

Tippawan Wandee 2014: Designs of Acceptance Sampling Plan in Insect Pest Management of Fresh Vegetable for Export. Master of Science (Agro-Industrial Technology Management), Major Field: Agro-Industrial Technology Management, Department of Agro-Industrial Technology. Thesis Advisor: Assistant Professor Chutima Waisarayutt, Ph.D. 86 pages.

The major issue for exported fruits and vegetables was the pest detected inside the packed produced. The research aimed to evaluate the quality control pest management in vegetable supply chain, verify the effectiveness of current applied sampling plan from packing house, comparing with the zero acceptance number sampling plan. The study showed that the process of quality control in fresh vegetable for exporting focused on only food safety, which was not designed to quarantine insect pest control. The process was not a hazard point in HACCP system. The study found that the pest control management had implemented along the supply chain from the selection of plant cultivar, the pest control in crop, the post-harvest management and the control within packing process. At the packed processing, they used inspection for 3 steps including raw material receiving control point ( $n = 40, c = 4$ ) and the point before transfer product ( $n = 50, c = 7$ ). When using Operation Characteristic Curve which indicated the relationship of using the sampling plan to examine the lot at different quality levels and the probability of acceptance such lot, the sampling plan with zero acceptance number had a better quality detection performance comparing with the current applied sampling plan. The study shown the potential of applying the zero acceptance number sampling plan for pest control verification within the packing process.

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