

INTISARI

ANDARWATI, ANISA SEPTY., 2017, PENETAPAN KADAR VITAMIN C PADA KACANG BUNCIS (*Phaseolus vulgaris* L.) SEGAR DAN REBUS SECARA SPEKTROFOTOMETRI UV, KARYA TULIS ILMIAH, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Vitamin C adalah salah satu zat gizi yang berperan sebagai antioksidan, efektif mengatasi radikal bebas yang dapat merusak sel atau jaringan. Sumber vitamin C secara umum terdapat dalam buah jeruk, sayuran yang berdaun hijau seperti kacang buncis. Penelitian ini bertujuan untuk mengetahui ada tidaknya kandungan vitamin C pada kacang buncis segar dan kacang buncis rebus serta menentukan kadar vitamin C pada buncis segar dan buncis rebus yang ditetapkan dengan spektrofotometri UV.

Pengujian vitamin C pada kacang buncis segar dan kacang buncis rebus diawali dengan analisa kualitatif, dilanjutkan analisa kuantitatif menggunakan Spektrofotometri UV dan metode analisa yang digunakan metode kurva baku standar. Tahapan penelitian yang dilakukan meliputi pembuatan larutan baku, penentuan gelombang maksimal dengan range 240nm-280nm dengan interval 5 nm, penentuan *operating time* dengan interval 1 menit selama 20 menit dan penentuan variasi konsentrasi larutan baku vitamin C yaitu 4,72µg/ml; 7,08µg/ml; 9,44µg/ml; 11,8µg/ml; 14,16µg/ml yang diamati pada λ max. Perlakuan pada sampel yaitu kacang buncis segar dan kacang buncis rebus suhu 100°C, setelah direbus diblender dan disentrifuge yang kemudian dianalisa dengan Spektrofotometri UV.

Berdasarkan hasil penelitian di laboratorium didapatkan kacang buncis segar dan kacang buncis rebus mengandung vitamin C dan secara Spektrofotometri UV diperoleh kadar vitamin C dalam kacang buncis segar sebesar 0,20% dan kacang buncis rebus suhu 100°C dengan waktu 10 menit sebesar 0,16%.

Kata kunci : Vitamin C, Kacang Buncis Segar dan Rebus, Spektrofotometri UV

ABSTRACT

ANDARWATI, ANISA SEPTY., 2017, DETERMINING THE AMOUNT OF VITAMIN C IN FRESH AND BOILED GREEN BEANS (*Phaseolus vulgaris* L.) BY USING SPECTROPHOTOMETRIC UV, A SCIENTIFIC WRITING, PHARMACY FACULTY, SETIA BUDI UNIVERSITY, SURAKARTA.

Vitamin C is one of the nutrients which plays a role as the antioxidant and is effective in overcoming free radicals that can destroy cells or tissue. The source of vitamin C is generally found in oranges, vegetables that have green leaves like green beans. This study aims to discover the presence of vitamin C in fresh green beans and boiled green beans and also to determine the amount of vitamin C in fresh green beans and boiled green beans by using the spectrophotometric UV.

The vitamin C testing in fresh and boiled green beans was started by qualitative analysis, then was continued by quantitative analysis by using Spectrophotometric UV and the analysis method used was the standard basic curve method. The steps of the study was done through making of basic solution, determining of maximum wave with the range of 240nm-280nm with the interval of 5 nm, determining the operating time with the interval of 1 minute for 20 minutes, and determining the concentration variation of the basic solution of vitamin C which are 4,72µg/ml; 7,08µg/ml; 9,44µg/ml; 11,8µg/ml; 14,16µg/ml observed in the maximum λ . The treatment on the samples which are fresh green beans and boiled green peas in 100°C, after boiled, blended, and sentrifuged which is then analyzed by using Spectrophotometric UV.

Based on the findings in the laboratorium, it was known that the fresh green beans and boiled green beans contain vitamin C and by using the spectrophotometric UV it was obtained that the amount of vitamin C in fresh green beans was 0.20% and in the 100°C boiled green beans was 0.16%

Keywords : Vitamin C, Fresh and Boiled Green Beans, Spectrophotometric UV