

## ABSTRAK

**Nama** : Maisarah Tanjung  
**Program Studi** : Teknologi Industri Pertanian  
**Judul** : Pengaruh Suhu Penyimpanan pada Mutu Wafer *Stick*  
**Dosen Pembimbing** : Ir. Syahril Makosim, ST., MSi., IPM dan Ir. Darti Nurani, M.Si.

*Wafer stick adalah produk yang pertama kali diproduksi oleh PT STJ, sebagai produk utama sebelum mengembangkan jenis produk yang lain. Wafer stick termasuk dalam golongan produk pangan yang kering dengan ciri utamanya adalah teksturnya yang renyah. Permasalahannya PT STJ sering menerima keluhan dari Customer dengan terjadinya penurunan tingkat kerenyahan wafer stick dalam jangka waktu 2 bulan sebelum mencapai masa kadaluarsa 12 bulan dari proses produksi pada kondisi penyimpanan suhu ruang. Tujuan penelitian ini adalah untuk mendapatkan suhu penyimpanan wafer stick yang tepat yang dapat mempertahankan mutu produk selama penyimpanan. Model rancangan percobaan yang digunakan dalam penelitian ini adalah Rancangan Acak Kelompok (RAK) dua faktor (A dan B). Faktor A adalah suhu penyimpanan, terdiri atas dua taraf yaitu :  $a_1$  = suhu ruang ( $30^{\circ}\text{C}$ ),  $a_2$  = suhu dingin ( $20^{\circ}\text{C}$ ) dan Faktor B adalah waktu penyimpanan, terdiri atas tiga belas taraf yaitu :  $b_0$  = 0 minggu;  $b_1$  = 1 minggu;  $b_2$  = 2 minggu;  $b_3$  = 3 minggu;  $b_4$  = 4 minggu;  $b_5$  = 5 minggu;  $b_6$  = 6 minggu;  $b_7$  = 7 minggu;  $b_8$  = 8 minggu;  $b_9$  = 9 minggu;  $b_{10}$  = 10 minggu;  $b_{11}$  = 11 minggu;  $b_{12}$  = 12 minggu. Pengamatan yang dilakukan meliputi analisis kadar air, total mikroba serta total kapang khamir, dan analisis organoleptik (triangle test), dengan dua kali pengulangan. Penyimpanan wafer stick dapat dilakukan pada suhu ruang ( $30^{\circ}\text{C}$ ), dengan mutu produk yang masih dapat dipertahankan selama 12 minggu penyimpanan. Produk hasil terbaik tersebut memiliki kisaran nilai kadar air 0.25 – 0.34%; produk tidak ditumbuhi mikroba termasuk kapang dan khamir serta produk tidak mengalami perubahan organoleptik (warna, aroma, rasa dan tekstur) selama penyimpanan.*

**Kata kunci** : Wafer stick, suhu penyimpanan.

## **ABSTRACT**

**Name** : Maisarah Tanjung  
**Study Program** : Agricultural Industry Technology  
**Title** : Effect of Storage Temperature on Wafer Stick Quality  
**Conselor** : Ir. Syahril Makosim, ST., MSi., IPM dan Ir. Darti Nurani, M.Si.

*Wafer stick is a product that was first produced by PT STJ, as the main product before developing other types of products. Wafer sticks are included in the category of dry food products with the main characteristic of which is a crunchy texture. The problem is PT STJ often receives complaints from Customer with a decrease in the level of the crispness of wafer sticks within 2 months before reaching the 12 month expiration period from the production process at room temperature storage conditions. The benefit of this research is to provide information about the effect of storage temperature on changes in water content, microbial activity, and organoleptic quality of wafer stick products. The purpose of this study was to obtain the right storage temperature for wafer sticks that can maintain product quality during storage. The experimental design model used in this study was a two-factor Randomized Block Design (RAK) (A and B), with 2 (two) factors (A) being storage temperature, consisting of two levels: a1 = room temperature (30 ° C) , a2 = cold temperature (20 ° C) and factor B is storage time, consisting of thirteen levels, namely: b0 = 0 weeks; b1 = 1 week; b2 = 2 weeks; b3 = 3 weeks; b4 = 4 weeks; b5 = 5 weeks; b6 = 6 weeks; b7 = 7 weeks; b8 = 8 weeks; b9 = 9 weeks; b10 = 10 weeks; b11 = 11 weeks; b12 = 12 weeks. Observations were made including analysis of water content, total microbial and total yeast molds, and organoleptic analysis (triangle test), with two repetitions. Wafer stick storage can be done at room temperature (30 ° C), with product quality that can still be maintained for 12 weeks of storage. The best-yielded product has a water content value range of 0.25 - 0.34%; the product is not overgrown with microbes including mold and yeast as well as the product does not undergo organoleptic changes (color, aroma, taste, and texture) during storage.*

**Keywords** : Wafer stick, storage temperature.