

**ANALISIS PROFIL PROTEIN IKAN NILA (*Oreochromis niloticus*)
BERBASIS SDS-PAGE BERDASARKAN VARIASI
LAMA MARINASI DAN KONSENTRASI ASAM CUKA**

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ABSTRAK

Ikan Nila merupakan salah satu sumber protein hewani dengan kandungan protein antara 15,32-18,80% namun mudah membusuk. Pengawetan ikan dengan menggunakan asam cuka dapat dilakukan untuk menghindari terjadinya pembusukan pada ikan. Tujuan penelitian ini untuk melihat gambaran profil protein pada ikan Nila yang dimarinasi dengan asam cuka 5% dan 10% selama 5, 10, dan 15 menit berbasis SDS-PAGE. Pengukuran kadar protein menggunakan metode spektrofotometri, sedangkan analisis profil protein menggunakan metode elektroforesis SDS-PAGE. Hasil penelitian menunjukkan profil protein ikan Nila sebelum dimarinasi dengan asam cuka 5% dan 10% memiliki 17 pita protein yang terdiri dari 5 pita protein mayor dan 12 pita protein minor. Profil protein ikan Nila setelah dimarinasi dengan asam cuka 5% selama 5, 10, dan 15 menit memiliki masing-masing total pita sebanyak 15 pita protein. Sedangkan, pada ikan Nila yang dimarinasi dengan asam cuka 5% selama 5 dan 10 menit masih memiliki masing-masing 1 pita protein mayor, sedangkan ikan Nila yang dimarinasi dengan asam cuka 5% selama 15 menit sudah tidak memiliki pita protein mayor. Total pita protein pada ikan Nila yang dimarinasi dengan asam cuka 10% selama 5 menit memiliki 8 pita protein minor, ikan Nila yang dimarinasi dengan asam cuka 10% selama 10 menit memiliki 7 pita protein minor, dan ikan Nila yang dimarinasi dengan asam cuka 10% selama 15 menit memiliki 6 pita protein minor. Perlakuan marinasi ikan Nila dalam asam cuka 5% selama 5 menit disarankan dalam penelitian ini karena perbedaan profil proteinnya lebih sedikit dibandingkan dengan kontrol, yang berarti penurunan kualitas proteinnya paling sedikit dibandingkan standar.

Kata kunci : Ikan Nila, Asam Cuka, Profil Protein, SDS-PAGE

**ANALYSIS PROTEIN PROFILE OF NILA FISH (*Oreochromis niloticus*)
SDS-PAGE METHOD BASED ON VARIATIONS OF LONG
MARINATION AND VINEGAR CONCENTRATION**

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ABSTRACT

Nila fish is one source of animal protein with protein content between 15.32-18, 80% but it is easy to rot. Preservation of fish by using vinegar can be done to avoid the occurrence of spoilage in fish. The purpose of this study was to determine the protein profile of Nila fish that was marinated with 5% and 10% vinegar for 5, 10 and 15 minutes based on SDS-PAGE. Measurement of protein content using spectrophotometric method, while protein profile analysis using SDS-PAGE electrophoresis method. The results showed the protein profile of Nila fish before it was marinated with 5% vinegar and 10% had 17 protein band consisting of 5 major protein bands and 12 minor protein bands. Protein profile of Nila fish after marinated with 5% vinegar for 5, 10, and 15 minutes each had a total of 15 bands of protein bands. Meanwhile, in Nila fish with 5% vinegar with 5% and 10 min respectively still have each major protein band, while the Nila fish with 5% vinegar dilution for 15 minutes have no major protein band. Total protein band on Nila started with 10% vinegar for 5 minutes has 8 minor protein bands, Nila fish are diluted with 10% vinegar for 10 minutes has 7 minor protein bands, and Nila fish are delimited with 10% vinegar for 10 minutes. 6 minor protein bands. Nila fish marination treatment with 5% vinegar for 5 minutes was suggested in this study because the protein profile difference is less than the control, which means that the protein quality decrease is at least compared to the standard.

Keywords : Nila Fish, Vinegar, Protein Profile, SDS-PAGE