

1. Record Nr.	UNINA9910483483703321
Titolo	New Perspectives on the History of Life Sciences and Agriculture // edited by Denise Phillips, Sharon Kingsland
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-12185-5
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (506 p.)
Collana	Archimedes, New Studies in the History and Philosophy of Science and Technology, , 2215-0064 ; ; 40
Disciplina	338.1 5 509 630
Soggetti	Science - History Agriculture Agriculture - Economic aspects History of Science Agricultural Economics
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	Chapter 1: Introduction; Denise Phillips and Sharon Kingsland -- Chapter 2: A Science of People, Places, and Land: Oekonomie and Local Knowledge in the German Enlightenment; Denise Phillips -- Chapter 3: Drawing the Line: Mapping Cultivated Plants and Seeing Nature In Nineteenth-Century Plant Geography; Nils Güttler -- Chapter 4: Rose and Pear Breeding in Nineteenth-Century France: The Practice and Science of Diversity; Cristiana Oghina-Pavie -- Chapter 5: Napoleonic Cotton Cultivation: A Case Study in Scientific Expertise and Agricultural Innovation in France and Italy, 1806-1814; Joseph Horan -- Chapter 6: Whale Oil Pesticide: Natural History, Animal Resources, and Agriculture in Early Modern Japan; Jakobina Arch -- Chapter 7: Forests, Climate, and the Rise of Scientific Forestry in Russia: From Local Knowledge and Natural History to Modern Experiments (1840s-1890s); Anastasia A. Fedotova and Marina V. Loskutova -- Chapter 8: The Rise of Applied

Entomology in the Russian Empire: Governmental, Public and Academic Responses to Insect Pest Outbreaks from 1840 to 1894; Marina V. Loskutova and Anastasia A. Fedotova -- Chapter 9: Nutrition Science and the Practice of Animal Feeding in Germany, 1850-1880; Brendan Matz -- Chapter 10: Artificial or Biological? Nature, Fertilizer, and the German Origins of Organic Agriculture; Corinna Treitel -- Chapter 11: Science, Promotion, and Scandal: Soil Bacteriology, Legume Inoculation, and the American Campaign for Soil Improvement in the Progressive Era; Mark R. Finlay -- Chapter 12: Mold Cultures: Traditional Industry and Microbial Studies in Early Twentieth-Century Japan; Victoria Lee -- Chapter 13: The Co-production of Station Morphology and Agricultural Management in the Tropics: Transformations in Botany at the Botanical Garden at Buitenzorg, Java 1880-1904; Robert-Jan Wille -- Chapter 14: Regionalizing Knowledge: The Ecological Approach of the USDA Office of Dryland Agriculture on the Great Plains; Jeremy Vetter -- Chapter 15: Rexford F. Daubenmire and the Ecology of Place: Applied Ecology in the Mid-Twentieth-Century American West; Adam M. Sowards -- Chapter 16: Agricultural Improvement at China's First Agricultural Experiment Stations; Peter Lavelle -- Chapter 17: Did Mendelism Transform Plant Breeding? Genetic Theory and Breeding Practice, 1900-1945; Jonathan Harwood -- Chapter 18: Chicken Breeding: The Complex Transition from Traditional to Genetic Methods in the United States; Margaret E. Derry -- Chapter 19: Breeding Better Peas, Pumpkins, and Peasants: The Practical Mendelism of Erich Tschermak; Sander J. Gliboff -- Chapter 20: More than Metamorphosis: The Silkworm Experiments of Toyama Kametaro and his Cultivation of Genetic Thought In Japan's Sericultural Practices, 1894-1918; Lisa Onaga -- Chapter 21: Genetics and "Breeding as a Science": Kihara Hitoshi and the Development of Genetics in Japan in the First Half of the Twentieth Century; Kaori Iida -- Chapter 22: Speeding Up Evolution: X-Rays and Plant Breeding in the United States, 1925-1935; Helen Anne Curry -- Chapter 23: Watching Grass Grow: The Emergence of *Brachypodium distachyon* as a Model for the Poaceae; Christopher W. P. Lyons and Karen-Beth Scholthof -- Index.

Sommario/riassunto

This volume explores problems in the history of science at the intersection of life sciences and agriculture, from the mid-eighteenth to the mid-twentieth century. Taking a comparative national perspective, the book examines agricultural practices in a broad sense, including the practices and disciplines devoted to land management, forestry, soil science, and the improvement and management of crops and livestock. The life sciences considered include genetics, microbiology, ecology, entomology, forestry, and deal with US, European, Russian, Japanese, Indonesian, Chinese contexts. The book shows that the investigation of the border zone of life sciences and agriculture raises many interesting questions about how science develops. In particular it challenges one to re-examine and take seriously the intimate connection between scientific development and the practical goals of managing and improving – perhaps even recreating – the living world to serve human ends. Without close attention to this zone it is not possible to understand the emergence of new disciplines and transformation of old disciplines, to evaluate the role and impact of such major figures of science as Humboldt and Mendel, or to appreciate how much of the history of modern biology has been driven by national ambitions and imperialist expansion in competition with rival nations.
