

SURFACE HYGIENE IN VEGETABLE PROCESSING PLANTS: RESULTS OF A REPEATED HYGIENE SURVEY

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Abstract

Minimally processed, fresh-cut vegetables have generally been subjected to various processing steps, e.g. peeling, trimming, cutting, washing and rinsing. Minimal processing can enhance contamination of the vegetables with spoilage and even pathogenic microbes due to direct contact of produce with contaminated products, equipment, water or personnel. Good hygiene of environmental surfaces at vegetable processing plants is thus very important.

The aim of this study was to evaluate whether the improvements made in six vegetable processing plants after earlier hygiene monitoring resulted in a change in overall surface hygiene in these plants.

A total of 2913 surface samples were taken from the vegetable processing plants using different rapid hygiene monitoring methods after cleaning of the processing devices and surfaces.

The results of this repeated survey of surface contamination level indicate that surface hygiene can be improved in these plants. The results of the second monitoring were in general somewhat better those of the previous monitoring. Including all detection methods and all six processing plants, the shares of results classified as good had improved on surfaces in contact with product, machines and on packages. General improvements on conveyor belts were minor. Surfaces of processing equipment have been recognized as potential sources of microbial contamination and recontamination of fresh-cut products. In order to control this contamination, it is important to detect the sources of contamination and true critical points. Vegetable production plants need to continue developing cleaning and hygiene practices, training of employees and self-monitoring of surfaces.

Key words: *Fresh-cut, Vegetable, Hygiene, Monitoring, Improvement, Cleaning, Microbial quality, Plant.*