

BIOCHEMICAL IMPACT OF ENDOGENOUS HORMONES INHERENT IN EUCALYPTUS LEAF EXTRACT ON SENESCENCE IN VIGNA MUNGO (L.) HEPPER FOR ITS USE AS BIOFERTILIZER.

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Abstract: Senescence in *Vigna mungo* (L.) Hepper is studied here. The biochemical impact of endogenous hormone inherent in *Eucalyptus* leaf extract on it was specially studied. The studies were made by taking aqueous extract of dried leaves of *Eucalyptus citriodora* at various concentrations and compared with control. During study, the various concentrations of *Eucalyptus* leaf extract taken were W/V – 1:200, 1:250, 1:500 and 1:1000 respectively. Senescence was studied in intact and excised leaves of *Vigna mungo* (L.) Hepper. Observations were made both in light and dark in species under investigation. The inference drawn out of experimentation are worth noticing. Whether use of dried leaves of *Eucalyptus* can be done as bio-fertilizer in seedling growth of *Vigna mungo* (L.) Hepper by preventing leaf senescence, was to be seen. It was found out that in *Eucalyptus* leaf extract in light, senescence was controlled in intact leaves. But in dark, senescence was promoted at concentrations, W/V – 1:200, but minimum senescence occurred at dilute concentrations and in control in intact leaves. In excised leaves, senescence was promoted at concentration, W/V – 1:200, both in light & dark. However, at other concentrations, darkness controlled senescence. Lower concentrations of *Eucalyptus* leaf extract are recommended as biofertilizers for *Vigna mungo* (L.) Hepper.

Key words: Senescence, Biochemical impact, Leaf extract, Biofertilizer, Endogenous hormone, Intact leaves, Excised leaves, Light and Dark.

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