

THE EFFECT OF BLANCHING METHOD, STORAGE AND TEMPERATURE TO THE CHARACTERISTICS OF COWPEA TEMPEH SUBSTITUTED by 40% SOYBEAN

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ABSTRACT

Cowpea is mainly used as vegetable and animal fodder. Tempeh is highly perishable food that has to be consumed shortly after it reaches acceptable degree of fermentation. This study aims were to observe the methods for inhibiting tempeh spoilage, methods of blanching and its effect to tempeh. methods and optimum temperature of four weeks tempeh storage and characteristics of cowpea-soybean tempeh after four weeks storage in freezer. Vacuum packaging combined with frozen storage could retain tempeh quality after four weeks storage. The result showed that after storage, tempeh with steam blanching method has higher carbohydrate (18.20%) and isoflavone content [66.20%], lower protein (28.99%) and water content (49.15%), fewer total microbes; lactic acid bacteria and coliform compare to before storage. In addition, tempeh with hot water blanching method, after storage, has lower protein content (16,27%), higher water (70,25%), carbohydrate content (10.53%), and isoflavone content (75.28%) compare to before storage. Before storage, tempeh either with steam or hot water blanching method has Zinoleicacid, palmitic acid, f3-tocopherol, ergost 5,7,22 trien-3-oI, and stigmast 5,22, dicn3-oi whereas after storage, tempeh with both of blanching method has y-tocopherol and stearic acid.

INTRODUCTION

Cowpea is one kind of legumes that can grow well in Indonesia and had been produced 5.12-8.90 ton/ha/year in 1979-1980 (Rusastra e t ai, 2004). Cowpea mainly is used as vegetable and animal fodder (Kabas et al, 2007). Soy products are considered to have potential role in preventing chronic diseases such as