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An Agricultural Law Research Article

Tending the Seeds: The Emergence of a New Agriculture in the United States

by

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TENDING THE SEEDS: THE EMERGENCE OF A NEW AGRICULTURE IN THE UNITED STATES

Neil D. Hamilton*

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I. THE FUTURE OF OUR FOOD AND AGRICULTURE SYSTEM: WHAT DO WE WANT FROM FARMERS AND AGRICULTURE?

The current situation in American agriculture makes it difficult not to be ambivalent about the future for America's farmers and food system. On the one hand, farmers have never been more productive or had a wider range of technologies to utilize in producing food and fiber. Prices are high for many commodities and export markets are expanding. Nor has our well-fed society ever had such a range of food products available, or paid so low a portion of its income to obtain them. But at the same time, serious doubts exist about the health of America's agriculture and food system. Increasing levels of concentration in production and processing, coupled with rapid changes in the number of farms and in the economic structure of agriculture, threaten the independence and profitability of farming. The steady pace of industrialization in American agriculture raises serious concerns about future opportunities for young farmers and about the ability of agriculture to satisfy the range of demands placed on it by society.¹

1. For a discussion of issues relating to industrialization and American agriculture, see Neil D. Hamilton, *Agriculture Without Farmers? Is Industrialization Restructuring American Food Production and Threatening the Future of Sustainable Agriculture?* 14 N. ILL. U.L. REV. 613 (Summer 1994) Neil D. Hamilton, *Reaping What We Have Sown: Public Policy Consequences of Agricultural Industrialization and the Legal Implications of a Changing Production System*, 45 DRAKE L. REV. (forthcoming 1996). If industrialization does occur will consumers even know such a change has happened, or will they even care? There will still be people doing the hard work which is agriculture - driving the tractors, farrowing the sows, harvesting the grain. The change may in fact be unnoticed by most people, except those who will feel the consequences - farmers, rural communities, and ultimately, consumers. Industrialization will have many consequences, not the least of which may be that, by blurring the distinction between farming and industry, society's perception of the very function and nature of farming may change, causing a re-examination of "what is agriculture" in both a legal and social context. Only time will tell what industrialization will bring and whether it will be the only future of our food system. In academic terms, the post-industrial agriculture of tomorrow will probably have at least three main parts. The first will be the "industrialized portion," most notably like the broiler industry and other forms of livestock or commodity production which follow this model. The role of traditional family sized "farmers" will be limited, reduced to "employee-like status" in an increasingly corporate-owned, concentrated, and vertically integrated system. This sector will probably account for the bulk of production, especially for grains and meats. The second sector might be described as the mixed middle ground. This will be made up of traditional family farms, perhaps larger than before, trying to compete or at least exist in the industrialized system. A common characteristic of these producers might be uncertainty about their future in agriculture. The question many farmers will face is "do I take the leap (and the debt) to become a mega-sized facility or do I get out now?" Older producers may be hoping to ride it out until retire-

Questions of agriculture's impact on the environment and about the safety of our food supply are altering how the public sees farming and are diminishing generations of good will and political support. These forces are combining to challenge a way of life and a traditional system of production - an agrarian culture of farms and small towns - that built much of our nation's food system and society. But these same forces also raise questions about the ability of our food system to satisfy the numerous and changing demands placed on it by today's society.

What will the future hold for agriculture and America's food system? Undoubtedly we will continue to have farmland, and food will continue to be produced by someone. Consumers will continue to be fed and will be presented with an increasing array of processed foods, perhaps even at declining relative prices. But real concerns exist over the future shape of our food system. Important questions need to be asked about the performance of our food and agriculture system, such as: who will produce the food, how will it be raised, will it be food of high quality, who will market it, will all of our citizens have access to food and at what prices, and will there be opportunities to plant the next crop of young farmers?

At a time when strong economic forces are stimulating a decline in traditional agriculture, other developments provide reasons for optimism about the health and future of a food and agriculture system which has a role for people, which sustains communities and resources, and which produces quality food. Across the nation, thousands of individuals, including farmers both small and large, consumers, educators, community activists, processors, food marketers, and chefs, are working to build productive and fulfilling futures for themselves in our food system. For lack of a better term, I have labeled this emerging network of people, programs and ideas, "The New Agriculture," because in many ways it represents a departure from attitudes and approaches of the last few decades. The purpose of this article is to inventory a series of developments that are contributing to the emergence of the new agriculture and to consider whether public policies and actions can help tend the seeds of this new system. Promoting the profitability of farmers and others in our food system, who are taking this road, offers many exciting issues in public agricultural policy. Helping tend the seeds of the emerging new agriculture may be one of our most important challenges in the decade ahead.

II. DEFINING THE NEW AGRICULTURE BY CONSIDERING ITS COMPONENTS

What do I mean by "The New Agriculture?" In simplest terms it means an agriculture devoted to producing quality food in a system that creates opportunities for farmers, marketers, consumers, and processors to experience the satisfaction and wholesomeness possible in a healthy food system. It is an agriculture that sustains the people, resources, and communities involved, and that educates consumers about how they are directly affected not just by the health and quality of the food they eat, but also by the nature of the system that produces it. It is an agriculture that preserves the heritage of its creation and builds a future for its participants. At its most fundamental level, it is a food system that works to re-establish the linkages and increase the understanding between the

ment. The third portion of agriculture is the part described in this article, the part that is helping shape a brighter, healthier future for these farmers and consumers participating in it.

parts of the system, which sees farming as only one part of the whole. It is a system in which all participants, from farmers to consumers, takes responsibility for their part in preserving the quality of the food produced and marketed and sustaining the resources upon which the system depends.

Perhaps the new agriculture can best be defined by looking at its components and the forces driving it. As the following discussion indicates, there are a wide range of issues and developments which can be included under the wide embrace of the new agriculture concept. By considering the following trends that contribute to this development and by considering the number of individuals and institutions involved, it is possible to see that, what first might appear to be a grab-bag of "fringe" issues, may collectively constitute something much more cohesive and significant for the future of America's food and agricultural system.

A. *Farmers Committed to Quality Food and Sustainable Agriculture*

One important part of the new agriculture are the farmers, who are devoted to producing and marketing quality food, often in ways that today might be considered non-traditional. This includes smaller scale diversified producers and niche marketers, many working off-farm as well.² These are the farmers who produce and market high quality foods,³ often for direct fresh consumption at higher prices.⁴ But it also includes many large scale agricultural producers who have found that utilizing organic or sustainable production techniques and producing high quality food can open new higher value markets. These are the farmers who are selling not just quality food⁵ but also the wholesomeness and traditional image of American agriculture and who may reap a larger share of the consumer's food dollar by doing so. Many of these farmers have joined to create new farmer organizations, such as the Practical Farmers of Iowa and the California Clean Growers.⁶ Unlike other farm organizations, which are either politically ori-

2. For a thoughtful article concerning the important role of small farmers in the future of American agriculture from a well respected agricultural observer, see Gene Logsdon, *Get Small Or Get Out!*, THE NEW FARMER, July/Aug. 1994, at 14. For other books on agriculture by Gene Logsdon, see THE CONTRARY FARMER (1993) and, AT NATURE'S PACE: FARMING AND THE AMERICAN DREAM (1994). For an insightful discussion of the role of small farms in the U.S., see J. TEVERE MACFADYEN, GAINING GROUND: THE RENEWAL OF AMERICA'S SMALL FARMS (1984).

3. See, e.g., Boyd Kidwell, *Vegetable Growers Get Fresh with Consumers*, PROGRESSIVE FARMER, July 1995, at 24.

4. See Rich Pirog, *The Milkman Returns*, LEOPOLD LETTER 6 (1995) (concerning the increased demand for home delivery of milk products in New York City and how this exemplifies the 'people/food relationship').

5. See Rod Smith, *Microfarmer*, 'Clean Foods' Could Reach 25% of Consumers, FEEDSTUFFS, July 11, 1994, at 8. (reporting a prediction by Gerald Celente, president of The Trends Institute, that by 2015, "microfarmers" catering to consumer demand for high quality food will capture as much as 25 percent of the food market).

6. See, e.g., THE PRACTICAL FARMER, Spring, 1995, (newsletter of the Practical Farmers of Iowa). PFI was formed in 1985 and now has a membership of more than 400 Iowa farm families. This unique, non-political farm organization has cooperated with other institutions in conducting an extensive series of practical research projects on members farms involving sustainable agriculture. It has received significant funding through the USDA's various sustainable agriculture research programs, and the Leopold Center for Sustainable Agriculture at Iowa State University, as well as support from the Kellogg Foundation for a "Shared Visions" project.

ented or devoted to one commodity, these organizations find common ground in improving their farming methods to promote sustainable agriculture and in producing and marketing high quality foods. Many of these organizations have received important support and guidance from the Henry A. Wallace Institute for Alternative Agriculture. This unique organization was formed in 1983 by Garth Youngberg, a former USDA employee, who saw the need for an independent research organization devoted to researching and promoting alternative agriculture policies and practices. The Institute, which receives significant financial support from the Wallace Genetic Foundation and other donors, has a staff of scientists, economists, and policy analysts, and publishes the influential *American Journal of Alternative Agriculture*.⁷

Whether it is higher value foods such as organic produce, specialty crops, or unique marketing methods, such as community supported farms, the producers working in the new agriculture are noted by an increasing attention to quality products and direct marketing. One key focus of this group is in making the linkages between the consumers of food and the producers who raise it.⁸ Another common concern of these farmers is accepting responsibility for the quality of food they produce and for protecting the health of their land.⁹ In these common characteristics and through higher returns, these producers are finding optimism about their futures in agriculture.¹⁰ In our post-industrial agriculture, these farmers will fill the role of the traditional family farm, as the independent operators concerned with stewardship of the land, who are taking responsibility for building strong local communities, and who preserve and honor the history of agriculture, while creating their own futures by raising and selling high quality foods locally.¹¹

7. See, e.g., Katherine Reichelderfer Smith, *Making Alternative Agriculture Research Policy*, 10 AM. J. ALTERNATIVE AGRIC. (1995) at 10. The Wallace Institute also publishes a monthly newsletter and periodic reports on issues of importance. See, e.g., Tracy Irwin Hewitt and Katherine R. Smith, *Intensive Agriculture and Environmental Quality: Examining the Newest Agricultural Myth*, ALTERNATIVE AGRICULTURE NEWS, September, 1995. For more information about the Wallace Institute, write 9200 Edmonston Road, Suite 117, Greenbelt, MD 20770-1551 or call 301/441-8777.

8. See, e.g., Peggy Knickerbocker, *Farming for the Love of Food*, SAVEUR, July-Aug. 1995 at 60 (concerning the food production system being established in the Tomales Bay region of California).

9. The issue of how the nation's food system relates both to personal health and the health of the environment, as well as our form of society, has become a more common subject in the nation's press. For example, the November/December 1994 issue of SIERRA, the magazine of the Sierra Club, was titled *The Plant on Your Plate: Saving the Earth Three Times a Day*, and featured a series of articles about the role of food and agricultural policy, including an article by Paul Rauber, *Conservation a la Carte*, at 42, which featured American chefs who cook by nature's rules.

10. For a recent article that explores this trend, see, Verlyn Klinkenborg, *A Farming Revolution: Sustainable Agriculture*, NATIONAL GEOGRAPHIC, Dec. 1995, at 61. For a book which explores many of the issues involved in the relationship between farming, agriculture, and food consumption, see OUR SUSTAINABLE TABLE (Robert Clark, ed., 1990).

11. In recent years there have been increasing opportunities for producers interested in farming in more environmental friendly ways to learn more about how to do so and to meet other farmers with similar goals. One of the most important conferences in the Ecological Farming Conference, held at the Asilomar Conference Center in Pacific Grove, California. The annual meeting is sponsored by the Committee for Sustainable Agriculture and the 16th annual conference was held Jan 24-27, 1996. There are several important institutes and organization working at the grass

B. Food Retailers and Consumers: Changing What We Buy and Where

There are other key components of the new agriculture besides farmers. Consumers can play an equally important role in bringing about changes in our food and agriculture system. Those consumers who care about the quality of their food, about how it tastes, about how it was produced and by whom, will be essential players in building the new agriculture. By creating demand for locally produced, farm fresh, high-quality food, consumers can help create a future for farmers and, in so doing, obtain a healthier, better tasting, food supply. The influence of consumers on the new agriculture can be seen in many ways, such as the continued growth in farmers' markets, the expansion of public markets, and even in the move by more traditional food retailers to feature "locally produced" foods. By demanding quality produce, such as natural or organic foods, consumers can improve the food choices available in the market place while helping create markets for farmers. The actions of such consumers and marketers makes the food system more visible and educate people about the impact of their food choices.

Consider what is happening in the retail food marketing industry. In recent years, several companies have emerged that are devoted to selling high quality and natural foods to consumers.¹² The trend is best illustrated by the development of Whole Foods Market Inc., headquartered in Austin, Texas. What began in 1980 as a local natural food store has developed into a rapidly expanding national chain with more than 40 stores, which did more than \$495 million in sales in 1995.¹³ The experience of shopping at a Whole Foods market in many ways defines the power of information in the new agriculture. Shoppers are provided with point of purchase information about how the food was produced, its health value, and how it can be best prepared. On the walls throughout the stores the shopper sees poster-sized pictures and stories about the farm families who are raising the items being sold on the shelves. While the food may not

roots level on farm stewardship matters, for example, the Land Stewardship Project in Minnesota, publishes THE LAND STEWARDSHIP LETTER (1994), and has promoted local land stewardship studies such as Charlene Chan-Muehlbauer et. al., *An Agriculture That Makes Sense: Profitability of Four Sustainable Farms in Minnesota*, and *Farmland and The Tax Bill: The Cost of Community Services in Three Minnesota Cities* (1994) in association with the American Farmland Trust. The Land Stewardship Project can be contacted at 2200 4th St., White Bear Lake, Minnesota 55110 or calling 612/653-0618. The Land Institute in Salina, Kansas, the creation of Wes Jackson, noted author and agricultural free-thinker, is devoted to researching the potential to develop a permaculture approach to farming. See, e.g., Jon R. Luoma, *Prophet of the Prairie*, AUDUBON, Nov. 1989, at 54 and Evan Eisenberg, *Back to Eden*, THE ATLANTIC MONTHLY, Nov. 1989, at 57. Jackson and the Land Institute can be contacted at 2440 E. Water Well Road, Salina, KS 67401, or calling 913/823-5376. To capture the flavor and power of Jackson's thinking, see, WES JACKSON, *BECOMING NATIVE TO THIS PLACE* (Univ. Press of Kentucky 1994) (which is dedicated to Wendall Berry, the Kentucky farmer, writer, and philosopher who many consider the leader of the movement).

12. See Ronit Addis Rose, *Groceries Go Green: Natural Food Stores Are Winning Converts by the Cartful*, VEGETARIAN TIMES, Oct. 1995, at 77.

13. See WHOLE FOODS MARKET, 1995 FOURTH QUARTER REPORT. For more information on the company see WHOLE FOODS MARKET 1994 ANNUAL STAKEHOLDER REPORT, which can be obtained by contacting the company at 601 N. Lamar Blvd., #300, Austin, TX 78703-5413. The Whole Foods chain includes stores with the names Wellspring Grocery (3 stores), Bread and Circus (12 stores), Mrs. Gooch's (10 stores), and Whole Food Markets (23 stores).

be less expensive than in conventional grocery stores, the success of the venture shows that for a growing portion of consumers, information and quality can make food more satisfying. But one does not need to seek out a "natural foods" store to see how this shift in food marketing to reflect more attention to quality and natural food. Most major grocery retailers in the United States have expanded their produce sections to emphasize freshness and in some cases locally produced foods.¹⁴ The produce sections of many traditional grocery stores increasingly have the appearance, if not the reality, of a farmers' market and many are now handling expanded ranges of certified organic food.

C. Farmers Markets: Expanding Opportunities for Consumers to Buy Fresh Locally Produced Foods

Perhaps the most apparent and symbolic component of the new agriculture has been the resurgence in interest in farmers' markets across the nation. By the end of 1993, there were 1755 local farmers' markets in operation across the United States, and it is estimated that over 3.5 million consumers obtain a portion of their food, in particular fresh produce, at such venues.¹⁵ Studies indicate that farmers' markets can play an important role in strengthening local food systems.¹⁶ By creating marketing opportunities for producers, farmers' markets allow local producers to diversify production and to sell food in a manner in which a larger portion of the return goes directly to the producer. These markets also offer consumers the opportunity to buy fresh, locally produced food and to experiment with types of produce not found in other markets.

One of the main driving forces behind the creation of farmers' markets is the increasing number of farmers interested in diversifying their production from just "tractor seat" crops, such as grains, to other higher value crops which can be marketed directly to consumers. Local farmers' markets provide the opportunity to experiment with production of new crops and utilize available family labor resources.¹⁷ Farmers' markets also provide the marketing opportunities that allow

14. See Carol Lawson, *It's a Grocery? It's a Supermarket! It's a City!*, N.Y. TIMES, Jan. 31, 1996, at B1 (describing the experience of shopping at one of the Wegman's chain stores).

15. See T. A. Lyson et. al., *Farmers' Markets and Local Community: Bridging the Formal and Informal Economy*, 10 AM. J. ALTERNATIVE AGRIC. 108 (Summer 1995). See also DENNY N. JOHNSON AND ERROL R. BRAGG, 1994 NATIONAL FARMERS' MARKET DIRECTORY, USDA/AMS WHOLESALE MARKET DEVELOPMENT BRANCH, TRANSPORTATION & MARKETING DIVISION (Mar. 1994). Notes from a conversation with Arthur Burns, program manager, Wholesale and Alternative Markets, Agricultural Marketing Service, U.S.D.A. (A 1995 USDA survey of more than 1,700 farmers markets revealed that for the 649 markets responding, they had over 1,195,000 customer visits per week during the peak season.).

16. See, FARMING ALTERNATIVES PROGRAM, DEPARTMENT OF RURAL SOCIOLOGY, CORNELL UNIVERSITY COMMUNITY AGRICULTURAL DEVELOPMENT SERIES, FARMERS' MARKETS AND RURAL ECONOMIC DEVELOPMENT: ENTREPRENEURSHIP, BUSINESS INCUBATION AND JOB CREATION IN THE NORTHEAST, Feb. 1995.

17. See Eric Gibson, *Farmers Markets - Part I*, ACRES U.S.A., Sept. 1995, at 28. Mr. Gibson is the author of *SELL WHAT YOU SOW! THE GROWERS GUIDE TO SUCCESSFUL PRODUCE MARKETING*, a valuable resource for producers deciding to expand into production for farmers markets.

people with small acreages to develop specialized farms aimed specifically at local markets.¹⁸

One of the important benefits of farmers' markets has been in making available fresh locally produced foods to low income people participating in food assistance programs. The effort to link local farmers' markets with food stamp participants and those in the Women, Infants and Children (WIC) program, began with the efforts of Gus Schumaker when he was commissioner of agriculture in Massachusetts. The success of the program led Congress to begin the Farmer Market Nutrition Program (FMNP), which provides federal funds for use by WIC participants to buy fresh produce at farmers' markets. The number of states participating in the program jumped from eleven to twenty-six from 1993 to 1994, after Congress made it a permanent part of the nation's food assistance effort.¹⁹ In fiscal year 1995 Congress appropriated \$6.75 million for the program, up from \$5.5 million in 1994.

D. Organic Food Production: Expanding Markets and National Standards Create Optimism for Farmers and Processors

One important component of the new agriculture is captured in the term "organic food." While the concept may have different meanings depending on who is asked, the principal idea is that organic food is food that has been produced without the use of synthetic chemicals, either as pesticides, fertilizers, hormones, or antibiotics. In other words, the food is as "natural" as it can be. In recent years, the organic food industry has expanded rapidly because a growing number of consumers has become increasingly concerned about the "safety" of foods produced with chemicals, causing more farmers to "go organic."²⁰ The production and marketing of "certified organic food products" has been encouraged and stimulated by development of state programs and private certification efforts that operate to ensure what is sold as organic has, in fact, been produced without synthetic inputs. The adoption of a federal law to unify national organic production standards and the rules USDA will release in 1996 will add considerable force to the developing organic food sector.²¹ While the "need" for organic food is still considered controversial by many parties in the traditional agriculture and food system, the industry has grown from the point in 1980, when the USDA fired the only employee working on the subject, to an

18. See Julia Freedgood, *Niche Marketing: Urban-Edge Agriculture Can Boost Economic Development, Farm Profits*, AMERICAN FARMLAND, Summer 1995, at 16.

19. For a discussion of the FMNP, see *Association Meets to Discuss Farmers Markets*, NUTRITION WEEK, Oct. 7, 1994, at 2.

20. See also, Boyd Kidwell, *Organic Crops Move Into the Mainstream*, PROGRESSIVE FARMER, Jan. 1995, at 46, and Jay Wagner, *Dairy Finds Niche Selling 'Pure' Milk*, DES MOINES REGISTER, Feb. 19, 1995, at 3G.

21. Creating a national market for organic produce was one justification for inclusion of the Organic Food Production Act as part of the 1990 Farm Bill. See 7 U.S.C. § 6501 (1994). For a discussion of the effect and operation of the law, see Timothy J. Sullivan, *The Organic Food Production Act*, FARMER'S LEGAL ACTION REPORT, Summer, 1994, at 3 and Autumn, 1994, at 3. While the USDA is moving forward with efforts to implement national standards for the production and sale of organic food as authorized by the 1990 farm bill, the organic food industry faces internal issues concerning the ethics of food labeling and marketing. See Molly O'Neill, *A Question of Ethics Confronts Organic Food Industry*, N.Y. TIMES, May 17, 1995, at B1.

industry which saw 1994 sales of organic produce estimated to exceed \$7.6 billion.²²

The economic opportunities made possible by producing for a market with growth estimated at over 23 percent a year, are not lost on many in the food industry. Some of the nation's largest agricultural producers, such as Fetzer Vineyards of Hopland, California, are committed to producing food products using organic methods.²³ Other companies, such as Coleman Natural Meats of Denver, Colorado, have developed national sales in the millions of dollars, producing products specifically for the natural food market.²⁴ In October 1995, the Organic Farming Research Foundation sponsored a national conference titled "The Next Generation of Legal, Regulatory and Marketing Issues Facing the Organic Product Industry," in Oakland, California.²⁵ The conference drew more than 250 farmers, processors, retailers, government officials, and others interested in expanding the markets for organic products in the United States and abroad. Those in attendance participated in sessions covering topics ranging from the forthcoming national organic standards, to the potential for international markets for organic food.

E. *Community Supported Agriculture: Consumers Who Buy a Share of "Their" Farmer's Produce*

There are other important ways consumers are helping shape the new agriculture. One of the most exciting and unique is the use of subscription or share farms, commonly known as community supported farms or community supported agriculture (CSA's).²⁶ In these relations, farmers identify a group of

22. See Marian Burros, *A New Goal Beyond Organics: 'Clean Food,'* N.Y. Times, Feb. 6, 1996, at B1. Other lower estimates of organic food sales are also found. See, e.g., ORGANIC TRADE ASSOCIATION, MARKET ORDER ISSUE BRIEF, which estimates 1995 sales at \$2.4 billion. The OTA is one of the main organizations promoting the production and sale of organic foods. It can be contacted at 20 Federal Street, Suite 3, P.O. Box 1078, Greenfield, MA 01302, or calling 413/774-7511.

23. See, e.g., Richard Figiel, *Vintners Take the Pledge,* SIERRA, November/December 1994, at 51. For more information about the efforts at Fetzer, which include a 5 acre organic garden and food and wine education center, see FETZER VINEYARDS FOOD AND WINE MAGAZINE, which can be obtained by contacting the company at Fetzer Vineyards, P.O. Box 611, Hopland, CA 95449 or calling 707/744-1250.

24. See, e.g., Janet Day, *Home On a 'Natural Range: Hormone-Free Cattle Can Earn Feedlot Bonus,* DENVER POST, Jan. 8, 1995, at B-1, and Janet Day, *Coleman Creates Upheaval Among Colorado Beef Barons,* DENVER POST, Jan. 8, 1995, at 1H. The Coleman family has been the national leader in developing a market for natural beef and is working with beef producers across the country to produce and market natural meats. To find out more about the company, contact it at 5140 Race Court, Denver, CO 80126, or call 303/297-9393.

25. The Organic Farming Research Foundation is headquartered in Santa Cruz, California, and is responsible for promoting research projects on organic production and marketing, including the National Organic Research Policy Analysis Project designed to "increase long-term government, academic, interest group, and public support for on-farm research on organic farming methods." More information about the OFRF can be obtained by contacting the Foundation at P.O. Box 440, Santa Cruz, CA, 95061 or calling 408/426-6606.

26. For a discussion of the "community supported agriculture" idea which uses consumer subscriptions in the produce of a local farm, see e.g., Brian DeVore, *Sustainable Eating 101: The CSA Lesson,* THE LAND STEWARDSHIP LETTER, Jan./Feb. 1995, at 1; Paul Rauber, *Food for Thought:*

consumers who agree to pay a set fee in the spring, usually several hundred dollars, in exchange for a weekly delivery of fresh produce throughout the growing season. There are now estimated to be more than 650 CSA's in the U.S. serving as many as 75,000 people. The thousands of families who are part of the CSA movement are supporting individual farms by purchasing annual shares of the production. CSA members experience the bounty, diversity, and quality of locally produced food but also help shoulder some of the risk and cost of food production. By "knowing their farmer" these members are taking an important step back into American agriculture and helping make the food system more visible rather than something to be taken for granted. CSA's, or subscription farms, also can play an important role in introducing urban consumers to a range of related issues, such as the need for local farmland protection efforts.²⁷

There are real issues that confront producers working with CSA's, as noted in a 1995 article in the *Washington Post*, titled *Farmers, Consumers Join in Fresh Approach to Marketing*.²⁸ The article presented a somewhat pessimistic appraisal of the success of CSA's and featured a number of producers expressing concerns about their experiences. The concerns or problems included the fact that the farms are labor intensive and difficult to manage, they can be extremely short on profits, and there can be problems with shareholders "understanding the concept," e.g. not wanting to pay more, work more, or get less. Other concerns included customer expectations about the variety of produce, difficulty in recruiting investors or shareholders, and the cost and time of delivery. These are real concerns and problems that cannot be overlooked because they go to the heart of the motivation of consumers to participate in CSA's and the willingness of producers to become or stay involved in this exciting part of the new agriculture. At the same time, the continued growth of community supported agriculture offers an important opportunity to link farmers and consumers.

F. *Community Food Systems: Uniting the Pieces of Urban Agriculture from Community Gardens to Job Training*

Another part of the new agriculture concerns building strong "community food systems" which consider the full range of economic and social issues relating to food production and marketing. While attention to "community food security" is relatively new,²⁹ an increasing number of communities are beginning to consider how many agriculture and food issues are all part of the same puzzle.³⁰ These include hunger, food availability, farm land preservation, consumer

Money Where Your Mouth Is, SIERRA, July/Aug. 1995, at 16; and Thomas Brunner, *The Community Supports This Farm*, PROGRESSIVE FARMER, Feb. 1995, at 48. For a book on the subject of CSA's see TRAUGER M. GROH AND STEVEN S.H. MCFADDEN, *FARMS OF TOMORROW: COMMUNITY SUPPORTED FARMS, FARM SUPPORTED COMMUNITIES*, (1990).

27. See Valerie Berton, *Farm Partners: Community-Supported Agriculture Educates Consumers Protects Farmland*, AMERICAN FARMLAND, Summer 1995, at 4.

28. Sept. 3, 1995, at B7.

29. Some of the first efforts to take a community-wide view of the food system were conducted in Hartford, Connecticut. See, e.g., *Community Food Planning: The Hartford Food System*, NUTRITION WEEK, Sept. 23, 1994, at 4.

30. For a discussion of the recent efforts of such individuals to organize and introduce legislation for inclusion of the "community food security" concept in the 1995 Farm Bill debate, see *New Coalition Proposes to Recast Farm Policy Around Community Food Security*, NUTRITION WEEK, Jan. 27, 1995, at 1, and *Food Security Act Would Support Local Initiatives*, NUTRITION WEEK, April

education, and creating economic opportunities for producers. Efforts to expand community gardening, open farmers' markets, and create other urban agricultural opportunities are often part of these efforts. Local efforts to study the operation of the food system have been initiated by groups such as the Minnesota Food Association, which is a coalition of groups and individuals involved in nutrition, hunger, and agriculture programs in the Minneapolis/St. Paul area.³¹

The creation of community gardens are an excellent example of the opportunities available to examine and develop local food systems. The concept behind a community garden is locating a tract of land available for use by local citizens for use as garden plots to raise fresh produce and flowers. Community gardens are a way in which inner city residents, who might not otherwise have access to a plot of land, can garden. By providing opportunities for participants to produce a portion of their own food, community gardens can improve access to food and the quality of diets for people who are facing economic pressures. Just as important however, is the belief that community gardens provide urban dwellers the opportunity to meet with other neighbors and share the social and cultural pleasures that come with gardening and food production. Georgia Ashby of Philadelphia Green, one of the nation's largest community gardening programs, has been quoted as saying "gardening is the catalyst that brings residents from behind locked doors to work together."³² There are active community gardening programs across the country, with many of the efforts being spearheaded by the American Community Gardening Association located in Philadelphia.³³ Community gardening efforts in some cities have served as important focal points for other educational and nutritional programs. The work of people such as Bob Randall and Urban Harvest in Houston, Texas, in providing education to urban residents about food production, demonstrates the potential of community gardening programs.³⁴

Another example of the opportunities to use urban agriculture and local food production to improve a community is seen in the Garden Project of the San Francisco Sheriff's Office. This project, created and administered by Cathrine Sneed, an assistant to the sheriff, uses an urban commercial garden to provide

28, 1995, at 4. Many of the participants in the community food system movement have joined to form the Community Food Security Coalition, which can be contacted by writing Andy Fisher, at CFSC, P.O. Box 209, Venice, CA 90294 or calling 310/822-5410. The CFSC's proposed legislation for inclusion in the 1995 Farm Bill (H.R. 2003, 104th Cong., 1st Sess. (1995)) would authorize use of USDA funds to support a variety of community food system efforts. The bill was introduced by former House Agriculture Committee Chair, Representative de la Garza of Texas, and may still be considered as part of the delayed 1996 Farm Bill discussions.

31. See, e.g., *Food Summit to Begin Food System Debate*, MFA DIGEST, Dec. 1994, at 1. The Minnesota Food Association can be contacted by writing: 2395 University Ave., Room 309, St. Paul, MN 55114, or calling 612/644-2038.

32. See *Pockets of Paradise: The Community Garden*, SEEDS OF CHANGE, 1995 SEED CATALOG, at 58-59.

33. The American Community Gardening Association (ACGA) publishes a valuable journal addressing a range of urban agriculture issues. It is titled COMMUNITY GREENING REVIEW. For more information about the ACGA contact: 325 Walnut St., Philadelphia, PA 19106 or call 215/922-2104.

34. For more information about Bob Randall and Urban Harvest, see Mike Peters, *Sowing the City: In Houston, Bob Randall's Garden Is Also a Classroom In Localized Food Production*, AMERICAN HORTICULTURIST, Dec. 1995, at 37. You can contact Urban Harvest at P.O. Box 98460, Houston, TX 77098-0460, or call 713/668-2094.

post-release employment and training for ex-offenders from the San Francisco county jail.³⁵ The Garden Project was started in 1990 with the help of Elliot Coleman, proprietor of the Just Desserts bakery, who offered a vacant lot for use as a garden. The "outside" garden was created as an off-shoot of the successful horticultural program that Ms. Sneed had operated inside the San Bruno jail since the early 1980s. Her experience showed that once offenders left the jail's horticultural program, the lack of related employment opportunities on the outside contributed to the offenders return to incarceration. By creating a commercial garden on the outside, the positive education efforts to help offenders change their lives could be continued. The Garden Project has been a success at producing high value produce for the top restaurants in the Bay area, including such well known places as Alice Water's Chez Panisse in Berkeley. The linkages between nurturing a garden and helping drug offenders change their own lives, create a poignant and inspirational example of how gardening and food production can heal, with the proof of the effort borne out in the greatly reduced repeat offender rates found among Garden Project employees.

G. *Preserving Agriculture's Cultural and Genetic Heritage: How Living Agricultural Museums and Heirloom Vegetables Educate the Public*

Preserving the pieces that make up our agricultural heritage is also part of the new agriculture. Recognition of the importance of preserving the history of agriculture and using it to educate today's society about our food system can be seen in the work of such diverse groups as the Seed Savers Exchange and the American Livestock Breeds Conservancy. The Seed Savers Exchange has helped focus extensive national attention to the issue of the loss of heirloom seeds, which have been the base for modern plant breeding. What started more than twenty years ago, when a grandfather gave his daughter and her husband vegetable seeds from three varieties brought from the old world, has now grown to include a research farm with a staff of six and a network of more than 5,000 gardeners and seed savers who save and exchange seeds. From its location at the beautiful Heritage Farm near Decorah, Iowa, the Seed Savers Exchange is now conducting vital work identifying and preserving vegetable genetic resources in Eastern Europe and the states of the former Soviet Union.³⁶ The attraction of heirloom varieties, both in their diversity of taste, shape, appearance, and cooking qualities, has led to the increasing appearance of "heirlooms" on menus, at produce counters, and in seed catalogs throughout the nation's food system.³⁷ Saving seeds and raising heirloom varieties gives the millions of Americans who garden the opportunity to be part of our agricultural heritage and experience the diversity of crops available in nature.

35. For a discussion of the Garden Project, see Jane Gross, *A Jail Garden's Harvest: Hope and Redemption*, N.Y. TIMES, Sept. 3, 1992, at A16. For more information about the project, see Cathrine Sneed, *The Garden Project- Overview*, available from the Garden Project, Pier 28, San Francisco, CA 94105 or call 415/243-8558.

36. For more information about the Seed Savers Exchange, write 3076 North Winn Road, Decorah, IA 52101 or call 319/382-5990.

37. See, e.g., Anne Raver, *Tomato Talk: You Say Big Beef, I Say Brandywine*, N.Y. TIMES, Jan. 29, 1995, at 19; Anne Raver, *Keeping the Vegetable Gene Pool Lively and Well*, N.Y. TIMES, Jan. 28, 1996 at 17.

Promoting similar efforts to preserve minor livestock breeds that are threatened or endangered by the development of modern livestock production is the main goal of the American Livestock Breeds Conservancy (ALBC) located in Pittsboro, North Carolina.³⁸ This organization, founded in 1977, was patterned after the work of the Rare Breeds Survival Trust, started by Joe Henson at the Cotswold Farm Park at Cheltenham, Gloucestershire, England.³⁹ The ALBC is working to preserve the number and diversity of livestock breeds so these precious genetic resources are not lost to our society. Whether it is a breed of milk cow unattractive in a system now emphasizing bulk yield rather than butter fat content, as experienced by the Ayrshire, or a type of hog known more for its ability to survive in difficult conditions than to put on pounds in a confinement building, such as the Mulefoot, the ALBC and other interested parties are working to bring together farmers, hobbyists, and others who see more than a short term economic value in breeding and raising the breeds that have contributed to our agriculture and genetic heritage.⁴⁰ By helping ensure that these resources continue to be with us, these farmers are protecting the safety and integrity of our food system.

The work of preserving the history and heritage of our agricultural past is also seen in the efforts of the hundreds of living agricultural museums existing in our country.⁴¹ These facilities such as Living History Farms in Des Moines, Iowa, and the Museum of American Frontier Culture in Staunton, Virginia, provide historic recreations of agriculture and food production from earlier times in our society. They serve primarily as educational sites for students and others to observe the methods and cultures of farming from an earlier period.⁴² But the living agriculture museums also provide the opportunity for educating an increas-

38. See, e.g., THE AMERICAN LIVESTOCK BREEDS CONSERVANCY 1994 BREEDERS DIRECTORY, which lists breeders of more than 20 breeds of rare and endangered cattle. For more information about the ALBC, contact Box 477, Pittsboro, NC 27312 or call 919/542-5704. The issue of conserving livestock breeds has taken on an international dimension in the work of the UN/FAO. See, e.g., REPORT OF THE INFORMAL WORKING GROUP, ANIMAL PRODUCTION AND HEALTH DIVISION, IMPLICATIONS OF THE CONVENTION ON BIOLOGICAL DIVERSITY: MANAGEMENT OF ANIMAL GENETIC RESOURCES AND THE CONSERVATION OF DOMESTIC ANIMAL DIVERSITY, (Michael Strauss, ed.), U.N. Food and Agricultural Organization (1994).

39. To learn about the Cotswold Farm Park and the Rare Breeds Survival Trust, see ELIZABETH HENSON, COTSWOLD FARM PARK, 25TH ANNIVERSARY GUIDE. For more information about the Cotswold Farm Park, contact Joe Henson at Cotswold Farm Park, Guiting Power, near Stow on the Wold, Cheltenham, Gloucestershire, GL54 5UG or call 01451 850423.

40. See, e.g., Kevin Blind, *To Save Or Not To Save Rare Breeds: Genetic Pools of Rare Swine At Center of Preservation Debate*, IOWA PORK TODAY, Apr. 1995 at 13 (discussing the efforts of Peter Jorgensen, co-director of the Institute for Agricultural Biodiversity at Luther College in Decorah, Iowa, to save rare swine breeds).

41. See, e.g., Tom Morain & J. L. Anderson, *Agricultural Education and Living History*, THE AGRICULTURAL EDUCATION MAGAZINE, Apr. 1995, at 17.

42. The hundreds of sites and museums around the nation that have some component of a living agricultural experience are united through the organization Association of Living Historical Farms and Agricultural Museums (ALHFLAM), which sponsors an annual five day educational conference for members.

ingly urbanized populace about contemporary issues in our agriculture and food system, including environmental and cultural issues.⁴³

H. *America's Chefs and the New Agriculture: Changing What We Eat and Know About Food*

Another component of the new agriculture concerns the role of chefs in educating consumers about food choices and creating markets for locally produced foods. It is clear the quality and diversity of food choices consumers encounter in restaurants influence the foods they purchase and consume at home as well as when dining out. For this reason, America's chefs play a significant role as educators in our food system. The potential power of this role was realized in 1993 when a group of top chefs in America, who have worked to offer their customers dishes made from freshly grown organic produce such as Nora Pouillon from Washington D.C. and Alice Waters, organized an initiative called "Chefs Collaborative 2000" for the purpose of advancing "sustainable food choices for the next century."⁴⁴ The Chefs Collaborative established the following Statement of Principles to guide its actions:

1. Food is fundamental to life. It nourishes us in body and soul, and the sharing of food immeasurably enriches our sense of community.
2. Good, safe, wholesome food is a basic human right.
3. Society has the obligation to make good, pure food affordable and accessible to all.
4. Good food begins with unpolluted air, land, and water, environmentally sustainable farming and fishing, and humane animal husbandry.
5. Sound food choices emphasize locally grown, seasonably fresh, and whole or minimally processed ingredients.
6. Cultural and biological diversity is essential for the health of the planet and its inhabitants. Preserving and revitalizing sustainable food and agricultural traditions strengthen that diversity.
7. The healthy, traditional diets of many cultures offer abundant evidence that fruits, vegetables, beans, breads, and grains are the foundation of good diets.
8. As part of their education, our children deserve to be taught basic cooking skills and to learn the impact of their food choices on themselves, on their culture, and on their environment.⁴⁵

43. Two recent books eloquently reflect the human dimension in the appreciation of our agricultural heritage. See, JOHN HILDEBRAND, *MAPPING THE FARM: THE CHRONICLE OF A FAMILY*, (1995), and DAVID MAS MASUMOTO, *EPITAPH FOR A PEACH: FOUR SEASONS ON MY FAMILY FARM*, (1995). For a book discussing the role of Native Americans in our agricultural heritage, see GARY PAUL NABHAN, *ENDURING SEEDS: NATIVE AMERICAN AGRICULTURE AND WILD PLANT CONSERVATION* (1989).

44. See, e.g., Julie Mautner, *Culinary Camp-out: A Growing Group of Chefs Sets Out To Change The Way Americans Eat*, *FOOD ARTS*, Oct. 1994, at 53; Monica Velgos, *Sun and Sustenance*, *FOOD AND ARTS*, Apr. 1996, at 31 (discussing the January 1996 meeting of the organization).

45. See CHEFS COLLABORATIVE 2000, *CHARTER AND STATEMENT OF PRINCIPLES*. The Chefs Collaborative is an educational initiative administered by the Oldways Preservation and Exchange

In many ways, these principles are the foundation of the new agriculture and should be the basis for U.S. food policy. Increasing the visibility of the nation's chefs and the relation between culinary arts and our food system will be a major objective of the new Culinary Institute of America training center at Greystone, near St. Helena, California.⁴⁶ This center for professional culinary education opened in the Fall of 1995 in the grand and historic Christian Brothers winery, which underwent a fourteen million dollar renovation.⁴⁷ It will carry a variety of programs on culinary education, including seminars that deal with sustainable agriculture and the use of locally produced and seasonal ingredients.⁴⁸

I. *Urban Agricultural Education: Exposing "City Kids" to the Opportunities in Our Food System*

One of the key aspects of the new agriculture is education. Education can take place at many levels: when one farmer tries a new production method, when a chef uses a new ingredient, when consumers purchase new foods, or when people who have little exposure to food production begin to consider what is involved in farming. The decline in the "agricultural literacy" of our nation is well documented and is one factor affecting public involvement in the debate over the future of agriculture. One value of the new agriculture is that by educating a broader range of citizens about how the food and agricultural system affects them, we should be able to broaden the nature of the debate over food and agricultural matters. Whether the issue is farmland preservation, the development of a farmers' market, or the shape of national environmental laws, an informed and involved public may lead to wiser policy choices.

One exciting development in agricultural education has been the creation and expansion of public schools in large cities devoted to agriculture.⁴⁹ Perhaps the most well known of these schools are located in Philadelphia and Chicago, but in recent years a number of other cities have launched such programs. The motivation behind these programs ranges from the need to educate urban youth about agriculture and life sciences to the need to prepare students for jobs in the food and agricultural sector. Companies involved in agriculture and related activities see a need for well educated employees who have an exposure to the life sciences and workings of our food system. The Chicago High School of Agricultural Sciences (CHSAS), which graduated its first class in 1989, is a prime example of how agriculture education can make a difference in the performance of inner city students who may be at risk to not finish high school. The ethnic composition of the student body, drawn on a lottery and application basis from across the

Trust, which can be contacted by writing 45 Milk Street, Boston, MA 02109 or calling 617/621-3000.

46. See John Willoughby, *A Cooking School Embraces the Tastes of America*, N.Y. TIMES, Sept. 27, 1995, at B1. Greystone is part of the Culinary Institute of America which operates another campus at Hyde Park, New York. For more information about the education programs at Greystone, contact Mr. Greg Drescher, Director of Education, Culinary Institute of American-Greystone, 2555 Main St., St. Helena, CA 94574 or call 707/967-0600.

47. *Id.*

48. *Id.*

49. For a discussion of this trend, see Christine McClintic, *Agricultural Education for City Kids*, FURROW, Jan. 1996, at 23.

Chicago School System, was 64.7% black, 16% other minorities, and 19% white, which is roughly comparable to the whole district.⁵⁰ But in terms of academic performance, while the high school graduation rate for the entire Chicago public school system is 52.2%, the experience at CHSAS has been a graduation rate of more than 77%.⁵¹ Equally important in light of the nature of the student body, the graduates of CHSAS have an admission rate at four-year colleges of more than 70%, and more than 90% when two-year colleges are included.⁵² The emphasis on college preparation and the unique curriculum put together by Superintendent Dr. Barbara Villarius and her dedicated staff is clearly making a difference in the lives of these students. One of the most exciting developments in the short history of the Chicago school is that a 1993 graduate, Corey Flournoy, became the first minority and first urban member to be elected to the national presidency of FFA, the largest agricultural student organization in the nation.⁵³ The joint effort of the Chicago agricultural business community and the public school officials to create this school is helping serve as a model for efforts in other urban areas.⁵⁴

J. *Starting the Next Crop of Farmers: The Role of "Land-Link" Matching Programs to Transfer Farms as Ongoing Businesses*

One of the key issues in whatever agricultural future our nation experiences is who will farm the land and produce the food. Will it be farmers who operate as individual independent producers or will the farmers essentially be "employees" of the vertically integrated food processors and marketers? One of the central goals of many participants in the new agriculture is to increase their returns and profits from food production. If this happens, it will help provide opportunities for independent farmers to continue to exist. But even with an increase in returns, there will still be a need to help educate and identify the people who will be the next crop of farmers. One exciting trend, in this regard, has been the creation of state-based matching programs, which attempt to identify older retiring farmers and landowners and put them in contact with young people who want a start in farming, but do not have family connections or sufficient capital to enter in the traditional manner. The first matching program was Land-Link developed by the center for Rural Affairs in Nebraska, and now innovative programs are being developed in many states to help make these connections.⁵⁵

50. See CITY OF CHICAGO SCHOOL DISTRICT 299, 1994 SCHOOL REPORT CARD FOR THE CHICAGO HIGH SCHOOL OF AGRICULTURAL SCIENCE, at 2 (1994).

51. *Id.* at 5.

52. *Id.*

53. See, e.g., Jerry Perkins, *Opening Eyes To Ag Careers: Industry Promotes New Curriculum In D.M. Schools*, DES MOINES REGISTER, Dec. 17, 1995, at J4.

54. Jerry Perkins, *Agricultural Studies Grow In Urban Schools*, DES MOINES REGISTER, Dec. 17, 1995, at J5.

55. See Michael A. Lev, *Finding New Blood for Farms*, DES MOINES REGISTER, Feb. 19, 1995, at 3G (discussing the operation of matching programs and the role of the Center for Rural Affairs). For more information about the Center contact: P.O. Box 406, Walthill, NE 68067 or call 402/846-5428.

K. *Agricultural Cooperatives: Will Farmers Unite to Create New Opportunities in the Food System?*

Historically, the cooperative has been one of the unique forms of business organizations used by farmers to seek mutual business opportunities or to confront larger economic forces in the marketplace. Much of the history of farmer organizing and rural development has been tied to the formation and growth of cooperatives. Today, some of the largest agricultural businesses in the nation are farmer-owned cooperatives, among which include Sunkist, Ocean Spray, Farmland Industries, and Land O'Lakes. In recent decades, a declining number of farmers coupled with other economic changes in the structure of agriculture, have led to a general decline in the number of cooperatives and arguably to the commitment of the farm sector to cooperative action.

However, in recent years, a trend has been developing, led in states such as North Dakota and Minnesota, which may reflect a resurgence in the use of farmer-owned cooperatives.⁵⁶ Many cooperatives have developed to allow farmers entry into new markets for their products, such as the pasta manufacturing cooperative created by a group of North Dakota wheat growers and the bison processing cooperative created by bison ranchers in that state.⁵⁷ Others, such as the "new wave" cooperatives in Minnesota, are using new approaches, such as closed membership and limited outside investment, to develop large scale swine production facilities and ethanol processing plants. These efforts have been stimulated by support from state agricultural officials and assisted by new innovations in cooperative law. The next few years will be important in determining whether farmers will be able to successfully use the cooperative vehicle to enhance their production and marketing opportunities and increase their profitability while competing with the large food processing businesses coming to dominate agriculture.

L. *Conserving and Preserving: Protecting the Land and Soil Resources Upon Which All Agricultural Depends*

One of the most significant challenges to any society interested in protecting the stability of its food supply is the need to protect the natural resources that produce that food. The United States now has more than sixty years of history in efforts to control soil erosion, which is considered to be the single largest threat to agricultural resources sustainability and the largest contributor to water pollution from agriculture. Strong federal and state soil conservation measures, such as the conservation provisions of the 1985 farm bill, and public financial support in the form of cost sharing and other subsidies, have helped farmers place effective soil conservation measures on millions of acres of farmland. While considerable strides have been made in advancing soil conservation, there is still much to be done. Many threats exist in the form of challenges to effective federal soil con-

56. See Randall Torgerson, *Co-op Fever: Cooperative Renaissance Blooming on Northern Plains*, FARMER COOPERATIVES, USDA/FCS, Sept. 1994, at 12.

57. See, e.g., *The Carrot and the Stick: A Conversation With Bill Patrie, The Man Who Helped Spark Co-op Fever*, FARMER COOPERATIVES, USDA/FCS, Aug. 1995, at 17; and Dan Campbell, *Temperature Rising: Co-op Fever is Still Sizzling Across North Dakota; But Will the First Failure Cause it to Dissipate?* FARMER COOPERATIVES, USDA/FCS, Aug. 1995, at 10.

ervation laws and changing market forces which encourage production on fragile land. Soil conservation is an important priority for most farmers working in the sustainable agriculture movement. Additionally, local soil and water conservation districts are playing a key role in developing effective local policies. Other non-profit organizations, such as the Land Stewardship Project in Minnesota and the Land Institute in Kansas, provide critical leadership in developing community and farmer-oriented efforts to protect soil and water resources.

In recent decades, another threat to agriculture and local food systems has emerged in the form of loss of prime agricultural land. For fifteen years, there has been a national debate over the amount of farmland being lost, with estimates ranging from three million acres a year to only 250,000 acres.⁵⁸ The best current estimates by federal officials are that farmland conversion rates are less than one million acres per year. But the debate over numbers should not conceal the fact that the loss of farmland and, conversely, the preservation of prime farmland, are critical issues in the future of any agricultural system, especially at the local level. The factors that lead to the conversion of farmland to other uses involve many individual decisions by farmland owners, local officials, and developers. This is one reason why some of the most effective efforts to protect farmland have been created and administered at the local and regional level. One organization, the American Farmland Trust, has played a critical role in focusing the Nation's attention on the threat from farmland loss and in developing innovative market-driven approaches to protecting farmland.⁵⁹ In recent years, the AFT has documented that more than 50 percent of the nation's top-value agricultural commodities are produced in metropolitan counties or counties adjacent to them, on agricultural land most at risk of conversion.⁶⁰ In the last year, the AFT undertook a major study to show how development poses a threat to agricultural production in California, the nation's main supplier of many horticultural crops.⁶¹ The availability of productive farmland plays a fundamental role in the operation and health of any agricultural system, whether viewed at a national or local level. Many of the components of the new agriculture are based on building strong local food systems, which create opportunities for local production of fresh food. Efforts to preserve farmland, in part by making it a valuable and profitable resource, will be an essential ingredient in the success of the new agriculture.

58. See THE NATIONAL AGRICULTURAL LANDS STUDY (1980) (an 18-month \$2 million study conducted by the USDA and the Council on Environmental Quality, which reported that farmland losses were around three million acres per year). But see Gregg Easterbrook, *Vanishing Farmland Reappears*, THE ATLANTIC MONTHLY, July 1986, at 17.

59. See, e.g., Sonja Hillgren, *On The Green Scene: Ralph Grossi Advocates an Environmental Alliance*, TOP PRODUCER, Mid-January, 1994, at 12, (describing a California farmer who is the president of the American Farmland Trust and his work to build coalitions between farm and conservation groups).

60. See Valerie Berton, *Farming On The Edge*, AMERICAN FARMLAND, Summer 1993, at 11; and Edward Thompson, Jr., *Farming on the Edge: A Very Preliminary Assessment of the Importance of and Pressures on Urban-Edge Agriculture*, AMERICAN FARMLAND TRUST, 1993. The American Farmland Trust can be contacted at 1920 N. St., N.W., Suite 400, Washington, D.C. 20036 or by calling 202/659-5170.

61. See Valerie Berton, *Harvest or Homes? AFT Research Highlights Need to Protect Ag as Central Valley Grows*, AMERICAN FARMLAND, Fall 1995, at 12; and *Nation's Top Producing Farm Region Imperiled By Sprawl*, FARMLAND PRESERVATION REPORT, Nov.- Dec. 1995, at 1.

III. WHAT WILL THE NEW AGRICULTURE MEAN FOR ITS PARTICIPANTS? THE NEED TO REESTABLISH LINKAGES IN OUR FOOD SYSTEM

If these components, and others, define the new agriculture - what will it mean for the participants and society? Two of the critical benefits of the new agriculture are the linkages it helps establish and the responsibilities it creates. One important linkage is between the consumers of foods and the producers who raise it. An important element in this connection is acceptance by farmers of responsibility for the quality of food produced and for protecting the health and future of the land. But consumers also must accept responsibility for the food system they help create.

One challenge of the new agriculture is examining the relationship and connection between the food system and health. While we think of food primarily as it relates to physical health, there are important values in recognizing the other "health" aspects of agriculture - whether it is the spiritual side of working in the soil, the health of communities, or the health of the land. Many consumers and participants in the new agriculture movement are motivated by "healthier" eating in this larger sense and whatever it means to them.

The opportunity and need to establish linkages runs both ways—from farmers to consumers and from consumers to agriculture. There are many important opportunities for making connections across the range of the new agriculture—whether through farmers' markets, community supported farms, or even in the USDA's nutrition programs. Part of the value comes in giving consumers more information and alternatives they can use. Information is empowering, and the new agriculture is based on recognizing the need to give consumers more information about how food is produced and more choices for how to acquire it.

But a cynic might ask, why is it necessary to re-establish linkages between agriculture and consumers? Aren't consumers overloaded with information—who says they want more? These are fair questions, but implicit in the forces driving the emergence of the new agriculture is a hunger in our land. This is not necessarily a hunger for food, but instead, it is a hunger for better food, for more satisfaction from life, and for more contact with our food system. This hunger for more connection and the need to re-establish linkages is a response to the current food system and its success in separating producers from consumers. Our increasingly industrialized agriculture and food marketing system has severed or eroded so many of the important connections in our nation's food system by:

1. Creating false divisions in society, such as between farmers and consumers and between farmers and conservationists;
2. Requiring farmers to work their land and themselves too hard and creating economic stresses that take the "pleasure" out of farming;
3. Asking farmers to work under contract relations, treated as "independent contractors" with most of the economic risks, but with few of the benefits or protections of other workers in society, while others capture the profits;
4. Allowing agri-businesses to speak for farmers in setting food and agricultural policy;

5. Raising concerns about the safety and quality of our food from emphasizing efficiency, costs, convenience, and cosmetics over quality; and
6. Marketing and processing food in ways that remove the producer-consumer linkages and place food processors and marketers in the role of providing information and quality and as the guarantors of the food supply.

In response to developments such as these, one of the key functions of the new agriculture will be making linkages and connections within our society around food and agricultural issues. Fortunately, this is a fertile topic, because there are many opportunities for making valuable connections in the food system. Consider these potential linkages in the new agriculture:

1. Farmers with consumers: through direct marketing, farmers' markets, community supported farms, and creative chefs;
2. Chefs, marketers, and users of food products with farmers: through producer cooperatives and local purchasing programs;
3. Society with its agriculture heritage: through living history farms, community food systems, and agricultural high schools;
4. Farmers with other farmers: through cooperative marketing efforts and practical farmer organizations;
5. Farmers with future farmers: through land link matching programs;
6. Farmers with their communities: through local efforts at agricultural development which go beyond Chamber of Commerce recognition suppers to real integration of the food system;
7. Farmers with diversity: of crops, of markets, of consumers, and of production techniques;
8. Farmers with the land, nature, and the ideal of stewardship: through sustainable agriculture, practical farming groups, and living Leopold's "land ethic;"
9. University researchers and government officials with producers: through farmer-driven research such as at the Leopold Center for Sustainable Agriculture and the Wallace Institute;
10. Society's underprivileged and poor with agriculture and food: through community gardens, farmers' market, and community food security programs;
11. Consumers with quality food: in locally produced and marketed foods, community supported farms, Whole Foods Markets and the work of the Chef's Collaborative 2000; and
12. Farmers with producing food and with the satisfaction that comes from selling good food to a grateful eater.

In sum, the linkages possible with the new agriculture offer the nation a way to connect with the ideals of Jefferson's agrarian vision. This is an important value of the new agriculture—linking all parties who have a stake in our food system and helping them find their common ground by increasing the understanding, neighborliness, and trust between them.

IV. HOW THE NEW AGRICULTURE WILL HELP US ASK THE QUESTIONS THAT DO NOT GET ASKED?

Another value of the new agriculture is challenging us to ask the questions that do not get asked, such as, are there better or different ways we can be doing this? Consider how our attitudes toward agriculture and food marketing might change if we ask these questions:

1. Do all consumers necessarily want their food cheaper? Is this the only goal for agriculture as opposed to producing safer, higher quality, or more satisfying food?
2. Do farmers and agriculture always benefit from new technologies and increases in productivity, such as precision farming?
3. Are the changes in the structure of agriculture, such as the trend toward industrialization, really driven by consumers?
4. Is biotechnology the future of agriculture, or is it just one more tool that must be evaluated for possible use?
5. To be successful in agriculture, do you have to be competitive?

Just who is it you have to beat to be a good farmer - the neighbor, the fellow down the road, in the next state or the next country? Why is it we are beating them, for what goal? What do we win with our victory? The use of sports and war metaphors to describe farming mask what should be a much more neighborly, peaceful, and less adversarial system. Farming was historically based on establishing long-term relations and respect and should and could continue to be so today.⁶² The result of our fixation on "competition" is to set up a cannibalistic attitude in agriculture in which investors and some farmers covet their neighbors' farms and greet news of their continued success with sadness rather than joy. The president of the Young Farmers Association of France stated at a conference in Le Mans in late May 1995, "Our young farmers would rather have more neighbors than more acres?"⁶³ Is there any wonder what the answer would be if the same question was posed to most U.S. farmers?

V. CONCLUSION: WHAT CHALLENGES FACE US AS WE HELP NURTURE THE NEW AGRICULTURE?

In conclusion, it is worthwhile to consider several challenges for how the new agriculture can be aided in its development. First, we must work to make the role of information significantly more important with food—not just traditional information as seen with the nutritional labels, but other information as well, such as who raised it, how was it raised, what is in it, what variety is it, and what is its

62. For a book which vividly captures the traditional values of agriculture and farm life, see LOUIS BROMFIELD, *PLEASANT VALLEY*, (Harper 1944). For more information about Bromfield and his work and writings at his Malabar Farm in Ohio, see, LOUIS BROMFIELD AT MALABAR: WRITINGS ON FARMING AND COUNTRY LIFE, (Charles Little, ed., John Hopkins University Press, 1988).

63. President of Young Farmers Association of France, Address at the SCAFR conference on Agricultural Land Ownership in France (May 1995).

history? These aspects of information about food may add value both in the monetary sense, but also in its satisfaction. We must ask what consumers want and what they will value.

Part of the shift in the role of farmers and marketing is in changing what is raised and marketed from being a commodity to being a product. The effect is to change the pricing dynamic and move from a scale and standard, set only by others, to one in which the producer has more autonomy and power to establish the price and to describe the "product." A farmer can sell number two corn or fat cattle, or instead can raise specialty corn, "hormone free natural beef," or market the experience of being "your farmer" in a community supported farm. In this regard, consumers and others have to recognize that profits are a key to the survival of any farm. Farmers have to be able to make a living from their hard work. Social justice and access to food are important goals, but farms can not be run as charities, unless that is their mission. If someone is depending upon the income from the production and sale of food products to support a family or maintain the farm as a business, there must be a profit to survive.

One reason some farmers may resist the idea of participating in the new agriculture may be the additional responsibilities involved. Their reaction may be, "I don't want to be the processor or the marketer and still do all the work as the producer. I don't have the skills, time, interest, or capital." The answer then is, "Well, what do you have? What part of this can you do, or how else can you access it?"

Producers should ask what are the opportunities for local cooperatives to pool talents, capital, and energies; what are the opportunities to link with pieces of the food chain already in place, such as local restaurants, retailers, volume feeders such as hospitals, and who in these groups wants to make connection with you; and what are the opportunities to structure the farm operation differently, such as through a community supported farm?

Part of the answer to the concern about the burden of additional roles is that farmers might not have a choice. If people want to create opportunities and a future in agriculture, they may have to accept some of these "new" tasks. To be just a farmer may not be enough or may sharply limit the options available.

The key is to recognize that food processing, marketing, and consumer education are not necessarily "someone else's job." Farmers have to be involved, especially if they want to help shape the direction of the food system or want to have an opportunity to claim a larger share of the food dollar. Part of agriculture's historic problem has been giving these important functions to others who either: did things farmers did not like; were non-responsive to producers' or consumers' desires; or absorbed all of the profits in the system leaving small margins for producers.

One step in bringing about these developments is to encourage debate and consideration about how well our current food system functions, in regard to its various responsibilities. How well does it perform on issues of food access, food quality, taste, cost, education, and support for producers? By considering these questions, we can identify the opportunities for improving how society obtains or consumes food. An important part of the future of the new agriculture will be in how the existing food marketing system adapts to it. This can be seen either as a threat, (e.g., there go our customers), as a compliment, (e.g., we are responsible for making them change), or as an opportunity, (e.g., how can we expand options for local markets of quality food).

One danger that can lead to frustration is setting expectations too high. We cannot change the food or agriculture system overnight and should not expect to. What we can do is change it - one consumer, one purchaser, one farm - at a time in our local areas. Farmers' markets and community supported farms cannot be expected to (and should not want to) replace the traditional food marketing system. Why reinvent the wheel when it is already in place? What can be done is to influence how well it operates and whether it has a place for your farm. Make it improve and give people an alternative if the system does not. Local growers can use the power and leverage of their role and knowledge of the food system to achieve greater changes and opportunities in many ways.

An important step in helping promote the emergence of the new agriculture will be in identifying the role that public policy can play. Whether through the use of federal and state law to promote the important changes in our food system, such as the development of organic food laws, or through the efforts of state and local governments to assist producers seeking to build a sustainable agriculture, law and policy clearly can play an important role. The task is to identify what needs to be done and how the public can most appropriately assist the new agriculture. That is the challenge - how can each of us be part of the new agriculture and help return agriculture to its historic responsibility of providing abundant, fresh, healthy food to people in a system that respects and sustains both the people and resources working in it? This is clearly not a simple task, but one that our nation and agricultural system can ignore only at our peril.