ABSTRAK

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Program Studi : **Teknologi Industri Pertanian**
Judul : **TINJAUAN KIMIAWI TAUCO SAGA SELAMA PROSES PRODUKSI**

Dosen Pembimbing : **1) Dr. rer. nat. Ir Abu Amar, IPM**
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Tauco adalah produk berbahan dasar kedelai yang diolah dengan proses fermentasi dengan penambahan laru tempe yang mengandung spora Rhizopus oligosporus, Rhizopus oryzae dan Aspergilus oryzae dan dilanjutkan dengan fermentasi berkadar garam 10%-20%. Seiring perkembangan inovasi produk kini, tauco dapat dibuat menggunakan bahan dasar kacang – kacangan atau biji – bijian selain kedelai yaitu biji saga. Penelitian tauco saga telah dilakukan peneliti sebelumnya dengan proses pembuatan tauco pada umumnya dengan melakukan pengaruh lama perendaman dan mutu pada tauco saga, serta uji organoleptik dan uji kimiawi. Pada penelitian ini dilakukan pembuatan tauco saga dengan melakukan tinjauan uji kimiawi selama proses produksi. Penelitian ini terdiri atas dua tahap yaitu penelitian pertama pembuatan tempe saga sebagai bahan baku tauco dan penelitian kedua fermentasi dengan larutan garam dengan waktu inkubasi yang terdiri atas 5 taraf yaitu a1 = 0 minggu, a2 = 1 minggu, a3 =2 minggu, a4 =3 minggu dan a5 =4 minggu. Pengujian yang dilakukan pada penelitian ini yaitu pengamatan analisis kimiawi yang dilakukan meliputi kadar protein terlarut, total padatan terlarut, kadar abu, total asam tertitrasi, dan pH. Berdasarkan penelitian ini diperoleh hasil bahwa selama proses produksi tauco saga secara kimiawi dapat dilaporkan bahwa saat pembuatan tempe saga mendapat kan hasil rata rata pada, kadar protein total 17,37%, total padatan terlarut 22,28, kadar abu 2,75%, total asam 0,12%, dan pH 4,95. Pada waktu inkubasi, kadar protein total 0 minggu 13,95%, 1 minggu 15,67%, 2 minggu 14,87%, 3 minggu 18,80%, 4 minggu 19,10%; total padatan terlarut 0 minggu 34,93, 1 minggu 49,11, 2 minggu 46,78, 3 minggu 59,74, 4 minggu 51,54; kadar abu 0 minggu 6,85%, 1 minggu 5,94%, 2 minggu 5,94%, 3 minggu 6,34%, 4 minggu 6,14%; total asam tertitrasi 0 minggu 0,02%, 1 minggu 0,05%, 2 minggu 0,05%, 3 minggu 0,07%, 4 minggu 0,08%; pH 0 minggu 4,5, 1 minggu 4,8, 2 minggu 4,82, 3 minggu 4,83, 4 minggu 5,03.Profil kimiawi yang demikian selama proses produksi tauco itu menggambarkan bahwa ada perubahan profil kimiawi tauco saga yang jelas, terutama total padatan terlarut, total abu dan total asamnya, juga nilai pHnya

Kata kunci : *Kimiawi, Mikroba tauco, saga pohon, tauco*

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Tauco is a soy-based product processed by fermentation process with the addition of laru tempeh containing rhizopus oligosporus, Rhizopus oryzae and Aspergilus oryzae and continued with 10%-20% salt fermentation. Along with the development of product innovation now, tauco can be made using the basic ingredients of nuts or seeds - grains other than soybeans, namely saga seeds. Tauco saga research has been done previously with the process of making tauco in general by doing the influence of long immersion and quality on tauco saga, as well as organoleptic tests and chemical tests. In this study, tauco saga was conducted by conducting a review of chemical tests during the production process. This study consists of two stages, namely the first study of making tempeh saga as a raw material of tauco and the second study of fermentation with a saline solution with an incubation time consisting of 5 levels, namely a1 = 0 weeks, a2 = 1 week, a3 = 2 weeks, a4 = 3 weeks and a5 = 4 weeks. The tests conducted on this study are observations of chemical analysis conducted including dissolved protein levels, total dissolved solids, ash levels, total titrationed acids, and pH. Based on this study, it was obtained that during the production process tauco saga can be chemically reported that when making tempeh saga got an average yield on, total protein levels were 17.37%, total dissolved solids 22.28, ash levels 2.75%, total acids 0.12%, and pH 4.95. Based on this study, it was obtained that during the production process tauco saga can be chemically reported that when making tempeh saga got an average yield on, total protein levels were 17.37%, total dissolved solids 22.28, ash levels 2.75%, total acids 0.12%, and pH 4.95. At incubation time, total protein levels 0 weeks 13.95%, 1 week 15.67%, 2 weeks 14.87%, 3 weeks 18.80%, 4 weeks 19.10%; total dissolved solids 0 weeks 34.93, 1 week 49.11, 2 weeks 46.78, 3 weeks 59.74, 4 weeks 51.54; ash levels 0 weeks 6.85%, 1 week 5.94%, 2 weeks 5.94%, 3 weeks 6.34%, 4 weeks 6.14%; total titrated acid 0 weeks 0.02%, 1 week 0.05%, 2 weeks 0.05%, 3 weeks 0.07%, 4 weeks 0.08%; pH 0 weeks 4.5, 1 week 4.8, 2 weeks 4.82, 3 weeks 4.83, 4 weeks 5.03. Such a chemical profile describes an increase in the chemical results of tauco saga products.

Keywords: *Chemical, Tauco microbes, tree saga, tauco*