## **ABSTRACT**

The market of honey is growing since consumers become more health conscious. Some consumers concern more about their health due to benefits of honey over granulated sugar. This study was aimed to investigate consumers' behavior toward honey by using consumer survey with 120 consumers and to determine sensory characteristics, consumers' preference and honey applications by applying sorting technique with different groups of consumers. Moreover, to group pure honey and different ratios of mixed honey and glucose syrup; and to generate sensory profiles of Thai honeys by using semi-trained descriptive assessors. Lastly, to determine important physicochemical properties of honey. According to the study, consumer (50.8%) consumed honey 1-2 times/month and more than 70% of the consumer bought honey from supermarket. Top three most important factors that affected on buying decision were the origin of honey, safety and sensory quality. In case of sensory quality, consumers paid more attention on taste, flavor and aroma respectively. The sorting was applied by three different groups of consumers including non-honey user (n=30), regular honey user (n=30) and culinary group (n=30). The characteristics of honeys were categorized and described in the similar manner by all groups of assessors, however, some of them were different in details. The preferred honeys were described related to floral flavor. On the other hand, the non-preferred honey sample were indicated related to chemical flavor and fermented flavor. For honey application in food, most assessors identified product with categorical words which the top three were dessert, beverage and bakery. Next, the sorting was also applied by 30 assessors with various ratios of honey per glucose syrup from 10% of honey to 100% of honey with 10% increments which the seventy-percentage honey with thirty-percentage glucose syrup was a ratio with the highest percentage of honey which the assessor not considered as significant difference from the original honey. The terminologies and references of Thai honey were generated for 22 sensorial characteristics by 6 semi-trained descriptive assessors. The assessors were trained for 47 sessions before generating the sensory profiles, paralleling with analysis of important physicochemical properties such as color and Brix. The uniqueness of samples was discovered in many samples; especially Stingless which was rated as the highest intensity for several attributes.