidentalis, wheat seedling.*

References

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