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Physico-Chemical and Bacteriological Quality of the Vegetable Watering Water in the Dschang Town, Cameroon

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Author(s)

Ntangmo Tsafack Honorine, Temgoua Emile, Njine Thomas

ABSTRACT

Market gardening, in the swampy lowlands of the Dschang city, plays an important role in terms of providing employment, and supply the city with fresh products. However, waterborne diseases, which occur in the city, are both attributed to the bad quality of drinking water and sanitation practices. This work aims to characterize watering waters of crop, to assess the health risks associated with the use of these waters. Water from eleven streams and five wells used to irrigate crops were sampled and analyzed once a week for a month. Analyses focused on physico-chemical parameters (temperature, suspended matter, pH, electrical conductivity, COD, BOD₅, NO₃⁻, Al, Fe, Cu, Ni), parasitological (helminthes eggs) and bacteriological (total coliforms, fecal coliforms, fecal streptococcus). The results show that, the physico-chemical quality of well waters generally approaches the WHO standards of crop watering water. The physico-chemical of streams waters and bacteriological quality of wells and streams waters are bad, according to WHO guide. These bad quality waters could contaminate crops, some of which are eaten raw, which is surely a cause of the outbreak of waterborne diseases in the city. The waters from streams are more affected. The pretreatment of the water before use for irrigation of vegetables is highly recommended.

KEYWORDS

Watering Water Quality; Urban Market Gardening; Sanitary Risks

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