

The importance of viral foodborne illnesses: short review

Abstract

Virus borne disease arises from contaminated food which can occur in all stages of food handling. Recently viral cases have been a load issue and significantly causes to most food borne illnesses. Thus the need of their fast detection and finding the disinfecting methods is sought.

Keywords: Viral food borne illnesses; GMP; Food handling; GAP; Hot Cell DNA; NORO viruses; GHP; Preservation

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Abbreviations: HAdV, Human Astrovirus; NoV, Norovirus; HRV, Human Rotavirus; GMP, Good Manufacturing Practice; GAP, Good Agriculture Practice

Introduction

Shelf life is an important concern when food produces. About all types of foodstuff such as beer,¹ mushrooms varieties,² medical plants,³ cookies,⁴ bread and its new additives⁵ which lead to new formulas; destroying diverse microorganisms is too important. Since viruses create critical risk in case of consuming virus contaminated food, all the food handling stages must be consistent with standard and auditing. The fact of introducing viral disease in foodstuffs has studied fewer. NORO viruses including (HAdV), human astrovirus (HAdV), norovirus (NoV), and human rotavirus (HRV)⁶ are the most common viral disease reasons.⁶

Mostly viral outbreaks, the trace of an infected handler has found instead of mechanically food handling.⁷ Chiefly, food borne disease because of viral problems arises from an infected person during process not followed by heat-treating afterwards.

Viruses are highly dependent to enter a cell to create its vital compounds using hot cell DNA.⁸ Furthermore, viruses are heat-resistant and their detecting methods should be sensitive.⁹

Noting to issues, it is underling that improving hygienic programs in food factories is the main and key solutions. Heating has more lethality power than UV and radio frequency¹⁰ in destroying viruses. In this regards, manufacturers must pay attention to the complete installation of both good agriculture practice (GAP) and good manufacturing practice (GMP) to avoid contamination by means of viruses. Besides, HACCP must assure that plenty control on viruses is handling. Koompas and Duizer proposed that informing about viruses with improving of detecting methods as well as attention to viruses when setting up of (GHP, GMP, and HACCP) can decrease virus risk in food handling.

Conclusion

Different types of viruses may consider as prime concern. The importance of detection to reduce virus transmission to foods as well as improving GHP, GMP and GAP are too important to reduce viral diseases. It lets better surveying, increasing safety of food materials.

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Conflicts of interest

None.

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