

ABSTRACT

THE UTILIZATION BY PRODUCT OF LEMONGRASS AND NUTMEG DISTILLATION AND CASSAVA PULP FOR THE PRODUCTION OF SOLID AIR FRESHENER

By

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The distillation process of essential oils will produce solid by product which has limited utilization. Therefore, there is a need for product development, one of which is used as a solid air freshener. The purpose of this study was to obtain the best formulation between solid by product of lemongrass and nutmeg oil distillation in the production of solid air freshener. This study was arranged in a Complete Complete Randomized Block Design (RBDD) with seven treatments and four replications. The single factor of treatments were the formulation between the weight (g) of the solid by products and the volume (ml) of citronella and nutmeg oils, namely: A1, (0: 30: 0: 4.5); A2, (5: 25: 0.75: 3.75); A3, (10: 20: 1.5: 3); A4, (15: 15: 2.25: 2,25); A5, (20: 10: 3: 1.5); A6, (25: 5: 3.75: 0,75); and A7, and (30: 0: 4.5: 0). The data obtained were analyzed for the similarity of variance with the Bartlett test and the addition of data tested by the Tuckey test, then the data were analyzed by analysis of variance to determine the effect

between treatments. If there was a significant effect, the data was further analyzed by Duncan Multiple Range Test (DMRT) at the level of 5%. The results showed that the best air freshener was the treatment of A6 made from 25g of lemongrass solid by product, 5g of nutmeg solid by product, 3.75ml of citronella oil, and 0.75ml of nutmeg oil. The best solid air freshener (A6) resulted a texture with a score of 3.54 (rather strong), a fragrant aroma of lemongrass, and essential oil content of 5.5% (% bb).

Keywords: cassava pulp, distillation by products, air freshener, lemongrass,
nutmeg

ABSTRAK

PEMANFAATAN LIMBAH HASIL PENYULINGAN SERAI WANGI, PALA, DAN ONGGOK DALAM PEMBUATAN PENGHARUM RUANGAN PADAT

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Proses penyulingan minyak atsiri akan menghasilkan limbah padat berupa ampas padat yang pemanfaatannya masih terbatas, sehingga perlu adanya pengembangan produk, salah satunya dijadikan sebagai pengharum ruangan padat. Tujuan penelitian ini adalah untuk mendapatkan formulasi terbaik antara limbah dan minyak hasil penyulingan serai wangi dan pala dalam pembuatan pengharum ruangan padat. Penelitian ini disusun dalam Rancangan Acak Kelompok Lengkap (RAKL) dengan tujuh perlakuan dan empat ulangan. Faktor tunggal yaitu formulasi antara berat (g) limbah dan volume (ml) minyak serai wangi dan pala yaitu A1, (0 : 30 : 0 : 4.5); A2, (5 : 25 : 0.75 : 3.75); A3, (10 : 20 : 1.5 : 3); A4, (15 : 15 : 2.25 : 2.25); A5, (20 : 10 : 3 : 1.5); A6, (25 : 5 : 3.75 : 0.75); dan A7, dan (30 : 0 : 4.5 : 0). Data yang diperoleh dianalisis kesamaan ragamnya dengan uji Bartlett dan kemenambahan data diuji dengan uji Tuckey, selanjutnya data dianalisis dengan analisis sidik ragam untuk mengetahui pengaruh antar

perlakuan. Apabila terdapat pengaruh yang nyata, data dianalisis lebih lanjut dengan Duncan Multiple Range Test (DMRT) pada taraf 5%. Hasil penelitian menunjukkan bahwa pengharum ruangan terbaik adalah perlakuan A6 dengan formulasi limbah serai wangi sebanyak 25 g, limbah pala sebanyak 5 g, minyak serai wangi sebanyak 3.75 ml, dan minyak pala sebanyak 0.75 ml. Pengharum ruangan padat terbaik (A6) menghasilkan tekstur dengan skor 3.54 (agak kuat), aroma harum khas serai wangi, dan kadar minyak atsiri sebesar 5.5% (% bb).

Kata kunci: limbah, onggok, pengharum ruangan, pala, serai wangi