

THE IMPACT OF RESEARCH AND EDUCATION ON  
NEW YORK FARMERS AND CONSUMERS:  
FROM THE PERSPECTIVE OF THE SOCIAL SCIENCES

by

B. F. Stanton

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"A Combination of Idealism and Practicality"

This is a day when we look back on the sweep of 150 years of history with great pride and a little nostalgia. But our eyes are on the future just as was true when the Society we honor today was formed. Most of us try to look forward with the help of history. We extend trends. We use experience to give us insight -- and hopefully foresight.

It should not be surprising then that I want to start my comments talking about the contributions of the social sciences in agriculture out of our beginnings at the start of the 20th century. It was an impressive beginning which drew national attention to the Empire State. New York, the leading agricultural State for 50 years from 1815 to 1865, was and continues to be a leader in agricultural science.

No figure in its history had a greater impact on New York agriculture -- its research and education -- than did Liberty Hyde Bailey, whose vision for rural America we should honor and rekindle today. He provided the working example of IDEALISM AND PRACTICALITY that has been the lasting imprint of work in the social sciences and which deserves special recognition today and tomorrow. Few men have left their special mark on so many. Few dared to dream with such vision.

It's hard for us in 1981-82 to envision Isaac Roberts' tiny College of Agriculture at Cornell with 41 students, where Cornell's President Adams complained, "We are educating professors of agriculture, not farmers." Three events came to the aid of the College.

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Presented at the 150th Annual Meeting of the New York State Agricultural Society, Albany, New York, January 7, 1982.

In the words of Morris Bishop in his History of Cornell, "The first and the greatest was the coming of Liberty Hyde Bailey in 1888." Incidentally the second and third were the passage of the Hatch Act in 1881 with money for agricultural research and the second Morrill Act in 1890 with money for teaching.

What was so special about Bailey? Ask any of the people who knew him well and worked with him and you get different answers - but a great sense of an eminent scientist, a prolific writer, a consummate politician and administrator, and an inspiring teacher. Perhaps most important of all, he brought out the best in his co-workers and listeners. His dreams became real because of a marvelous combination of idealism and practicality.

There is not space nor time for me to try to tell the Bailey story. Others have done it more fully and better. Work in what has come to be called the social sciences in agriculture got its start because of Bailey's vision and encouragement. He was born in Michigan, the son of a poor farmer. His humble beginnings always provided him perspective. He cared about the countryside, its plants, animals and people. He transferred a sense of that concern to others in everything he did.

He was a champion of the Country-Life Movement in the United States and served as chairman of President Theodore Roosevelt's Commission on Country Life in 1908. Bailey's book, The Country Life Movement in the United States published by Macmillan in 1911 still makes good reading 70 years later. It gives a real sense of his vision for the social sciences and the people who live on the land. A few quotes from this book provide insight:

"The country life movement is the working out of the desire to make rural civilization as effective and satisfying as the rest of civilization. ...It is a world motive to even up society as between country and city. ...The country life movement must be sharply distinguished from the present popular back-to-the-land agitation. The latter is primarily a city or town impulse, expressing the desire of townspeople to escape, or cities to find relief, or of real estate dealers to sell land." (pp. 1-2)

"The first necessity is to place broadly trained persons in the open country, for all progress depends on the ability and the outlook of men and women. The second necessity is that city folk and country folk work together on all great public questions." (page 21)

"A new social order must be evolved in the open country, and every farmer of the new time, must lend a strong hand to produce it. We have been training our youth merely to be better farmers; this of course, is the first thing to do, but the man is only half trained when this is done. What to do with the school, the church, the rural organizations, the combinations of trade, the highways, the architecture, the library, the beauty of the landscape, the countryside, the rousing of a fine community helpfulness to take the place of the old selfish individualism, and a hundred other activities is enough to fire the imagination and to strengthen the arm of a young man or woman." (pp. 56-57)

"Community of purpose and spirit is much more important than community of houses. Community pride is a good product; it produces a common mind." (page 133)

"It may be said that it is the first duty of every man to earn a decent living for himself and those dependent on him; and a countryman cannot expect to have much influence on his time and community until he makes his farm pay in dollars and cents. But the final object in life is not to make money, but to use money in developing a higher type of endeavor and a better neighborhood." (p. 202)

Bailey, the horticulturist and plant scientist, had a dream. He caught up others in that mission to learn, to understand, and find ways to serve rural America. And so farm management, rural economics, rural education, extension, and home economics became full fledged departments in Bailey's days as Dean. In 20 years college enrollment grew from 41 to over 1700 students.

As we think about our heritage and recognize the basis for agricultural research and education in the social sciences in New York, I'd like to comment briefly about three of the larger groups of pioneers who, fired by Bailey's enthusiasm and nurtured by his support, gave impetus to the work that continues today in economics, rural education and sociology. They are George F. Warren, Anna Botsford Comstock and Albert R. Mann.

Warren came from Nebraska to study under Bailey at the turn of the century and was sent to do research on apples. Costs were high; profits were low. Under the rubric that, "Every farm is an experiment station and every farmer the director thereof," Warren set out to learn from what farmers were doing in Wayne County. Over the next 10 years the survey method of obtaining farm management data was developed and continues to be used throughout the world patterned after these first efforts in upstate New York.

If life was going to be better in the countryside, farmers and rural people had to earn a good livelihood. Warren set out to find out why some farms pay better than others to determine how to improve the organization and operation of farms. The field of farm management, much as we know it today, was born out of such inquiries. In succeeding years came studies of prices, land utilization, capital markets and farm credit, the organization of farm markets and marketing efficiency. Warren became a state, national and world figure in his own right. But on the title page of his book, Farm Management, in pride of place were printed Bailey's words,

"The requirements of a good farmer are at least four:

- (1) The ability to make a full and comfortable living from the land;

- (2) to rear a family carefully and well;
- (3) to be of good service to the community;
- (4) to leave the farm more productive than it was when he took it."

The combination of idealism and practicality remained central to work in farm management and agricultural economics. Concern for efficiency in the use of resources, conservation, and an improved environment in the community is part of our tradition in agricultural economics.

Anna Botsford Comstock was a pioneer in many ways. Born on a farm in Cattaraugus County, educated in New York public schools, she was one of the first women to study at Cornell in 1874, and after completing her degree, stayed on as a member of the academic community. She was the first woman to hold a professorial title on that campus. In 1923, the National League of Women Voters named her one of the 12 living American women<sup>\*/</sup> who "have contributed most in their respective fields for the betterment of the world."

In an academic world essentially, dominated by men, Anna B. Comstock made her way by achievement and the capacity to do what others could not. She was a professional educator in the best sense. Science education and extension at Cornell owe much to her example and the ways in which she approached problems. Listen to her own comments about the nature study movement at its inception:

"During the years 1891 to 1893 there was a general agricultural depression in the East, and New York City found itself called upon to help people who flocked in from rural districts in search of work. A conference was called by philanthropists and after much discussion it was concluded that the only permanent remedy was to interest the children of the rural districts in farming; Nature Study was the means to use to interest the child in the farm.

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<sup>\*/</sup> Two other Cornell alumni were on that list as well. Martha Van Rensselaer, Dean of the College of Home Economics and Mary C. Thomas, President of Bryn Mawr.

After a successful experiment in the Westchester schools, \$8,000 was given by the State in 1896 to the College of Agriculture for the teaching of Nature Study in the rural schools of New York. To say that the Agricultural Faculty of Cornell was dismayed at this task is putting it mildly. Not one among them had even thought of the rural school curriculum since he was a boy." (Comstock, pp. 189-191)

Out of these beginnings, Roberts and Bailey turned to Anna Comstock and encouraged her to prepare a set of science leaflets and to develop a program of lectures for Teachers' Institutes throughout New York State. As the program took hold a series of Junior Naturalist Clubs were started, which in some years embraced 30,000 children in the schools of the state. The movement grew and the Cornell Nature Study Leaflets came to be a part of teaching not only in New York State but throughout the country as well. In 1911 Anna Comstock's Handbook of Nature Study was published. Now, some 24 editions later no book published by Cornell University Press has ever sold more copies.

Albert Mann, Dean of the College of Agriculture from 1916-31, and later Provost of Cornell, was the first professor of rural social organization anywhere in a College of Agriculture. An agriculture graduate in 1904 he got his professional start as Bailey's secretary, and successively was registrar, college editor and assistant professor of dairy industry. His first book, Beginnings in Agriculture, was published in the Rural Text Book Series by Macmillan in 1911. Its 327 pages were "designed for the purpose of introducing the study of agriculture into the 7th and 8th grades of our elementary schools and some of the smaller high schools". It's first chapter, "The Community in Which I Live," gave a sense of Mann's own perspective and the importance of the country life movement as a unifying spirit in publication. Mann, as Dean brought Dwight Sanderson

to Cornell and formed the Department of Rural Social Organization in 1918 with its commitment to the study and understanding of the organization of rural society. Perhaps no finer tribute could have been paid to Mann than the naming of the new building to house the agricultural library, some 30 years ago at Cornell.

An early commitment to the social sciences in agriculture in New York was made because rural people and their communities mattered to Bailey, to legislators and the State's leadership. The study of agricultural economics could increase productivity, save resources and gain a surplus from production. Rural education provided the means to improve the inherent skills and materials available to teachers and thence to young people wherever they might be. Extension education developed to reach outside the formal classroom to both adults and children. Rural sociology evidenced the college's concern for community, rural organization, and the people who live on the land.

The 20th century brought with it change and technological progress that was unimaginable when Bailey, Warren, Comstock and Mann were working together 70 years ago. Rural life today in New York State is preferable to urban life. Farm incomes are now on a par with the rest of the economy. There's a substantial range but the rural poor in this State are not at the bottom of society's ladder.

Because of research and education farm to market roads, and rural communication networks have tied our State together. No longer is the rural school the object of derision. In many communities rural and suburban school systems are the envy of our city cousins. Life in the country allows all the conveniences



that seemed like luxuries a few decades ago. A farmer's wife is just as likely to have a full time job outside the home as is a plumber's wife, a steel worker's or a mechanic's. Agricultural districts and enlightened local governments have reduced the conflict between farms and suburban sprawl. Land use decisions now involve more of those who have a stake in the outcome. There is a greater awareness of the many people who compete for and seek access to open space and the visual beauty of our countryside.

What of the future? How will the rural social sciences serve? The commitments to improving rural community life, upgrading the quality of education and access to knowledge and increasing productivity and efficiency in the use of land, labor, capital and natural resources remain just as in Bailey's day. Idealism and practicality are still important. But the technology, communication systems, and methods of delivery are now different.

1. The computer is now being harnessed to serve individuals and rural America much as the tractor and mechanization have been harnessed to serve farming in the 20th century. No one knows how much smaller computer chips can be made or how much information can be stored easily at low cost. But in my life time most commercial farmers will either write their checks or transfer funds electronically on their business computer. No one can see all the ways in which computers can save steps or carry out routine procedures. Accounting and business control will be greatly facilitated as we learn how to make these powerful tools work for us. One of the great challenges for economics is to make practical appraisals of computer applications and find efficient ways in which they can help to solve problems.

2. Many say this is already the television age. But we may just be entering the era. It's not difficult to think that newspapers and magazines as we knew them will almost disappear. A subscription to the New York Times, or the Wall Street Journal or the American Agriculturist may simply mean direct access to the information on a well lighted screen beside your easy chair or in your bedroom or in your office. You will turn pages by special controls and we can forget about the U.S. mails at least for this kind of delivery.

Adult education and agricultural extension may well have a very different character for an important part of our teaching. The challenge will be to learn how to harness the capacity to talk and communicate, or carry on discussions using the potential of electronic media. Most of us are impressed by the power of television and its effectiveness in presenting ideas through mass communication. The next step will be finding ways to serve smaller, more specialized audiences with some combination of video and personal demonstration.

3. The human side and a humane concern for individuals cannot be forgotten in the seemingly impersonal world of computers, television screens and electronic media. After all it is people that deserve center stage. The quality of life is just as great a concern as ever even though the physical drudgery and effort of many tedious jobs has been removed. A new emphasis on community emerges. Social organization is just as important to consider today as it was in 1900 but the purposes may be different. Joint efforts to clean up the roadsides, provide volunteers at the hospital or help the elderly to be involved in local activities are

just as important in the country as in town. Ways to use leisure time creatively is an important imperative.

4. Economists continue to be concerned about productivity and efficiency in agriculture and natural resource use. Labor efficiency has been central to agricultural progress in the Western world. Capital has been substituted for labor and society has prospered accordingly. Capital per worker on New York dairy farms now amounts to \$150,000 to \$200,000. Few businesses have larger capital requirements per person. Have we begun to reach the point where the trade-off between capital and labor must be considered more carefully? Is there some limit to the capital one worker can control effectively in a world of biology, uncertain weather and rising interest rates? Management is clearly the scarcest resource. The need for as much care in managing and using capital as in managing labor inputs seems likely at every level in farming and all the sectors of the food industry to the ultimate consumer.

5. A final word about the nature of farms and farming in the decades ahead is in order. You have just seen a preview of what is yet to come as the wonders of agricultural science continue to unfold. What happens when a super cow produces twice as much as her grand dam 20 years ago? What results when twice as many bushels of corn come from the same field as 20 years earlier? The result is greater productivity and efficiency -- but it also means the potential for surpluses, lower prices, and problems in distribution, the use of resources and dislocations in our economic system. The most recent census counted 50,000 farms in New York State. Of this total perhaps 20,000 made more than half their family income from farming. No doubt there will be fewer farms in

the year 2000 than there are today. Those that remain will probably be family businesses with many different rural people supplying the specialized services that provide the inputs on one side and move the outputs to the ultimate consumer on the other. Again the challenge will be to make the process of change as humane as possible. Productivity, efficiency, and technology will drive the process. But it is still people that research and education must serve. Some combination of IDEALISM and PRACTICALITY must continue to be central to work in the social sciences if the best interests of rural society is to be served.

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