

Consumption of vegetables contaminated with pathogenic micro organisms, particularly, in areas where urban waste water is used to irrigate vegetable crops is suspected to be a factor in outbreaks of some public health diseases. The microbiological quality of lettuce on three farms where waste water is used in the Kumasi Metropolis in Ghana was therefore studied for their Total coliforms, faecal coliforms, enterococci, E. coli and Salmonella CFU levels using standard methods. Total coliforms on the lettuce varied from  $4.93 \times 10^4$ CFU to  $6.17 \times 10^4$ CFU. Faecal coliforms ranged from  $3.48 \times 10^3$ CFU to  $4.66 \times 10^4$ CFU and E. coli  $2.98 \times 10^3$ CFU to  $3.86 \times 10^4$ CFU. Salmonella and enterococci levels ranged from  $2.50 \times 10^2$ CFU to  $2.72 \times 10^2$ CFU and  $0.68 \times 10^0$ CFU to  $2.05 \times 10^0$ CFU respectively. In most cases the highest bacterial contamination was associated with lettuce grown at Atonsu and the lowest was at Karikari farms located within the Kumasi Metropolis. The differences in total coliform counts at the two locations were significant ( $P < 0.001$ ). Differences in bacteria counts for faecal coliforms ( $P < 0.000$ ) and E. coli ( $P < 0.000$ ) were significantly higher than counts associated with the other bacteria from all the three farms. In general, bacterial counts on farm lettuce exceeded the recommended World Health Organization (WHO) and International Commission on Microbiological Specifications for Food (ICMSF) standards of  $10^3$ . Wastewater use on farms therefore, could be the main contributor to lettuce contamination and outbreak of communicable diseases. Education on use of effective de-contamination methods before eating will help reduce the risk associated with the consumption of such contaminated vegetables. Key Words: lettuce, contamination, bacteria, Kumasi, Ghana.