1. Record Nr. UNINA9910788095503321

Autore	Brown Jack <1955->
Titolo	Plant breeding / / Jack Brown, Peter D. S. Caligari, Hugo A. Campos
Pubbl/distr/stampa	Chichester, England : , : Wiley-Blackwell, , 2014 ©2014
ISBN	1-118-87352-1 0-470-65829-0 1-118-87351-3
Edizione	[Second edition.]
Descrizione fisica	1 online resource (295 p.)
Disciplina	631.5/2
Soggetti	Plant breeding
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"First edition published 2008 by Blackwell Publishing Ltd."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; TItle Page; Copyright; Contents; Preface; About the companion website; Chapter 1 Introduction; 1.1 Requirements of plant breeders; 1.2 Evolution of crop species; 1.2.1 Why did hunter-gatherers become farmers?; 1.2.2 What crops were involved? And when did they arise?; 1.3 Natural and human selection; 1.4 Contribution of modern plant breeders; Think questions; Chapter 2 Modes of Reproduction and Types of Cultivar; 2.1 Introduction; 2.2 Modes of reproduction; 2.2.1 Sexual reproduction; 2.2.2 Asexual reproduction; 2.3 Types of cultivar; 2.3.1 Pure-line cultivars 2.3.2 Open-pollinated cultivars2.3.3 Hybrid cultivars; 2.3.4 Clonal cultivars; 2.3.5 Synthetic cultivars; 2.3.6 Multiline cultivars; 2.3.7 Composite-cross cultivars; 2.4 Annuals and perennials; 2.5 Reproductive sterility; Think questions; Chapter 3 Breeding Objectives; 3.1 Introduction; 3.2 People, politics and economic criteria; 3.3 Grower profitability; 3.3.1 Increasing harvestable yield; 3.3.2 Selection for yield increase; 3.4 Increasing end-use quality; 3.4.1 Testing for end-use quality; 3.5 Increasing pest and disease resistance; 3.6 Types of plant resistance 3.7 Mechanisms for disease resistance3.8 Testing plant resistance; 3.9 Conclusions; Think questions; Chapter 4 Breeding Schemes; 4.1 Introduction; 4.2 Development of pure-line cultivars; 4.2.1

Homozygosity; 4.2.2 Breeding schemes for pure-line cultivars; 4.2.3 Number of segregating families and selections; 4.2.4 Seed increases for cultivar release; 4.3 Developing multiline cultivars; 4.3.1 Backcrossing; 4.4 Development of open-pollinated population cultivars; 4.4.1 Breeding schemes for open-pollinating population cultivars; 4.4.2 Backcrossing in open-pollinated population cultivar development
4.5 Developing synthetic cultivars4.5.1 Seed production of a synthetic cultivar; 4.6 Developing hybrid cultivars; 4.6.1 Heterosis; 4.6.2 Types of hybrid; 4.6.3 Breeding system for F1 hybrid cultivars; 4.6.4 Backcrossing in hybrid cultivar development; 4.6.5 Hybrid seed production and cultivar release; 4.7 Development of clonal cultivars; 4.7.1 Outline of a potato breeding scheme; 4.7.2 Time to develop clonal cultivars; 4.7.3 Sexual reproduction in clonal crops; 4.7.4 Maintaining disease-free parental lines and breeding selections; 4.7.5 Seed increase of clonal cultivars
4.8 Developing apomictic cultivars4.9 Summary; Think questions; Chapter 5 Genetics and Plant Breeding; 5.1 Introduction; 5.2 Qualitative genetics; 5.2.1 Genotype/phenotype relationships; 5.2.2 Segregation of qualitative genes in diploid species; 5.2.3 Qualitative loci linkage; 5.2.4 Pleiotropy; 5.2.5 Epistasis; 5.2.6 Qualitative inheritance in tetraploid species; 5.2.7 The chi-square test; 5.2.8 Family size necessary in qualitative genetic studies; 5.3 Quantitative genetics; 5.3.1 The basis of continuous variation; 5.3.2 Describing continuous variation
5.3.3 Relating quantitative genetics and the normal distribution

Sommario/riassunto

This book, Plant Breeding, has it bases in an earlier text entitled An Introduction to Plant Breeding by Jack Brown and Peter Caligari, first published in 2008. The challenges facing today's plant breeders have never been more overwhelming, yet the prospects to contribute significantly to global food security and farmers' quality of life have never been more exciting and fulfilling. Despite this there has been a worrying decline in public funding for plant breeding-related research and support for international centers of germplasm development and crop improvement. In part, this has resul

2. Record Nr. UNINA9910966179403321

Autore	Terrall Mary
Titolo	The man who flattened the earth : Maupertuis and the sciences in the enlightenment / / Mary Terrall
Pubbl/distr/stampa	Chicago, : University of Chicago Press, c2002
ISBN	9786612932946 9781282932944 1282932942 9780226793627 0226793621
Edizione	[1st ed.]
Descrizione fisica	1 online resource (420 p.)
Disciplina	509.2 B
Soggetti	Scientists - France
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. 371-392) and index.
Nota di contenuto	Front matter -- Contents -- List of Illustrations -- Acknowledgments -- List of Abbreviations -- A Note on Translations -- 1. Portrait of a Man of Science -- 2. From Saint-Malo to Paris -- 3. Mathematics and Mechanics in the Paris Academy of Sciences -- 4. The Expedition to Lapland -- 5. The Polemical Aftermath of the Lapland Expedition -- 6. Beyond Newton and on to Berlin -- 7. Toward a Science of Living Things -- 8. The Berlin Academy of Sciences -- 9. Teleology, Cosmology, and Least Action -- 10. Heredity and Materialism -- 11. The Final Years -- Bibliography -- Index
Sommario/riassunto	Self-styled adventurer, literary wit, philosopher, and statesman of science, Pierre-Louis Moreau de Maupertuis (1698-1759) stood at the center of Enlightenment science and culture. Offering an elegant and accessible portrait of this remarkable man, Mary Terrall uses the story of Maupertuis's life, self-fashioning, and scientific works to explore what it meant to do science and to be a man of science in eighteenth-century Europe. Beginning his scientific career as a mathematician in Paris, Maupertuis entered the public eye with a much-discussed expedition to Lapland, which confirmed Newton's calculation that the

earth was flattened at the poles. He also made significant, and often intentionally controversial, contributions to physics, life science, navigation, astronomy, and metaphysics. Called to Berlin by Frederick the Great, Maupertuis moved to Prussia to preside over the Academy of Sciences there. Equally at home in salons, cafés, scientific academies, and royal courts, Maupertuis used his social connections and his printed works to enhance a carefully constructed reputation as both a man of letters and a man of science. His social and institutional affiliations, in turn, affected how Maupertuis formulated his ideas, how he presented them to his contemporaries, and the reactions they provoked. Terrall not only illuminates the life and work of a colorful and important Enlightenment figure, but also uses his story to delve into many wider issues, including the development of scientific institutions, the impact of print culture on science, and the interactions of science and government. Smart and highly readable, Maupertuis will appeal to anyone interested in eighteenth-century science and culture. "Terrall's work is scholarship in the best sense. Her explanations of arcane 18th-century French physics, mathematics, astronomy, and biology are among the most lucid available in any language."-Virginia Dawson, American Historical Review Winner of the 2003 Pfizer Award from the History of Science Society