

## CHAPTER VII

### CONCLUSION

*Salmonella* Enteritidis was the most common serotype isolated from human patients in Thailand in the year 2002. All strains of *Salmonella* Enteritidis isolated from human patients and all strains of *Salmonella* Enteritidis isolated from chicken meat were tested by biochemical reaction tests and reconfirmed with serotyping for *Salmonella* Enteritidis. Four hundred and eighty strains of *Salmonella* Enteritidis isolated from human patients and 78 strains of *Salmonella* Enteritidis isolated from chicken meat were analyzed by pulsed-field gel electrophoresis (PFGE).

PFGE analysis showed that *Salmonella* Enteritidis strain is a diverse serotype that can be differentiated into a large number of PFGE profiles, forty-two different patterns profiles, arbitrarily designated PFGE profile 1 to 42. The PFGE profiles had the most number of isolates were 1 (406 isolates, human patients 368 isolates and chicken meat 38 isolates).

Dendrogram was shown two major clusters (A and B) of human patients and chicken meat. they were 42.80 % similarity relation. Group A was divided into A1 and A2. Group B was divided into three subgroup, B1, B2, and B3. B3 was also divided into B3.1 and B3.2. And B3.2 was also divided B3.2.1 and B3.2.2.

In conclusion, PFGE typing was found to be a highly discriminatory and reproducible method for the epidemiological investigation of *Salmonella* Enteritidis infection. This typing method can facilitate the reliable evaluation of the clonal relationship of *Salmonella* Enteritidis isolates and the identification of the common sources (especially chicken meat) of outbreaks.