RINGKASAN

Ikan merupakan salah satu hasil kekayaan laut yang digemari mayarakat Indonesia untuk dijadikan bahan pangan. Ikan tongkol kaya akan asam lemak omega-3, namun ikan tongkol mudah mengalami kerusakan atau pembusukan. Bunga kecombrang (*Etlingera elatior*) menjadi salah satu pengawet alami yang dapat diaplikasikan pada ikan. Stabilitas dan kelarutan bunga kecombrang dalam air memiliki keterbatasan sehingga diperlukan teknologi untuk meningkatkan kinerja bunga kecombrang sebagai bahan aktif pada *edible coating*. Salah satu teknologi yang dapat digunakan adalah mikroenkapsulasi. Metode penelitian ini digunakan Rancangan Acak Lengkap (RAL) dengan faktor yang diteliti yaitu konsentrasi mikrokapsul bunga kecombrang dan metode aplikasi *edible coating* pada taraf 5%, 7,5% dan 10%. Variabel uji karakteristik meliputi kadar air, kadar abu, kadar protein, kadar lemak dan total mikroba. Hasil pengujian variabel sifat kimia dan total mikroba ikan tongkol dianalisis menggunakan ANOVA pada taraf kepercayaan 95%. Hasil penelitian menunjukkan penyimpanan selama 3 hari konsentrasi mikrokapsul bunga kecombrang berpengaruh terhadap kadar air, kadar abu, kadar lemak, dan total mikroba sedangkan metode aplikasi *edible coating* berpengaruh terhadap kadar air, kadar abu, kadar protein, dan kadar lemak. Penyimpanan selama 6 hari konsentrasi mikrokapsul bunga kecombrang berpengaruh terhadap kadar air, kadar abu, kadar lemak, dan total mikroba namun metode aplikasi *edible coating* berpengaruh terhadap semua analisis yaitu kadar air, kadar abu, kadar protein, kadar lemak, dan total mikroba. Kombinasi perlakuan konsentrasi mikrokapsul bunga kecombrang 10% dengan metode celup menghasilkan nilai yang lebih baik pada hari ke-6; kadar air 59,47%; kadar lemak 4,2527% dan total mikroba 4,2 x 10^4 CFU/g tetapi memiliki kadar abu paling tinggi sebesar 2,8922% dan kadar protein terendah sebesar 20,5807%.

SUMMARY

Fish is one of the fruits of the sea wealth that Indonesian farmers love to be used as food. Strawberry fish are rich in omega-3 fatty acids, but strawberries are prone to damage or degradation. Etlingera elatior is one of the natural preservatives that can be applied to fish. The stability and solubility of the caterpillar flower in water has limitations so that technology is needed to improve the performance of the flower as an active ingredient in the edible coating. One technology that can be used is microencapsulation. This method uses a Complete Random Planning (RAL) with the factor being studied, namely the concentration of the microcapsules and the edible coating method at the level of 5%, 7.5% and 10%. The characteristic test variables include water content, ash content, protein content, fat content and total microbial content. The results of the test variable chemical properties and total bacteria are analyzed using ANOVA at a level of confidence of 95%. The results showed on the 3rd day the concentrations of the microcapsules influenced the water levels, ash levels, fat levels, and total microbes. Whereas the type of edable coating influences the levels of water, ash level, protein level, and fat level. On the 6th day, the micocapsules of the bacteria influence the water level, ashes level, fat level, total microbiota, but the kind of ediblecoating method influences all the analysis of water concentrations, dust levels, protein levels and fat levels. The combination of treatment with a concentration of 10 per cent microcapsules with a slurry method yielded better values on day 6; water content of 59.47%; fat content of 4.2527% and total microbes of 4.2 x 104 CFU/g but had the highest ash content of 2.8922% and the lowest protein content of 20.5807%.