Umur Simpan Bubuk Petai (*Parkia speciosa)* Mentah dan Kukus Yang dikemas Dengan Plastik Polipropilen (PP) dan Polietilen (PE)

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INTISARI

Bubuk petai termasuk produk bersifat higroskopis yang mudah mengalami kerusakan selama penyimpanan. Umur simpan bubuk petai penting untuk diketahui oleh produsen dan konsumen. Penelitian ini bertujuan mempelajari pola isotherm sorpsi lembab bubuk petai dan menentukan umur simpan dengan menggunakan bubuk saat dikemas dengan plastik PP dan PE. Bubuk Petai mentah dan petai kukus kering disimpan dalam lima desikator kaca berisi larutan garam jenuh (LiCl, $MgCl_2$, $MgNO_3$, NaCl dan K_2 SO_4) dengan rentang RH 11-97% pada suhu 30˚c hingga mencapai berat setimbang. Pola sorpsi lembab dibuat menggunakan persamaan GAB (*Guggenheim-Anderson- de Boer*). Sebanyak 20-80 g bubuk petai dikemas menggunakan plastik PP dan PE dengan luas permukaan sebesar 0,05 m^2. Umur simpan ditentukan dengan model peneraan umur simpan Labuza. Hasil penelitian menunjukkan bahwa kedua sampel memiliki pola isotherm sorpsi lembab yang sama yakni berbentuk sigmoid. Bubuk petai kukus mempunyai umur simpan lebih lama daripada bubuk mentahnya. Bubuk petai dalam kemasan plastik PE memiliki umur simpan lebih panjang daripada plastik PP. Bubuk petai kukus mempunyai umur lebih panjang daripada bentuk segarnya. Bubuk petai kukus dalam plastik PE mempunyai umur simpan 820 hari, sedangkan dalam kemasan PP hanya mencapai umur simpan 459 hari. Umur simpan bubuk petai mentah dan kukus dalam kemasan PE masing-masing adalah 689 hari dan 820 hari.

Kata kunci : bubuk petai, isotherm sorpsi lembab, umur simpan

Shelflife of Raw- and Steamed-*Parkia spesiosa* Powder Packed with Polypropylene and Polyethylene Plastic

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ABSTRACT

Stink bean powder is a hygroscopic product that prone to deteoriation during storage. Shelf life of stink bean powder is important for both producer and consumer. The research aims were to determine moisture sorption isotherm curve of stink bean powder and to determined their shelflife when packed with PP and PE plastics. The powders of raw and steamed stink beans were stored in five glass desicator filled with saturated salts (LiCl, $MgCl_2$, $MgNO_3$, NaCl dan K_2 SO_4) with RH range 11-97% at 30˚c until equilibrium moisture content was obtained. GAB (*Guggenheim-Anderson-de Boer*) equation was used to determine the moisture sorption isotherm pattern. Dried powder of raw and steamed stinky beans in range of 20-80 g were packed with PP and PE plastics which area of 0,05 m^2. Their shelflife was predicted by Labuza equation. The results showed that the moisture sorption isotherm patterns of raw and steamed powder was sigmoid curve. The shelflife of samples packed in PE plastic was longer than PP plastic. And The steamed powder showed has longer shelflife than the raw one. The steamed podwer packed in PE plastic has shelflife of 820 days, whereas in PP plastic was 459 days. The raw and steamed powders which packed with PE plastic have shelflife of 689 days and 820 days respectively.

Key words : stinky bean powder, moisture sorption isotherm, shelf life