

**EFFECT OF LENTIL BEAN IN PRODUCTION OF LENTIL BISCUIT**

SITI NUR AMIRAH AZUDDIN

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## **ABSTRACT**

### **EFFECT OF LENTIL BEAN IN DEVELOPMENT OF LENTIL BISCUIT**

According to popularity and high demand to the biscuit, this project was carried out in order to find the most acceptable proportion of lentil bean in biscuit that fulfill consumer acceptance. Basic formulation of biscuit was developed by addition of lentil bean. A biscuit with proportion of 20% lentil bean was found to be the most acceptable through sensory evaluation by panelist. Evaluation of mechanical properties of biscuit showed that hardness of biscuit decreased with increased proportion of lentil bean in biscuit formulation. Determination of fracturability by using texture analyzer TAXT2 indicated that there were textural changes in baked biscuit with addition of lentil bean in biscuit formulation. The results showed that the hardness, fracturability and breaking point of baked biscuit decreased as the proportion of lentil bean increased in biscuit formulation. Determination of color by Minolta Colorimeter CR-300 showed that lentil bean did not affect the biscuit colour even with high proportion of lentil bean added to the biscuit formulation. Evaluation of correlation between sensory evaluation of texture parameter and texture analysis with different proportion of lentil bean showed hardness of biscuit positively correlated with hardness, breaking point and fracturability of final baked biscuit. Evaluation of correlation between sensory evaluations of color parameter with color measurement by colorimeter showed that there were positively correlation between color of sensory evaluation and instrumental analysis. This study revealed that, biscuit with addition of lentil bean was acceptable. Biscuits with addition of lentil bean could be used to produce high protein biscuit.

## **CHAPTER 1**

### **INTRODUCTION**

Lentil is the legume with the highest level of protein other than soybeans. Lentil is a very important part of the diet in many part of the world especially South Asia which has a large vegetarian population. A variety of lentils exist with colors that range from yellow to red-orange to green, brown and black (Oplinger *et al*, 1990).

Petite Golden lentils are the tiny lens shaped seed of a small shrub. This type of lentil is richly gold in colour with a mild, earthy flavour and soft texture. Petite Golden lentils are smaller and round in shape compared to other type of lentils. Lentil is an excellent supplement to cereal grain diets because of its good protein content. It is used in soups, stews, casseroles, salad dishes and curry. Sometimes lentils are difficult to cook because of the hard seed coats that result from excessively dry production conditions. Lentil can be used as livestock feed because of their high protein content and lack of digestive inhibitors (Yadav, 2007).

Biscuits and cookies have amazingly become one of the most desirable desserts for both youth and old people due to their low manufacturing cost, convenience, and