

## I. FOREWORD

Fifty volumes of informal cooperation in maize genetics, totalling over 5000 pages, constitute a remarkable history. This golden volume represents an idea whose time came early and whose fruits are evident in the rich fund of knowledge, manipulations and tools available today for genetic and cytogenetic research, for crop improvement and for study of evolutionary processes, morphogenesis, physiology, metabolism, biochemistry and molecular biology with this species. This issue includes diverse reports across all of these disciplines. Yet it is our common interest in genetics and cytogenetics and our desire to further this area of knowledge that fosters the cooperation.

If all goes as well as intended, this volume will be in your hands well before the planting season for most locations. According to some cooperators the deadline came before completion of some types of data collection and analysis; of course that has always been the case for any deadline with research proceeding at full tilt, but if the result seems to be less data and more verbosity this year, please offer suggestions.

I have compiled a chronological listing (Section II) of those distributions and promulgations in Maize Genetics Cooperation that we have on file. Supplies of copies of most of these items are exhausted, although most recent News Letters and Indexes are still available. A look at the listing highlights the contributions of those who have nurtured this cooperation.

For the report on the Stock Center and the Stock Catalogue, camera-ready copy was provided by R. J. Lambert; we are most grateful for that easing of the editing work.

The list of Recent Maize Publications is substantially larger than usual this year. Not only was our search system wider, but the literature is exploding with papers in biochemistry and metabolism that are of increasing genetic interest; agronomic and quantitative genetic studies of increasing theoretical importance continue to develop internationally; and the genetics of pest and stress response continues to expand. Y. C. Ting kindly provided some hard-to-catch items.

An Author-Name Index for volumes 44 through 50 constitutes the back portion of this volume. The task of scanning these volumes for citations, along with the professional detective work, was undertaken by Sheila McCormick.

Users have been patient not to complain at the fragility of the cover on volume 49. (Does this mean it is not being used?) We are trying a sturdier material this time and will appreciate comments.

The costs of preparation, reproduction and mailing of this News Letter are borne by a grant from the National Science Foundation. We are grateful for this indispensable support.

Deadline for contributions for the next issue (volume 51, 1977) is January 1, 1977.

Index corrections are wanted from the 1962 symbol index.

A microfilm of volumes 1-29 and volume 33 is available for \$9.50; checks should be made out to E. H. Coe, Jr.

Exhausted issues could be reproduced (2/3-size, unbound) for \$2.00 per issue if there is enough interest in them. Please identify those volumes you would like to acquire in reproduction, so that we can plan a run.

Found on a stained and tattered sheet of bibulous paper, written in acetocarmine: "Mystifying genetic data -- about 50% sterile pollen; progenies from self-fertilization segregate about half normal and half 50%; some normal individuals, when crossed to standard strains, give all 50%. Get new teasing needles, cover sl....."

I would like to thank M. G. Neuffer for help in planning and developing this volume, and J. B. Beckett and R. L. Larson for help with parts of the copy. Karen Sheridan gave exacting and systematic attention to parts of the editing, composing and proofing. Marion D. Murray aided in the publication-searching, and Sheila McCormick and William S. Rafail helped proof the copy.

E. H. Coe, Jr.