Contents

Preface vii

About the Editors ix

Chapter 1 **Benefits and Consumption of Cassava** 1
Mario Cruz, Isabel Márquez-Rangel,
Marisol Martínez-Hernández,
Carolina Losoya-Sifuentes,
Mildred Flores and Ruth Belmares

Chapter 2 **Cassava: Its Cultivation, Diversity, Nutritional Profile, Toxicity, and Uses in Food** 21
José Luis Del Rosario-Arellano,
Pablo Andrés-Meza, Otto Raúl Leyva-Ovalle,
Ricardo Serna-Lagunes,
Gregorio Hernández-Salinas, Julio Díaz-José
and Miguel Cebada-Merino

Chapter 3 **Cassava: Benefits, Toxicity, and its Potential Integration in Biofuels Production** 59
Vanessa Kristine de Oliveira Schmidt,
Grazielly Maria Didier de Vasconscelos,
Renato Dias Matosinhos,
Jackelyne de Souza Carvalho,
Isabela Karina Della-Flora,
Lucas Degang, Débora de Oliveira
and Cristiano José de Andrade

Chapter 4 **Biofortification of Cassava: Opportunities and Challenges to Combat Micronutrient Deficiencies** 93
Edy Listanto, Eny Ida Riyanti,
Sri Koerniati, Alfia Annur Aini Azizi,

N. Sri Hartati, Enny Sudarmonowati
and Bernadetta Rina Hastilestari

Chapter 5 **New Breeding Technology: A Pathway to Increase Yield and Create Abiotic and Biotic Stress-Tolerant Cassava**.....119
Sri Koerniati, Edy Listanto, Eny Ida Riyanti,
Alfia Annur Aini Azizi, N. Sri Hartati,
Enny Sudarmonowati
and Bernadetta Rina Hastilestari

Chapter 6 **Nutritional, Sensory, Functional, and Economic Study of Cassava Root Flour and its Mixture with other Tropical Raw Materials Rich in Energy, as an Alternative to the Traditional Precooked White Corn Flour for the Production of Arepas**.....155
Alexis Manuel Faneite Noguera,
Sisco Roberto Artigas Vásquez,
Jesús Enrique Valles Butrón
and Ignacio Angós Iturgaiz

Chapter 7 **Modification of Cassava Starch for Use as an Energy Source in Balanced Feed in Tropical Countries**.....191
Roddy Leydy Colina Curbata,
Alexis Manuel Faneite Noguera,
Diana Josefina Soto Martínez,
José Antonio Henao Martínez,
Cateryna Aiello-Mazzarri,
Alexis de Jesús Ferrer Ocand
and Ignacio Angós Iturgaiz

Chapter 8 **Leaf Protein Recovery from Cassava Leaves Pretreated with Pressurization and Depressurization with Ammonia (PDA) Technology** 217
Marco Tulio Montiel Rubio,
Daniel Alejandro Rodríguez Prieto,
Alexis Manuel Faneite Noguera,
Santiago José Valbuena Fernández,

Cateryna Aiello-Mazzarri
and Alexis de Jesús Ferrer Ocando

Chapter 9 **Obtaining Enzymatic Hydrolysates with Antioxidant Activity from Cassava Leaves** 287
Lina Marcela Suárez Restrepo,
José Edgar Zapata Montoya
and Jairo Guadalupe Salcedo

Chapter 10 **Use of the Cassava Leaf to Obtain Bioactive and Functional Compounds**.....303
José Edgar Zapata Montoya
and Lina Marcela Suarez Restrepo

Chapter 11 **Study of the Drying Kinetics of Cassava Leaves (*Manihot Esculenta* CRANTZ)** 325
Johanna Lucía Medrano Barboza,
Karen Kristina Rondón López,
Alexis Manuel Faneite Noguera,
Milton Javier Muñoz Neira
and Alexis de Jesús Ferrer Ocando

Index 373