

Contents

| | |
|---|------------|
| Contributors | vii |
| Preface | ix |
| Chapter 1. Introduction <i>Hong Zhuang</i> | 3 |
| Part I Modified Atmosphere Packaging | |
| Chapter 2. Mathematical Modeling of Modified Atmosphere Packaging <i>Yachuan Zhang, Qiang Liu, and Curtis Rempel</i> | 11 |
| Chapter 3. Respirations and Browning Discoloration of Fresh-Cut Produce in Modified Atmosphere Packaging <i>Hong Zhuang, M. Margaret Barth, and Xuotong Fan</i> | 31 |
| Chapter 4. Fresh-Cut Produce Microbiology of Modified Atmosphere Packaging <i>Kenny Chuang</i> | 57 |
| Chapter 5. Sensory and Sensory-Related Quality of Fresh-Cut Produce Under Modified Atmosphere Packaging <i>Hong Zhuang, Xuotong Fan, and M. Margaret Barth</i> | 71 |
| Chapter 6. Phytochemical Changes of Fresh-Cut Fruits and Vegetables in Controlled and Modified Atmosphere Packaging <i>Jun Yang</i> | 101 |
| Chapter 7. Active Modification of Atmosphere in Packages <i>Alan Campbell and Lynneric Potter</i> | 141 |
| Part II Modified Atmosphere Packaging Materials and Machinery | |
| Chapter 8. Polymeric Films Used for Modified Atmosphere Packaging of Fresh-Cut Produce <i>Hong Zhuang</i> | 149 |

| | | |
|--|---|------------|
| Chapter 9. | Breatheway® Membrane Technology and Modified Atmosphere Packaging <i>Raymond Clarke</i> | 185 |
| Chapter 10. | Microperforated Films for Fresh Produce Packaging <i>Roger Gates</i> | 209 |
| Chapter 11. | Modified Atmosphere Packaging Machinery Selection and Specification <i>Chris van Wandelen</i> | 219 |
| Chapter 12. | Hygienic Design of Machinery <i>Chris van Wandelen</i> | 229 |
| Part III Novel Packaging Technologies | | |
| Chapter 13. | Nanostructure Packaging Technologies <i>Loong-Tak Lim</i> | 241 |
| Chapter 14. | Active Packaging for Fresh-Cut Fruits and Vegetables <i>G. F. Mehyar and J. H. Han</i> | 267 |
| Chapter 15. | Packaging Sustainability for Modified Atmosphere Packaging of Fruits and Vegetables <i>Claire Koelsch Sand</i> | 285 |
| Index | | 293 |