

Cambridge University Press

978-0-521-85711-6 - *Creating Abundance: Biological Innovation and American Agricultural Development*

Alan L. Olmstead and Paul W. Rhode

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Advance Praise for *Creating Abundance*

“This is an important book! It traces the stream of biological innovation that over a period of two centuries has transformed the technical landscape of American agriculture. It demonstrates that biological innovations were essential for the movement of agriculture to new lands with more extreme climates; for maintaining and enhancing productivity in the face of evolving threats from pests, soil degradation and depletion; for creating modern livestock breeds; for enhancing feed efficiency; and for protecting animal and human health. It will be the standard against which the next generation of research in the history of agricultural technology will be evaluated.”

– Vernon W. Ruttan, Regents Professor Emeritus, Department of Applied Economics and Department of Economics, University of Minnesota

“In *Creating Abundance* Alan Olmstead and Paul Rhode examine an important, but often neglected, aspect of American economic growth over the course of several centuries. Based on extensive research in a large variety of primary and secondary sources, including numerous state and national agricultural reports and related private documents, they describe in great detail the important biological developments influencing crop and livestock productivity. This is an original and superb work of scholarship. This book should be of interest to all economic historians, historians, and agricultural economists.”

– Stanley L. Engerman, John H. Munro Professor of Economics and Professor of History, University of Rochester

“In an era focusing on sustainability and climate change, *Creating Abundance* should be required reading for environmentalists, economists, and policy makers, as well as for economic, environmental, and technological historians (and their students). This is so because even as virtuous cycles of biological innovation have overcome tough constraints, in agriculture biological contingencies and unanticipated consequences persist. The culmination of nearly two decades of extensive, patient, and inclusive research, *Creating Abundance* combines theoretical sophistication with a supple writing style to illuminate both a host of planning/policy advances and errors and the centrality of engaged practitioners’ efforts in building flexible and responsive relationships with the natural world. A profound and compelling corrective to generations of scholarship on American agricultural development.”

– Philip Scranton, Board of Governors Professor, History of Industry and Technology, Rutgers–Camden; Editor-in-Chief, *Enterprise and Society*

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“Olmstead and Rhode’s brilliant new book, *Creating Abundance*, is the most significant work on the economic history of American agriculture to appear in a generation. In emphasizing the early role and persistent importance of biological innovation in American agricultural development, the authors fundamentally recast the story of our farm sector. Rigorous in theoretical terms, well argued, and deeply researched, *Creating Abundance*, upon publication, becomes not merely the standard but the indispensable work in the field.”

– Peter A. Coclanis, Albert R. Newsome Professor of History, UNC–Chapel Hill

“*Creating Abundance* is a panoramic survey of American agricultural development, dramatically altering the standard narrative focused exclusively on mechanization. In the process, Olmstead and Rhode relocate farming from the periphery squarely into the mainstream of American economic history. Anyone looking for the lessons of the American experience for developing economies should read this book.”

– Gavin Wright, William Robertson Coe Professor of American Economic History, Stanford University

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Creating Abundance

This book demonstrates that American agricultural development was far more dynamic than generally portrayed. In the two centuries before World War II, a stream of biological innovations revolutionized the crop and livestock sectors, increasing both land and labor productivity. Biological innovations were essential for the movement of agriculture onto new lands with more extreme climates, for maintaining production in the face of evolving threats from pests, and for the creation of the modern livestock sector. These innovations established the foundation for the subsequent Green and Genetic revolutions. This book challenges the misconceptions that, before the advent of hybrid corn, American farmers single-mindedly invested in laborsaving mechanical technologies and that biological technologies were static.

Alan L. Olmstead is Director of the Institute of Governmental Affairs, Distinguished Professor of Economics, and member of the Giannini Foundation of Agricultural Economics at the University of California, Davis. He is one of the six editors-in-chief of *Historical Statistics of the United States: Millennial Edition* (2006), and his writings appear regularly in leading economics and history journals.

Paul W. Rhode is McClelland Professor of Economics at the University of Arizona and Research Associate at the National Bureau of Economic Research. He is co-editor (with Gianni Toniolo) of *The Global Economy in the 1990s: A Long-Run Perspective* (2006). He is a frequent contributor to prominent economics and history journals.

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*The authors and publisher gratefully acknowledge
publication support for this book from*

The Farm Foundation

and

*The Giannini Foundation of Agricultural Economics,
University of California*

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Creating Abundance

*Biological Innovation and American
Agricultural Development*

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PAUL W. RHODE

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CAMBRIDGE UNIVERSITY PRESS

Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo, Delhi

Cambridge University Press

32 Avenue of the Americas, New York, NY 10013-2473, USA

www.cambridge.org

Information on this title: www.cambridge.org/9780521673877

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First published 2008

Printed in the United States of America

A catalog record for this publication is available from the British Library.

Library of Congress Cataloging in Publication Data

Olmstead, Alan L.

Creating abundance : biological innovation and American agricultural development / Alan L. Olmstead, Paul W. Rhode.

p. cm.

Includes bibliographical references and index.

ISBN 978-0-521-85711-6 (hardback) – ISBN 978-0-521-67387-7 (pbk.)

I. Agricultural innovations – United States – History. 2. Agricultural biotechnology – United States – History. 3. Agricultural productivity – United States – History.

I. Rhode, Paul Webb. II. Title. III. Title: Biological innovation and American agricultural development

S494.5.I5O46 2008

630.973 – dc22 2008014226

ISBN 978-0-521-85711-6 hardback

ISBN 978-0-521-67387-7 paperback

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To Marilyn, Dolores, Edward, and Jason

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Acknowledgments

This book has been a long time in the making. Over the past decade, we have benefited immensely from the insights, advice, and assistance of many individuals. Although we had long been thinking about biological innovation, it was Julian Alston who prodded us to focus on the issue. Peter Coclanis, Peter Lindert, and Gavin Wright are probably pleased that the book is finished so we will stop bombarding them with questions. Vernon Ruttan has been particularly supportive throughout the duration of the project. Jeremy Atack, Susan Carter, Greg Clark, John Constantine, José Morilla Critz, Dana Dalrymple, Pete Daniels, Stanley Engerman, Price Fishback, Robert Gallman, Barbara Hahn, D. Gale Johnson, Bruce Johnston, Zorina Khan, Gary Libecap, Frank Lewis, Robert Margo, John Hebron Moore, Joel Moykr, Thomas Mroz, Philip Pardey, Vicente Pinilla, Wayne Rasmussen, Philip Scranton, James Simpson, Kenneth Sokoloff, Richard Steckel, Daniel Sumner, Richard Sutch, Nancy Virts, and Lorena Walsh are among a larger group of scholars that gave us comments on particular sections or chapters that helped sharpen the argument. Lee Craig, Michael Haines, John Murray, Winifred Rothenberg, and Thomas Weiss have supplied us with both data and advice that enriched our analysis.

We are economists, not agricultural scientists. The book would not have been possible without the insights of the many farmers and plant and animal scientists who helped us grapple with myriad technical issues. More than anyone, plant geneticist and wheat breeder Calvin Qualset dealt with our all-too-frequent request – “can you look at this and tell us if it makes sense?” Charles Schaller and Robert Webster also shared their knowledge of plant breeding and plant insects and diseases. Shelby

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Baker, Dick Bassett, Fred Bourland, J. Jerome Boyd, Harry B. Collins, Tom Culp, Early C. Ewing, Jr., Janet Hudson, Hal Lewis, C. W. Manning, William Meredith, Larry Nelson, Gene Seigler, Macon Steele, and Henry Webb all gave us a better appreciation of the cotton plant and of cotton production. Tom Lanini informed us about weed ecology. Trish Berger, G. Eric Bradford, C. Christopher Calvert, David Hillis, David W. Hird, William H. Karasov, Kirk Klasing, Austin Lewis, and Edward Rhode responded to our questions on animal breeding and production. Roy Bainer and William Chancellor provided valuable perspectives on the workings of farm machinery.

We have been fortunate to have had the assistance of some very talented graduate students. We are indebted to Lisa Cappellari, Jeffrey Graham, and Janine L. F. Wilson. The chapter on California draws on an article coauthored with Susana Iranzo.

Throughout the project we have enjoyed working with Shelagh Matthews Mackay, whose editorial and organizational skills made our task much easier.

Our research has been facilitated by the Agricultural History Center and the Institute of Governmental Affairs at the University of California, Davis, and by grants from the International Centre for Economic Research, the Giannini Foundation of Agricultural Economics, and the National Science Foundation Collaborative Research Grants, Seeds and Slaves: Technological Change, Plantation Efficiency, and Southern Economic Development, SES-0550913 and SES-0551130. We would also like to thank the Giannini Foundation and its director, David Zilberman, and the Farm Foundation and its president, Walter J. Armbruster, for supporting the publication of the book.