4036933 ENAT/M: MAJOR: APPROPRIATE TECHNOLOGY FOR RESOURCE

DEVELOPMENT; M.Sc. (APPROPRIATE TECHNOLOGY FOR

RESOURCE DEVELOPMENT)

KEY WORDS

: GOLDEN APPLE SNAIL/ RAW MATERIAL/ THAI FRIED CHILI

PASTE

SIRIWAN LEARKHUA: THE FEASIBILITY STUDY ON THE UTILIZATION OF GOLDEN APPLE SNAILS AS A RAW MATERIAL FOR THE PRODUCTION OF THAI FRIED CHILL PASTE. THESIS ADVISORS: SOMPHONG THONGCHAI, M.Sc., ANADI NITITHAMYONG, Ph.D., ACHARAPORN SUNGPETCH, Ph.D., 94 p. ISBN 974-664-142-5

The purpose of the research was to study the physical, chemical and biological attributes of Golden Apple Snails in order to develop its meat as the raw material for the production of Thai fried chili paste. On a typical production formula of Thai fried chili paste, the Golden Apple Snails at the predetermined protein level would replace the dried shrimp. The experiment was based on 3 sizes (i.e. small, medium and large) of Golden Apple Snails in the Thai fried chili paste to study the following: the protein level, the consumers' acceptance through sensory test and the total plate count, yeast and mold attributes.

Consistant with the sizes of the Golden Apple Snails, the study showed that the protein level was almost equivalent to that of fried shrimp. Through one sensory test. Thai fried chili paste of three sizes of Golden Apple Snails did not show a statistical difference, at 95% confidence level. The level of consumers' satistication with taste was 'like slightly to like moderately'. Total plate count for small, medium and large size of Thai fried chili pastes were  $2.5 \times 10^3 - 2.2 \times 10^3$  and  $4.9 \times 10^3$  CFU/g, respectively. Yeast and mold were not detected. Further study on shelf life of the three sizes of Golden Apple Snails in Thai fried chili paste packed in scaled glass bottles kept at the room temperature for one month did not show any significant difference (P>0.05). Total plate count level was the same level as the typical standard of Thai fried chili paste production industry.

As a result of this study it is recommended that more Golden Apple Snails be used in the formula of Thai fried chili paste to increase the protein content. Moreover, they could be used in developing other value-added food products for commercial purpose.