



STUDY OF DEVELOPMENT, QUALITY OF PLANT AND ACCUMULATION OF PIGMENTS IN LIGULES OF *TARGETES ERECTA* L. EXPOSED TO TWO LIGHT INTENSITIES.

ABSTRACT

The carotenoids are photosensitive pigments during photosynthesis. The objective of this work was to study the effect on development and accumulation of carotenoids in ligules of *Tagetes erecta* exposed under two different lighting ambient (with mesh and without mesh of 50%). The plant development was evaluated measuring the height of the plant, number of floral buds, the ligules diameter. In addition, the quantification and identification of carotenoids from ligules was done by HPLC. The results showed significant differences ($p \leq 0.05$) in the height of the plant, number of floral buds and ligules diameter of *T. erecta*. The group grown without mesh received greater UV radiation and different temperature, that under a mesh. The first conditions lead to a reduction of the ligules diameter and total content of xanthophylls (lutein and zeaxanthin). The plastids ultrastructure in the cells of *T. erecta* developed with mesh showed the greatest amount of thylakoid membranes and more conspicuous starch granules

http://www.blacpma.usach.cl/images/docs/010-005/012_eva.pdf

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