Thesis Title Sodium Chloride to Potassium Chloride
Ratio for Table Salt Replacment in Thai

Consumers

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## ABSTRACT

The research purpose was concentrated on the replaement of potassium chloride in table salt and the accceptable ratio of sodium chloride (NaCl) to potassium chloride (KCl) by Thai consumers. Experimental plan was quasi-experimental design and divided into this following steps, at first, the production of low sodium salt, Identifying the acceptable ratio of NaCl to KCl by sensory difference test technique,

physical and chemical analysis of low sodium salt and home-use test. Twenty taste panelists were undergraduate students in Nutrition Department, Mahidol University and 100 families from Government Saving Bank officer were volunteers for home-use use test.

The result from sensory difference test showed that the acceptable NaCl to KCl ratio was 1:1. Other qualities, namely colour, free flowing and taste of this low sodium salt were not different from market table salt.

After keeping low sodium salt at room temperature (30  $\pm$  2°C). for one month the analysis showed that Colour quality and moisture content were almost unchanged colour value from Munsell Colour Book was N 9.5 90.0%R. Moisture contents, before and after storage, were 0.1120% and 0.1124%, respectively.

For the results of home-use test, 80% of the families used low sodium salt more often than or equal to twice a week Sixty three percents of the Volunteers answered that low sodium salt really made good taste of food and about 75% accepted that it could substitute table salt well and very well. This salt was used an ingredient for cooking many food types such as fried vegetable, cured meat, dessert and etc. Those 80% of volunteers showed a tendency to buy and use this salt eventhough it was more expensive. Sixty four percents of the volunteers did not know the advantages and disadvantages of low sodium salt usage.

It can be concluded that, this type of low sodium salt could be accepted by Thai consumers. In general, healthy people might use it daily. However, for patients who got some heart or renal disease, it must be used under physician's supervision.