ABSTRACT

DSM-Firmenich is one of the biggest Businesses to Businesses (B2B) company that produce unique flavors and fragrance. They generate a variety of products in several forms namely liquid, emulsion, washed oil, and reaction after. As a merged company of two global sustainability leaders, DSM Firmenich consistently maintains high quality standards of their products. With a sufficient Quality Assurance team, DSM-Firmenich can ensure the quality and safety of their products and regularly monitor all production processes to meet customer requirements. Doing an audit management system, performing plant monitoring programs, handling customer's requirements, and making Standard Operating Procedure (SOP) are the primary jobs of a Quality Assurance intern. However, the main focus of this report was more to cleaning validation as a part of the plant monitoring program. Cleaning validation is critical in the food protection to prevent cross contamination of every production, thus selecting the best method to clean equipment is crucial. The aim of this research was to evaluate the influence of different cleaning techniques towards the cleanliness of an equipment and identify the best one. There were 2 methods that were evaluated in this study: manual cleaning and automatic cleaning. The parameters were allergen and ATP values that were measured by using the swab method, pH of rinse water was also tested by using pH meter as a supportive cleanliness indicator. All raw materials were also tested to validate that they contain allergens. Independent T-test was used to analyze the influence of different cleaning methods towards an ATP and allergen value. All the equipment from both techniques were free from allergen after being cleaned, all raw materials contain allergen, and the pH also met the standards. The ATP values showed there was a significant difference between techniques, and the automatic was proven as the best cleaning method.

Keywords: ***Allergen, ATP, Flavor, Cleaning Validation, Quality Assurance***