

**Thesis Title** Viability of pig ascarid (Ascaris suum Goeze) eggs in pickled garlic, pickled spring onion, Kim-chi (Korean-style pickled vegetable) and salted chinese mustard

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#### ABSTRACT

The purpose of this experimental research is to study the effect of time and composition that usually used in preserved vegetables ; on the development of pig ascarid (Ascaris suum Goeze) eggs. Both fertilized one cell and embryonated eggs were used separately in each of the following preserved vegetables ; pickled garlic, pickled spring onion, Kim-chi (Korean-style pickled vegetable) and salted chinese mustard at the room temperature (24.3 - 33.8 °C). Samples of two hundred eggs were collected and examined at 3 day intervals for a period of 90 days. The stage of eggs were counted and recorded.

They were found that the effective in preventing development and killing of the eggs by the preserved vegetables

were increased in proportion to the pickled period ( $P < 0.0005$ ). The pickled garlic was the most effective substance or composition while the pickled spring onion was the least in the preserved vegetables. The other, Kim-chi and salted chinese mustard, shown the same ability to kill and prevent development of one cell stage eggs. But in the embryonated eggs, salted chinese mustard was more effective ( $P < 0.005$ ) than the other.

According to this study : pickled garlic, pickled spring onion, Kim-chi and salted chinese mustard killed pig ascarid eggs in 24, 81, 39 and 39 days respectively. However, it is recommend that these pickled vegetables should be preserved at least 26, 86, 41 and 41 days respectively then they would be the safest periods for the consumers.