

Preface to *Viruses in Foods*, 2nd Edition

Contamination of foods by enteric viruses is a major concern to public health and food safety. Foodborne viruses such as human norovirus and hepatitis A and E viruses are now well recognized for the number of foodborne illnesses and severity of disease they cause globally. In the final month this book was being prepared for publication, the World Health Organization's Foodborne Disease Burden Epidemiology Reference Group (FERG) released a report recognizing human noroviruses as the leading cause of foodborne illnesses and the fifth leading cause of foodborne deaths worldwide. Foods that are most commonly associated with viral foodborne illnesses are prepared foods contaminated at the point of food service and fresh produce and shellfish consumed raw. With the increasing demand for convenience foods and fresh produce, there is a need for up-to-date information on foodborne virus epidemiology, detection, prevention, and control.

Food Virology is a burgeoning field of emphasis for scientific research. Much progress has been made since the publication of the first edition of *Viruses in Foods* 10 years ago in 2006. Molecular detection assays for clinical disease are now well established, as are protocols for investigating potential foodborne virus outbreaks. Also, searchable international databases devoted to foodborne virus epidemiology have contributed greatly to the enhanced understanding of their prevalence and transmission dynamics. Many developments in foodborne virus detection, prevention, and control have also been made in recent years. The US Food and Drug Administration (FDA) and the European Standards Association (CEN) have published protocols, which have or are soon to become standard methods for virus detection in a variety of food types. In addition, *Codex Alimentarius* released guidelines for the control of foodborne viruses in foods and in environments where foods are produced, processed, and sold. Much of the basis for these publications has been laboratory research performed over the last decade. However, much work in the field is still needed and research has been hampered primarily due to our inability to routinely culture some of these viruses in the laboratory. Recent developments, however, may make it possible in the near future.

This second edition provides an up-to-date description of the major and some minor foodborne viruses infecting humans. It is unique in that a section is devoted to the study of foodborne virus epidemiology, including chapters that provide case reports of outbreaks occurring through different transmission routes so that lessons from the past can be reflected on as we move forward. It also includes a comprehensive section on methodologies for foodborne virus recovery and detection in foods, which can serve as a handbook for Food Virology practitioners. Lastly, the section on methodologies for prevention and control has been updated and expanded to uniquely include chapters on natural virucidal compounds in foods and risk assessment of foodborne viruses. The publication of this book is timely as much attention is now being paid to this important group of pathogens causing significant foodborne disease globally.

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