



**Detection of *Salmonella* spp. contaminated in salted egg  
by PCR method compared to conventional culture method**

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**2009**

## ABSTRACT

Detection of *Salmonella* sp. in salted egg was carried out by conventional culture method and polymerase chain reaction method (PCR). Specific primer ST11-15 was used. The specificity of ST11-15 primer was investigated by various bacteria those were *V. parahaemolyticus*, *V. alginolyticus*, *E. coli*, *Shigella* spp., *Salmonella typhi*, *Salmonella paratyphi* and *Salmonella enteritidis*. They were specific to ST11-15 primers. The amount of *Salmonella* spp. detected by PCR method must be at least  $10^6$  CFU/ml. The optimum enrichment time was also investigated by adding *Salmonella enteritidis* in salted egg. The enrichment method was achieved at 10 CFU/g with 9 h enriching time. The result showed that PCR method is more rapid than conventional culture method. The PCR method can be performed within 24 hours while conventional method consumed 3-4 days. Finally, PCR technique was used to detect contaminated *Salmonella* spp. in the salted egg collected from Chaiya district, Suratthani province. Contamination of *Salmonella* spp. was not observed in all samples. Therefore, it is postulated that salted egg was safe for consumption.

**Keywords** Salted egg, *Salmonella* spp., Polymerase chain reaction,  
Food-borne pathogens