PENGARUH PENYINARAN UV-C, NANOZEOLIT, DAN PENGEMASAN INDIVIDU PLASTIK *LOW DENSITY POLYETHYLENE* TERHADAP KARAKTERISTIK FISIK BUAH SALAK PONDOH SELAMA PENYIMPANAN

ABSTRAK

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Sebagai salah satu komoditas unggulan yang berasal dari Sleman, buah salak Pondoh (*Salacca edulis* Reinw) memiliki potensi yang cukup tinggi dalam perdagangan internasional. Salak Pondoh perlu dijaga mutu dan kualitasnya untuk mengurangi kerusakan selama transportasi dan penyimpanan sehingga dapat memperpanjang umur simpan. Kualitas salak yang pertama dilihat dalam proses pengendalian mutu adalah karakteristik fisik. Tujuan dari penelitian ini adalah untuk mengetahui pengaruh penyinaran UV-C, nanozeolit, dan pengemasan individu plastik *Low Density Polyethylene* (LDPE) terhadap karakteristik fisik buah salak Pondoh. Pada penelitian ini dilakukan 5 perlakuan pengawetan, yaitu curah, LDPE+nanozeolit, serta LDPE+nanozeolit dengan penyinaran UV-C 60 Watt selama 30 menit, 40 menit, dan 50 menit. Buah salak Pondoh disimpan di ruang penyimpanan dengan suhu yang berbeda, yaitu 4˚C, 10˚C, dan 26˚C selama 30 hari. Hasil penelitian menunjukkan bahwa perlakuan penyinaran UV-C 60 Watt, pengemasan individu plastik *Low Density Polyethylene*, dan nanozeolit dapat menurunkan kerusakan fisik 1,2-2,8 kali dan menurunkan susut bobot 3-7 kali buah salak Pondoh dibandingkan salak Pondoh curah pada penyimpanan suhu 4˚C, 10˚C, dan 26˚C. Sedangkan Perlakuan penyimpanan suhu rendah (4˚C-10˚C) dapat menurunkan kerusakan fisik salak Pondoh sebanyak 20-67 kali dan menurunkan susut bobot 7-19 kali dibandingkan penyimpanan suhu 26˚C.

Kata kunci: karakteristik fisik, salak Pondoh, penyimpanan, UV-C, LDPE

EFFECT OF UV-C IRRADIATION, NANOZEOLITE, AND INDIVIDUAL PACKAGING WITH LOW DENSITY POLYETHYLENE PLASTIC ON PHYSICAL CHARACTERISTICS OF SNAKE FRUIT DURING STORAGE

ABSTRACT

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Snake fruit (*Salaca edulis* Reinw) is one of agricultural commodities from Indonesia that has good prospects in the international market. Due to the demand for snake fruit from other countries, a lot of snake fruit had been exported. Referring to its perishable nature and short shelf life, the quality of snake fruit must be maintained to fulfill consumer demand. The first quality of salak that is seen in the quality control process is the physical characteristics. The purpose of this study was to determine the effect of UV-C irradiation, nanozeolite and individual packaging of Low Density Polyethylene (LDPE) plastic on the physical characteristics of the snake fruit. In this study, 5 preservation treatments were carried out, such as the bulk, individual packaging with LDPE+nanozeolite, and LDPE+nanozeolite with 60 Watt UV-C irradiation for 30 minutes, 40 minutes, and 50 minutes. The snake fruit is stored in a storage room with at 4˚C, 10˚C, and 26˚C for 30 days. The results showed that the preservation treatment with 60 Watt UV-C irradiation, individual packaging with Low Density Polyethylene plastic, and nanozeolite can reduce physical damage 1.2-2.8 times and reduce weight loss 3-7 times compared to the bulk state. While the low temperature storage treatment of (4˚C-10˚C) can reduce the physical damage of salak Pondoh as much as 20-67 times and reduce weight loss 7-19 times compared to storage at 26˚C.

Keywords: physical characteristics, snake fruit, storage, UV-C, LDPE