

Intisari

Pemanfaatan komoditas lokal terutama growol untuk pembuatan tepung growol dimaksudkan untuk menjadikan tepung growol sebagai bahan substitusi tepung terigu dalam pembuatan mie kering. Dalam pembuatan mie menggunakan tepung growol yang kandungan proteinnya rendah akan berdampak pada keelastisan adonan dan tekstur yang dihasilkan. Banyaknya kandungan gluten akan berdampak pada keelastisan dan daya tahan terhadap penarikan dalam proses pembuatan mie. Untuk mendapatkan tekstur adonan yang kenyal dan elastis digunakan bahan tambahan pangan yaitu *Carboxymethyl Cellulose* dan *Sodium Tripolyphosphate* yang tidak mengganggu kesehatan dan aman dikonsumsi. Penelitian ini bertujuan untuk memperoleh pengaruh perbedaan penambahan *Carboxymethyl Cellulose* dan *Sodium Tripolyphosphate* terhadap sifat fisik dan kimia terbaik serta disukai panelis.

Rancangan percobaan yang digunakan dalam penelitian ini adalah Rancangan Acak Lengkap (RAL) dengan dua faktor yaitu penambahan CMC (0%, 0,25%, 0,5% dan 0,75%) dan STPP (0%, 0,05% dan 0,1%). Percobaan diulang sebanyak 2 kali. Setiap data yang diperoleh dihitung dengan metode statistik menggunakan analisis *univariate* dan apabila terdapat perbedaan nyata antar perlakuan dilanjutkan dengan uji *Duncan's Multiple Range Test* (DMRT).

Hasil penelitian menunjukkan bahwa penggunaan perbedaan penambahan CMC (*Carboxymethyl Cellulose*) dan STPP (*Sodium Tripolyphosphate*) berpengaruh terhadap nilai warna tetapi tidak berpengaruh terhadap tekstur mie kering growol. Mie kering terbaik berdasarkan uji kesukaan yaitu dengan konsentrasi STPP 0,05% dan CMC 0,25% memiliki kadar air 7,77%, kadar abu 2,45%, kadar protein 7,55%, kadar lemak 0,002% dan kadar karbohidrat 80,10%.

Kata kunci: Tepung growol, STPP (*Sodium Tripolyphosphate*), CMC (*Carboxymethyl Cellulose*), mie kering.

EFFECT OF ADDITION OF CARBOXYMETHYL CELLULOSE AND SODIUM TRIPOLYPHOSPHATE ON PHYSICAL, CHEMICAL PROPERTIES AND PREFERENCE LEVEL OF DRIED NOODLE

Abstract

The use of especially growol local commodities for making growol flour is intended to make growol flour as a substitute for wheat flour in the manufacture of dry noodles. In making noodles using growol flour, which has a low protein content, it will affect the elasticity of the dough and the texture produced. The amount of gluten content will have an impact on elasticity and resistance to withdrawal in the process of making noodles. To get the texture of the dough which is chewy and elastic, food additives are used, namely Carboxymethyl Cellulose and Sodium Tripolyphosphate that do not interfere with health and are safe for consumption. This study aimed to obtain the effect of the difference in the addition of *Carboxymethyl Cellulose* and *Sodium Tripolyphosphate* to the best physical and chemical properties and preferred by panelists.

The experimental design used in this study was a completely randomized design (CRD) with two factors, namely CMC concentration (0%, 0.25%, 0.5% and 0.75%) and STPP (0%, 0.05% and 0.1%). The experiment was repeated twice. Each data obtained was calculated by statistical methods using univariate analysis and if there were significant differences between treatments followed by the Duncan Multiple Range Test (DMRT).

The results showed that the use of different concentrations of CMC (Carboxymethyl Cellulose) and STPP (Sodium Tripolyphosphate) had an effect on color values but did not affect the texture of growol dried noodles. The best dry noodles are based on a preference test that is with a STPP concentration of 0.05% and 0.25% CMC having a moisture content of 7.77%, ash content of 2.45%, protein content of 7.55%, fat content of 0.002% and carbohydrate content of 80 , 10%.

Keywords: Growol flour, STPP (*Sodium Tripolyphosphate*), CMC (*Carboxymethyl Cellulose*), dry noodles.