Maize Genetics and Breeding in the 20th Century

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Editors

Peter A. Peterson

*Iowa State University
Ames, Iowa*

Angelo Bianchi

*Istituto Sperimentale Cerealicoltura
Rome*

World Scientific

Singapore • New Jersey • London • Hong Kong

Published by

World Scientific Publishing Co. Pte. Ltd.

P O Box 128, Farrer Road, Singapore 912805

USA office: Suite 1B, 1060 Main Street, River Edge, NJ 07661

UK office: 57 Shelton Street, Covent Garden, London WC2H 9HE

Library of Congress Cataloging-in-Publication Data

Peterson, Peter A.

Maize genetics and breeding in the 20th century / Peter

A. Peterson, Angelo Bianchi.

p. cm.

Includes bibliographical references and index.

ISBN 981022866X (alk. paper)

1. Corn -- Breeding. 2. Corn -- Genetics. 3. Corn -- Breeding -
- Research -- United States. 4. Corn -- Genetics -- Research -- United
States. 5. Plant breeders -- United States -- Biography. 6. Plant
geneticists -- United States -- Biography. I. Bianchi, Angelo.

II. Title.

SB191.M2P4175 1999

633.1'52--dc21

98-38059

CIP

British Library Cataloguing-in-Publication Data

A catalogue record for this book is available from the British Library.

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Printed in Singapore by Uto-Print

Preface

Upon my arrival in Cold Spring Harbor in the fall of 1947 to join the Demerec carcinogen project, I (*PAP*) was introduced to a *Drosophila* project for which I had near zero acquaintance. But with the patient tutelage of Dr. M. Demerec and Dr. Bruce Wallace, I soon became familiar with the materials and quickly became adept at handling the *Drosophila* cultures and finding mutants. In fact it became quite routine, but with my lab colleagues, the interest was enlivened by discussions—especially so with the continual flow of national and international visitors to the Cold Spring Harbor laboratories which generated more interest. This was 1947, and the effort to understand the gene was quite simplistic in the light of the revelations that would come in six years.

But the study of genetics had many aspects in the several laboratories at Cold Spring Harbor. There were the MacDowell mouse studies along with the B. Kaufmann and the Demerec *Drosophila* laboratories. In addition, both Demerec and E. Witkin had bacterial laboratories on locus dissection and repair enzymes.

But the plant genetic studies carried on in the small nursery next to the Carnegie library and the small watery inlet of the Harbor appeared to be more appealing. Of course, one could not separate the methodology of the maize nursery from the enthusiasm displayed by Barbara McClintock.

In any case, when I decided to embark on formal genetic training, it was not difficult to choose the organism for genetic study. That it became maize genetics and remained so for one-half a century is a testament to a rightful decision in 1948 as Sally and I headed for Illinois to join M. M. Rhoades. Yet, during the following three decades, I did have an opportunity to try other areas (a bacterial laboratory with P2 phage in Sweden in 1968, followed by mitochondrial laboratories in Vienna and in Cambridge, England in 1972–1973, and then again in a bacterial laboratory with the IS2 phage in Freiburg, Germany in 1977). Yet, maize was always a magnet beckoning me back to the field nursery.

When I began the editorship of *MAYDICA* for the Americas, I became acquainted with the maize community as I handled submitted papers and sought diverse reviewers for the various maize related papers. Then the editorial board, and especially Francesco Salamini, suggested we begin commemorating noted maize breeders and geneticists who have contributed to maize as a major breeding accomplishment and genetic tool. This has led to a collection of papers especially generated by the enthusiasm and interest of the students and colleagues of those commemorated. Without this very active interest, the collection would not have been possible.

Through all this editing and activity, I have maintained my teaching and research activity along with generating desired mutants with the collaboration with the Max Planck Institute in Cologne for nearly two decades.

But I find it important to note that this pursuit in maize genetics and related activities would never have been possible without the supporting understanding of my wife, Sally. Only someone in research or especially in a maize program with the seven-day-week summers could appreciate the support that wives provide in their spouse's academic programs. For over half a century, Sally has not only supported but has provided an understanding ear to the ever-evolving developments that accompany an academic life. All the wives that have patiently sustained such a program deserve a sincere vote of thanks.

Peter A. Peterson
Ames, Iowa

Acknowledgment

Peter A. Peterson would like to acknowledge the dedicated effort by Ms. Wendy Henerlau in the attention and care that she has applied to the development of this book.

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