Challenges for U.S. Agricultural Research Policy

September 1995

OTA-ENV-639

GPO stock #052-003-01443-2
Agricultural productivity has increased markedly in recent years—more rapidly, in fact, than productivity in the overall U.S. economy. Many attribute a large part of this growth to public sector agricultural research, which is carried out primarily by land grant universities and the U.S. Department of Agriculture’s research agencies. Despite this success, however, new budget constraints, scientific advances, and public demands for environmental safety are presenting the agricultural research system with the greatest challenges it has faced since its inception, more than a century ago. Questions have been raised about whether the old research institutions are still useful, and about how they should adapt to accommodate the new realities of the 1990s.

In discussions leading up to the 1995 farm bill, agricultural research policy has been put squarely on the negotiating table. Policymakers have been particularly interested in how well the agricultural system has responded to legislative directives in the past farm bill that called for a clarification of the purposes of agricultural research and extension, a national competitive research initiative, a sustainable agricultural research program, and research efforts to create new agricultural crops and new uses for agricultural commodities.

This report responds to a bipartisan request from the Senate Committee on Agriculture, Nutrition, and Forestry to determine the progress the research system has made in meeting the objectives set forth in these new areas, and to provide guidance on the management of agricultural research. In doing so, the report focuses on new ways to finance, organize, and manage agricultural research to prepare the system for the challenges of the next century.

ROGER C. HERDMAN
Director
Project Staff

Clyde Behney
Assistant Director

Robert Niblock
Program Director
Environment Program

Michael J. Phillips
Project Director

Theodore L. Hullar
Senior Analyst

Vivian N. Keller
Writer/editor

ADMINISTRATIVE STAFF

Kathleen Beil
Office Administrator

Nellie Hammond
Administrative Secretary

Kimberly Holmlund
Administrative Secretary

Babette Polzer
Contractor
Acknowledgments

OTA is very grateful to the assistance of a number of individuals in the course of preparing this report. They provided guidance to the study design, prepared background material, reviewed background reports, or provided information to the project staff. To this OTA is indebted and as a token of our appreciation list them as follows:

**Bruce Abbe**
Chairman of the Board
New Uses Council, Inc.

**Julian Alston**
Professor
University of California, Davis

**Robert Armstrong**
Program Analyst
Alternative Agriculture Research and Commercialization Center
U.S. Department of Agriculture

**Nicole Ballenger**
Project Director
Board on Agriculture
National Research Council

**George Bird**
Professor
Michigan State University

**William Carlson**
Acting Administrator
Cooperative State Research, Education, and Extension Service
U.S. Department of Agriculture

**Jason Christian**
Research Analyst
University of California, Davis

**L. Davis Clements**
Professor
University of Nebraska

**R. James Cook**
Chief Scientist
National Research Initiative Competitive Grants Program
U.S. Department of Agriculture

**Bruce Crain**
Director
Alternative Agriculture Research and Commercialization Center
U.S. Department of Agriculture

**Mark Dungan**
President
New Uses Council, Inc.

**Michael Harris**
School of Agriculture
University of Melbourne

**Floyd Horn**
Deputy Under Secretary
Research, Education, and Economics
U.S. Department of Agriculture

**John Houghton**
President
J.M. Houghton Associates

**Edward Knipling**
Deputy Administrator
Agricultural Research Service
U.S. Department of Agriculture

**Michael Mayer**
Professor
University of California, Davis

**Kathleen Merrigan**
Senior Analyst
Wallace Institute for Alternative Agriculture
John Mullen  
New South Wales Agriculture  
Orange NSW

Robert Myers  
Director  
Sustainable Agriculture Program  
U.S. Department of Agriculture

Susan Offutt  
Executive Director  
Board on Agriculture  
National Research Council

Philip Pardey  
Research Fellow  
International Food Policy Research Institute

Jenifer Piesse  
Professor  
University of London

Dean Plowman  
Administrator  
Agricultural Research Service  
U.S. Department of Agriculture

Sally Rockey  
Program Director  
National Research Initiative  
Competitive Grants Program  
U.S. Department of Agriculture

Richard Romminger  
Deputy Secretary  
U.S. Department of Agriculture

Johannes Roseboom  
Fellow  
International Service for National Agricultural Research  
The Hague

Hans Rutten  
Fellow  
National Council for Agricultural Research  
The Hague

Katherine Reichelderfer Smith  
Director of Policy Studies  
Wallace Institute for Alternative Agriculture

Vincent Smith  
Professor  
Montana State University

Karl Stauber  
Under Secretary  
Research, Education, and Economics  
U.S. Department of Agriculture

Colin Thirtle  
Professor  
University of Reading

Walter Woods  
Acting Deputy Administrator  
Cooperative State Research, Education, and Extension Service  
U.S. Department of Agriculture

Garth Youngberg  
President  
Wallace Institute for Alternative Agriculture