

INTISARI

WAHYUNINGRUM, Y.T., 2019 PENETAPAN KADAR VITAMIN C PADA BUAH SEGAR DAN MANISAN BASAH BUAH NANAS (*Ananas comosus. Merr*) SECARA SPEKTROFOTOMETRI UV, KARYA TULIS ILMIAH, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Vitamin C sangat dibutuhkan oleh tubuh manusia yang dapat diperoleh dari buah-buahan diantaranya buah nanas (*Ananas comosus. Merr.*). Tujuan penelitian ini adalah uji kualitatif dan uji kuantitatif vitamin C pada buah segar dan manisan basah buah nanas secara spektrofotometri UV.

Sampel yang digunakan yaitu buah segar dan manisan basah buah nanas (*Ananas comosus. Merr.*). Uji kualitatif dilakukan berdasarkan kemampuan melunturkan warna pereaksi dari larutan Iodium, KMnO_4 , Fehling A dan Fehling B. Uji kuantitatif secara spektrofotometri UV dengan panjang gelombang maksimum $\lambda_{\text{maks}} = 266 \text{ nm}$ dan *operating time* pada menit ke-1 sampai 15.

Hasil uji kualitatif dan kuantitatif vitamin C pada buah segar dan manisan basah nanas (*Ananas comosus. Merr.*) secara spektrofotometri UV menghasilkan persamaan garis linear $y = 0,0625x + 0,2572$ dengan nilai koefisien korelasi (r) = 0,9971, LOD = 0,2937, LOQ = 0,9789, presisi, SD = 0,0557, RSD = 1,130486 dan akurasi = 99.96% menunjukkan bahwa semua sampel uji mengandung vitamin C dengan kadar berturut-turut yaitu pada buah segar muda = 0,0553% b/b, buah segar matang = 0,0449% b/b dan pada manisan basah = 0,0271% b/b dengan perbedaan yang bermakna.

Kata kunci: Nanas, Vitamin C, Spektrofotometri UV.

ABSTRACT

WAHYUNINGRUM, Y.T., 2019 DETERMINATION of VITAMIN C LEVELS IN FRESH FRUIT AND CANDIED WET FRUIT PINEAPPLE (*Ananas comosus. Merr*) in UV SPECTROPHOTOMETRY, SCIENTIFIC WRITING, FACULTY OF PHARMACY, UNIVERSITY OF SETIA BUDI, SURAKARTA.

Vitamin C is needed by the human body that can be obtained from fruit including pineapple (*Ananas comosus. Merr.*). The purpose of this research is the qualitative test and quantitative test of vitamin C on fresh fruit and wet confectionery of pineapple fruit in UV spectrophotometry.

The sample using fresh fruit and sweetened pineapple (*Ananas comosus. Merr.*). Qualitative tests were carried out based on the ability to dissolve the color of reagents from Iodine, KMnO₄, Fehling A and Fehling B solutions. Quantity tests using UV spectrophotometry with maximum wavelength λ max of 266 nm and operating time in the 1st to 15th minute.

Qualitative and quantitative test result of vitamin C on fresh fruit and wet sweetened pineapple (*Ananas comosus. Merr.*) in spectrophotometry UV generates linear line equation $y = 0,0625 x + 0,2572$ with coefficient value correlation (r) = 0,9971, LOD = 0,2937, LOQ = 0,9789, precision, SD = 0,0557, RSD = 1,130486 and accuracy = 99.96% indicates that all test samples contain Vitamin C with successive levels of fresh fruit = 0,0553% b/b, ripe fresh fruit = 0,0449% b/b and on wet lollipop = 0,0271% b/b with meaningful differences.

Keywords: Pineapple, Vitamin C, UV spectrophotometry.