

ABSTRAK

Puspita, Elza. 2014. **Uji Mutu Gizi dan Mutu Organoleptik Pada Crackers Yang Disubstitusi Tepung Daun Singkong, Ubi Jalar Kuning dan Ikan Teri Nasi**. Tugas Akhir, Jurusan Gizi, Fakultas Kedokteran, Universitas Brawijaya. Supervisor : (1) Dr.dr. Dwi Yuni Nur H, M. Kes (2) Amalia Ruhana, SP, MPH.

Peningkatan konsumsi pangan tinggi protein dan beta karoten diharapkan dapat menanggulangi KEP dan Kekurangan Vitamin A (KVA) pada anak. Tepung ubi jalar kuning merupakan bahan makanan tinggi beta karoten, ikan teri nasi merupakan bahan makanan tinggi protein dan daun singkong merupakan bahan makanan yang tinggi pada beta karoten dan protein. Crackers yang disubstitusi tepung daun singkong, ubi jalar kuning dan ikan teri nasi diharapkan dapat menjadi bahan makanan alternatif tinggi protein dan beta karoten pada anak. Penelitian ini bertujuan untuk menganalisis pengaruh substitusi tepung daun singkong, ubi jalar kuning dan ikan teri nasi terhadap kadar beta karoten, protein dan mutu organoleptik crackers. Metode penelitian yang digunakan yaitu penelitian *true experimental* dengan rancangan acak lengkap yaitu substitusi tepung ubi jalar kuning (5%, 10% dan 15%), tepung daun singkong (15%, 10% dan 5%) dan tepung ikan teri nasi (5% dan 10%) dengan 7 kali perlakuan dan 3 kali replikasi. Perlakuan yang diterapkan adalah penambahan tepung ubi jalar kuning, daun singkong dan ikan teri nasi pada masing-masing perlakuan kecuali P1 (tanpa tambahan/kontrol). Hasil penelitian menunjukkan ada pengaruh yang signifikan antara substitusi tepung daun singkong, ubi jalar kuning dan ikan teri nasi terhadap kadar beta karoten (ANOVA, $p=0,000$) dan kadar protein (Kruskall Wallis, $p=0,000$). Kadar beta karoten tertinggi pada crackers dengan substitusi ubi jalar kuning 5%, daun singkong 15% dan ikan teri nasi 10% yaitu 1,488 μg per 100 gram. Kadar protein tertinggi pada crackers dengan substitusi ubi jalar kuning 5%, daun singkong 15% dan ikan teri nasi 10% yaitu 20,794% per 100 gram. Substitusi ubi jalar kuning, daun singkong dan ikan teri nasi berpengaruh nyata terhadap aroma, rasa, warna dan tekstur crackers. Berdasarkan nilai gizi dan uji kesukaan crackers yang direkomendasikan adalah crackers dengan substitusi tepung ubi jalar kuning 15%, daun singkong 5% dan ikan teri nasi 10%. Kesimpulan dari penelitian ini adalah pengaruh yang signifikan dari substitusi tepung daun singkong, ubi jalar kuning dan ikan teri nasi terhadap kadar protein, beta karoten dan mutu organoleptik.

Kata Kunci : Protein, Beta Karoten, Ubi Jalar Kuning, Daun Singkong, Ikan Teri Nasi.

ABSTRACT

Puspita, Elza. 2014. **Nutritional Quality Test and Organoleptic Quality In Crackers Substituted with Leaves Cassava, Yellow Sweet Potato and Rice Anchovy**. Final Assignment, Department of Nutrition, Medical Faculty, Universitas of Brawijaya. Supervisor: (1) Dr.dr. Dwi Yuni Nur H, M. Kes (2) Amalia Ruhana, SP, MPH.

The increase consumptions of food high protein and beta- carotene are expected to cope KEP and Vitamin A deficiency (VAD) in children. Yellow sweet potato flour are foods high in beta carotene, rice anchovy is a food high in protein and cassava leaf is a food that is high in beta carotene and protein . Crackers that substituted flour cassava leaves, yellow sweet potato and anchovy yellow rice is expected to be a high-protein foodstuff alternatives and beta carotene in childre . This research to analyze the effect of substitution of cassava leaves, yellow sweet potato and anchovy yellow rice flour on levels of beta carotene, protein and organoleptic quality crackers. This research method use is a true experimental study with a completely randomized design, tha is substitution of yellow sweet potato flour (5%, 10 % and 15%), cassava leaf powder (15%, 10% and 5%) and anchovy rice flour (5% and 10%) with 7 times treatment 3 times replication. Treatment that applied is the addition of yellow sweet potato flour, cassava leaves and rice anchovy in each treatment except for P1 (without addition / control). The results of this reasearch showed significant effect of substitution between starch cassava leaves, yellow sweet potato and rice anchovy in levels of beta carotene (ANOVA , $p = 0.000$) and protein levels (*Kruskall Wallis*, $p = 0.000$) . The highest levels of beta carotene in crackers with substitution of yellow sweet potato 5%, 15% cassava leaf and rice anchovy 10% that is 1,488 μg per 100 grams . The highest protein on crackers with substitution of yellow sweet potato 5%, cassava leaf 15% and rice anchovy 10 % that is 20.794% per 100 grams. Substitution of yellow sweet potato, cassava leaves and rice anchovy significant influence to aroma, flavor, color and texture. Based on the nutritional values and the hedonic test, the recommendation is crackers with yellow sweet potato flour substitution of 15 , cassava leaf 5 % and rice anchovy 10%. The conclusion of this research is significant effect of substitution between starch cassava leaves, yellow sweet potato and rice anchovy in levels of beta carotene and protein and organoleptic quality

Keywords: Protein, Beta Carotene, Yellow Sweet Potatoes, Cassava Leaves, Rice Anchovy.

