

Preface

Emissions of air pollutants during agricultural operations are an important emerging research area, best studied with interdisciplinary approaches that can inform policy makers of the costs and benefits of various potential mitigation options. Agriculture, forest, and range production practices are increasingly subject to U.S. State and federal regulations intended to protect air resources. However, data on agricultural emissions of regulated pollutants, nuisance odors and fugitive dust often either do not exist or are insufficient to develop appropriate policy, both in the United States and worldwide.

The First Workshop on Agricultural Air Quality: State of the Science was held in Potomac, MD, USA in 2006. The primary focus of the Workshop was on improving agricultural air quality inventories and recommendations for technological and methodological changes in current emissions measurement and modeling practices.

More than 300 scientists, engineers, resource managers, decision makers, and policy analysts attended the Workshop. The participants represented 15 nations from five continents. Their disciplines ranged from atmospheric chemistry to soil science. The participants represented many stakeholder groups concerned with the growing need to understand agricultural impacts on our atmosphere and to develop beneficial policies to improve air quality. Attendees included leaders in international, federal, state, and local government; academia; environmental and public interest groups; business leaders in crop and animal agriculture; and professional societies and trade associations.

Policy issues and advancements in the sciences associated with agricultural air quality were explored and summarized in several forums and formats during and after the Workshop. This volume represents the formal workshop proceedings; summary and synthesis papers will follow in several leading journals.

We hope that this workshop will be only the first of several that will bring the issues of agricultural air quality to greater public visibility and scientific understanding. As we rise to the challenge of feeding more than 6 billion fellow citizens of the world, the ancillary impacts of our food production systems will become more widespread and severe. We must not forget the importance of good air quality, even as we may succeed wondrously in our agricultural production.

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