STUDI PEMBUATAN BISKUIT KAYA ANTIOKSIDAN DAN SERAT PANGAN : SUPLEMENTASI TEPUNG UMBI DAUN DEWA DAN TEPUNG LABU SIAM

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Biscuit is a little sweet cake, fairish attenuate and had relative low water rate. According to Industrial Standard of Indonesia (STI) Biscuit is a kind of food made by wheat flour with addition of other food-stuff through warming-up and printing processed (Astuty, 1991 in Susanto, 1997). Siam gourd (Scehium Edule) recognized by society for the vegetable and lalapan in the reality had high fiber content that is around 2,2g. Deity leaf crop has neutral taste and low glycemik index, thus it very compatible in healthy food, specially for the prevention of diabetes mellitus disease. The objective of research was to obtain formula of healthy food product content high antioxidant and food fiber (Dietary Fiber) was obtained from deity leaf corm (Gynura Procumbenslour Merr) and siam gourd (Sechium edule) in the flour form and implicated in the biscuit form. Estimated type of flour content antioxidant and food fiber (Dietary Fiber) with its supplementation rate had affected on biscuit characteristic was resulted.

Research was conducted in the laboratory of Agricultural Produce Technology, Agricultural Produce Technology Majors, Agriculture Faculty, Muhammadiyah University of Malang started on April 2008 - June 2008. This research use simple Group Random Design (RAK), consist of 6 levels. Every treatment level was conducted by 3 times restarting, thus it will be obtained 18 set of experiments. (P0) : wheat flour : flour of deity leaf corm : flour of siam gourd = 100% : 0% : 0%, (P1) : wheat flour : flour of deity leaf corm : flour of siam gourd = 80% : 0% : 20%, (P2) : wheat flour : flour of deity leaf corm : flour of siam gourd = 80% : 20% : 0%, (P3) : wheat flour : flour of deity leaf corm : flour of siam gourd = 50% : 10% : 40%, (P4) : wheat flour : flour of deity leaf corm : flour of siam gourd = 50% : 20% : 30%, (P5) : wheat flour : flour of deity leaf corm : flour of siam gourd = 50% : 30% : 20%.

Treatment of different flour substitution shows the real influence to nutrient value and hardness degree and also score of organoleptik (taste, hobby, and vision) at biscuit. It concluded that for the medication of treatment P5 (wheat flour 50% and flour of deity leaf corm 20%, flour of siam gourd 20%) able to improve antioxidant energy and rate of food fiber at resulted biscuit with water rate 2,47%, protein 5,48%, total sugar 18,15%, harsh fiber 5,15%, energy of antioxidant 17,62%, degree of hardness 65,4 N / cm2 and organoleptik test for taste score 3,44 (neutral), hobby score 4,11 (less like), and vision score 4,50 (less interest to not interest). For the health treatment of P1 (wheat flour 80% and flour of deity leaf corm 0%; flour of siam gourd 20%) with water rate 2,98%, protein 6,29%, total sugar 24,64%, harsh fiber 2,50%, energy of antioxidant 3,46%, hardness degree 49,8 N/cm2 and organoleptik test for taste score 1,94 (less bitter), hobby score 2,50 (like enough), and vision score 2,72 (interest enough).