

---

# Contents

---

<i>Contributors</i>	vii
<i>Preface</i>	ix
<b>PART I: OVERVIEW, PRODUCTION AND POSTHARVEST TECHNOLOGIES</b>	<b>1</b>
<b>1. Dry Beans and Pulses Production and Consumption—An Overview</b>	<b>3</b>
<i>Muhammad Siddiq and Mark A. Uebersax</i>	
<b>2. Dry Bean Breeding and Production Technologies</b>	<b>23</b>
<i>James D. Kelly and Karen A. Cichy</i>	
<b>3. Market Classes and Physical and Physiological Characteristics of Dry Beans</b>	<b>55</b>
<i>Mark A. Uebersax and Muhammad Siddiq</i>	
<b>4. Postharvest Storage Quality, Packaging and Distribution of Dry Beans</b>	<b>75</b>
<i>Mark A. Uebersax and Muhammad Siddiq</i>	
<b>PART II: COMPOSITION, VALUE-ADDED PROCESSING AND QUALITY</b>	<b>101</b>
<b>5. Composition of Processed Dry Beans and Pulses</b>	<b>103</b>
<i>Elham Azarpazhooh and Joyce I. Boye</i>	
<b>6. Hydration, Blanching and Thermal Processing of Dry Beans</b>	<b>129</b>
<i>Norman J. Matella, Dharmendra K. Mishra and Kirk D. Dolan</i>	
<b>7. Canned Whole Dry Beans and Bean Products</b>	<b>155</b>
<i>Brittany L. White and Luke R. Howard</i>	
<b>8. Extrusion Processing of Dry Beans and Pulses</b>	<b>185</b>
<i>Jose De J. Berrios, José Luis Ramírez Ascheri and Jack N. Losso</i>	
<b>9. Processing of Dry Bean Flours and Fractions</b>	<b>205</b>
<i>Xin Rui and Joyce I. Boye</i>	
<b>10. Cowpea Processing and Products</b>	<b>235</b>
<i>Robert D. Phillips</i>	

<b>11. Utilization of Dry Beans and Pulses in Africa</b>	<b>261</b>
<i>Jose Jackson, Joyce Kinabo, Peter Mamiro, Delphina Mamiro and Victoria Jideani</i>	
<b>12. Common Pulses: Chickpea, Lentil, Mungbean, Black Gram, Pigeon Pea and Indian Vetch</b>	<b>283</b>
<i>Muhammad Nasir and Jiwan S. Sidhu</i>	
<b>PART III: CULINOLOGY, NUTRITION AND SIGNIFICANCE IN HUMAN HEALTH</b>	<b>311</b>
<b>13. Culinary Perspective of Dry Beans and Pulses</b>	<b>313</b>
<i>Carl P. Borchgrevink</i>	
<b>14. Nutrition and Human Health Benefits of Dry Beans and Pulses</b>	<b>335</b>
<i>Elizabeth A. Rondini, Kathleen G. Barrett and Maurice R. Bennink</i>	
<b>15. Chemistry and Implications of Antinutritional Factors in Dry Beans and Pulses</b>	<b>359</b>
<i>Shridhar K. Sathe</i>	
<i>Index</i>	<b>379</b>