Contents

Part I  Fundamentals

1 Introduction to Minimally Processed Refrigerated (MPR) Fruits and Vegetables ................................................................. 3
   Robert C. Wiley and Fatih Yildiz

2 Aspects of the Biology and Physics Underlying Modified Atmosphere Packaging ................................................................. 17
   Theophanes Solomos

3 Initial Preparation, Handling, and Distribution of Minimally Processed Refrigerated Fruits and Vegetables .............................. 53
   Fatih Yildiz

4 Enzymes in Minimally Processed Fruits and Vegetables ............... 93
   Ayhan Temiz and Dilay K. Ayhan

5 Biological and Biochemical Changes in Minimally Processed Refrigerated Fruits and Vegetables ........................................... 153
   Patrick Varoquaux and Robert C. Wiley

6 Preservation Methods for Minimally Processed Refrigerated Fruits and Vegetables ............................................................. 187
   Robert C. Wiley

7 Packaging and Preservation Methods of Minimally Processed Produce ................................................................. 239
   Zehra Ayhan

Part II  Commodities

8 Postharvest Quality and Safety of Fresh-Cut Vegetables .............. 271
   Mustafa Erkan and Işıl Yıldırım
9 Fresh-Cut Fruits .................................................. 327
    Elif Çandır

10 Minimally Processed Herbs, Spices, Medicinal and Aromatic Plants .................................. 385
    Manolya E. Oner

11 Sprouts, Microgreens and “Baby Leaf” Vegetables ..................................................... 403
    Francesco Di Gioia, Massimiliano Renna, and Pietro Santamaria

12 Minimally Processed Mushrooms .................................................. 433
    Hatıra Taşkıncı and Saadet Büyükalaca

13 Minimal Processing of Tropical and Subtropical Fruits, Vegetables, Nuts, and Seeds ................. 469
    Sajad Mohd Wani, Sabira Amin, Ishrat Javaid, Farooq Ahmad Masooidi, Sajad Ahamd Mir, Shaiq Ahmad Ganai, and Fatih Yildiz

14 Minimally Processed Fresh Green Beverage Industry (Smoothies, Shakes, Frappes, Pop Ups) ........ 513
    Konstantina Pasvanka, Theodoros Varzakas, and Charalampos Proestos

15 Fermented Vegetables ............................................... 537
    Theodoros Varzakas, George Zakynthinos, Charalampos Proestos, and Magdalena Radwanska

Part III New Technologies

16 New Technologies and Edible Coatings for Minimally Processed and Refrigerated (MPR) Fruits and Vegetables (Fresh Cuts and Freshly Squeezed Juices) .................. 587
    Gürbüz Güneş and Deniz Turan

17 Use of Geographical Information Technologies in a Precision Agriculture Management System for Food Traceability ........... 619
    Muzaffer Kahveci

18 DNA Barcoding for MPR Fruits and Vegetables ................. 639
    Remziye Yilmaz

Part IV Health and Food Safety

19 Microorganisms Found in MPR and Packaged Produce and Their Detection Methods .................. 653
    Sinem Yavaş Acar and Yeşim Soyer
20 Comparison of HACCP and ISO 22000 in the Ready-to-Eat Fruit and Vegetable Industry in Conjunction with Application of Failure Mode and Effect Analysis (FMEA) and Ishikawa Diagrams 685
   T. Varzakas and E. Manolopoulou

21 Bioactive Compounds of Fruits and Vegetables 723
   Hasan Yalcin and Tugba Dursun Çapar

22 Environmental Impacts of Minimally Processed Refrigerated Fruits and Vegetables’ Industry 747
   Hülya Ölmez

Appendix 757

Index 761
Minimally Processed Refrigerated Fruits and Vegetables
Yildiz, F.; Wiley, R.C. (Eds.)
2017, XXI, 774 p. 186 illus., 122 illus. in color.,
Hardcover