

DAFTAR ISI

| | |
|---|-------------------------------------|
| HALAMAN JUDUL | Error! Bookmark not defined. |
| TESIS | Error! Bookmark not defined. |
| HALAMA PENYATAAN | Error! Bookmark not defined. |
| KATA PENGANTAR | Error! Bookmark not defined. |
| DAFTAR ISI | 1 |
| DAFTAR GAMBAR | Error! Bookmark not defined. |
| DAFTAR TABEL | Error! Bookmark not defined. |
| INTISARI | Error! Bookmark not defined. |
| ABSTRACT | Error! Bookmark not defined. |
| I PENDAHULUAN | Error! Bookmark not defined. |
| 1.1 Latar Belakang | Error! Bookmark not defined. |
| 1.2 Rumusan Masalah | Error! Bookmark not defined. |
| 1.3 Tujuan Penelitian | Error! Bookmark not defined. |
| 1.4 Batasan Masalah | Error! Bookmark not defined. |
| 1.5 Manfaat Penelitian | Error! Bookmark not defined. |
| II TINJAUAN PUSTAKA | Error! Bookmark not defined. |
| 2.1 Tanaman Porang (<i>Amorphophalus oncophyllus</i>) | Error! Bookmark not defined. |
| 2.2 Tepung Porang | Error! Bookmark not defined. |
| 2.3 Aktivitas Air (a_w) | Error! Bookmark not defined. |
| 2.4 Kadar Air Kesetimbangan | Error! Bookmark not defined. |
| 2.5 Kurva Sorpsi Isotermis | Error! Bookmark not defined. |
| 2.6 Model Persamaan Kurva Sorpsi Isotermis | Error! Bookmark not defined. |
| 2.7 Pengemasan | Error! Bookmark not defined. |
| 2.8 Permeabilitas Kemasan | Error! Bookmark not defined. |
| 2.9 Penentuan Umur Simpan Produk | Error! Bookmark not defined. |
| 2.10 Karakteristik Fisik | Error! Bookmark not defined. |
| 2.10.1 Kadar air | Error! Bookmark not defined. |
| 2.10.2 Densitas | Error! Bookmark not defined. |
| 2.10.3 Warna | Error! Bookmark not defined. |
| 2.10.4 Viskositas | Error! Bookmark not defined. |
| 2.10.5 Ukuran partikel | Error! Bookmark not defined. |
| 2.11 Karakteristik Kimia | Error! Bookmark not defined. |

| | |
|---|-------------------------------------|
| 2.11.1 Kalsium oksalat | Error! Bookmark not defined. |
| 2.11.2 Kadar glukomanan..... | Error! Bookmark not defined. |
| 2.11.3 Kadar abu | Error! Bookmark not defined. |
| 2.11.4 Kadar karbohidrat..... | Error! Bookmark not defined. |
| 2.11.5 Kadar protein..... | Error! Bookmark not defined. |
| III METODE PENELITIAN | Error! Bookmark not defined. |
| 3.1 Perpindahan Massa | Error! Bookmark not defined. |
| 3.1 Waktu dan Lokasi Penelitian..... | Error! Bookmark not defined. |
| 3.2 Alat dan Bahan Penelitian..... | Error! Bookmark not defined. |
| 3.2.1 Bahan penelitian..... | Error! Bookmark not defined. |
| 3.2.2 Alat | Error! Bookmark not defined. |
| 3.3 Prosedur Penelitian | Error! Bookmark not defined. |
| 3.3.1 Analisis statistik..... | Error! Bookmark not defined. |
| 3.3.2 Penelitian utama | Error! Bookmark not defined. |
| 3.3.3 Skema Prosedur Penelitian..... | Error! Bookmark not defined. |
| 3.4 Metode Pengambilan Data | Error! Bookmark not defined. |
| 3.4.1 Penentuan kadar air awal | Error! Bookmark not defined. |
| 3.4.2 Penentuan kadar air kritis | Error! Bookmark not defined. |
| 3.4.3 Penentuan kadar air seimbang..... | Error! Bookmark not defined. |
| 3.5 Analisis Data | Error! Bookmark not defined. |
| 3.5.1 Penentuan permeabilitas kemasan..... | Error! Bookmark not defined. |
| 3.5.2 Penentuan perubahan kadar air tepung porang selama penyimpanan | Error! Bookmark not defined. |
| 3.5.3 Penentuan umur simpan tepung porang. | Error! Bookmark not defined. |
| 3.5.4 Penentuan kadar air | Error! Bookmark not defined. |
| 3.5.5 Penentuan kadar air seimbang..... | Error! Bookmark not defined. |
| 3.5.6 Kadar glukomanan | Error! Bookmark not defined. |
| 3.5.7 Ukuran partikel..... | Error! Bookmark not defined. |
| 3.5.8 Viskositas..... | Error! Bookmark not defined. |
| 3.5.9 Kalsium oksalat..... | Error! Bookmark not defined. |
| 3.5.10 Penentuan kadar abu | Error! Bookmark not defined. |
| 3.5.11 Analisis warna | Error! Bookmark not defined. |
| 3.5.12 Densitas..... | Error! Bookmark not defined. |
| 3.5.13 Kadar protein..... | Error! Bookmark not defined. |
| 3.5.14 Kadar lemak | Error! Bookmark not defined. |
| 3.5.15 Kadar karbohidrat..... | Error! Bookmark not defined. |

IV HASIL DAN PEMBAHASAN **Error! Bookmark not defined.**

4.1 Perubahan Kualitas Tepung Porang Selama Penyimpanan **Error! Bookmark not defined.**

4.1.1 Perubahan kadar air tepung porang **Error! Bookmark not defined.**

4.1.2 Perubahan densitas tepung porang **Error! Bookmark not defined.**

4.1.3 Perubahan viskositas tepung porang **Error! Bookmark not defined.**

4.1.4 Perubahan warna tepung porang **Error! Bookmark not defined.**

4.1.5 Perubahan kadar glukomanan **Error! Bookmark not defined.**

4.1.6 Perubahan kadar abu tepung porang **Error! Bookmark not defined.**

4.1.7 Perubahan distribusi ukuran partikel tepung porang **Error! Bookmark not defined.**

4.1.8 Perubahan kadar kalsium oksalat **Error! Bookmark not defined.**

4.1.9 Perubahan kadar Proksimat **Error! Bookmark not defined.**

4.1.9.1 Perubahan kadar protein **Error! Bookmark not defined.**

4.1.9.2 Perubahan kadar lemak **Error! Bookmark not defined.**

4.1.9.3 Perubahan kadar karbohidrat **Error! Bookmark not defined.**

4.2 Kadar Air Kritis **Error! Bookmark not defined.**

4.2.1 Permeabilitas kemasan **Error! Bookmark not defined.**

4.3 Penentuan Umur Simpan dengan Pendekatan Kadar Air Kritis **Error! Bookmark not defined.**

4.4 Umur Simpan Tepung Porang Berdasarkan Model Kinetika **Error! Bookmark not defined.**

4.4.1 Kinetika perubahan kadar air **Error! Bookmark not defined.**

4.4.4 Penentuan umur simpan berdasarkan kadar air **Error! Bookmark not defined.**

4.4.2 Nilai konstanta perubahan kadar air **Error! Bookmark not defined.**

4.4.3 Uji Validasi nilai konstanta berdasarkan persamaan Arrhenius **Error! Bookmark not defined.**

4.4.5 Kinetika perubahan viskositas **Error! Bookmark not defined.**

4.4.6 Nilai konstanta perubahan viskositas **Error! Bookmark not defined.**

4.4.7 Uji validasi konstanta berdasarkan persamaan Arrhenius **Error! Bookmark not defined.**

4.4.8 Penentuan umur simpan berdasarkan viskositas **Error! Bookmark not defined.**

4.5 Penentuan Umur Simpan dengan Pemodelan Kesetimbangan Massa Berdasarkan Hukum Fick's **Error! Bookmark not defined.**

4.6 Aplikasi Umur Simpan Berdasarkan Perubahan Kadar Air Tepung Porang Berdasarkan Kinetika **Error! Bookmark not defined.**

| | |
|--|-------------------------------------|
| 4.7 Aplikasi Umur Simpan Tepung Porang Berdasarkan Kesetimbangan Massa | Error! Bookmark not defined. |
| 4.8 Perbandingan Umur Simpan Tepung Porang .. | Error! Bookmark not defined. |
| V PENUTUP | Error! Bookmark not defined. |
| 5.1 Simpulan | Error! Bookmark not defined. |
| 5.2 Saran | Error! Bookmark not defined. |
| DAFTAR PUSTAKA | Error! Bookmark not defined. |
| LAMPIRAN | Error! Bookmark not defined. |