

INTISARI

Beras adalah salah satu makanan pokok produksi Indonesia. Salah satu proses pascapanen yang dialami oleh beras adalah penyimpanan. Selama proses penyimpanan, beras mengalami perubahan kualitas masak, kualitas fisik dan fisik-kimia. Tujuan dari penelitian ini menganalisis perubahan kualitas masak, fisik, dan fisik-kimia beras varietas Indonesia. Varietas beras yang digunakan yaitu Sintanur, Ciherang, dan IR 42 disimpan pada suhu ruang penyimpanan 30°C, 20°C dan 10°C. Beras yang diambil dari petani disimpan selama 4 bulan dan diukur perubahan untuk parameter kadar air, warna (*chroma*, *hue*, *whiteness*), amilosa, rasio elongasi, konsistensi gel, *alkali spreading value* (ASV), *water absorption*, dan profil tekstur (*packability*, *hardness*, *cohesiveness*, *extrudability*, *chewiness*). Diketahui selama penyimpanan parameter yang mengalami peningkatan yaitu profil tekstur, *chroma*, *alkali spreading value* dan rasio elongasi. Sedangkan kadar air, konsistensi gel dan *whiteness* mengalami penurunan. *Hue angle* tidak banyak mengalami perubahan dan *water absorption* mengalami kenaikan hanya pada awal dan akhir waktu penyimpanan. Pemodelan arrhenius dapat memodelkan dengan baik untuk parameter kadar air, ASV dan amilosa. Selanjutnya untuk uji statistik diketahui bahwa interaksi waktu*varietas*suhu terjadi pada parameter kadar air, *whiteness*, kadar amilosa, elongasi, *water absorption*, *packability* dan *chewiness*. Uji PCA dan TOPSIS menghasilkan nilai total PC sebesar 75,87% dan perlakuan terbaik terjadi pada sampel RT20H4, (beras varietas IR 42, disimpan pada suhu 20°C selama 4 minggu).

Kata kunci : beras, penyimpanan, kadar amilosa, pemodelan arrhenius, perubahan kualitas beras

ABSTRACT

*Rice is one of the staple foods produced in Indonesia. One of the postharvest processes experienced by rice is storage. During the storage process, rice undergoes changes in cooking quality, physical and physico-chemical qualities. The aim of this research is to analyze changes in the cooking, physical and physical-chemical qualities of Indonesian rice varieties. The rice varieties used, namely Sintanur, Ciherang, and IR 42 were stored at storage room temperatures of 30°C, 20°C and 10°C. Rice taken from farmers was stored for 4 months and changes were measured for parameters of water content, color (chroma, hue, whiteness), amylose, elongation ratio, gel consistency, alkali spreading value (ASV), water absorption, and texture profile (packability, hardness, cohesiveness, extrudability, chewiness). It is known that during storage the parameters that experienced an increase were texture profile, chroma, alkali spreading value and elongation ratio. While the water content, gel consistency and whiteness decreased. The hue angle did not change much and the water absorption increased only at the beginning and end of the storage time. Arrhenius modeling can model well for the parameters of water content, ASV and amylose. Furthermore, for statistical tests it is known that the time*variety*temperature interaction occurs in the parameters of water content, whiteness, amylose content, elongation, water absorption, packability and chewiness. The PCA and TOPSIS tests yielded a total PC value of 75,87% and the best treatment occurred in the RT20H4 sample (IR 42 variety rice, stored at 20°C for 4 weeks).*

Key words : rice, storage, amylose content, arrhenius modeling, changes in rice quality