1.
Record Nr.	UNINA9910812825303321
Autore	Grotewold Erich
Titolo	Plant genes, genomes, and genetics / / Erich Grotewold, Joseph Chappell, Elizabeth Kellogg ; cover illustration by Debbie Maizels
Pubbl/distr/stampa	Chichester, England : , : Wiley Blackwell, , 2015 ©2015
ISBN	1-118-53936-2 9781118539385 1-118-53938-9
Descrizione fisica	1 online resource (741 p.)
Disciplina	572.8/2
Soggetti	Plant molecular genetics Plant gene expression Genomics
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 at the end of each chapters and index.
Nota di contenuto	Cover; Table of Contents; Title Page; Copyright; Acknowledgements; Introduction; About the Companion Website; Part I: Plant Genomes and Genes; Chapter 1: Plant Genetic Material; 1.1 DNA is the genetic material of all living organisms, including plants; 1.2 The plant cell contains three independent genomes the plant cell contains three independent genomes; 1.3 A gene is a complete set of instructions for building an RNA molecule; 1.4 Genes include coding sequences and regulatory sequences 1.5 Nuclear genome size in plants is variable but the numbers of protein-coding, non-transposable element genes are roughly the same1.6 Genomic DNA is packaged in chromosomes; 1.7 Summary; 1.8 Problems; References; Chapter 2: The Shifting Genomic Landscape; 2.1 The genomes of individual plants can differ in many ways; 2.2 Differences in sequences between plants provide clues about gene function; 2.3 SNPs and length mutations in simple sequence repeats are useful tools for genome mapping and marker assisted selection; 2.4 Genome size and chromosome number are variable

Sommario/riassunto	Plant Genes, Genomes and Genetics provides comprehensive treatment of all aspects of plant gene expression. Unique in explaining the subject from a plant perspective, it highlights the importance of gene expression in how plants interface with the modern world, and notes the many aspects of gene expression that were first discovered in plants.This reference covers topics ranging from plant genome structure and the key control points in how genes are expressed, to the mechanisms by which proteins are generated and how their activities are controlled and altered by posttranslational modificatio