1. Record Nr. UNINA9910139181303321 Plant breeding reviews . Volume 25 [[electronic resource] /] / edited by **Titolo** Jules Janick Pubbl/distr/stampa Hoboken, N.J., : John Wiley & Sons, Inc., 2005 **ISBN** 1-282-68903-7 9786612689031 0-470-65030-3 0-470-65029-X Descrizione fisica 1 online resource (356 p.) Collana Plant breeding reviews, , 0730-2207 Altri autori (Persone) JanickJules <1931-> Disciplina 631.5/3/05 631.52 Soggetti Plant breeding Electronic books. 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 PLANT BREEDING REVIEWS, Volume 25; Contents; List of Contributors; 1: Dedication: Stanley J. Peloguin Potato Geneticist and Cytogeneticist; 2: Politics of Plant Breeding; I. INTRODUCTION; II. GERMPLASM, PLANT BREEDING, AND THE FIGHT FOR RIGHTS; III. THE DEBATE OVER Doubled Haploids in Genetics and Plant Breeding; I. INTRODUCTION; II. DOUBLED HAPLOID TECHNOLOGY: III. DOUBLED HAPLOID POPULATIONS IN GENETICS; IV. DOUBLED HAPLOIDS IN BREEDING; V. PROSPECTS; LITERATURE CITED; 4: Biochemistry and Genetics of Flower Color I. INTRODUCTIONII. FLAVONOID CHEMISTRY; III. ANTHOCYANIN

BIOTECHNOLOGY; IV. PLANT BREEDERS' CHOICES; LITERATURE CITED; 3: BIOSYNTHESIS; IV. MENDELIAN INHERITANCE; V. TRANSGENE TECHNOLOGY; LITERATURE CITED; 5: The Influence of Mitochondrial Genetics on Crop Breeding Strategies; I. INTRODUCTION; II. STRUCTURE OF THE MITOCHONDRIAL GENOME IN PLANTS; III. CYTOPLASMIC MALE STERILITY; IV. OCCURRENCE AND DEVELOPMENTAL IMPLICATIONS OF NUCLEAR-CYTOPLASMIC INCOMPATIBILITY; V. SOME IMPLICATIONS OF CYTOPLASMIC GENETICS FOR THE PLANT BREEDER: LITERATURE CITED: 6: Genetic and Cytoplasmic-Nuclear Male Sterility in Sorghum; I.

INTRODUCTION; II. GENETIC MALE STERILITY (GMS)
III. CYTOPLASMIC-NUCLEAR MALE STERILITYIV. MOLECULAR
CHARACTERIZATION OF CYTOPLASMS; V. DNA POLYMORPHISM AND
MAPPING RESTORER GENES; VI. FACTORS INFLUENCING CMS SYSTEMS
USE; VII. DIVERSIFICATION OF CMS SYSTEMS; VIII. HETEROSIS AND
HYBRID DEVELOPMENT; IX. CONCLUSION; LITERATURE CITED; 7:
Improving Drought Tolerance in Maize; I. INTRODUCTION; II.
PHYSIOLOGY OF THE RESPONSE OF MAIZE UNDER DROUGHT; III.
EXPERIMENTAL METHODS; IV. APPLIED BREEDING METHODS; V.
MOLECULAR BREEDING; VI. CONCLUSIONS; LITERATURE CITED; 8: The
Origins of Fruits, Fruit Growing, and Fruit Breeding; I. INTRODUCTION
II. THE HORTICULTURAL ARTSIII. ORIGIN, DOMESTICATION, AND EARLY
CULTURE OF FRUIT CROPS; IV. GENETIC CHANGES AND CULTURAL
FACTORS IN DOMESTICATION; LITERATURE CITED; Subject Index;
Cumulative Subject Index; Cumulative Contributor Index

## Sommario/riassunto

Plant Breeding Reviews presents state-of-the-art reviews on plant genetics and the breeding of all types of crops by both traditional means and molecular methods. Many of the crops widely grown today stem from a very narrow genetic base. Understanding and preserving crop genetic resources is vital to the security of food systems worldwide.