

Contents

1	Tomato Genome Sequence	1
	Shusei Sato and Satoshi Tabata	
2	Melon Genome Sequence	15
	Jordi Garcia-Mas and Pere Puigdomènech	
3	Databases for Solanaceae and Cucurbitaceae Research	31
	Masaaki Kobayashi, Hajime Ohyanagi, and Kentaro Yano	
4	DNA Markers in Solanaceae Breeding	43
	Hiroyuki Fukuoka	
5	DNA Markers in Cucurbitaceae Breeding	59
	Nobuko Fukino and Yoichi Kawazu	
6	Mutant Resources and TILLING Platforms in Tomato Research . . .	75
	Yoshihiro Okabe and Tohru Ariizumi	
7	Tomato Fruit Set and Its Modification Using Molecular Breeding Techniques	93
	Yoshihito Shinozaki and Kentaro Ezura	
8	Fruit Growth in Tomato and Its Modification by Molecular Breeding Techniques	113
	Lamia Azzi, Frédéric Gévaudant, Frédéric Delmas, Michel Hernould, and Christian Chevalier	
9	Sugar Accumulation in Tomato Fruit and Its Modification Using Molecular Breeding Techniques	141
	Chiaki Matsukura	
10	Fruit Ripening in Tomato and Its Modification by Molecular Breeding Techniques	155
	Kyoko Hiwasa-Tanase	

11	Disease Resistance in Melon and Its Modification by Molecular Breeding Techniques	175
	Michel Pitrat	
12	Insect Resistance in Melon and Its Modification by Molecular Breeding	199
	Catherine Dogimont and Nathalie Boissot	
13	Genetic Engineering of Important Breeding Traits in Solanaceae and Cucurbitaceae	221
	Satoko Nonaka and Hiroshi Ezura	
14	Genome-Editing Technologies and Their Use in Tomato	239
	Jeong-Eun Lee and Hiroshi Ezura	
15	Toward In Silico Design and Engineering of Solanaceae and Cucurbitaceae Crops	251
	Hiroshi Ezura	
	Index	259

Functional Genomics and Biotechnology in Solanaceae
and Cucurbitaceae Crops

Ezura, H.; Ariizumi, T.; Garcia-Mas, J.; Rose, J. (Eds.)

2016, VIII, 165 p. 6 illus., 5 illus. in color., Hardcover

ISBN: 978-3-662-48533-0