PRIME FARMLAND RECLAMATION

Edited by
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Proceedings of the

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PRIME FARMLAND RECLAMATION

The Surface Mining Control and Reclamation Act:
15 Years of Progress

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TABLE OF CONTENTS

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FOREWORD

United States Department of the Interior

OFFICE OF SURFACE MINING

RECLAMATION AND ENFORCEMENT
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JUN 01 1992

TO PARTICIPANTS IN THE 1992 NATIONAL SYMPOSIUM
ON PRIME FARMLAND RECLAMATION:

Of the natural resources protected by the Surface Mining Control and Reclamation Act of 1977 (SMCRA), none is more important than prime farmland. Recognizing that significant coal resources are in the heart of America's breadbasket, the authors of the Act made sure there were provisions for treating prime farmland with special care when coal is mined and mined land reclaimed.

Much study and debate were involved in arriving at those special provisions. There was heated controversy over whether prime farmlands could be mined at all without destroying their agricultural productivity. Some in Congress wanted a complete prohibition on disturbing such lands to get at the coal below.

The outcome in Congress was a law that allows surface coal mining on prime farmland, but only under stringent constraints that provide maximum safeguards for these vital lands.

Prime farmlands are the world's most productive because of a delicate balance of physical and chemical properties. If that precarious balance is permanently disrupted by mining, substantial loss of productivity can result. No one can tell how long it will take prime farmland soils to recover from poor reclamation. The goal of SMCRA is that with good reclamation, prime farmland will be restored to the productive capacity it had before mining.

Sound reclamation of prime farmland soils is so important that some of the most sophisticated laboratory and field research ever in the history of coal mining has been devoted to it. Top agricultural researchers in U.S. colleges and universities have been working with the coal mining industry and with government surface mining regulators to develop the best methods possible to protect prime farmland while preserving access to the coal resources beneath. That work continues.

This year marks the 15th anniversary of the passage of SMCRA. Special concern for stewardship of prime farmland during and after coal mining is stronger than ever. The 1992 National Symposium on Prime Farmland Reclamation will provide a forum for researchers to engage in the kind of information exchange necessary to assure effective prime farmland reclamation now and in the future.

Through such forums, the continuing efforts of those who are involved in this work will be available for future generations, to safeguard our ability to grow food crops without unnecessarily limiting national energy options.

Harry M. Snyder
Director

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PREFACE

The Surface Mining Control and Reclamation Act (SMCRA, Public Law 95-87) was passed in 1977 to protect the public from potential adverse effects of surface mining for coal. Among the major concerns prompting the act was the perceived need to assure that prime farmland would be restored to it's original level of productivity after mining so that the nation's capacity to produce food and to support local economies could be protected for future generations.

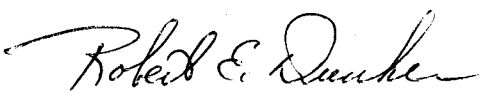
The Congressional Office of Technology Assessment, in the 1985 staff memorandum *Reclaiming Prime Farmlands and Other High-Quality Croplands after Surface Coal Mining* observed a critical need for additional reclamation research. It had become quite apparent that just saving and replacing each soil horizon from natural soils did not guarantee good reclamation. Substantial progress in technology development had been made, but many questions critical to success remained unanswered.

The 15 years following the passing of PL 95-87 have seen active research programs develop in several states to assess technology needed for successful reclamation of cropland. To apply this technology, however, it is important that research findings be disseminated to those who will put it to use. This symposium brings together reclamationists from industry, government, and research institutions in a national forum to present and discuss current issues related to prime farmland reclamation.

The U.S. Department of Agriculture Cooperative State Research Service, and the U.S. Department of the Interior Office of Surface Mining Reclamation and Enforcement in conjunction with the Department of Agronomy, University of Illinois, the Department of Agronomy, University of Kentucky, and the School of Natural Resources, University of Missouri, are joint sponsors of this symposium.

Sincere thanks are extended to all those who have contributed to the success of this symposium. Special thanks are due to Carol Downs, Jean Deichman, and Patricia Franzen from the Division of Conferences & Institutes, University of Illinois, and Scott Vance, Department of Agronomy, who had primary responsibilities of site arrangements, program publications, and conference registration. Appreciation is extended to the speakers for there participation in this symposium and for the quality of the manuscripts submitted to this proceedings.

In addition to committee members and authors, recognition is given to other scientists who performed critical manuscript reviews or who have agreed to serve as session moderators. Without your help this symposium and publication would not be possible.



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