

Christopher A. Cullis
Editor

Genetics and Genomics of Linum

 Springer

Contents

1 A Taxonomic View on Genetic Resources in the Genus <i>Linum</i> L. for Flax Breeding	1
Axel Diederichsen	
2 A Molecular View of Flax Gene Pool.	17
Yong-Bi Fu	
3 Flax Breeding and Cultivar Registration in Canada.	39
Helen Mary Booker	
4 The First Flax Genome Assembly	63
Michael K. Deyholos	
5 Assembly of the Flax Genome into Chromosomes.	73
Frank M. You and Sylvie Cloutier	
6 Comparison Between the Genomes of a Fiber and an Oil-Seed Variety of Flax.	89
Christopher A. Cullis and Margaret A. Cullis	
7 <i>Linum</i> Genetic Markers, Maps, and QTL Discovery	97
Sylvie Cloutier, Frank M. You, and Braulio J. Soto-Cerda	
8 Genetic Potential and Gene Expression Landscape in Flax	119
Jonathan S. Griffiths and Raju S. S. Datla	
9 Flax Small RNAs.	129
Alexey A. Dmitriev, Anna V. Kudryavtseva, and Nataliya V. Melnikova	
10 Development of Flax (<i>Linum usitatissimum</i> L.) Mutant Populations for Forward and Reverse Genetics.	145
Sébastien Grec, Marion Dalmais, Manash Chatterjee, Abdelhafid Bendahmane, and Simon Hawkins	

11	<i>Linum</i> Lignan and Associated Biochemical Pathways in Human Health and Plant Defense.	167
	Syed G. A. Moinuddin, John R. Cort, Clyde A. Smith, Christophe Hano, Laurence B. Davin, and Norman G. Lewis	
12	Flax Transformation via Floral-Dipping	195
	Nasmah Bastaki and Christopher A. Cullis	
13	Disease Resistance Genes in Flax.	215
	Christopher A. Cullis	
14	Origin and Induction of the Flax Genotrophs	227
	Christopher A. Cullis	
15	Flax Genome “Edits” in Response to the Growth Environment	235
	Christopher A. Cullis and Margaret A. Cullis	
16	Transgenic Flax and the Triffid Affair	249
	Camille D. Ryan and Stuart J. Smyth	
17	Fundamental Insights into Plant Biology that Might Be Offered by Flax.	261
	Christopher A. Cullis	
	Index.	265