EFFECT OF TIME-TEMPERATURE AND AMYLOSE CONTENT OF RICE ON THE COLOR AND TEXTURE OF RICE-BASED EMERGENCY CANNED FOOD

Elvira Syamsir[12], Maggy T. Suhartono[2] and Sherly Valentina[2]

[1]SEAFAST Center and [2]Dept. of Food Science and Technology, Bogor Agricultural University

ABSTRACT

Rice-Based Emergency Canned Food (RB-ECF) was made from rice and chicken as the main ingredients. The product was made to meet the required daily energy level of 2100 kcal to be able to be consumed directly in emergency condition. The product was packed in 307 x 113 silver enamel can and canned in retort at 250°F (Tr) with CUT = 21 minutes. The product's weight was 200 gram per can with a total energy value of 639.42 kcal. The total energy value was calculated from fat (49.63%), protein (11.26%), and carbohydrate (39.11%).

Rice with different amylose content (19.50%-Cisadane, 23.88%-lR 64 and 28.24% -IR 42) were used to make RB-ECF. Thermal processing was carried out by different time-temperature schedules to achieve IS and 20 minutes sterilized value (Fo). Objective analysis of the products showed that amylose content and Fo value affected the color and texture of the products.

INTRODUCTION

Emergency food product is a processed food for emergency situations, which can be consumed directly and meet the daily nutritional needs. The main characteristics desired are good palatibility, safe to consume, easy to distribute, and contain sufficient nutrients daily needs. Ideally, contribution of calories from protein, fat and carbohydrate respectively is 10-15%, 35-45% and 40-50% (Zoumas etal, 2002).

Rice (Oryza sativa) is consumed dailybecause it is the staple food for most Indonesian people, thus development of a rice-based emergency canned food (RB-ECF) is appropriate. Starch *i s* the major