PENENTUAN KANDUNGAN ANTIOKSIDAN TOTAL DARI INFUSA BAYAM HIJAU (*Amaranthus hybridus* L.) HIDROPONIK DAN KONVENSIONAL DENGAN METODE FENANTROLIN MODIFIKASI

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ABSTRACT

DETERMINATION OF TOTAL ANTIOXIDANT CONTENT OF HYDROPONIC AND CONVENTIONAL GREEN SPINACH (*Amaranthus hybridus* L.) INFUSION WITH MODIFIED PHENANTHROLINE METHOD

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Antioxidants are compounds that can inhibit oxidation reactions by binding to free radicals and highly reactive molecules. This study aims to determine the total antioxidant content of hydroponic and conventional green spinach (*Amaranthus hybridus* L.) infusions. Hydroponics is the cultivation of plants without using soil as a growing medium with the addition of nutrients for growth. Green spinach is extracted by the infundation method. The antioxidant content of the sample was determined using the Modified Phenanthroline Method. This method is valid to be used after testing with the parameters of relative standard deviation, percent recovery, detection limit and quantification limit. The test results showed that the average antioxidant content of conventional green spinach was higher than that of hydroponic green spinach that is 3,33 ± 0,74 mg AA/g FW and 2,52 ±0 .63 mg AA/g FW.

Keywords: Antioxidant, green spinach, hydroponics, infundation, Modified Phenanthroline Method