

Intisari

Penelitian ini dilakukan untuk mengetahui pengaruh *pretreatment* pengolahan lele asap berbumbu dengan pengovenan dan penggorengan dan pengaruh medium minyak dan larutan garam dalam proses pengalengan terhadap perubahan komposisi kimia lele asap berbumbu. Lele yang digunakan difilet dan diasapi menggunakan asap cair 10% kemudian diberi perlakuan *pretreatment* dan dikalengkan. Selama proses produksi lele asap kaleng dilakukan pengamatan perubahan komposisi kimia yang meliputi kadar air, abu, lemak, protein, karbohidrat, garam dan fenol mulai dari tahap lele mentah, setelah mendapatkan perlakuan *pretreatment* dan setelah pengalengan. Uji T digunakan untuk membandingkan pengaruh *pretreatment* sedangkan pengaruh medium (minyak dan larutan garam 5%) dianalisis menggunakan rancangan acak lengkap (RAL) yang terdiri dari 4 perlakuan dengan 3 kali ulangan yang merupakan kombinasi metode *pretreatment* dan medium pengalengan. Hasil penelitian pada *pretreatment* menunjukkan bahwa metode penggorengan merupakan metode yang memberikan perubahan komposisi paling rendah dengan kadar air 53,29% (%wb), kadar protein 62,48% (%db), kadar lemak 21,62% (%db), kadar abu 7,19% (%db), kadar karbohidrat 8,65% (%db), kadar fenol 0,27% (%wb) dan kadar garam 0,81% (%wb). Perubahan komposisi kimia yang terkecil pada produk lele asap kaleng diperoleh pada lele asap goreng yang dikalengkan dengan medium larutan garam dimana menghasilkan kadar air 68,80% (%wb), kadar protein 57,36% (%db), kadar lemak 30,93% (%db), kadar abu 9,77% (%db), kadar karbohidrat 2,55% (%db), kadar fenol 0,28% (%wb) dan kadar garam 1,09% (%wb). Produk tersebut mampu memberikan sumbangan kalori total sebesar 1089 kkal sehingga untuk pemenuhan kebutuhan kalori, orang dewasa dapat mengkonsumsi 2 kaleng per hari (pemenuhan 2000 kkal).

Kata Kunci : komposisi kimia, larutan garam, lele asap berbumbu, minyak, pengalengan, *pretreatment*

Abstract

The aims of this research were to determine the effect of pretreatment on marinated smoked catfish using oven and frying and also the influence of canning medium (oil and brine) in the canning process on the change of the chemical composition of marinated smoked catfish. The liquid smoke of 10% was used to smoke fillet of catfish and then the fillet was cooked with pretreatment and it was canned. The changes of chemical composition including moisture, ash, fat, protein, carbohydrate, salt and phenol content were evaluated in each stage during the canning process started from the raw catfish stage, after pretreatment treatment and after canning. A t-test was used to compare the influence of pretreatment while medium effect (oil and 5% brine) was analyzed using complete randomized design (RAL) consisting of 4 treatments with 3 replications which were a combination of pretreatment method and canning medium. The pretreatment results showed that the frying method was the method that gave the lowest composition change with the moisture content of 63.29% (%wb), protein content of 62.48% (%db), fat content of 21.62% (%db), ash content of 7.19% (%db), carbohydrate content of 8.65% (%db), phenol content of 0.27% (wb%) and salt content of 0.81% (%wb). The smallest chemical composition change in canned smoked catfish products were obtained from frying pretreatment that was combined with brine medium which yielded water content of 68.80% (%wb), protein content of 57.36% (%db), fat content of 30.93 % (%db), ash content of 9.77% (%db), carbohydrate content of 2.55% (%db), phenol content of 0.28% (%wb) and salt content of 1.09% (%wb). One can of the products contributes 1089 kcal therefore to meet the needs of calories, adults can consume 2 cans per day (fulfillment of 2000 kcal).

Keywords: brine, canning, chemical composition, marinated smoked catfish, oil, pretreatment