

INTISARI

Buah nanas (*Ananas comosus* (L.) Merr. merupakan salah satu jenis buah-buahan yang mudah didapatkan. Salah satu kandungan terpenting dari buah nanas ini adalah enzim bromelain yang berfungsi untuk melisiskan protein, melunakkan daging dan sebagai obat digesti untuk membantu pencernaan makanan. Kadar bromelain buah nanas dipengaruhi oleh umur tanaman, tempat tumbuh, varietas, keadaan iklim dan keadaan tanah. Berdasarkan hal ini maka dilakukan penelitian pengaruh varietas terhadap kadar bromelain buah nanas.

Penelitian ini termasuk jenis penelitian eksperimental dengan rancangan acak lengkap pola satu arah. Tujuannya untuk mengetahui perbedaan kadar bromelain buah nanas bogor dan nanas blitar. Isolasi bromelain dilakukan dengan cara mengambil sari buah nanas dan menggunakan pengendap alkohol 95%. Bromelain hasil isolasi kemudian dianalisis kualitatif dengan ninhidrin dan hasilnya dibandingkan dengan bromelain standard. Penetapan kadar bromelain selanjutnya dilakukan dengan metode spektrofotometri ultraviolet (UV). Sedangkan validitas metode spektrofotometri UV dianalisis berdasarkan nilai *recovery*, kesalahan sistemik dan kesalahan acak. Data yang diperoleh dari penetapan kadar bromelain dengan metode spektrofotometri UV selanjutnya dianalisis dengan *Independent Sample T-test* dengan taraf kepercayaan 95%.

Hasil penelitian menunjukkan bahwa kadar bromelain (rata-rata \pm SD) untuk nanas bogor adalah $(0,098 \pm 0,012)$ % sedangkan nanas blitar adalah $(0,13 \pm 0,015)$ %.

ABSTRACT

Pineapple (*Ananas comosus* (L.) Merr.) is a kind of fruit can be found easily. One of the most important content of pineapple is bromelain enzyme which can droped the protein, soften meat, and can be functioned as a digestive medicine to help the food processing. The rates of bromelain enzyme in pineapples depends on the age of the pineapple plant itself, the place of growth, variety, climate, and soil condition. Based on those conditions, the research of the influence of the pineapple variety toward the contents of bromelain enzyme in pineapples was carried out.

This was an experimental research using the One Way Complete Random Design. The main purpose was to discover the difference rates of bromelain enzyme in pineapples. Pineapples being tested were bogor pineapples and blitar pineapples. The isolation of bromelain enzyme was done by taking the essence of pineapple with 95% alcohol as the sedimentor. The isolated bromelain then being analyzed qualitatively by ninhydrin. The determination of the rate of bromelain in pineapples was done using the ultraviolet (UV) spectrophotometry method. The validity of Ultraviolet Spectrophotometry method was analyzed based on the recovery value, systematic error and random error. The datas was gained from the determination of the rate of bromelain enzyme using Ultraviolet Spectrophotometry Method then being analyzed using independent sample T-test with 95% significant level.

The result of the research showed that the rates of bromelain (average \pm SD) in bogor pineapples was $(0,098 \pm 0,012)$ %. whereas in blitar pineapples was $(0,13 \pm 0,015)$ %.