

**DEVELOPMENT OF HOT SMOKED TUNA (*Thunnus
albacares*) WITH CINNAMON WOOD AND
DIFFERENT FRUIT FLAVORINGS**

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by

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CHAPTER 1

INTRODUCTION

Humans consume fish in variety of ways by making different dishes because of its nutritive value and characteristic flavor compounds present (Balami *et al.*, 2019). Fish is prominent among highly nutritious food which is comprised of proteins and amino acids (Karunaratna and Attygalle, 2019), fatty acids (Peng *et al.*, 2013a), minerals (Karunaratna and Attygalle, 2019) and vitamins (Peng *et al.*, 2013a). Tuna fish industry comprised of six principal market species. Yellow fin tuna (*Thunnus albacares*) is one of the prominent specie in Sri Lankan fisheries. According to fisheries statistics (2018) total production of yellow fin tuna in Sri Lanka was 38,960 metric tons. It is significantly higher value with compared to billfish, seer fish and carangids production of Sri Lanka.

Yellow fin tuna is good source of nutrients. Karunaratna and Attyalle (2019) reported that, moisture, protein, lipid and ash content of yellow fin tuna white muscle was 72.44%, 21.42%, 0.88% and 1.12% respectively. Other than that yellow fin tuna is considered as good source of amino acids and fatty acids. Tuna muscles are rich in docosahexaenoic acid (DHA) (16.91%) and eicosapentanoic acid (EPA) (2.39%) (Peng *et al.*, 2013). DHA and EPA health beneficial fatty acids, especially for cardiovascular diseases. n-3/n-6 ratio can be used as indicator for comparing the relative nutritive values of different fish oils (Peng *et al.*, 2013). Due to high nutrition content and moisture content, fish is considered as highly perishable food (Ojutiku *et al.*, 2009). Therefore, preservation is important to reduce the deterioration of food. Perishable food can be preserved by many processes such as salting, sun drying, freezing, canning and smoking (Shajil *et al.*, 2018).