

1. Record Nr.	UNINA9910139874203321
Titolo	Wheat [[electronic resource]] : science and trade // edited by Brett F. Carver
Pubbl/distr/stampa	Ames, Iowa, : Wiley-Blackwell, c2009
ISBN	1-282-30233-7 9786612302336 0-8138-1883-4 0-8138-1923-7
Edizione	[1st ed.]
Descrizione fisica	1 online resource (615 p.)
Collana	World Agriculture Series ; ; v.4
Altri autori (Persone)	CarverBrett Frederick <1958->
Disciplina	633.1/1 633.11
Soggetti	Wheat - Genetics Wheat - Diseases and pests Wheat - Breeding Wheat trade
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 and index.
Nota di contenuto	cover; Contents; Foreword; Preface; Acknowledgements; Contributors; Section I: Making of a Wheat Plant; Chapter 1: Wheat Evolution, Domestication, and Improvement; SUMMARY; INTRODUCTION; WHEAT DOMESTICATION AND HUMAN CIVILIZATION; WHEAT CULTIVATION; ORIGIN, DOMESTICATION, AND EVOLUTION OF WHEAT; Polyploidy, a form of plant evolution; Origin of the A genome; Origin of the B genome; Emmer and durum wheat; Origin of Triticum turgidum; Origin of Triticum dicoccoides (wild emmer); Origin of hexaploid wheat; GENOME EVOLUTION AND MODIFICATION; MECHANISMS FOR CHROMOSOME EVOLUTION Chromosomal rearrangements and repetitive DNAHeterochromatin; Repetitive DNA; Repatterning of rDNA arrays in the wheat genome; Repetitive DNA and mobile elements as perpetual generators of diversity and evolution; THE POTENTIAL OF WILD EMMER IN WHEAT IMPROVEMENT; CONCLUDING REMARKS ON THE PROCESS OF WHEAT EVOLUTION; FUTURE PERSPECTIVES; REFERENCES; Chapter 2:

Development of the Wheat Plant; SUMMARY; INTRODUCTION; SCALES OF PLANT DEVELOPMENT; Canopies; Shoots or tillers; Phytomers; MORPHOLOGICAL NAMING SCHEMES; Leaves; Tillers; Inflorescence parts; Roots; SHOOT DEVELOPMENT; Phenology
Shoot apex Integrating phenology, the shoot apex, and phytomers; ENVIRONMENTAL FACTORS INFLUENCING SHOOT DEVELOPMENT; Temperature; Nontemperature environmental factors; DIGITAL TECHNOLOGIES FOR WHEAT DEVELOPMENT; LINKING MOLECULAR BIOLOGY AND FUNCTIONAL GENOMICS TO DEVELOPMENT; FUTURE PERSPECTIVES; REFERENCES; Chapter 3: The Flowering Pathway in Wheat; SUMMARY; OVERVIEW OF FLOWERING INDUCTION IN WHEAT; GENETIC LOCATIONS OF FLOWERING TIME GENES; Genetic loci regulating vernalization response; VRN-1 on the long arm of homoeologous chromosomes 5
VRN-Am2 on chromosome 5Am in a genomic region translocated from chromosome 4Am VRN-B3 on the short arm of chromosome 7B; Other vernalization genes in wheat; Genetic loci regulating photoperiod sensitivity; Genetic loci regulating plant development processes; Quantitative trait loci affecting flowering time; Epistatic interactions; POSITIONAL CLONING OF FLOWERING TIME GENES IN WHEAT; VRN-Am1, an orthologue of AP1, promotes flowering; VRN-Am2, a CCT-domain-containing gene, represses flowering; VRN-B3, an orthologue of FT, promotes flowering; Successes in positional cloning of vernalization genes
Orthologues of other known flowering time genes Concomitant transcriptional profiles of flowering time genes; COMPARATIVE STUDIES ON FLOWERING PATHWAYS IN PLANTS; Flowering pathways in model species; A model for the wheat flowering pathway; FUTURE PERSPECTIVES; REFERENCES; Section II: Making of a Wheat Crop; Chapter 4: Systems-Based Wheat Management Strategies; SUMMARY; INTRODUCTION; ADVANCES IN WHEAT MANAGEMENT; Yield building versus yield protecting factors; Intensive wheat management; Matching cultivar to environment; Fertility and pest management; Timeliness and precision
Previous crop management

Sommario/riassunto

Wheat: Science and Trade is an up-to-date, comprehensive reference work designed to expand the current body of knowledge on this staple crop, incorporating new information made available by genetic advances, improvements in the understanding of wheat's biology, and changes in the wheat trade industry. Covering phylogeny and ontogeny, manipulation of the environment and optimal management, genetic improvement, and utilization and commercialization, the book focuses on the most economically significant diseases and impacts
