INTRODUCTION

Water conservation is an immense challenge. It is so broad and so critical to society, both here and abroad, that the opportunities for positive impact on both science and practice are almost limitless. With our present funding and staff, we can undertake only a few aspects of this problem. However, the laboratory is proud of its long history of producing meaningful and useful research results. Our job is to identify those areas of research that are most critical to the long-term sustainability and enhancement of modern society. While water is a renewable natural resource, it is also a limited one, and one upon which the entire planet depends for survival.

In the last century, once abundant water resources have become over-allocated by an ever-growing population. We can only imagine the critical water problems we will face if this trend continues for another century. But whatever that scenario, science will play a key role in helping society find the appropriate balance between the environment and human needs. That is our challenge.

We will be facing that challenge by focusing our research within a new national program structure which the Agricultural Research Service (ARS) National Program Staff is working hard to define. These National Programs define the research agenda for the agency and relate these research activities to the Nation's needs. National Programs are further divided into components and within these components, into more defined research thrusts. Each of our research programs can be related to these research thrusts and thus to the overall National Program and to public needs. Our research staff has been actively involved in the development of the National Programs to assure that our clients' needs are well represented. In the future, our research will be judged on how well it meets the objectives of the associated National Program. Our research program is diverse and is included in several ARS National Programs, namely:

- Water Quality and Management
- Global Change
- Integrated Agricultural Systems
- Plant, Microbial, and Insect Genetic Resources Genomics, and Genetic Improvements
- Food Safety

The year 2000 will have some significant changes in personnel and programs at the lab. Susan Moran has left the laboratory to become Research Leader for the Southwest Watershed Research Laboratory, Tucson, Arizona. We will miss Susan's contribution to the laboratory, but expect to continue cooperation with her in the future. Susan, we wish you well in your new position. In FY2000, we received additional funds for research on food safety. These new funds will be used to study the use of municipal and animal waste for irrigation and the associated potential degradation in groundwater quality. Detailed plans for the project are being prepared, and we will be hiring a new scientist during 2000 to conduct this research.

We marked the millenium by looking both backward and forward: planning for an observance of the laboratory's 40th anniversary, "40 Years of Progress"; and seeing plans move ahead for a new laboratory facility at the University of Arizona Maricopa Agricultural Center where much of our research is done on site. We are thus gratified by the laboratory's past and excited about its future.

Bert Clemmens, Director