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PaperTitle **Impact of Irrigating Minimally-Processed Foods with River Water Containing a High Potentially-Pathogenic Load:A Review**

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ABSTRACT

It has been brought to light by various local research institutions that many of the South African rivers that are drawn from for agricultural irrigation purposes are carrying extraordinarily high microbial loads, including some that may be considered as potential pathogens. Some of the produce irrigated by this water will reach the commercial market as minimally-processed foods (MPFs) which receive little or no treatment post-harvest and are mostly consumed raw. Concern has arisen that there could be a carryover of pathogens from the polluted river water to the MPFs during irrigation and that should the bacteria survive on this produce, the risk of infection for the consumer is high. While posing a threat to the health of consumers, large outbreaks of associated illnesses would damage the trust of the public, thereby affecting the credibility as well as the sales of all similar producers and retailers. These outbreaks could also result in legal battles which could potentially lead to producers losing their export licences as well as possible rejection by the local market. This would be disastrous for South African agriculture considering that this sector is rapidly increasing in economic importance and would therefore not welcome such a setback. With the primary concern being the safety of the consumer, a literary investigation was conducted to determine the extent of the implications that such outbreaks could result in. It also investigated how the state of the rivers can be improved or how the water can be treated in order to guarantee minimal carryover of pathogens and safety to the end-product.