



Tropentag, October 11-13, 2006, Bonn

“Prosperity and Poverty in a Globalised World—  
Challenges for Agricultural Research”

## Development of Iron — Fortified Thai Snack Food Products Using Pork Blood as an Iron Sources

POONSUB INSUNG

*Rajamangala University of Technology Srivijaya, Department of Food Technology, Nakhonsithammarat  
Campus,, Thailand*

### Abstract

The research was conducted to develop the iron-riched food products using boiled pork blood (BPB) as an iron source. Pork blood was drained off by hydraulic press consisting approximately 30 % of the dry matter. Two Thai crackers, Thongmount (TM) and Phantkhript (PK) were selected as iron fortified products. Four levels of BPB in TM and PK products were 10, 20, 30 and 40 % and 25, 50, 75 and 100 %, respectively. The sensory evaluations were used as criteria for measurement the acceptability of the products. It was found that the higher BPB content, the lower acceptability of the products ( $p < 0.01$ ). The TM and PK products at 10 % and 25 % BPB content, respectively, had the highest general appearance, colour, texture, acceptability, taste, crispy and flavor ( $p < 0.01$ ). However, the TM and the PK products at 30 % and 75 % BPB content respectively had the overall acceptability, higher than 7 points according to the nine-point hedonic scale. Therefore, both the iron fortified products containing BPB at 30 % and 75 % BPB content, respectively used for shelf life study lasted for 0 to 45 days. The decreasing in overall acceptability of the TM products throughout the entire storage period of 45 days was lower than that of the PK products. The overall acceptability of the TM products during the 30 day-storage period was not significantly different ( $p > 0.05$ ) from those stored at 0 and 15 days. The acceptability of the PK products at day 15 was, however, significantly different ( $p < 0.01$ ) with that of day 0. This research result implies that using iron fortified TM products can be an alternative for solving the iron deficiency of Thai people.

**Keywords:** Iron-fortified products, Pork blood, Snack food, Thailand