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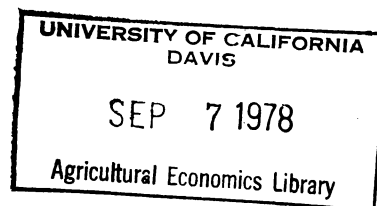
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Agriculture Loses Its Uniqueness

Fellows Lecture

AAEA Annual Meeting

August 8, 1978

Blacksburg, Virginia

Don Paarlberg, Professor Emeritus
Purdue University

Some time ago a friend asked me "What is the most important event that has happened in agriculture during your lifetime?" I put him off for a month while I reflected on this provocative question. Then I told him I had an answer, which would take me forty minutes to deliver. He said "I don't want to know that much about it".

So from that time to this I have borne an undelivered speech. When Jim Hildreth invited me to give this lecture I wasn't long in accepting and I wasn't long in naming a subject.

My subject is: agriculture is losing its uniqueness. This is a matter of profound significance, economically, socially, and politically. My contention is that while we have perceived it in general fashion, it is time that we examine it in depth.

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Years ago agriculture was basically different from other occupations. It was more a way of life than a vocation. Farmers were self-sufficient. They bought and sold little; they took to the market only what was in excess of their own needs. They had their own tradition, their own life-style. Farmers were readily distinguishable from other people by speech, dress, and manner.

Farmers had much lower cash incomes than non-farmers, and they had fewer conveniences. But these disadvantages were not so much the subject of invidious comparisons as they were the accepted attributes of a special way of life.

Farmers were considered uniquely worthy. The ideal was a nation of family farm operators, producing food, the most needed product of all. Farmers were considered God-fearing citizens, stalwart defenders of the Republic, and a stabilizing element in the society. Those who grew up in the country did not need to be taught these values; they absorbed them through their pores. This set of ideas was known by social scientists as agrarianism, or agricultural fundamentalism, or the agricultural creed.

There was much good-natured joking at the farmer's expense. He was readily recognizable in the cartoons, with his straw hat, his pitchfork and his patched overalls. In the pool-hall conversations of that earlier day, the farmer usually had a daughter, who had various adventures with traveling salesmen. Occasionally the farmer came to town and someone sold him the Brooklyn Bridge. But in the folklore of the day the farmer usually got the best of the cityslicker and we felt a warm glow about it, because we all thought he was a good fellow.

Reflecting this body of agrarian belief, the economy was delineated into farm and non-farm sectors. If someone was born into agriculture and left it, the important fact was not whether he became a tradesman or a laborer; the important thing was that he became a non-farmer, and among farm people there was some onus associated with the change. A farmer was disappointed if his sons turned to other occupations.

The farm-non-farm delineation of the society was a logical grouping whether on economic, political or social grounds. Farmers were different. They were unique, and worthily so. They knew it and so did everyone else.

These ideas are essentially philosophical, sociological and political. The underlying thought was articulated by John Locke, the English philosopher. It was organized into a coherent body of thought by the French physiocrats, particularly Quesnay. Agrarianism was powerfully advocated in this country by Thomas Jefferson, and has provided a continuing fountain of thought to the present day.

Because agrarianism is essentially philosophical, sociological and political, few economists have addressed themselves to it directly. But some agricultural economists have dealt with it perceptively. Ed Bishop made this the subject of his excellent presidential address in 1967. Jim Bonnen has spoken and written on the decline of agrarianism, emphasizing the implications for research, education, and public policy. Vernon Ruttan has addressed himself to it. Harold Breimyer and Phil Raup have dealt with the subject. John Brewster, philosopher-economist of the USDA, was intrigued with it. Kenneth Boulding, that multi-disciplinarian, wrote and spoke effectively on agrarianism.

In addition to the work of these prestigious people there is what I would call a kind of economic subculture which has dealt with the subject. These people have sought to provide an economic rationale for agrarian belief. Carl Wilken and his lineal heir Arnold Paulson of Granite City Minnesota (not Arnold Paulsen of Iowa) are prominent among this group.

While we, as economists, have seldom dealt directly with agrarian belief, we have been profoundly influenced by it. The idea of agriculture's uniqueness helped establish the institutions within which we

work. The Department of Agriculture is a unique institution, originally set up to serve a unique clientele, the farm people. The Land Grant Colleges were established as a direct assertion of agriculture's uniqueness. Not only did we set up schools of agriculture, we divided the scientific disciplines into farm and non-farm categories. There was chemistry and there was agricultural chemistry, as if farm molecules were different from others. There was engineering and agricultural engineering, statistics and agricultural statistics. There was economics and agricultural economics. The Experiment Stations, the Extension Service and Vocational Agriculture were all set up to serve a unique clientele.

There sprang up what I shall call "The Agricultural Establishment". I identify four members of this establishment, all with their roots in agrarianism:

The Department of Agriculture. Its' agrarian origins are verified by the inscription over the doors of the Administration Building, quoting Abraham Lincoln: "No other occupation offers so wide a field for the profitable and agreeable combination of labor with productive thought as agriculture."

The Land Grant Colleges. I have already indicated how they divided the scientific disciplines on an agrarian basis.

The Agricultural Committees of the Congress. Anyone who doubts the agrarian orientation of these committees should re-read Charles Hardin's "Politics of Agriculture".

The Farm Organizations. They have, from the first, asserted agriculture's special deserving.

These four groups came together in a powerful assertion of agriculture's unique worthiness, based on agrarian belief. Their

accomplishments were remarkable. Farmers were given preferred access to land and water. We voted price and income supports for farmers but not for automobile manufacturers or hardware merchants. Our tax laws favored farmers, as evidenced by the coming into agriculture of outside capital, attracted by tax advantages.

When general social legislation was enacted we often excluded agriculture, because of its uniqueness. Consider some of the major exclusions, sought by and originally granted to agriculture:

Exemption from social security

Exemption from a whole set of laws related to hired labor:

child labor	workmen's compensation
working conditions	collective bargaining rights
minimum wages	unemployment insurance

Exemption from laws regarding the restraint of trade, granted to farmer cooperatives

Exemption from the military draft

Having achieved this preferred treatment, the attitude in farm circles was to treat it not as an indication of political favor, but as a form of deserved differentiation from the non-farm sector. A farm leader or a farm politician would deny with his last breath that agriculture had received any favored treatment. The strategy has been to focus attention on those areas that showed agriculture at a disadvantage, to contrast the existing situation with some ideal, and to claim from government the full re-dress of the disparity. If the claim of agriculture's uniqueness would help in attaining this objective, the claim was invoked.

Some people say that preferential treatment was obtained by political power. Certainly there is some truth to this contention.

But this political power was enhanced by agrarian belief and owed much of its success thereto.

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I need not spell out, for this group, the advent of industrialized agriculture, which impacted agrarian belief and is destroying agriculture's uniqueness. The industrialization of agriculture has been the subject matter and to some degree the unstated objective of our profession from the beginning. I give quick review, to show how pervasive the changes have been.

There came the scientist, the technologist and the engineer. There came the educator and the businessman. The tractor came, and with it a whole new complex of power machinery. The acreage that one man could handle doubled, redoubled, and doubled again. Farms increased in size and decreased in number. The farm population diminished.

Rural Free Delivery came, and with it a great expansion of the farm press. There came the radio, the telephone, rural electrification, and television. Now Landsat whirls around the earth, with its remote sensing apparatus, looking down alike on farm and non-farm phenomena.

The paved road and the automobile came. Soon thereafter came the school bus and the consolidated school, so that farm children no longer sat beside other farm children in a one-room school; they mingled with non-farm children in the classroom and on the athletic field.

The isolation of rural life diminished. Farm people began reading the same papers as did non-farm people, hearing the same radio programs, watching the same television stars, seeing the same commercials, wanting the same amenities. The alleged superiority of

the farm way of life was no longer an acceptable offset for the lower incomes and fewer conveniences associated therewith.

Farmers began thinking and behaving like non-farmers. Increasingly they borrowed money, rented land, and hired labor. Whereas farmers once supplied nearly all the factors of production, they came to buy more of their input items. Purchased fuel, feed, fertilizer, machinery and other expenses now amount to 80 percent of the value of products sold. Farmers, originally producers of new wealth, have become much like manufacturers. In our concepts and our accounting we should increasingly think of agriculture as we do of industry, in terms of value added rather than value of total product. Here, as elsewhere, delineation of the economy into farm and non-farm sectors is becoming a distinction without a difference.

Changes affected families as well as production units. Farm wives gave up the kitchen garden and their canning projects -- they bought groceries in the supermarket, like the city cousins. By degrees the farm family moved away from the older ideas of subsistence and self-sufficiency. Increasingly they entered the money economy.

The younger generation went off to school, and began choosing vocations in much the same fashion as their classmates from town. Formerly it had been assumed that the farm-raised young man would take over the home farm and continue the family name on the old homestead; this tradition gradually faded. Farm people began taking off-farm jobs. Part-time farming grew in importance. Farm wives entered the job market, as did women generally.

The changes were profound. From colonial times until well into the Nineteenth Century farmers had outnumbered all other vocational

groups combined; by 1880 they became a minority. With the coming of the automobile, more and more non-farm people became rural residents and farmers became a minority among the rural population; they are now outnumbered, six to one, in the rural areas. And a few years ago an incredible thing happened; the non-farm incomes of farm people exceeded the farm incomes of farm people; sales of crop and livestock products became a minority source of income.

Farm people have entered the main stream of American economic, social and political life. They are no longer readily distinguishable from non-farm people in speech, dress or manner. The "city limits" sign, which was once an indication of economic and cultural differences, now simply marks the boundary between two units of local government.

Technology produced by the Land Grant College System was the engine that produced the change. It was the educational system, in the classroom and through the Extension Service, that helped homogenize the society. The institutions set up to serve a unique vocation have had the unforeseen consequence of reducing, indeed, almost destroying, that which they had set out to serve.

The trends were gradual, so that year-to-year changes were not particularly noteworthy. But they were cumulative and irreversible so that over time they were immense.

But agrarianism is by no means dead. It persists, gradually declining through time, like the Geiger count for radio-active waste. What is the half-life of an outmoded agrarian idea? Maybe a generation, 20 or 30 years.

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One is tempted to say that this experience shows the ultimate triumph of economics over the other social sciences, and that contrary to Keynes, practical men of affairs eventually win out over men of ideas. There certainly is some truth to such a view.

Agrarianism was strongly attacked by a number of prominent people: philosophically by A. Whitney Griswold, politically by former Secretary of Agriculture Earl Butz, and economically by almost our whole profession. The most effective attack on agrarianism came from agribusiness firms, with an assist from men prominent among us, especially John Davis, Earl Coke and Ray Goldberg.

Agrarianism was defended, on economic grounds, by Wilken and Paulson, as I have said. It was defended politically by Jim Hightower and his colleagues from the Agribusiness Accountability Project, and by Clay Cochran, of the Rural Coalition. It was defended on sociological grounds by Walter Goldschmidt in his 1947 book "As You Sow", and by Wendell Berry in his new book "The Unsettling of America".

More or less consistently, the defenders of agrarianism won on rhetoric and the attackers won on the body - count.

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The major institution on which I wish to focus is our profession, agricultural economics. It was created as part of the agricultural establishment. As originally conceived, farm people, with all their uniqueness, were the agricultural economist's clientele. What happens to a profession, set up to serve a unique clientele, when the clientele loses its uniqueness? What happens to the Land Grant College System, also created to serve a unique clientele? And to the Department of Agriculture, established within that same concept? The answer is

that they either transform themselves or they atrophy, wither away and eventually die.

How do we transform ourselves? The answer here is that we work on new subject matter, in research, teaching, and in extension. A new agenda is coming into being for agricultural economists. It is not an agenda that we have deliberately chosen; it is one that has been thrust upon us. Some, the far-sighted ones among us, have seen it coming.

Some time during the early nineteen-seventies, while I was in the Department of Agriculture, the idea gradually began to dawn that most of the policy subject matter with which we were dealing had not originated with our farmer friends; it had been generated by non-farm people. It may seem strange, in retrospect, that we were so slow in perceiving and even slower in acknowledging the obvious fact that the agricultural establishment had lost control of the farm policy agenda.

A brief rundown of the issues with which we then dealt makes clear this loss of power. Here were the policy issues of that time; they have not changed much since then:

Food prices, and specifically how to hold them down, an issue placed on the agenda by the consumers.

Food programs, especially food stamps, which grew until they took up much of the budget of the Department of Agriculture. This issue was placed on the agenda by what has become known as the Hunger Lobby.

Adulterated food, which was the code word for foods produced or processed with the use of chemicals, put on the agenda by the natural foods people.

Junk food, the allegation that the food supply carried excessive amounts of sugar and starch, an issue put on the agenda by the nutritionists and consumer groups.

Ecological questions, placed on the agenda by the environmentalists.

Rural development, primarily a program for the 85 percent of the rural people who are non-farmers.

Limitations on government payments to farmers, put on the agenda by a coalition of taxpayers, small farmers, and believers in limited government.

Land and water use questions, issues raised by those who opposed the long-held idea that farmers have first claim on resources.

Civil rights, advocated by those who challenged the white male tradition that has long characterized agriculture.

Foreign trade issues, raised by non-farm people who wish to liberalize the quotas which limit the imports of beef and dairy products.

Energy issues, raised by non-farm people who allege that agriculture is an inefficient user of fuel.

Occupational safety and health, written into law in behalf of laboring people.

Collective bargaining for hired farm labor, an effort to extend to this group the rights of group action enjoyed by others, an issue lifted up mostly by Cesar Chavez' United Farm Workers.

Reorganization of the Department of Agriculture, put on the agenda by the President with the help of a committee of experts in public administration. The Department of Agriculture would be abolished or dismembered. The Forest Service would go to Interior, and the food programs would go to Health, Education and Welfare. Other agencies would pick up other pieces. These proposals were beaten back by a three-part coalition: the bureaucrats working from within; the lobbyists working from without; and the Congressional committees working from above and below. But these proposals are not dead by any means.

What had happened was that as agriculture entered the main stream of economic, political and social life, the special privileges and

the exclusive treatment of agriculture were eroded away. The loss of agriculture's uniqueness and the declining number of farmers meant that agriculture lost control of the farm policy agenda. In football language, the agricultural establishment had lost the ball. There is one thing worse than losing the ball; that is, to lose the ball and think you've still got it.

We were not as well-prepared as we should have been to deal with these issues. This was mostly a matter of mind-set. Some research had been done on these subjects, but we were not well able to use it. We had not anticipated the events of the new agenda and we were incapable of thrusting them aside.

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I certainly do not want to exaggerate the changes I describe. They are far from complete. They have not come with dramatic suddenness. The old agenda is still important; witness the debate over an old issue, price and income policy, during the past 12 months.

At least some members of the old agricultural establishment will launch initiatives in the years ahead. Agricultural uniqueness will be asserted in support of these efforts:

- Higher targets and loans under the commodity programs.
- Preferential treatment with respect to foreign trade.
- Reservation of prime lands for agricultural use.
- Use of water for irrigation rather than for non-farm purposes.
- Preferential treatment with regard to fuel.
- Exemption from environmental rulings.
- Exemption from price control.
- Continued exemption from labor laws.
- Preferential tax treatment.

But the case for agriculture's unique deserving get harder to make with the passage of time. As professionals we will have to decide how much attention to allocate respectively, to the old and to the new agendas. How much water do we want to carry for the expiring case that agriculture is unique? That will be a troublesome question for agricultural economists in the policy field in the years ahead. My own view is that we need to shift some of our professional resources to the new agenda.

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How well have we accomodated ourselves to the changes I describe? Some astute people have read the tea leaves accurately and have done research while the new issues were in gestation stage. Here is a partial list, which will omit many deserving people, but, despite such dangers, I name these persons as illustrative:

Ed Bishop and Calvin Beale in rural development

Varden Fuller, on farm labor

Maurice Kelso, water problems

Marion Clawson, land use

Jim Hildreth and the Farm Foundation, with its studies on a number of new issues.

Iowa State, with its Agricultural Adjustment Center

Lucille Kelley and Steve Hiemstra, food programs

Walter Wilcox, on the incidence of benefits from the big commodity programs

Gale Johnson, foreign trade

The Economic Research Service, environmental problems

Some of this work gave affront to the agricultural establishment but was done none-the-less and in the long run has proven advantageous even to those who were offended by it. During the nineteen forties the Bureau of Agricultural Economics worked on a number of socio-economic

questions, resulting in budgetary retaliation against the agency. Nevertheless, the Economic Research Service, under the leadership of Quentin West, put added resources into researching the new agenda. Ken Farrell made a strong presidential statement at our annual meeting two years ago, in support of across-the-board research on public policy issues. As Administrator of the new Economics, Statistics and Cooperatives Service, he is carrying out the policies he recommended.

Thirty-five years ago T. W. Schultz did courageous pioneering work on the efficiency and the nutritive aspects of animal and vegetable fats, which offended the agricultural establishment. Nevertheless the work stood up scientifically and reflected credit both on the author and on the profession.

The fact that the agricultural establishment resisted researching the new agenda indicates two things: One, that they confused research with advocacy and the other, that they felt they had or should have had proprietary interest in agricultural economics research. If we gave reason for either of these beliefs it is to our great discredit.

We must not be captured by any special interest group. We have to keep probing to find out how far we can push into controversial issues. We have to keep shoving out the perimeter of knowledge. We have to believe that objective research ultimately has good results. I am reminded of the inscription over the door of Warren Hall, at Cornell University:

"Never yet share of truth was vainly set
In the world's wide fallow.
After hands will sow the seed,
After hands from him and mead
Reap the harvests yellow."

I think we have done better than we are willing to admit in adapting to the new setting and researching the new agenda subjects.

This is a strange statement, but I believe it is true.

When change comes, our sister social scientists tell us, the process proceeds in this order:

1. Changed practices, induced by new technology.
2. Institutional adaptation, brought about slowly, unevenly and grudgingly. But for a long time the rhetoric continues to affirm the old order and even to deny that there has been institutional change.
3. Finally, Full acceptance of change in all its aspects.

But, I should add, in the meantime technology has moved on several additional steps. The process of institutional and additudinal change is never done.

The point is that the rhetoric in support of former things is continued long after technology has invalidated them and even after the changes have been accepted institutionally. In part this is a smoke-screen, and has its utility. Behind it and obscured by it, the necessary changes can be and are being made, with less offense than would be the case if statements fully reflected the facts. In this respect it serves a useful purpose and we should not be too critical of it.

Here I make a bold statement: The dispute over methodology which has absorbed the profession during recent decades has served as a lightning rod for controversy, permitting a needed agenda change to take place with minimal friction. While we argued about how to serve the meal we changed the menu, which seems to me to be more important.

The point is that if one wants to know what is going on, he should look at what is actually happening, rather than listen to what is being said. One might deceive himself if he listened too closely.

So, if one wants to know what in fact is going on, he should adjust his perceptors in the following manner with regard to the following entities:

The Department of Agriculture: Pay less attention to the press releases and more attention to the budget.

The Agricultural Committees of the Congress: Discount what they say and watch how they vote.

The Farm Organizations: Disregard what they say about the family farm and look at the composition of their membership.

The Land Grant Colleges: Take less note of the agrarian rhetoric and pay more attention to their program of work.

The Agricultural Economist: Be more impressed by what is used than by what is praised.

That we have, as a profession, made substantial shifts to accommodate the new agenda is evident from the content of our annual meeting. I made a count of the pages of our proceedings issues of 30, 20, and 10 years ago, and last year, dividing subject matter into old and new agenda items. I used essentially the same delineation as is used in the new three-volume survey of literature edited by Lee Martin. The shift toward new agenda items is clearly evident:

	Share of Space Given to New Agenda Items
1947	7%
1957	33%
1967	54%
1977	72%

Increasingly, Departments of Agricultural Economics at the Land Grant Colleges have been merged or blended with general economics,

and with their sister sciences. Iowa was the first to do this. Minnesota did this more recently.

The change in our discipline has been difficult for the traditionalists, of whom I am one. For one thing, it means that some of our painfully-acquired skills become obsolete.

All members of the agricultural establishment have, to a degree, in their actions if not in their words, accomodated themselves to change.

The agricultural committees of the Congress have accepted environmental concerns and consumer causes as part of their subject matter; in fact they have used these as carriers for the old commodity programs.

The Department of Agriculture has accepted the new-agenda programs laid on it by the Congress.

The farm organizations have abated what was formerly almost total opposition to non-farm influences.

The Land Grant Colleges have broadened their research programs, their extension activities, and their classroom offerings; they now serve rural non-farm and even urban groups. They have lost what was earlier almost a monopoly position on farm-related matters. Large farms and big agribusiness units are now recruiting from Schools of Business as well as from Schools of Agriculture. Operators of the larger farms increasingly get their technical information from the big firms that supply them with inputs, as well as from the Extension Service. The competitive grant programs for agricultural research outlined in the 1977 farm bill are not limited to Land Grant Colleges.

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What lies ahead? I can see nothing that will restore agriculture's uniqueness. There are feeble attempts to grow "natural foods", to set up self-sufficient communes, to reinstate an earlier form of the family farm, and to market direct from farm to consumer. While there will be individual success, these initiatives seem unlikely to alter the course of events in any fundamental sense. For better or worse, agriculture has entered the main stream of economic, political, and social life. The economists generally say this is for the better. The sociologists generally say it is for the worse. The politicians worry about it in their public statements and support it by their votes.

The farmer-producer and the agribusiness community will continue to need our services. But these services can hardly be rationalized any more, on a contention that agriculture is uniquely deserving. And these services will have to be supplemented by assistance to other participants in the food chain: those who supply input items, those non-farmers who are concerned with the use of land and water, and those who consume the products that flow off American farms.

So far as research is concerned, our task becomes much harder. When you are part of the group that controls the agenda, you know what topics to study; they are the subjects you want to ready for the initiative which is yours to launch. But when control of the agenda lies elsewhere, you can't anticipate the issues as well. This is the difference between offensive and defensive strategy. In considerable measure, agricultural strategy has to become defensive. Those who wish to fashion their research in support of the old guard must recognize that defensive strategy is different from what we have become accustomed to during the entire history of the profession up

to recent times. Our resources are not so great as to permit them to be expended on subjects that are unlikely to have relevance.

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We often hear some change hailed as the "end of an era". But that may in fact be what we now witness. Agriculture has been a unique vocation for un-numbered years. It is now losing that uniqueness.

How should one feel about this? One's reaction is, of course, subjective. As for myself, I feel a mixture of emotions. On the one hand is happiness that the former poverty, isolation, drudgery, and deprivation of farm life is being alleviated. On the other hand is sadness that farmers are being deprived of the sense of unique worthiness they once felt, and are becoming an undifferentiated part of a homogenized society. I do not doubt that this accounts for some of the unease we witness in the farm sector.

From this throat comes one cheer, maybe two, certainly not three.

But what difference does it make, whether there is one cheer or two, or three, or none at all? The change is irreversible. To talk about restoring the uniqueness of agriculture is like talking about putting the chicken back into the egg.

I do not imagine that I am telling you anything you do not already know, or anything with which you will basically disagree. All I am doing really, is to give public witness to a change that is too deep and too important to go unremarked. To observe it in silence would be like allowing the passing of a great man to go unmemorialized.

I close with a quotation from Omar Khayyam, a non-economist who nevertheless was capable of sound empirical observation:

"The moving finger writes;
And, having writ, moves on.
Nor all your piety nor wit
Shall lure it back to cancel half a line,
Nor all your tears wash out a word of it"

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It may be that I have merely confirmed the good judgment of my friend, who "didn't want to know that much about it". But in any case I have relieved myself of an undelivered speech, the heaviest burden known to man.

References for Fellows Address

American Journal of Agricultural Economics, Proceedings Issues, 1947, 1957, 1967, 1977.

Berry, Wendell, The Unsettling of America: Culture and Agriculture, San Francisco, Sierra Club, 1977, 228 pp.

Bishop, C. E., The Urbanization of Rural America: Implications for Agricultural Economics, Journal of Farm Economics, Vol. 49, No. 5, December 1967, pp 999-1008.

Bonnen, James T., Present and Prospective Problems of U.S. Agriculture: As Viewed By An Economist, Journal of Farm Economics, Vol. 47, No. 5, December 1965, pp 1116-1129.

Boulding, Kenneth E., Normative Science and Agricultural Policy, James C. Snyder Memorial Lecture in Agricultural Economics, Institute of Behavioral Science, University of Colorado, March 20, 1978.

Breimyer, Harold F., Individual Freedom and Economic Organization of Agriculture, University of Illinois Press, 1965, 314 pages.

Brewster, John Monroe, 1904-1965, A Philosopher Among Economists, selected works of John M. Brewster, edited by Patrick Madden and David E. Brewster, Philadelphia, J. T. Murphy Co., 1970, 294 pages.

Goldschmidt, Walter, As You Sow, Harcourt, Brace and Company, 1947, 288 pages.

Griswold, A. Whitney, Farming and Democracy, Yale University Press, 1952, 227 pages.

Hardin, Charles M., The BAE Under Fire, Journal of Farm Economics, August 1946.

Hardin, Charles M., The Politics of Agriculture, The Free Press, Glencol, Illinois, 1952, 282 pages.

Paulson, Arnold, Economic Solutions are Possible, National Organization For Raw Materials, Vol. 2, Washington, DC, 1977.

Raup, Philip M., Some Questions of Value and Scale in American Agriculture, American Journal of Agricultural Economics, Vol. 60, No. 2, May 1978, pp 303-308.

Ruttan, Vernon W., Agricultural Policy in an Affluent Society, Journal of Farm Economics, Vol. 48, pp 1,100-1,120, December 1966.

Wilken, Carl, Economic Solutions Are Possible, originally published during the nineteen-forties by the National Raw Materials Council, Sioux City Iowa. Republished by the National Organization For Raw Materials, Washington, DC, Vol. 1, 1977.