

# 1. INTRODUCTION AND OBJECTIVES

## 1.1 Introduction

Salmonellosis is a food-borne disease which is considered to be the most important swine-related zoonosis. *Salmonella* serovars such as *S. Choleraesuis* and *S. Typhimurium* cause clinical disease in swine and can have serious economic impacts on swine production. The consumption of *Salmonella* contaminated pork may cause illness in humans and has an adverse public health impact.

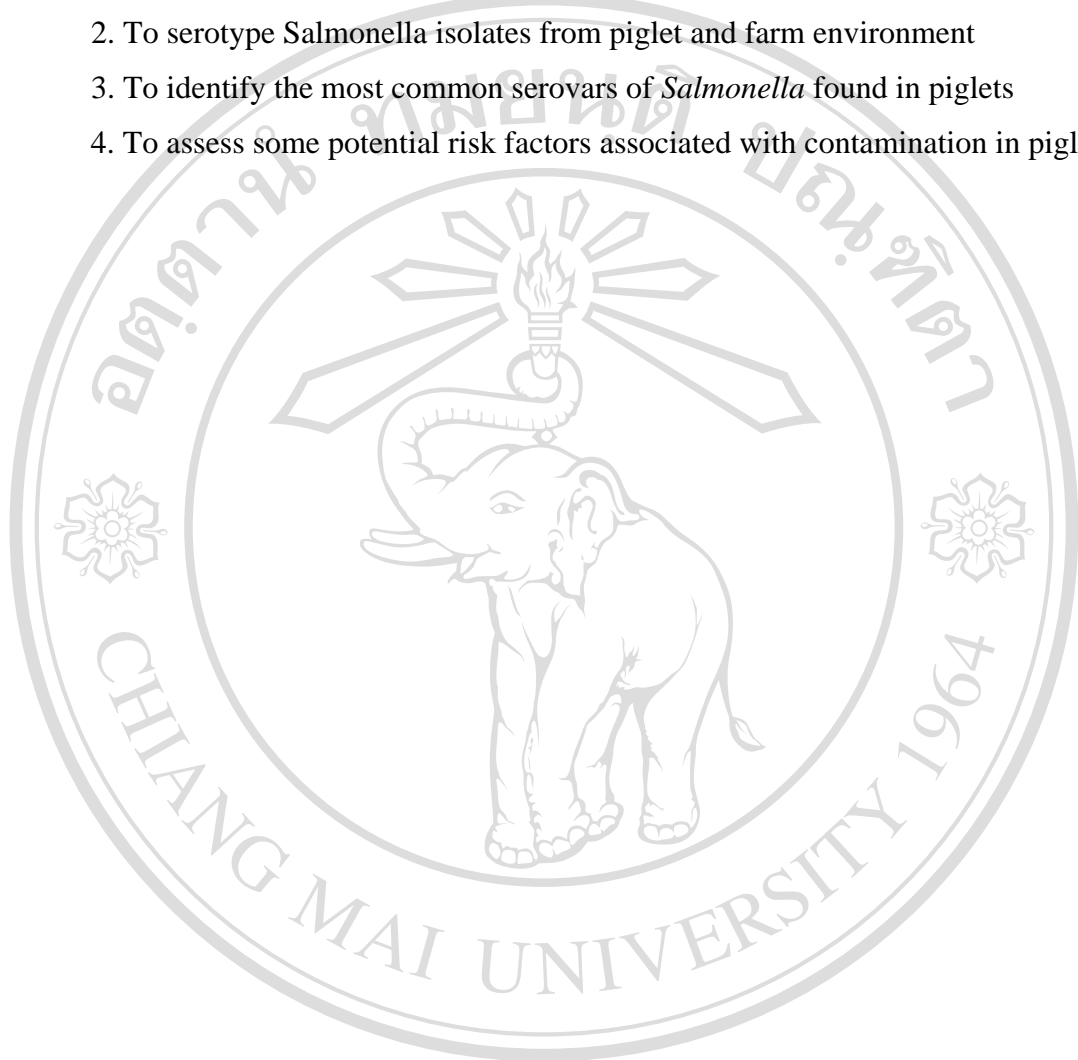
Successful implementation of the 'farm-to-fork' *Salmonella* control program in Denmark and recent initiation or consideration of similar programs in Germany, the UK, The Netherlands and Belgium (Nielsen, 2004) has created an expectation for other pork producing countries and regions to investigate *Salmonella* spp. in their pig populations and to evaluate the feasibility of potential control options (Rajic *et al.*, 2005). In Thailand, the prevalence of *Salmonella* at the pig farm, slaughterhouse and pork at the market were 6%, 28% and 29% respectively (Padungtod and Kaneene, 2006). The reduction of the prevalence of *Salmonella* in pigs at the herd level should reduce the contamination in pork products.

This study concerns with *Salmonella* in piglets at the farm level in northern Thailand. Previous study of our group followed the pigs from pre-slaughter to, slaughter and products. For this study, the model consists of 2 studies, concerning breeder sows and respective piglets.

Investigations were focused on the *Salmonella* infection on the herd level. Feces and skin swab were collected from individual pigs (483 samples). The detection of *Salmonella* followed the ISO standard (ISO 6579). Such results are a precondition for monitoring breeding systems, the studies play an important role on pilot projects for routine surveillance in the future.

## 1.2 Objectives

1. To determine the incidence of *Salmonella* in piglets
2. To serotype *Salmonella* isolates from piglet and farm environment
3. To identify the most common serovars of *Salmonella* found in piglets
4. To assess some potential risk factors associated with contamination in piglets



ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

Copyright© by Chiang Mai University

All rights reserved