

## **Evaluation of the Microbial and Coliform Contamination During Dry and Rainy Seasons in Water Samples Collected From Some Selected Markets**

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Water is unsafe for human consumption when it contains pathogenic, or disease causing microorganisms. The aims of the present studies were to evaluate the microbial contamination of drinking water and the examination of the coliform occurrence in some selected markets during dry and wet seasons. For this study Maruthanarmadam, Kokuvil, Jaffna town, Thirunelvely, Kalviyangadu public markets were selected. The water collected from Maruthanarmadam market well contained aerobic microbial contamination which is non significant ( $p > 0.05$ ) than the standard level (100 colonies/mL) prescribed by Sri Lankan Standard institution during dry season while during wet season contained significantly ( $p < 0.05$ ) high number of contamination. The water collected from Kokuvil market well significantly ( $p < 0.05$ ) high number of cells during dry and wet seasons. The water collected from the Jaffna town market well had non significant ( $p > 0.05$ ) number of cells than the standard level during dry season while significant ( $p < 0.05$ ) number of cells than the standard level during wet season. The water obtained from Thirunelvely market contained non significant ( $p > 0.05$ ) number of colonies during dry and wet seasons. The water obtained from Kalviyangadu market contained non significant ( $p > 0.05$ ) number of cells during both seasons. All the samples contained no anaerobic organisms. In coliform presumptive test analysis, the water collected from Kokuvil market only showed positive result in gas formation during wet season. The pH of the water samples falls in the range of 6.81- 7.35. Optical density measurement of the samples showed any marked variation at 550 and 600 nm.