

# IMPACT OF SUPPLEMENTAL UV-B RADIATION ON CHLOROPHYLL DEVELOPMENT IN SOYBEAN (*GLYCINE MAX L.*).

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**Abstract:** An attempt has been made to study the impact of supplemental UV-B radiation on chlorophyll content in soybean (*Glycine max L.*). Plants were irradiated daily with supplemental UV-B radiation supplied by sun lamps, 300 watt held in frames suspended 1 meter above the plants in the fields. The total supplemental UV-B irradiance received at the top of the plants beneath the lamps was  $24.23 \text{ Jm}^{-2}\text{s}^{-1}$ . Control plants were not exposed to supplemental UV-B radiation. Plants of plots T<sub>2</sub>, T<sub>3</sub> and T<sub>4</sub> were exposed to supplemental UV-B radiation for 1 hr, 2 hr and 3 hr daily respectively till maturity. Result indicated that chlorophyll content was inhibited at all supplemental UV-B exposures during lab condition. Shorter exposure (1 hr) of supplemental UV-B radiation inhibited the chlorophyll pigment however longer exposures of supplemental UV-B radiation (2 and 3 hr) promoted the chlorophyll pigment during crop growth in field condition. Chlorophyll 'a' seems to be more sensitive to supplemental UV-B radiation. There was a gradual increase in chlorophyll content as crop grows towards maturity.

**Keywords:** Chlorophyll content, Soybean, supplemental UV-B radiation

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