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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