ABSTRACT

Banana are very well known as a high nutritional fruit, rich in carbohydrates, potassium, calcium and vitamin A, that are all important for health. Cultivation of banana is simple and yields all year round. Thayang Agricultural Co-operative Ltd. (TACo), Thayang, Petchaburi is an organization that plays an important role in the connection between banana orchardists and customers. Organic Hom Thong Banana is a product of TACo that is widely consumed due to good taste, sweetness, firmness, and fragrance, and without the use of any agricultural chemicals. Moreover it has high potential to trade, both in domestically to other countries and especially in Japan. However, Organic Hom Thong Banana of TACo is a fruit that is minimally processed and mostly uses human labor and household utensils. Post-harvest operation at TACo’s processing plant and technology are traditional and at local scale. Consequently, the microbiological contamination and process quality are difficult to control, which affects to the quality of the produce. Determination of microbiological quality of total yeast and mold, total bacteria, coliforms and E. coli was investigated, and the evaluation of Good Manufacturing Practice (GMP) status of TACo’s processing plant was also performed in this study. The results of microbiological determination before improvement showed a very high microbiological contamination in the produce, the water used for washing processes, on machines, utensils, operators’ hands and the environment. The GMP status before improvement did not pass the evaluation according to the Thai Food and Drug Administration (FDA) checklist. Therefore, the implementation of a quality control system was investigated by: 1) application of 5S system, 2) providing a training program for operators to improve hygiene and sanitation and 3) for the application of appropriate technology. Following this, there was a significant decrease in microbiological contamination, and the GMP status of TACo’s processing plant passed Thai FDA standards, resulting in a better quality of Organic Hom Thong Banana.

KEY WORDS: ORGANIC HOM THONG BANANA/ POST-HARVEST/ THAYANG AGRICULTURAL CO-OPERATIVE LTD.