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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 cultivars 2.3.3 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 resistance 3.8 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

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Sommario/riassunto

This book, Plant Breeding, has its 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
