1.	Record Nr.	UNINA9910460200503321
	Titolo	Molecular and quantitative animal genetics / / edited by Hasan Khatib ; contributors Jennifer Minick Bormann [and thirty two others]
	Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley Blackwell, , 2015 ©2015
	ISBN	1-118-67737-4 1-118-67732-3
	Edizione	[1st ed.]
	Descrizione fisica	1 online resource (331 p.)
	Disciplina	591.3/5
	Soggetti	Animal genetics Intellectual property 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 at the end of each chapters and index.
	Nota di contenuto	Machine generated contents note: Contributors, xiii Manuscript reviewers, xvPreface, xvii1 Decoding and Encoding the "DNA" of Teaching and Learning in College Classrooms 1Michel A. Wattiaux Section 1: Quantitative and Population Genetics 132 Mating Systems: Inbreeding and Inbreeding Depression 15 David L. Thomas 3 Genomic Selection, Inbreeding, and Crossbreeding in Dairy Cattle 25 Kent Weige l4 Basic Genetic Models for Quantitative Traits 33 Guilherme J. M. Rosa 5 Heritability and Repeatability 39 Guilherme J. M. Rosa 6 Applications of Statistics in Quantitative Traits 43 Hayrettin Okut Section 2: Applications of Genetics and Genomics to Livestock and Companion Animal Species 657 Genetic Improvement of Beef Cattle 67 Michael D. MacNeil 8 Genetic Improvement in Sheep through Selection 73 David L. Thomas 9 Genetic Improvement Programs for Dairy Cattle 85 Kent Weigel 10 Genetic and Genomic Improvement of Pigs 97 Max F. Rothschild 11 Equine Genetics 107 Jennifer Minick Bormann 12 Genetics and Genomics of the Domestic Dog 121 Leigh Anne Clark and Alison Starr-Moss 13 The Sheep Genome 131 Noelle E. Cockett and Chunhua Wu 14 Goat Genetics and Genomic Progress 137 Mulumebet Worku Section 3: Molecular Genetics of Production and Economically

Important Traits 14315 Bioinformatics in Animal Genetics 145 Jose A. Carrillo and Jiuzhou Song 16 Genome-wide Association Studies in Pedigreed Populations 155 Dirk-Jan De Koning 17 Molecular Genetics Techniques and High Throughput Technologies 163 Wen Huang 18 Single Genes in Animal Breeding 177 Brian W. Kirkpatrick 19 Molecular Genetics of Coat Color: It is more than Just Skin Deep 187 Samantha Brooks 20 Molecular Genetics-Nutrition Interactions in Ruminant Fatty Acid Metabolism and Meat Quality 197 Aduli E.O. Malau-Aduli and Benjamin W.B. Holman 21 Nutritional Epigenomics 215 Congjun Li Section 4: Genetics of Embryo Development and Fertility 22722 Genomics of Sex Determination and Dosage Compensation 229 Jenifer Cruickshank and Christopher H. Chandler2 3 Functional Genomics of Mammalian Gametes and Preimplantation Embryos 239 Sule Dogan, Aruna Govindaraju, Elizabeth A. Crate, and Erdogan Memili 24 The Genetics of In Vitro Produced Embryos 257 Ashley Driver Section 5: Genetics of Animal Health and Biotechnology 26325 Understanding the Major Histocompatibility Complex and Immunoglobulin Genes 265 Michael G. Gonda 26 Livestock and Companion Animal Genetics: Genetics of Infectious Disease Susceptibility 275 Michael G. Gonda 27 Animal Genetics and Welfare 283 Amin A. Fadl and Mark E. Cook 28 Animal Biotechnology: Scientific, Regulatory and Public Acceptance Issues Associated with Cloned and Genetically Engineered Animals 289 Alison L. Van Eenennaam29 Intellectual Property Rights and Animal Genetic Resources 303 Jennifer Long and Max F. Rothschild Index 311.

Sommario/riassunto

"Animal genetics is a central topic in upper-level animal science programs. Filling a void in existing literature on animal science, Animal Genetics introduces genetic principles and presents their application in production and companion animals. The book details population and quantitative genetics, epigenetics, biotechnology, and breeding among other topics. Useful in upper-level studies, Animal Genetics is an irreplaceable educational resource"--Provided by publisher.