

Correction: Uncited Material

To the Scientific Editors of the *Journal of Food Protection*:

Attached to this letter (as shown on p. 1133 of this issue of the *Journal of Food Protection*) are specific text and references from the article “Effectiveness of Irradiation Treatments in Inactivating *Listeria monocytogenes* on Fresh Vegetables at Refrigeration Temperature” (1), which were quoted without attribution. The material came from a book chapter written by Dr. Brendan A. Niemira and titled “Irradiation of Fresh and Minimally Processed Fruits, Vegetables, and Juices,” p. 279–300, which appeared in the book *Microbial Safety of Minimally Processed Foods* published in 2003 by CRC Press and edited by J. S. Novak, G. M. Sapers, and V. K. Juneja. I am responsible for this error and omission of citation. My coauthors were not aware of this omission. I apologize to Dr. Niemira, to CRC Press and the book editors, and to the readers of the *Journal of Food Protection* for this significant oversight and error. I also apologize to my coauthors.

The proper citation for this material is as follows:

- 20a. Niemira, B. A. 2003. Irradiation of fresh and minimally processed fruits, vegetables, and juices, chap. 13, p. 279–300. In J. S. Novak, G. M. Sapers, and V. K. Juneja (ed.), *Microbial safety of minimally processed foods*. CRC Press, Boca Raton, Fla.

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1. Bari, M. L., M. Nakauma, S. Todoriki, V. K. Juneja, K. Isshiki, and S. Kawamoto. 2004. Effectiveness of irradiation treatments in inactivating *Listeria monocytogenes* on fresh vegetables at refrigeration temperature. *J. Food Prot.* 68:318–323.

Editors' Note:

To the readers of the *Journal of Food Protection*:

Dr. Brendan Niemira brought the above incident to the attention of the Scientific Editors. This situation is regrettable and we are troubled at having to work through the circumstances related to publication of uncited material. We are concerned for the parties involved and, most importantly, we want to ensure that we maintain the high standards and quality of the *Journal of Food Protection* and the trust of our readership. The Editors of the *Journal* rely on the diligence and ethical practices by our submitting authors, as do our Editorial Board members, ad hoc reviewers, and readers.

The Scientific Editors and the *JFP* Management Committee, along with the Executive Board and *Journal* staff, are addressing this issue in an attempt to prevent a recurrence. Be assured that it is the goal of everyone involved with the *Journal of Food Protection* to adhere to high professional and ethical standards in scientific publication. You, our readers, deserve no less.

Excerpts from Bari et al., *J. Food Prot.* 68:318–323

Introduction, p. 318, paragraph 2:

“With the increasing consumption of fresh produce and increased globalization of the fresh produce market, the presence of *L. monocytogenes* is of increasing concern in produce because of its likely association with foodborne illness (4, 28–30). Conventional antimicrobial procedures such as washing, chemical sanitization, thermal treatment, and modified atmosphere packaging have historically been developed and refined to effectively suppress spoilage organisms (19). Much research is dedicated to improving the efficacy of intervention technologies against pathogenic bacteria such as *L. monocytogenes*, *Salmonella*, and *Escherichia coli* (5, 17, 18). However, it is increasingly recognized that leaves, fruits, and seeds provide bacteria with numerous mechanisms to counter these antimicrobial measures. As recent research has shown, bacteria not only are likely to enter fruits and vegetables through natural openings (stomata, calyx, stem, stem scar, etc.), abiotic wounds, or damage caused by phytopathogens, but they also can survive within the produce for days or weeks (2). The consequences of internalization are reduction in the effectiveness of chemical treatments or any other applied intervention (5, 14, 35).” (20a)

Introduction, p. 318, paragraph 3:

“Ionizing radiation is able to penetrate into protected areas of produce (surface, subsurface, and interior) to injure or destroy bacteria; however, the extent to which a biofilm habitat may influence the radiation sensitivity of bacteria, either native nonpathogens or pathogenic contaminants, is not well understood.” (20a)

Results and Discussion, p. 321, paragraph 1, continuing onto p. 322:

“In a previous study, a dose of 1.0 kGy reduced the total aerobic plate count and *L. monocytogenes* by approx-

imately 4.0 logs (99.99%) on precut bell pepper; however, on peppers stored at 15 or 10°C, the pathogen regrew to initial levels within 4 days, while pathogen levels remained low on peppers stored at 5°C (13). In the same study, spoilage bacteria were reduced by 5 log cycles on carrot cubes by 1.0 kGy. The authors concluded that irradiation, when combined with good manufacturing practices, could effectively reduce pathogen levels throughout the useful shelf life of the produce.” (20a)

Results and Discussion, p. 322, paragraph 2:

“Radiation-induced softening due to hydrolysis of pectin is a well-known phenomenon that is radiation-dose dependent (34). Irradiated (1.0 kGy) celery maintained its quality throughout the 22-day storage period of study (21). . . . Fruits and vegetables present a complex substrate for studies of irradiation, with significant complicating factors of maturity, anatomy, topology, surface and internal chemistry, and native microflora, which may compete with or succor contaminating pathogenic bacteria. By providing microhabitats with a unique microflora or biofilm community or a localized complement of secondary metabolites, plant surfaces with more varied topography may result in increased survival of pathogens in protective niches. Bacteria are known to penetrate into the tissues of lettuce (26) and apple (8, 15, 18, 23), making them inaccessible to chemical disinfectants. The anatomical structures of most fruits and vegetables do not present a significant barrier to ionizing photons (gamma and X ray), although the depth of penetration of ionizing electrons may be a factor for unusually thick or dense products.” (20a)

20a. Niemira, B. A. 2003. Irradiation of fresh and minimally processed fruits, vegetables, and juices, chap. 13, p. 279–300. In J. S. Novak, G. M. Sapers, and V. K. Juneja (ed.), *Microbial safety of minimally processed foods*. CRC Press, Boca Raton, Fla.