

### Abstract

This study was participatory action research by applied the standard of the Good Manufacturing Practice System (GMPs) for One Tambol One Product (OTOP) developing process. The purpose of this research were to study, the feasibility of using GMPs for OTOP food products, the microbial food quality, the participatory process for developing product quality, the contamination in food, utensils and handler's hands, to evaluated the problems and obstacles and also to survey the opinion and accepting for applied the GMPs. The samples were twenty kinds of food production groups of OTOP in Khon Kaen province by compared the results of survey before and after treatment, they were the *E.coli* contamination to both hands and food and also the Standard Plate Count Method of utensils. Moreover, to deep interview in decision maker of committees, trained intervention and suggested to OTOP groups. This research was studied during December 2003 to September 2004.

The results revealed that, after treatment there were significant ( $P < 0.05$ ) in score of practice; their changed in positive way, however, the most practice lower than the standard criteria. The most product groups were accepted for using GMPs in OTOP by mean 83.9 %, so may be possibility for using GMPs to OTOP but should determined the specific guideline for each product. The results showed that, 28 food samples *E.coli* contamination were reduced 7.1%, 32 utensils samples total bacteria were reduced 12.5% by paired t-test had significance difference at  $p < 0.05$  and 98 handler's hands samples *E.coli* contamination were reduced 19.5% by paired t-test had significance difference at  $p < 0.05$ . The participation of product groups showed that they had co-functions in survey, problem analysis, etiology, suggestion in solving problems and emphasized to improved GMPs particularly hygiene, utensils cleanness and managed their work place. For GMPs problems to using OTOP were information management system problems and production may not continuously all year because unconvinced order and may stop in festivals e.g. New year day, Songkran day. The main problems were market issue and low income.