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Public Agricultural Research: Is It Making New Friends?

Public Policy and Agricultural Technology: Adversity Despite Achievement. *By Don F Hadwiger and William P Browne (eds) New York St. Martin's Press, 1987, 126 pp, $37 50*

Reviewed by Neill Schaller

Hadwiger and Browne's collection of eight papers on a variety of topics related to technology and public agricultural research policy has its heart in the right place Many people indeed are interested in, though nowhere near as many as are affected by, the payoff and side effects of technology and, therefore, of public research policy

The editors tell us that public agricultural research institutions continue to be criticized, but that things may be looking up

> By providing more abundant and inexpensive food for the world's numerous consumers, by extending this technology into developing nations, and by working toward an environmentally sustainable technology, the public agricultural research system has enhanced its "political legitimacy" Having gained political legitimacy, research institutions should now seek more support on the national and international level (p 4)

I wonder if this legitimacy is real In fact, so does Browne himself in another paper later in the book Even if it is, moving from there to political support represents another hurdle Hadwiger and Browne admit that public research institutions "must continue to accept the burden of political self-advocacy, recognizing that major beneficiaries are still not effectively organized as supporters" (p 4)

Marcus traces the history of agricultural research institutions His is an interesting review of the USDA-Land Grant college system and the shifts in its philosophy, clientele, and research performance I find it curious, though, that he scarcely mentions two characteristics which explain many of the opportunities and problems facing the system—its unique partnership of Federal and State research and of research and extension education

The section on "Thinking about Agricultural and Research Alternatives" turns the reader's attention away from history and the policy setting to current developments in U S agriculture Runge assesses farm financial stress in the eighties He develops the argument that farmers have gone broke, not because they were too small or could not adapt to changing technology, but because their debts were too high Recognizing that younger, better educated, and technologically advanced farmers have had the highest debt-asset ratios, he fears an erosion of the competitive advantage due to the high quality of human capital that those farmers have brought to American agriculture Frankly, I am not sure why Runge's paper was included in the book It is about the structure of agriculture, not research policy It seems unconnected to the book's primary focus Runge introduces the point that technology produced by research is not necessarily the cause of financial stress But he might have contributed more to the book by looking at the effects of farmers' financial problems on their support of agricultural research and on the support from other publics

Youngberg traces the evolution of what is now widely referred to as "alternative agriculture," an umbrella term for approaches known as sustainable, regenerative, organic, and low-input agriculture He discusses reasons for growing interest among farmers and the nonfarm public in alternative agriculture These approaches show promise of being environmentally and economically more sustainable than the capital-intensive, monocultural cropping systems and other highly specialized systems characterizing conventional agriculture Youngberg exposes the myth that alternative agriculture is a return to low-yield, labor-intensive farming He also comments on biotechnology, which he believes can be good or bad news for the objectives of alternative agriculture For example, biotechnology will support those objectives when it is used to develop bacterial pesticides It works at cross purposes with alternative agriculture when it is used to produce more herbicide-tolerant crop varieties

In the section on "Current Political Issues and Conflict," the book returns to research policy and political support Gajbhiye and Hadwiger make the point that

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agricultural research is needed to fight malnutrition They discuss the performance of national and international research institutions They suggest a strategy for gaining research support that differs from what Hadwiger and Browne had told us earlier The editors maintain that the major beneficiaries of agricultural research are not organized and, therefore, that immediate users and researchers themselves must be its principal supporters Gajbhiye and Hadwiger suggest that "agricultural research institutions should also tout their capabilities to the large constituency of consumer interests" (p 79)

Browne delves deeply into the questions who really makes agricultural research policy, and how? His paper is an excellent summary of a study he did on criticisms of agricultural research voiced by different interest groups Browne makes a convincing case that the agricultural research policy arena is more crowded and noisy than ever before, which could have a numbing effect on research policy directions Or, too many critical voices could impair both the credibility of agricultural researchers and the ability of their political friends to generate significant support Browne warns that "as budgetary deficit and funding concerns become intensive, policymakers might well apply the largest and most burdensome cuts to what they see as controversial programs" (p 88) His advice to researchers and research institutions is to understand the reasons for public criticism of agricultural research, to answer the critics, and to accept chronic uncertainty as to what effect, if any, the criticism and the answers may have on research policy

Madden challenges researchers and research institutions not only to respond to their critics but "to develop our sciences to the point where we can anticipate and prevent detrimental impacts and thereby achieve a much greater benefit for society" (p 103) He makes a plea for "a commitment to be scientifically excellent, socially relevant, and ecologically responsible" (p 107)

Buttel and Kenney take the reader back to biotechnology They address questions such as Will biotechnology help the developing countries or cause distortions of the kind that accompanied the Green Revolution? Will it be developed and used to protect environmental quality or simply to increase production? Can developing countries afford it? Like Youngberg, Buttel and Kenney cite potential good and bad news from biotechnology They see it either as leading to higher standards of living and quality of life in the Third World or as "deepening dependence and distorted development" (p 119)

I would be tempted to stop here if I believed that the book's intended audience includes only colleagues of the authors and other members of the agricultural research community Such an audience should find the eight papers interesting and sometimes insightful But, if the intended audience includes other participants in the research policymaking process and if the object is to help them increase their knowledge and understanding of research policy issues, options, and consequences, I must give the book low marks It has no plot (The title itself, lacking verb-like words, hints of this problem) The papers appear to be a random sampling of information and ideas that are connected loosely, if at all They tune into different dimensions of research policy from different directions, without much explanation Some seem to have been written for other purposes (especially Runge's) In fact, one wonders if the outline and the preface were written, and the title selected, to fit the assembled papers

The editors fail to give readers of all kinds an adequate roadmap to guide their journey through the papers and to keep them out of trouble Nowhere, for example, even in the preface, is there any discussion of what the editors or authors really mean by things like technology, or even agricultural research Nor does one find a summary of the major conclusions and puzzlements derived from the papers or of the knowledge gaps they leave behind In short, the book adds up to no more, and perhaps less, than the sum of its parts

The book has four parts, "Agricultural Research in a Policy Setting," "Thinking About Agricultural and Research Alternatives," "Current Political Issues and Conflict," and "The Prospects for Agenda Change" The papers include (1) "Introduction" by Don F Hadwiger and William P Browne, (2) "Constituents and Constituencies An Overview of the History of Public Agricultural Research Institutions in America" by Alan I Marcus, (3) "Inefficiency and Structural Adjustment in American Agriculture Who Will Quit and Why?" by Carlisle Ford Runge, (4) "Moving from Yesterday's Agricultural Technology Alternative Farming Systems in Perspective" by I Garth Youngberg, (5) "Political Support for National and International Public Research" by Hemchandra Gajbhiye and Don F Hadwiger, (6) "An Emerging Opposition? Agricultural Interests and Federal Research Policy" by William P Browne, (7) "Toward A New Covenant for Agricultural Academe" by J Patrick Madden, and (8) "Biotechnology and International Development Prospects for Overcoming Dependence in the Information Age" by Frederick H Buttel and Martin Kenney