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Editors

W. U. Reybold and G. W. Petersen

Editor-in-Chief SSSA

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Richard C. Dinauer

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FOREWORD

The mission of the National Cooperative Soil Survey (NCSS) is to catalogue information about soils as they occur in the natural environment. This information is used for making decisions about use and management of the land.

The technology for gathering and tabulating the information has evolved over time. Soil survey has benefitted much from changing technology. Many of the new tools have come from applications of remote sensing and computer sciences. This book is about the changes in soil survey technology that have taken place and about changes that are likely to occur in the future.

Imaginative scientists in the NCSS have taken advantage of the many opportunities available through new technology by adapting it for use by the scientist in the field and by those who further catalogue and interpret the information. The chapters in this book present these advances. They are based on papers presented at the Symposium "Soil Survey Techniques" held in conjunction with the 1985 annual meeting of the Soil Science Society of America and the American Society of Agronomy in Chicago, IL.

April 1987

L.L. BOERSMA, *president*
Soil Science Society of America

PREFACE

The purpose of this book is to inform field soil scientists of new techniques that can help enhance the quality of soil surveys and improve the efficiency with which they are made. It is written primarily for the field soil scientist who makes soil surveys. Others involved with natural resources, hydrology, and archaeology, may find some of the techniques described useful in their work.

In this book members of the National Cooperative Soil Survey (NCSS) describe tools that have been fully tested and proven to be effective by field soil scientists working in project soil surveys. Not only have they found these techniques important to increasing their efficiency in making soil surveys, the results also demonstrate an enhanced quality of services and products being provided.

Technology discussed in the book includes video image analysis, ground penetrating radar applications, microcomputer processing and analysis, and digital elevation model and spectral data use. New techniques for describing surface soil properties are presented.

The techniques described herein are only examples of what is going on in the soil survey. The authors hope that others will be encouraged to write about tools and techniques they are using or are aware of. It is by communicating our experiences that we can provide more opportunities to share the excitement and satisfaction of doing the best we can. My thanks to these authors and the participants in the Soil Survey Techniques' symposium for showing us a way to reach out to each other.

March 1987

RICHARD W. ARNOLD
Director, Soil Survey Division
USDA, Soil Conservation Service
Washington, DC