UTILIZATION OF SQUASH (*Cucurbita maxima*) AS FOOD COLORANT IN PANCIT PALABOK AND PAELLA

THESIS

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ABSTRACT

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The study was conducted to produce food coloring from squash and utilize the color in *pancit palabok* and *paella*; develop processing method for squash food colorant using extraction; utilized food color in *pancit palabok* and *paella*. And evaluated sensory properties and consumer acceptability of squash as food colorant in *pancit palabok* and *paella*.

Processing method for squash food color is described. A kilo of fully matured squash was selected, washed, peeled, seeds were removed, flesh was cut into cubes and blended. Different amounts of propylene glycol solvent per kilogram of squash was used. The treatments used were: T_0- 1 cup of annatto extract and dissolved in hot water; T_1- ¼ cup of propylene glycol with heating at 60° C at about 20 min; T_2- ½ cup of propylene glycol with heating at 60° C at about 20 min; and T_3- 1 cup of propylene glycol with heating at 60° C at about 20 min. Liquid extract was filtered using cheesecloth and filled in sterilized glass bottles.

Sensory properties such as color, glossiness, flavor, off-flavor, aroma and general acceptability were evaluated. In *pancit palabok*, color, glossiness, flavor and general acceptability differed due to extraction methods of the colorant, while off-flavor and odor were not affected. Significant differences in glossiness of *paella* due to extraction method were observed. Color, flavor, off-flavor, odor and general acceptability of *paella* were not affected by extraction method for food color.

The best treatment is ¼ cup of propylene glycol with heating at 60° C at about 20 minutes. This was applied in *pancit palabok* and *paella* for consumer acceptability. According to one hundred respondents, 75% said that *pancit palabok* is highly acceptable while 68% told that *paella* is highly acceptable also.

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INTRODUCTION

Colors are used in the food industry to enhance eye appeal of many food products. Consumers have become aware of the hazards of synthetic additives in foods and are looking for foods with natural ingredients (Delgado et al., 2003 p173-289).

The practice of coloring food is very old and the natural pigments found in spices and seasonings were the first to be studied for such purposes. This was followed by the emergence of inorganic pigments which proved to be very harmful to human health. According to Delgado (2003), there is a need for replacement of the artificial dyes used in the food industry with natural dyes because of the general toxicity presented by artificial dyes, making them undesirable for human consumption. Furthermore, some natural pigments have functional significance. Demonstrable benefits include protection against liver injuries, significant reduction of blood pressure, improvement of eyesight, strong angi-inflammatory and antimicrobial activities, inhibition of mutations caused by