

DETERMINATION OF CAROTENOID CONTENTS IN THREE VEGETABLES

KOLITIS (*Amaranthus spinosus*), LUPO (*Alternanthera sessilis*), AND

TUGABANG (*Corchorus olitorius*)

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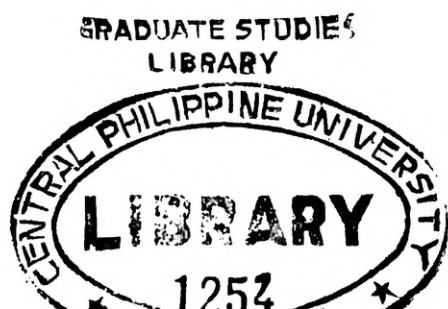
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By

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ABSTRACT

This study aimed to determine the presence of carotenoids in three vegetable samples Kolitis (*Amaranthus spinosus*), Lupo (*Alternanthera sessilis*), and Tugabang (*Corchorus olitorius*). The carotenoids were extracted using absolute ethanol and determined using UV/Vis spectrophotometer. The absorption of β -carotene, Astaxanthin, Lycopene and Zeaxanthin were read at wavelength of 450, 466, 471, and 478 nm respectively. From the results, it was found that kolitis had 23.3 $\mu\text{g/g}$ of β -carotene, 76.7 $\mu\text{g/g}$ Astaxanthin, 46.6 $\mu\text{g/g}$ Lycopene, and 83.3 $\mu\text{g/g}$ Zeaxanthin. Tugabang had 21.0 $\mu\text{g/g}$ β -carotene, 76.1 $\mu\text{g/g}$ Astaxanthin, 46.7 $\mu\text{g/g}$ Lycopene, and 71.4 $\mu\text{g/g}$ Zeaxanthin. Lupo had 23.1 $\mu\text{g/g}$ β -carotene, 76.7 $\mu\text{g/g}$ Astaxanthin, 48.1 $\mu\text{g/g}$ Lycopene, and 72.2 $\mu\text{g/g}$ Zeaxanthin. Many antioxidant products are being sold in the market. However, it is uncertain if all of them are effective and safe. Based on the result of this study, it is recommended to include kolitis, tugabang, and lupo in the diet to obtain carotenoids which is a source of vitamin A.