

Title Vectors and conditions for preharvest contamination of fruits and vegetables with pathogens capable of causing enteric diseases

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Abstract

Among the food groups implicated with greater frequency in recent years as having caused or been associated with enteric diseases in humans are raw fruits and vegetables. Outbreaks of diseases caused by infectious and toxigenic bacteria as well as parasites and viruses have been documented to occur as a result of consumption of contaminated produce. This paper seeks to review the scientific literature reporting evidence to support the potential for preharvest contamination of fruits and vegetables intended to be eaten raw. Sources of preharvest contamination of produce include manure, manure compost, sewage sludge, irrigation water, runoff water from livestock operations, and wild and domestic animals. Literature was reviewed to assess the conditions affecting survival of pathogenic microorganisms originating from these sources in preharvest environments and potential for contamination of produce before or at the time of harvest. A better understanding of the behaviour of pathogens in preharvest environments will enhance the prospect of developing effective strategies and interventions that will assure the delivery of safe produce to the consumer.