THE MAGAZINE OF FOOD, FARM, AND RESOURCE ISSUES

CHOICES

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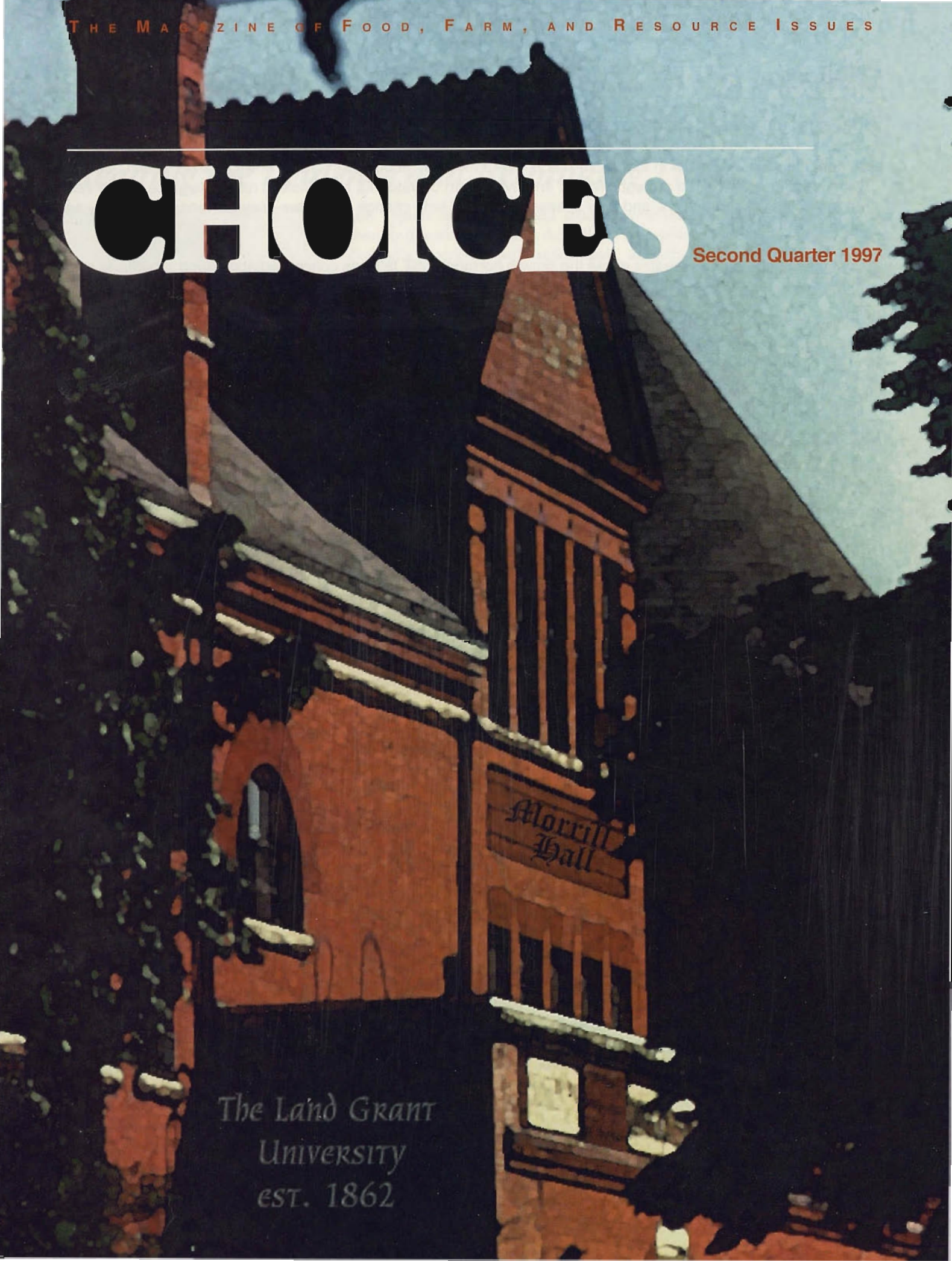


Findings

What agricultural and resource economists are finding about food, farm, and resource issues.*

- Although current water law in the western U.S. often does not recognize instream flows as a beneficial use of water, and hence may not protect streams and rivers from dewatering, New Mexico residents place a high value on protecting instream flows, and their assessment could help change water law—say Berrens, Ganderton, and Silva.

- Pork consumers knowledgeable about the growth hormone pST felt less concerned about food safety and were more willing to purchase pST-treated products than those less informed—say Misra, Grotegut, and Clem.

- Public information which discloses high levels of toxic emissions can hurt the offending firm's stock price and encourage remedial actions, as shown in a study of U.S. firms—say Konar and Cohen.

- Over time, the generic advertising campaign for fluid milk sold in New York City became less effective—say Reberte, Kaiser, Lenz, and Forker.

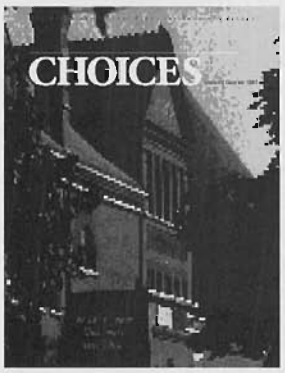
- In contrast to closing some recreational salmon fishing sites, a policy which allocates 5,000 fish at the mouth of the Willamette River will meet Native American fishing rights at little loss to recreational fishers—say Lin, Adams, and Berrens.

- Cotton fiber length receives higher price premiums than better grades, at least for cotton from the western U.S.—say Chen, Ethridge and Fletcher.

- Rural residents recycle more wastes if provided information which reduces the effort it takes to recycle; information which describes community benefits seems to have little effect on recycling—say Jakus, Tiller, and Park.

- The Conservation Reserve Program may, as a side benefit, help maintain valued open space, but in metropolitan counties of the Northeastern U.S., CRP enrollment has been relatively small, suggesting that other policies may better provide the open-space amenity—say Parks and Schorr.

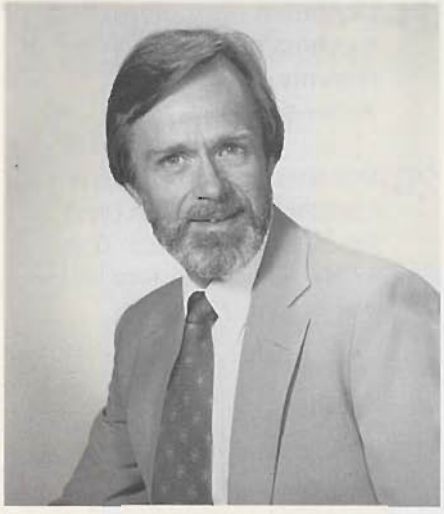
*Findings are taken from recently or soon-to-be published research in the *American Journal of Agricultural Economics, Journal of Agricultural and Resource Economics, Review of Agricultural Economics, Journal of Agricultural Economics Research, Journal of Agricultural and Applied Economics, Agricultural and Resource Economics Review, Land Economics, Journal of Environmental Economics and Management, Agribusiness—an International Journal,* and other journals which publish the research findings of agricultural and resource economists. Abbreviated citations are found on page 43.



ON OUR COVER—The land grant system of universities well served this country and even the world for over a century. Is it time to change land grants? Yes, argue some of our authors. But others think many of the proposed changes will cause more harm than good. Managing editor Sandra Clarke captures the historic significance of the land grant universities in this rendition of Morrill Hall at Iowa State University.

by David Ervin ■ **Guest Editorial**

The Environment and Agriculture: Reading the Evidence and Rethinking Policy



David Ervin directs the Policy Studies Program at the Henry A. Wallace Institute and has written numerous publications on policies to improve agriculture's environmental performance.

Major scientific assessments of agriculture and the environment tell the following story: Environmental problems caused by agriculture are real and prevalent, but not universal. Problems exist in most regions, but their scope and severity are uneven. They tend to concentrate where production pressure is intense and natural resources are vulnerable to damage. Major improvements over the last decade include reducing soil erosion and restoring certain wildlife populations. Some problems, most notably water pollution, persist without the prospect of clear remedies. The voluntary participation and incentive payment approaches that have dominated policy generally have not secured future protection against excessive soil erosion, water and air pollution, and species losses, despite considerable cost.

What policy actions might solve the remaining problems? Will the dramatic reform of commodity programs by the 1996 farm bill do the job? No. The weight of evidence from several analyses indicates that the environmental impacts will be small and mixed. A net gain appears likely, but could change abruptly if market conditions shift. New Zealand's experience with agricultural policy reform supports the expectation of mixed environmental outcomes, with a modest but positive net improvement. The mixed effects should not be a surprise. The roots of environmental problems lie in incomplete or missing markets for environmental goods and services, not in commodity programs.

Moreover, the improvements of the last decade are susceptible to backsliding. If commodity payments are indeed discontinued, leverage for conservation and wetlands compliance will dissipate. The 1996 farm bill increased conservation program funding and will strengthen cost effectiveness. However, the looming budget crisis could threaten funding for the Conservation and Wetland Reserve Programs that have produced the bulk of gains. Our experience from the Soil Bank suggests that virtually all retired land could return to production quickly once contracts expire.

These risks and robust public sentiment for environmental quality make this an opportune time to consider agro-environmental policy reform, much as we did for commodity programs. Necessary tasks for cost-effective policy include the following:

1. Key stakeholders need to agree on clear, specific, measurable environmental objectives. Despite sixty years of programs, this elementary but difficult step has not been taken. The Natural Resources Conservation Service's *A Geography of Hope* started a comprehensive appraisal of agriculture's environmental linkages. Clear objectives would reduce uncertainty, identify targets to guide private and public resources, and provide a measure of progress.

2. Create tangible and significant incentives to achieve the objectives. The type of incentive depends on the definition of producer responsibilities. Current approaches include land rental and cost sharing, technical assistance, and compliance schemes. Other candidates are reduced transaction costs (one-stop permitting), subsidy/fee systems for performance above/below defined (pollution) thresholds, and regulatory penalties for bad actors.

3. Allow flexibility to harness market forces wherever possible. Commodity policy reform took the first step in this direction. Establishing clear objectives and significant incentives are requisite to further development of markets for environmental management. Options include trading pollution rights, user charges, liability laws, and "green" consumerism.

4. Stimulate R&D that fosters "complementary" technologies. Promising innovations that offer economic *and* environmental benefits are emerging. These include integrated pest management, soil nutrient testing, rotational grazing, precision farming, and organic production. However, government and market failures that hinder specific objectives and tangible incentives are pushing their development down the wrong path.

5. Devolve more responsibility to state and local levels. Highly diverse natural resources and farms imply that top-down approaches are virtually impossible to direct from Washington. A bottom-up approach is more logical for managing watershed systems. That does not diminish the need for national objectives and funding, especially for transboundary resources like the Mississippi River.

Completion of the tasks will trace a clear path for agriculture's environmental management for the first time. It will also reward positive environmental services that agriculture can deliver and discourage the negatives. Decentralized incentives and disincentives will stimulate appropriate R&D to improve long-run cost effectiveness. Those are sound choices.

David Ervin

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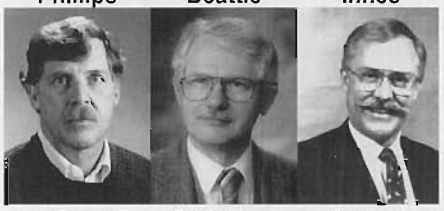
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Michael J. Phillips comes to the National Research Council's Board on Agriculture as its new director from the American Agricultural Economics Association, where he was director of the Food, Agricultural, and Resource Economics for the 21st Century project sponsored by the W.K. Kellogg Foundation. Prior to this, he was director and senior associate for the Food and Agriculture Program at the Office of Technology Assessment of the U.S. Congress.

Bruce R. Beattie is professor of agricultural and resource economics at the University of Arizona. He is a past president of WAEA, AAEA, and NAAEA and former head of department at Montana and Arizona. He has spoken and written extensively about land grant universities and academic administrative philosophy.

Robert Innes is professor of agricultural and resource economics at the University of Arizona. He is a prolific scholar, presently working in the area of environmental economics. Innes served on President Clinton's Council of Economic Advisors during the crucial time of the 1996 farm bill debate (including matters of federal funding for agricultural research and extension).

George McDowell is professor and extension economist in the Department of Agricultural and Applied Economics at Virginia Tech. After eight years of work with International Voluntary Services and the Peace Corps between 1963 and 1971, McDowell pursued his PhD in agricultural economics at Michigan State University to join the ranks of those working on international agricultural development problems. In 1994, under a USAID contract involving Virginia Tech, McDowell went to Albania to develop an agricultural economics and agribusiness curriculum at the Agricultural University of Tirana, concluding his service in April 1996.

Ihor Stebelsky is professor of geography at the University of Windsor, where he organized and served as director of the Environmental Resource Management Program, chaired the geography graduate studies committee, and served as head of the geography department from 1982 until 1988. His main research publications focus on agricultural resources and historical geography of the former Soviet Union, especially Ukraine. He is geography subject editor of the *Encyclopedia of Ukraine* and the Ukraine

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Marvin Duncan is professor and former chair of the Department of Agricultural Economics at North Dakota State University, where he teaches, conducts research, and facilitates an outreach program in rural policy, rural credit markets, and agricultural credit. Prior positions have included member of the board and senior deputy governor of the Farm Credit Administration, and vice president and economist at the Federal Reserve Bank of Kansas City.

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Jean Kinsey is professor of applied economics at the University of Minnesota, where her research focuses on the retail food industry and consumer policy issues. She is the first director of The Retail Food Industry Center at the university, which is one of the industry study centers funded by the Sloan Foundation. Kinsey has served on the executive board of the AAEA, is past president of the American Council of Consumer Interests, and is currently the chair of the board of directors of the Federal Reserve Bank of Minneapolis.

Professor of applied economics **Ben Senauer** has been on the faculty at the University of Minnesota since 1974. He is currently director of the university's Center for International Food and Agricultural Policy, and is serving on the steering committee of The Retail Food Industry Center. His current research interests include the retail food industry, food demand, and nutrition economics.