

## PERUBAHAN DAYA SIMPAN BISKUIT BMC KETBURI (DAUN KELOR, UBI UNGU, DAN IKAN TERI) SEBAGAI PANGAN DARURAT BENCANA

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### INTISARI

**Latar belakang** : Penggunaan bahan-bahan lokal seperti daun kelor, ikan teri, dan ubi ungu sebagai pangan alternatif bencana dalam bentuk biskuit diharapkan dapat memenuhi kebutuhan gizi para korban bencana. Namun, perlu diketahui perubahan mutu terhadap daya simpan biskuit Ketburi selama penyimpanan.

**Tujuan**: Mengetahui perubahan faktor mutu daya simpan biskuit BMC Ketburi formulasi 50% yang meliputi aktivitas air, warna, tekstur/kerenyahan, dan nilai TBA (*thiobarbituric acid*) selama penyimpanan.

**Metode penelitian** : Merupakan penelitian eksperimental dengan metode RAS (Rancangan Acak Sederhana) pada biskuit BMC Ketburi formulasi 50% dalam kemasan *metalized plastic*. Pengamatan dilakukan terhadap faktor perubahan mutu daya simpan produk, yaitu aktivitas air ( $A_w$ ), warna, tekstur/kerenyahan, serta nilai TBA (*thiobarbituric acid*) setiap 7 hari selama 1 bulan. Pengolahan hasil observasi dianalisis menggunakan ANOVA ( $p < 0,05$ ) yang kemudian dilanjutkan uji *Post-Hoc Duncan* dengan program SPSS 16 apabila berbeda nyata.

**Hasil Penelitian** : Selama penyimpanan terjadi peningkatan angka aktivitas air ( $A_w$ ), nilai  $\Delta E$  dan nilai TBA biskuit BMC Ketburi formulasi 50% yang signifikan ( $p < 0,05$ ). Pada parameter warna, terjadi penurunan nilai  $a$  yang merupakan indikator warna merah-hijau ( $p < 0,05$ ). Berikutnya adalah terjadinya perubahan tekstur/kerenyahan biskuit BMC Ketburi formulasi 50% selama penyimpanan ( $p > 0,05$ ).

**Kesimpulan** : Terjadi perubahan mutu biskuit BMC Ketburi formulasi 50%, yaitu aktivitas air, warna, tekstur/kerenyahan, dan nilai TBA.

**Kata kunci** : daya simpan, biskuit, ubi ungu, daun kelor, ikan teri.

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## THE CHANGE OF STORABILITY OF BMC KETBURI BISCUIT (KELOR LEAVES, SWEET PURPLE POTATO, AND ANCHOVIES) AS DISASTER EMERGENCY FOOD

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### ABSTRACT

**Background:** The use of local ingredients such as Moringa leaves, anchovy, and purple sweet potato as an alternative food for disasters in the form of biscuits is expected to fulfill the nutritional needs of disaster victims. However, it is necessary to know the changes in quality on the shelf life of Ketburi biscuits during storage.

**Objective:** The purpose of the study is to determine the changes in the quality factors of the 50% formulation of 50% BMC Ketburi biscuits which include water activity, color, texture/crispness, and the value of TBA (thiobarbituric acid) during storage.

**Method:** This was an experimental study with the RAS method (Simple Random Design) on formulation of 50% BMC Ketburi biscuits in a metalized plastic package. Observations were made on factors of changes in the quality of product storage, namely water activity ( $A_w$ ), color, texture/crispness, and value of TBA (thiobarbituric acid) every 7 days for 1 month. The processing of the observations was analyzed using ANOVA ( $p < 0.05$ ) which was then continued with Duncan's Post-Hoc test with the SPSS 16 program if they were significantly different.

**Results:** During storage, there was an increasing in the water activity rate ( $A_w$ ),  $\Delta E$  value, and TBA value of the 50% formulation of Ketburi biscuits which were significant ( $p < 0.05$ ). In the color parameter, there was a decrease in the value of  $a$  which was a red-green indicator ( $p < 0.05$ ). Next was the change in texture/crunchiness of 50% formulation of BMC Ketburi biscuits during storage ( $p > 0.05$ ).

**Conclusion:** There was a change in the quality of the 50% formulation of BMC Ketburi biscuits, namely water activity, color, texture/crispness, and TBA value.

**Keywords:** storage capacity, biscuits, purple sweet potato, moringa leaves, anchovies.

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