Karakteristik Pengembangan Kencur dan Serai Sebagai *Cereal Drink* Berbasis Talas Kimpul untuk Pereda Batuk di Masa Pandemi Covid-19

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Abstrak
Penelitian ini bertujuan untuk mengetahui karakteristik pengembangan produk minuman sereal kencur dan serai untuk pereda batuk dengan menguji karakteristik fisik, kimia, mikrobiologi dan organoleptik pada produk. Rancangan yang digunakan adalah rancangan Acak Lengkap (RAL) dengan satu faktor dan lima taraf tiga kali ulangan. Faktor perlakuannya yaitu perbandingan *flakes* sereal : bubuk kencur : bubuk serai dengan perbandingan 70:25:5. 70:20:10, 70:15:15, 70:10:20, 70:5:25. Penelitian menggunakan uji statistik ANAVA dengan signifikansi p=0,05. Minuman sereal kencur dan serai menghasilkan mutu terbaik pada sampel F3 dengan hasil akhir nilai viskositas 92,67cP, nilai kelarutan F3 8,01 ml, nilai kadar air 6,56%, abu 4,30%, kadar lemak 14%, kadar protein 7,20%, kadar serat kasar 3,94%, kadar karbohidrat 67,96% dan total fenolik 2,10 mg GAE/g. Memiliki kalori total 127,99 kkal dengan jumlah kalori protein 8,64 kkal, kalori lemak 37,8 kkal dan kalori karohidrat 81,552 kkal. Selain itu sampel F3 memiliki kandungan senyawa aktif ethyl p-methoxycinnamate sebesar 56%, pentadecane 11,13% octadecanoic acid, methyl ester 5,09% yang tergolong senyawa ekspektoran yang dapat meredakan batuk. Pengujian untuk meredakan batuk teruji dengan adanya aktivitas zona bening pada sekitar bakteri dengan membandingkan kontrol antibiotik amoxilin dan azitromizin pada bakteri Streptococcus pneumoniae. Zona hambat pada sampel F3 tergolong zona hambat paling kuat dibandingkan kontrol antibiotik amoxilin dan azitromizin.
Kata Kunci: Minuman sereal kencur dan serai, batuk, Streptococcus pneumonia

Abstract
This study aims to determine the characteristics of product development of cutcherry and lemongass cereals for cough suppressants by testing the physical, chemical, microbiological and organoleptic characteristics of the product. The design used was a completely randomized design (RAL) with one factor and five levels of three replications. The treatment factor is the ratio of cereal flakes: cutcherry powder: lemongass powder with a ratio of 70:25:5. 70:20:10, 70:15:15, 70:10:20, 70:5:25. This study used the ANOVA statistical test with a significance of p=0,05. Cutcherry and lemongrass cereal drinks produced the best quality in the F3 sample with the final result being a viscosity value of 92.67cP, an F3 solubility value of 8.01 ml, a water content value of 6.56%, an ash content of 4.30%, a fat content of 14%, a protein content of 7 .20%, crude fiber content 3.94%, carbohydrate content 67.96% and total phenolic 2.10 mg GAE/g. It has a total calorie of 127.99 kcal with a total of 8.64 kcal of protein calories, 37.8 kcal of fat calories and 81.552 kcal of carbohydrates. In addition, the F3 sample contains 56% of the active compound ethyl p-methoxycinnamate, 11.13% pentadecane octadecanoic acid, 5.09% methyl

ester which is classified as an expectorant compound that can relieve coughing. The
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test to relieve cough was tested by the presence of clear zone activity around the bacteria by comparing the control antibiotics with amoxicillin and azithromycin on Streptococcus pneumoniae bacteria. The inhibition zone in sample F3 was classified as the strongest inhibition zone compared to the control antibiotics amoxilin and azithromycin.
Keywords: *cutcherry and lemongass cereal drinks, cough, Streptococcus pneumoniae.*