Emerging Issues in Public Policy

Highlights of the 1999 National Public Policy Education Conference

St. Paul, Minnesota
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Farm Foundation

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A full proceedings of the National Public Policy Education Conference was published as the serial, *Increasing Understanding of Public Problems and Policies* (1951-1998). Copies of proceedings from previous conferences are available. Contact Farm Foundation for more information.

Cover photo is of the skyline of St. Paul, Minnesota, at sunset with the Mississippi River in the foreground.

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Highlights of the 1999 National Public Policy Education Conference

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Introduction

For the past 49 years, the National Public Policy Education Committee, in cooperation with Farm Foundation and state extension services has sponsored the National Public Policy Education Conference. This executive summary is designed to stimulate interest in public policy issues, to provide educators and other interested parties with a quick review of the major presentations given at the 1999 National Public Policy Education Conference, and to serve as a resource for policy education programs.

Publication of a full proceedings ceased in 1999. This text and copies of speaker papers and presentations are available via the Internet on Farm Foundation's home page (***http://www.farmfoundation.org***).

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Trade Policy, Agriculture, and Rural Communities

Daniel A. Sumner, University of California-Davis–
Since Adam Smith and *The Wealth of Nations*, economists have had a clear set of answers to questions about international trade policy. Open borders are good for producers in exporting nations, for consumers in importing nations, for each economy individually, and for the world economy overall. In virtually every practical case, removing trade barriers contributes to the economic well-being. Elaboration of theory and evidence in the past 225 years have added refinements and caveats to Smith's basic points, but the thrust of the argument has not changed.

With a new round of world trade negotiations beginning this fall, it is time to consider the effects of alternative trade policies for agriculture and the rest of the economy. Both the United States as a whole, and California more specifically, are natural agricultural exporters of many farm products. In fact, although the El Nino and the Asian financial crisis both reduced exports last year, figures recently released by the University of California Agricultural Issues Center (AIC) show that California agricultural exports still accounted for almost $7 billion in 1998. Almonds, cotton, and wine remain the top export earners and Asia remains the top destination. Thus for California, the special trade interests of agriculture and the general interests of our whole economy overlap.

Specific research studies will help us understand implications of alternative trade policies and we have several such studies underway. These studies will also help guide the new negotiations. But, we should understand Smith's basic point clearly. Open agricultural markets would almost surely be good for the California economy (just as they would be for Japan and Korea) even if California were a net importer of farm goods. Remember also that more than 80 percent of California farm output is sold in the United States. Therefore, when we consider what features of trade agreements are good for agriculture, we must not neglect the importance of trade, including access to imports, to overall economic health, both in the United States and in other countries.

The Uruguay Round Agreement on Agriculture, the GATT agreement that created the World Trade Organization (WTO), began a gradual liberalization of agricultural markets. The agreement generally eliminated absolute import bans and replaced import quotas with (often quite high) tariffs. Further, however, agricultural tariffs and outlays for export subsidies are being reduced by an average of 6 percent per year until 2001, for the rich WTO members. Therefore, if the pace of reduction were allowed to continue without delay, agricultural tariffs and export subsidies in WTO member countries would be zero after sixteen years and eight months from January 1995. Although the rate at which markets are opening may seem slow, if this rate were to continue, the world would have (almost) free trade in agriculture by September 1, 2010. The Uruguay Round took eight years to complete, so, by the end, some thought "GATT" stood for the "General Agreement to Talk and Talk." The greatest risk in the new round is the

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delay in further reform caused by another round of seemingly endless negotiations.

Naturally, there are many specific concerns about Uruguay Round agreement and how it has been implemented in particular instances. Some WTO members may not have lived up to the letter or spirit of the agreement in the implementation process. However, it is my personal assessment that these concerns do not reflect fundamental flaws, and so it makes sense to build on what has already been accomplished.

One important area for consideration is the agreement on sanitary and phytosanitary (SPS) regulations. Every nation and region has vital and legitimate interests in protection against human, animal, and plant health risks. (Indeed, AIC has a major project underway on how to best implement such policies for the United States and California.) That said, phony trade barriers can easily hide behind legitimate concerns, and the requirement that countries have a sound scientific basis for SPS rules was designed to help weed out these phony barriers. A number of complex issues remain to be adjudicated in this area, for example GMOs, but the basic point remains that countries may use human health, animal health, or plant health concerns to restrict trade if they have reasonable scientific backing, otherwise they must compensate their trade partners. Thus, there seems little reason to reopen the current agreement in new negotiations.

Food security is one of the most commonly stated rationales to support trade barriers in agriculture. But, comparing North Korea to Singapore or Hong Kong dramatically demonstrates the tragedy of blocking access to food. Still, countries from South Korea to Switzerland have pursued trade barriers under the guise of food security. Sometimes these claims are even made in the United States. One argument is that international markets are "unstable" or "unreliable." One this point, there is a real concern which the WTO could mitigate. Importers have a strong and legitimate case that the WTO should explicitly and clearly ban the use of export taxes and embargoes in agriculture. Such a provision would help make world food markets more secure for all.

The upcoming round of trade negotiations in agriculture can build on the foundation established in the Uruguay Round agreement. Whether or not that occurs, the results are likely to be important for California agriculture and the whole U.S. economy.

Stephanie A. Mercier, U.S. Senate Committee on Agriculture, Nutrition and Forestry– Agricultural trade is an important economic engine for this country. In part, as a result of expanding trade, U.S. agribusiness created jobs and has contributed to the sustained economic growth this country has enjoyed over the last several years. In at least some of the agricultural industries, the availability of overseas markets has allowed processors to capture economies of scale that would likely not be available if they only served the domestic market. Underlying all of these developments has been consistent gains in productivity achieved over the last several decades, enabled by scientific and technological advances in diverse fields, including plant breeding, agronomy, microbiology, and electronics. Average corn yield in this country has increased more than fivefold in this century, and as importantly, improved communications and handling technology have enabled farmers to get their crops to market more efficiently. As a consequence, agriculture is one of the few sectors in the U.S. economy which has run a positive net trade balance on a consistent basis. Once Asian economic growth is restored, this balance promises to only get larger.

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Who receives the benefits of international trade? In the early 1970s, when trade took off as an important economic activity in the United States, the value of agricultural and forestry production before the farmgate accounted for about $50 billion out of total U.S. gross domestic product of $1.4 trillion, while food processing and other related activities accounted for about $84 billion. In 1997, economic activity defined as agricultural production had grown 80 percent to $90 billion, while post-production activity had increased more than 300 percent to $352 billion.

Nowhere is the shift in the economic engine from production to post-production in the sector more clear than in the recent shift in the composition of U.S. agricultural exports. Except for the blip of 1996 with record-high commodity prices, the value of consumer-orientated and processed product exports has exceeded the value of bulk commodity exports since 1991. Obviously, the more processed the product is, the smaller share of the export dollar paid actually accrues to the producer. For example, a Kansas farmer captures about 70 percent of the unit export value of a ton of wheat, while an Iowa farmer receives only about 10 percent of the export unit value of a ton of corn flakes. While more income goes into the U.S. economy if we ship processed products rather than bulk, not much of it goes to farmers. This shift only underscores the fact that the farmer has become the residual claimant on the food dollar.

Since the net agricultural trade surplus peaked in 1996 at nearly $27 billion, it has been declining slowly, due to a combination of lower export value and higher imports. The export volume of most of the major commodity categories has changed little; the problem is that a glut of product worldwide has driven down prices. On the other side of the equation, both value and volume of many imported commodities have increased, especially products such as tropical fruit and beverages which are not produced in this country. While commodity prices have dropped steeply across the board, by as much as 50 percent for some, the consumer has actually seen modest price increases at the grocery store. The retail cost of a typical market basket rose about 7 percent between 1996 and June 1999, according to the most recent Economic Research Service estimates.

In general, how are the gains from trade distributed? Consumers tend to benefit, because they enjoy a greater selection of goods at fairly stable prices. In the course of this dual phenomenon of globalization and industrialization, processors and retailers have clearly captured an increasing share of the food dollar and enjoyed strong profitability, although the evidence on their ability to exercise market power is still ambiguous. Input suppliers are experiencing a mixed picture—those unable to join the rush into vertical integration face declining margins, and many are consolidating horizontally to pursue economies of scale. Some sectors of input suppliers have been able to capture a significant share of the benefits of emerging technologies, such as the seed/biotechnology companies, which charge technology fees for the use of genetically modified seeds by farmers, ostensibly to help them recoup research and development costs. As for farmers, while the production sector is more or less holding its own, many individual farmers are not prospering.

Vincent Amanor-Boadu, George Morris Centre– A new tradition is evolving. The traditional metaphor of agriculture is that farmers are protectors of the land, the backbone of the economy and farming should be a family enterprise. If we look at agriculture through the metaphor of business, then we make no differentiation between the Microsoft Corporation and a farmer. If we look at farming under the metaphor of the "good guy" verses the "bad guy" then we change the whole conversation. I believe that it is critical that we get our metaphors right. It has a great influence on how we think of these things.

When we talk about tradition, it is the way we were. Therefore, it has very little to do with the way we are or the way we will be. If the way we were and the way we are now is significantly different from the way

we shall be, then we need to question that tradition and ask ourselves if it can sustain us in order to be what we want to be. In other words, I strongly believe that in the farming environment of the agricultural sector, we should be questioning ourselves about what metaphor we should be using to describe what we want to be. We need to encapsulate our thinking and put in place strategies that allow us to achieve what we want to be.

All of the reality that is confronting us today is being driven from the marketplace. The consumer market is changing: demographics are changing; there is increasing ethnic diversity; and there is heightened awareness and social concern about food safety, the environment, and health. If we want to blame anyone for the crisis or problems we have in agriculture, the blame should be put on the feet of the consumer. Incidently, the consumer is all of us.

The market changes which are occurring are coming from a consumer that is extremely aware of certain things for which we do not give them credit. They will reward those who respond to their needs and punish those who ignore them. It is personal because every change these consumers make affects farmers pocketbooks, it affects the farm crisis and it influences how we perceive policy.

Consumers are driving increased value-added activity in the agri-food market. Consumers have very little time and want ready-to-eat meals and home meal replacement products. I work with a company whose research has shown that at 4:00 p.m. on any ordinary day, less than 20 percent of people know what they are going to eat for dinner. This company decided that they would plan the meal for the consumer. They have an appetizer, entree, and dessert planned and ready to put into the oven. All you have to do when you leave work is pick up the packet, put it in your oven, and dinner is ready.

The consumer market is extremely segmented. I will use the metaphor of music: some consumers want tradition—cha-cha, swing, and twist; some want to rock and roll; and some want rap, Ricky Martin, and the Spice Girls. If we do not respond to the fact that these are the people who we are actually doing business with and insist that everybody should have cha-cha—it will sit on the shelf. It does not matter how good a product you have, if you have no one demanding it, it will not sell. If we use the metaphor of business for agriculture, then business is about meeting consumer needs. Only those who successfully do that will survive long enough to develop traditions.

Steven Neff, Office of the U.S. Trade Representative– The U.S. Trade Representative (USTR) is a cabinet-level agency which coordinates trade policy. Unlike the U.S. Department of Agriculture (USDA), we do not have thousands of people with offices across the country. USTR has a staff of about 200 people, about half of them borrowed from other federal agencies: USDA, the Environmental Protection Agency, the State Department, the International Trade Commission, etc.

As we approach the new Seattle Round of World Trade Organization (WTO) agricultural negotiations, USTR recognizes that the previous Uruguay Round made a good start on trade rules. It was the first round which specifically recognized agriculture. The two greatest accomplishments of the Uruguay Round were to establish a structure and commit to continue negotiations. Later this fall, 160 countries will meet at Seattle to establish the agenda for the new round. This is in addition to the built-in agenda which will encompass agriculture and services. These two topics were mandated to be continued after the conclusion of the Uruguay Round.

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USTR has been consulting with U.S. agricultural interests (farmers, agribusiness, consumer organizations, and government officials) and foreign governments about what the new Seattle Round should attempt to accomplish. The main areas which we want to discuss in the new round are: export competition, market access, domestic support, and biotechnology. The first three are the three legs of the stool of the Uruguay Round agreement. Biotechnology is a new area for discussion.

- **Export Competition.** In the area of export competition, our main topic will be export subsidies. They are the most directly trade distorting policies which are allowed under the WTO system. Between 80-85 percent of the money being spent on agricultural export subsidies is being spent by the European Union (EU). USTR's objective is to eliminate export subsides in the Seattle Round and prevent them in the future. We are not alone in this goal. Also standing with the United States include the 15 members of the Cairns Group[1] of agricultural trading nations and the 34 nations in the Free Trade Area of the Americas who have pledged not to use export subsidies in the Western Hemisphere. We believe that the area of export taxes and restrictions deserves some attention.

- **Market Access.** In the new round, we want to substantially reduce and simplify agricultural tariffs. Agricultural tariffs worldwide average around 50 percent compared with 10 percent for the United States. In comparison, industrial tariffs worldwide are in the area of 3-4 percent. Agriculture is treated much differently under WTO rules. This reflects the fact that we started agricultural trade liberalization in 1995 and industrial trade liberalization has been ongoing for 50 years.

- **Domestic Support.** The U.S. wants to reduce trade distorting domestic support. This is not all domestic support. We want to preserve the farm safety net. The EU uses 3-4 times as much money to support their farmers in trade distorting ways as we do in the United States.

- **Biotechnology.** We want to negotiate on biotechnology rules to make sure they are transparent, predictable, and timely. We want our products which have been scientifically established as being safe by our regulatory agencies to not be discriminated against in trade. Two particular problems have involved Europe in particular: getting approval of products, and composition of labels concerning biotechnology products. The EU has not specifically said they are going to ban biotechnology products, but their approval process has broken down.

There are three primary blocs in the upcoming Seattle Round negotiations:

- **Cairns Group.** The Cairns Group position is similar to that of the U.S., but magnified. They want to end export subsidies not in a phaseout period, but immediately and forever. They want agricultural tariffs brought down to industrial tariff levels as quickly as possible. They want the rules governing supports for agriculture to be no different than the rules governing other sectors. The U.S. has a few differences with the Cairns Group, but agrees with them on 95 percent of the issues.

[1] The Cairns Group was formed by Australia in 1986 and consists of 15 agricultural producing countries—Argentina, Australia, Brazil, Canada, Chile, Colombia, Fiji, Indonesia, Malaysia, New Zealand, Paraguay, Philippines, South Africa, Thailand, and Uruguay. These countries account for around 20 percent of world agricultural exports.

• **The Protectionist Group.** The protectionist group consists of the EU, Sweden, Switzerland, Korea and Japan. These countries see the Uruguay Round Agreement as assuring that they are able to continue to do a lot of the things they want to do and they do not see an upside to continued reform. They see tariff-rate quotas as a way of assuring that only a limited amount of rice, for instance, can enter their markets. Food security is a much more prominent issue than it is for the U.S. Some see self-sufficiency as a basis for food security. We believe that open markets are the best guarantee of food security. The protectionists have also called for the recognition of the multifuctional character of agriculture. It is a vague concept which recognizes that agriculture does not just produce food. It is also embedded in the rural economy and in preserving and enhancing the natural environment, etc. We believe that if you have social and environmental objectives, there are ways to accomplish them which do not involve distorting trade. Some members of the protectionist group also want to negotiate animal welfare rules in the new WTO Round. Trade distorting policies may result from this issue.

• **The Developing and Transition Countries.** Developing countries have not been well integrated into the international trading system. In the area of technical assistance, we have an obligation to support developing countries as they try to bring their scientific and bureaucratic capacity up to a level that can meet developed country standards for food and agricultural products. The countries which liberalized their trade the fastest and the most broadly have the best economic growth and integration into the international economy. Smaller commitments and longer adjustment periods have not been conducive to growth or integration into the system. We need to find other ways to bring developing countries and particularly the least developed countries into the trading system on an equal basis. The transition countries need special consideration. The time during which the bases from which adjustments were made as result of the Uruguay Round (1986-1990) was a period when the transition countries were not in a market situation. They were in the socialist system. Almost every economic indicator in Central Europe and the former Soviet Union decreased after the beginning of their transition period.

There is a lot of anxiety about trade in this country and in other countries. We need to do a better job of telling the story of the benefits of trade and the opportunities it presents. We need to realize that 96 percent of our potential customers for food and agricultural production are outside our borders. Population and income are growing faster outside of the United States than inside our borders. We need to be forward looking for opportunities.

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Mark Ritchie, Institute for Agriculture and Trade Policy—I believe the following points will engage people more actively in the public debate to shape trade policy:

• **Discuss trade in an adult manner.** There are good and bad things in trade. There are good and bad ways of trade, and good and bad trade outcomes.

• **Focus on key topics.** Environmental and consumer issues are really big issues across the world. There are a lot of key issues which get ignored. We have devoted considerable time discussing

export subsidies, but I have heard no mention of export dumping. In the WTO, there is a specific prohibition against export dumping. Yet, it is the main thing going on in agricultural trade. Some years, we sell wheat at half the cost of production.

- **Reduce the religious and ideological rhetoric about trade.** People are smarter than what is normally assumed in these discussions. People are interested in real discussion about real issues.

- **Discuss trade from the economic class basis.** We discuss trade in terms of the national interest. People do not live their lives in the national interest unless they are in military combat. In that moment, they are not thinking about their economic well-being or maximizing their economic gain. There are economic conditions that effect how you think about trade issues.

- **Clarify the difference between the rules of trade and free trade.** People confuse free trade with the deregulation or elimination of the rules of trade. We are talking about the rules of trade.

- **Eliminate the side arguments.** Trade agreements have come to Congress under Fast Track. Fast Track has a lot of constitutional questions. As long as we use these kinds of procedural maneuvers, we divert the real public policy debate around what kinds of rules we are arguing about. We need to focus people on the issue of trade and not divert them to the side issues.

- **Use the historical perspective.** Globalization did not start yesterday. There was a gigantic debate over agricultural and trade policy in 1947. We have to be historically grounded. We have made it really easy for people to be quite shallow in trade discussions.

- **Engage a broader and more wider discussion.** We cannot develop a good trade policy without participation of the people who are affected. We need public support to pass trade and environmental agreements. They can be run through Congress with a Fast Track procedure, but citizens must support of the treaty or agreement for it to work.

- **Resurrect a vision of international cooperation.** Globalism presents an idea that we are all in this on our own and may the best man win. What globalism really means is that we are all on one planet. We need to find rules and mechanisms so that people can collectively work together to address the problems we face.

Thomas G. Johnson, University of Missouri– Economic geography deals with the question of where people live, work and spend their income. According to Paul Krugman, the New Economic Geography is the fourth wave of recent conceptual change. First came new theories of imperfect competition in the industrial organizational literature. This theory permitted economists to relax some of their more limiting assumptions about firms and markets including that of constant returns to scale. This in turn led to the new trade theory, then the new growth theory, and most recently, the new economic geography. The common thread running through these new theories in increasing returns.

The New Paradigm. The New Economic Geography assumes increasing returns in at least some sectors over the relevant range of firm and sector size. Transportation costs are also critical to the theory. Furthermore, the typical assumptions of mobility of factors and mobility of some economic activities is assumed. New Economic Geography allows us to explain the enormous concentration and specialization of economic activity we observe in reality. No other theory has been able to predict the concentrations in almost all major manufacturing and service sectors from auto-

mobiles to insurance. The theory also predicts an important role of historical accident or path-dependency in the location of economic activity and the cumulative processes that reinforce this role of history.

Overall, the theory paints a rather bleak picture for rural areas. It predicts the concentration of production activities in space (i.e. cities), and persistently lower income levels in locations where scale economies are not achieved (i.e. rural areas). It predicts that regions will specialize in different products in order to achieve the maximum benefits from scale. Ironically, transportation costs limit the amount of concentration possible as long as some markets remain in rural areas. Thus transportation costs, if sufficiently high, assure that there will at least be multiple points of concentration (i.e. regional cities).

Commuting has always separated where people live and work. Improved transportation allows the separation to grow. Tele-commuting opportunities allow them to separate much more. Furthermore, spatially separated production using information technology to coordinate production activities separates the traditional workplace. E-commerce tends to separate where people live and spend their money. E-commerce is growing in double and triple digits and is including more and more goods and services (from stock to groceries).

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Public Policy Education. The nexus of globalization and localization is local policy. The goals of communities must be to identify the future that residents prefer, to create the conditions to achieve this future, and to reduce the costs of transition for their residents. In order to do this, communities, especially rural communities, will need policy education on such issues as local tax policy, industrial incentives and targeting, housing, land use public education, and overall quality of life. Communities will need access to high quality and appropriate information and communication technologies and the education to allow them to use it to the fullest. The role for public policy educators is great in this new economic geography.

Dennis U. Fisher, Texas A&M University– Whether you believe NAFTA has been beneficial or not depends on if you work in a sector of the economy which is increasing or decreasing "because of trade." I have several premises:

- **Both the benefits and costs of trade on the U.S. economy have been highly overstated.** If you read the studies which deal with trade, much of the conflict deals with whether you are taking a global view of the U.S. economy or looking at a region or a sector. Although some sectors of the U.S. economy gained while others lost, NAFTA has had only a small effect on the U.S. economy as a whole. There was no discernible effect on gross domestic product, investment, the aggregate employment level or wages. There was a modest positive effect on productivity and a more noticeable increase in two-way trade between Mexico and the United States. Estimates of NAFTA-related job gains and losses are small relative to the total U.S. employment. Approximately 191,000 workers were certified between January 1, 1994, and August 12, 1998, as potentially suffering NAFTA-related job losses. This is less than the number of jobs created in a single month in 1997. The U.S. economy is very large and trade makes up only 14 percent of economic activity. Most of the changes ongoing in the U.S. economy are consumer-driven and result from adjustments which are occurring in the U.S. economy.

- **Sorting out gains and losses is not a good way to measure the benefits and costs of trade.** Trade benefits the economy by providing consumers a lower cost market basket and a larger variety of goods and services. Sector gains and loses reflect other factors in the U.S. and world economy such as recessions and currency devaluations. The effects of trade on the economy are very difficult to net out.

- **The whole economy benefits from trade.** Economists can demonstrate that trade benefits the economy. Unfortunately, the benefits of trade are spread over a very wide area and a lot of individuals, while the costs tend to be borne by a select set of individuals. Trade has affected some people and areas fairly acutely. We must find effective transition policies to deal with the costs for those individuals who are affected.

C. Ford Runge, University of Minnesota– There is a consensus that trade is an engine of growth, growth raises national income, and national income increases human welfare. The problem is that the gains from trade are not universally distributed and losses do occur. Rural areas have been particularly hard hit.

If we desire to help rural areas become and remain sources of employment and well-being, I do not have faith that market forces alone will accomplish these objectives. I also have doubts about our current agricultural programs which are our primary rural policy. I believe that payments should be targeted so that the largest share of the payments do not go to the largest producers. Unlike our current policy, farm payments also need to go to producers only when the terms of trade are falling and not when they are rising. Farm payments also need to be regionally differentiated. Growing a commodity in one part of the country can be different than in another.

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I believe that our agricultural policy needs to be made into a dedicated rural policy. Our principle objective should be to make investments in rural infrastructure—health care, education, child care, sanitation and water treatment—that have benefits distributed across rural areas. Our current farm policy benefits farmers—who make up only 10 percent of rural residents.

Even if these changes can be made, large areas of rural America will continue to decline. The decline, though, will occur much more rapidly without these changes.

The Impacts of the Food Quality Protection Act (FQPA)

Christina D. DiFonzo, Michigan State University—The Food Quality Protection Act (FQPA) was signed into law on August 3, 1996, with broad support from industry, agricultural commodity, environmental, and consumer groups. FQPA amends the two most important laws regulating pesticides in the United States: the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), which sets guidelines for pesticide use, registration, classification (general versus restricted), and applicator certification; and the Federal Food, Drug, and Cosmetic Act (FFDCA), which regulates the setting of tolerances for pesticides used on food crops. Some of the major issues addressed by FQPA are residue tolerances, children's health, endocrine disruption, and consumer right-to-know with regard to pesticides. The Environmental Protection Agency (EPA) is responsible for interpreting and implementing FQPA.

Figure 1. EPA's Priority Crops
(Based on importance in the diets of children)

1. apples
2. oranges
3. peaches
4. soybean
5. pears
6. carrots
7. rice
8. beef
9. coconut oil
10. corn
11. potatoes
12. bananas
13. wheat
14. sugarcane
15. green beans
16. oats
17. eggs
18. tomatoes
19. peas
20. chicken

FQPA fundamentally changes the way EPA sets tolerances for pesticide residues in food. EPA must review all (nearly10,000) pesticide tolerances under new FQPA guidelines. The tolerance assessment schedule developed by EPA calls for examining 33 percent within three years after August 1996, 66 percent within six years, and 100 percent within 10 years. Three major pesticide groups—organophosphates (OPs), carbamates, and probable human carcinogens (B2s)—were targeted for review in the first three years. OPs and carbamates, the majority of which are insecticides, are structurally related to nerve gas. They affect the enzyme acetylcholinesterase in animals, including humans. B2 carcinogens are classified by the EPA as pesticides which cause cancer in lab animals—but human evidence is lacking. Several important fungicides, plus a few herbicides and insecticides, are classified as B2s.

Before FQPA, a single tolerance was established for each pesticide/crop combination, based only on dietary exposure to residue. Under FQPA, EPA must consider the combined (aggregate) exposure to a pesticide through dietary, drinking water, and non-dietary sources (for example, structural, turf, garden, and pet uses) as well as the cumulative exposure to related pesticides with a common mechanism of toxicity. Furthermore, FQPA directs EPA to consider sensitive subpopulations, especially children, when setting tolerances (Figure 2). To insure that sensitive groups are adequately protected, EPA can require a safety factor of up to tenfold on existing tolerances.

Developments since the FQPA was passed. Under FQPA, all pesticides and pesticide additives must be tested for effects on the endocrine system. EPA will likely initially require *in vitro* and *in vivo* screening for three different types of endocrine effects: estrogenic (mimics or blocks estrogen), androgenic (mimics or

blocks androgens), and thyroid. Of the potential targets of a screening program, these three hormone groups are important in human development, are fairly-well studied, and some laboratory methodology is already available to detect changes in level and function. Estimates are that up to 70,000 pesticides and other chemicals must be screened under FQPA and a second law, the Safe Drinking Water Act. The endocrine testing program is scheduled to be implemented by the end of 1999.

Another issue addressed in FQPA is consumer right-to-know about pesticide residues in food. FQPA mandated that EPA create a brochure to inform consumers about pesticide risks and benefits, and ways to remove residues from food they purchase. The brochure was completed and distributed to supermarkets in early 1999. However, FQPA does not mandate that stores actually display the publication.

In order to deal with tolerance issues under FQPA, the Tolerance Reassessment Advisory Committee (TRAC) was formed in 1998. TRAC was co-chaired by EPA and USDA and had about 45 members representing consumer, agriculture, industry, food processors, government, and academic interests. TRAC was intended to:

- Make EPA's implementation plan of FQPA more transparent. Up until late 1998, state departments of agriculture, extension staff, industry and commodity groups, even regional EPA offices were out of the loop and struggling to get information from EPA headquarters. TRAC, indeed, opened the process for public view and comment.

- Bring EPA and USDA closer together. EPA registers pesticides and sets tolerances, but its sister organization, USDA, has a wealth of information on pesticide use data, diet studies, residue sampling, and pesticide alternatives needed by EPA to make FQPA decisions. Initially, USDA was not involved in FQPA implementation. TRAC increased cooperation between the two agencies.

- Develop talking points, i.e. define issues that must be resolved to implement FQPA. These were published as the "Nine Policy Issues." These nine issues are: the additional kids safety factor on tolerances; use of Monte Carlo Analysis in pesticide risk assessments; assessing dietary exposure to pesticides; assessing drinking water exposure to pesticides; assessing residential exposure to pesticides; how to handle non-detectable residues; modeling aggregate exposure; modeling common mechanism of toxicity; and determining cholinesterase inhibition.

Potential Impacts of FQPA. Pesticides that do not meet FQPA standards must either be mitigated (use patterns changed) or eliminated (some or all uses dropped). Thus, as FQPA is implemented, it potentially will have a tremendous impact on American agriculture. Specific changes include:

- Changes in labeling or use patterns (number, frequency, and timing of applications) of pesticides to mitigate residue.

- Loss of critical pesticide uses, particularly for so-called minor (specialty) crops. These commodities represent smaller markets for pesticide manufacturers and thus are often "expendable".

- Increases in production costs. Traditional broad-spectrum products might be replaced by more expensive, reduced-risk alternatives that control a narrower range of pests.

- Increased complexity of production and pest management systems. Broad-spectrum pesticides may be replaced by narrower spectrum tactics that require better knowledge and more intense management of the cropping system by the producer.

- Potential for pesticide resistance. Loss of certain classes of pesticides could lead to resistance to remaining products which are being relied on too heavily.

At this time (October 1999), few FQPA-related decisions have been made, but those that have demonstrate how pesticides that do not meet FQPA standards must either be mitigated or eliminated. Methyl parathion (trade name Penncap) has lost uses on all fruits and vegetables, and some nursery and field crops. Azinphosmethyl (trade name Guthion) uses were mitigated by changing preharvest intervals and use rates.

Mark Whalon, Michigan State University—Some people are surprised to discover that we have been using pesticides since the beginning of agriculture. In fact, a lot of the spices which we love today such as pepper were natural pesticides which were used in the early days. People who survived high levels of some of those compounds in their foods adapted to them and developed a taste preference for them. White pepper, for instance, has about 27 different active natural products which are, essentially, pesticides.

Pesticides as we know them today are part of what I call a "silver bullet ideology"—The idea that you can develop some simple, straightforward, direct means of controlling pests without even understanding the biology of a system. We want to put it on and "Boom!" the problem is solved. It turns out that things are much more complex.

White pepper has about 27 different active natural products which are, essentially, pesticides.

I believe that there are five, somewhat interrelated, areas which are driving change in agriculture and influencing food quality and protection:

- **Consumerism** and **environmentalism** are two grassroots drivers in the United States and the world which are having a tremendous impact on environmental and food policy. Changing market demographics, evolving preferences, and environmental concerns are influencing how food is produced and consumed.

- **Regulations** are a direct result of policy. The Food Quality Protection Act (FQPA); Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA); and the Federal Food, Drugs and Cosmetics Act (FFDCA) and other pesticide regulations are expressions of grassroots-driven policy.

- **Economics and profitability** are the overarching concern in agriculture today. Both larger and smaller-scale producers have concerns about the cost and effectiveness of pest control options.

- **Biological factors** are becoming increasingly important. Pest resistance is the phenomenon where pests adapt to or become immune to selected pressures in their environment, such as pesticides. Pesticide-resistant arthropods are becoming an increasing problem. As we move into a global market, pests are being globalized. Approximately 68 percent of the pests which we deal with in commercial agriculture are international. As trade is increased, pests are exchanged. Additionally, when we back away from certain key pesticides, over time we get pests we did not know were there. They have been there all the time, but were suppressed by the pesticides that we used.

Terry Miller, Oregon State University—Registering a new pesticide in the United States can take up to 12 years and cost $20-50 million. The bulk of this expenditure is spent on toxicology studies. This is especially true of pesticides which are intended to be

used on foods. Below is a brief outline of the registration procedures:

- After a prospective chemical is developed, the registrant will spend between 0-2 years doing preliminary biological screening of a pesticide to determine if it controls a pest.

- In the next phase, some initial toxicology screening is performed by the registrant to determine if the chemical is mutagenic or toxic in an overt way to a couple of test pest species. This is to determine up front if the chemical is so toxic that it cannot be used safely or it has the potential to cause cancer.

- If the chemical passes the preliminary testing and the registrant makes a decision to commercially develop the product, it next goes into large-scale field testing.

- Between years 2-8, registrants do expanded toxicology and environmental testing of the chemical. Extensive tests are performed to determine what happens to the chemical after it is applied to the plant—is it broken down by sunlight, does it leach through the soil into the ground water, is it metabolized by soil bacteria or organisms in the aquatic environment, does it volatilize into the air? A variety of studies are performed on laboratory animals to determine the toxicology of single and multiple doses of the chemical and lifetime exposure. These tests include determining the effects of the chemical when it is taken orally, inhaled or exposed to the skin or eyes. Reproductive effects, cancer, and metabolic effects are also studied. In toxicology, a fundamental tenet is that "the dose makes the poison." These tests are performed to determine what constitutes a safe exposure to the chemical with a safety factor.

- The reference dose—the determination of an essentially safe daily dose of a pesticide throughout a lifetime of exposure—for a chemical is derived from the "no observed adverse effect level" (NOAEL)—the highest dose in a toxicology study which did not show an increase in response. The NOAEL is divided by uncertainty factors (genetic differences in humans and uncertainty in extrapolating data from animals to humans). The uncertainty factor normally used is a factor of 100. So, the reference dose is generally 100 times less than the already conservative NOAEL. The Food Quality Protection Act adds another uncertainty factor of 10 for children under certain circumstances.

- After the testing is complete, the registrant must submit a data package to the U.S. Environmental Protection Agency (EPA) that contains data that is needed to get approval.

- It takes EPA 2-3 years to review the application and approve or deny a registration.

Additional Resources:

Michigan State University's Pesticide Education Program: ***http://www.pested.msu.edu/***

The Michigan State University Center for Integrated Plant Systems: ***http://www.cips.msu.edu/***

The National Pesticide Telecommunications Network—a cooperative effort of Oregon State University and the U.S. EPA: ***http://ace.orst.edu/info/nptn/index.html***

Immigration and the Changing Face of Rural America

Philip L. Martin, University of California-Davis—
Immigration will be an increasingly important challenge for rural and agricultural areas in the 21st Century. For most of the 20th Century, immigrants settled in U.S. urban areas. Cities offered the best opportunities for upward mobility.

In 1999, there were about 27 million foreign-born U.S. residents. About 75 percent of all U.S. residents, and 90 percent of immigrants, live in urban areas. Immigration into rural and agricultural areas is more important than these data suggest. However, these figures understate the immigrants living in rural America because much of the nation's labor-intensive agriculture is found in the geographically large counties in western states classified as urban. Additionally, immigrant farm workers often leave rural and agricultural areas after 10 to 20 years.

Challenges and Opportunities. There are three major challenges and opportunities for public policy leaders to ensure smoother immigrant integration in rural and agricultural areas:

- **Cataloging Best Practices**. There is no reliable database on immigrant flows and settlement patterns. Neither is there a catalog of the various ways of dealing with an influx of immigrants into a rural/agricultural area. It would be very useful to develop multipliers and immigration trajectories so that, for example, when a meatpacking plant opens or expands, local leaders would know the likely number of immigrants in the short and medium term.

  Obtaining the data needed to project immigrant influxes requires cooperation and collaboration with employers. Such collaboration could be mutually beneficial—perhaps the most common complaint in the middle of immigrant influxes is that one employer changed the ethnic composition of the community with its hiring decisions. If communities knew in advance of employer plans, there could be less conflict.

  Employers could go further, and be proactive in integrating immigrants. Most immigrants come to the U.S. for better economic opportunities—most want to buy a home or car. However, many immigrants did not have bank accounts at home, and are unfamiliar with credit and mortgages. In Rogers, Arkansas, a Wal-Mart-owned bank took the lead in creating a win-win situation for newly arrived Hispanics and the local poultry processors who hired them. By teaching the immigrants how to use credit, they could qualify for mortgages to buy starter homes that cost $60,000 to $70,000. Once they are homeowners, workers are less likely to quit, reducing turnover. Poultry firms invited the bank into the plant to make presentations on credit and mortgages, and the bank had instant access to employment and earnings information.

  Developing a catalog of such best practices and making it available to communities that often lack the capacity to learn about what other communities are doing would be very useful.

- **The Role of Welfare Reform**. The labor supply in rural and agricultural areas is being buffeted by immigration, welfare reform and an extremely tight labor market. It is important to determine how immigration interacts with welfare reform to affect the size and composition of the labor supply. For example, are U.S. residents com-

ing off welfare rolls preferred to immigrants or are immigrants preferred to ex-welfare recipients? If immigrants are preferred to ex-welfare recipients, as appears to be the case in some areas of California, does this portend an immigrant network taking over easy-entry farm-related jobs, and thus pushing ex-welfare recipients out of the area?

• **Policy**. Immigrants do not simply arrive in rural and agricultural areas. Their presence can usually be traced to a pioneer employer or migrant who, by accident or design, learned about a pool of workers or jobs, and set in motion a migration network that became "self feeding," or able to continue delivering migrants to a workplace or area.

In 1999, with the percentage of unauthorized migrants higher than ever before, historically low unemployment rates, and the Immigration and Naturalization Service (INS) experimenting with new enforcement techniques, a major policy issue that will shape the future of rural America involves guest workers. Should the United States admit farm and nonfarm workers as nonimmigrants with the expectation that they will return to their countries of origin in the manner of tourists or foreign students? Should the United States continue to tolerate unauthorized migration with periodic enforcement actions? What should be the policy toward migrant families that include members whose legal status ranges from unauthorized to U.S. citizen?

Guest Worker Program Developments. Since 1996, farm employers have been pushing for an alternative guest worker program to admit foreign workers. The current H-2A program requires farm employers who want to hire legal foreign workers for up to 11 months each year to have their need for the foreign workers certified by the U.S. Department of Labor. Certification, in turn, means that farmers must attempt to recruit U.S. workers under a government-set package of wages, benefits, and housing.

In June 1995, the U.S. Commission on Immigration Reform tried to head off the push for a new guest worker program by asserting that: "a large scale agricultural guest worker program...is not in the national interest...such a program would be a grievous mistake." On June 23, 1995, President Clinton agreed, asserting that a guest worker program would increase illegal immigration, displace U.S. workers, and depress wages and working conditions. Clinton said, "If our crackdown on illegal immigration contributes to labor shortages.... I will direct the departments of Labor and Agriculture to work cooperatively to improve and enhance existing programs to meet the labor requirements of our vital agricultural industry consistent with our obligations to American workers."

The public policy question is whether the growers' proposed guest worker program is in the best interest of rural and agricultural areas. The heart of the growers' proposal is a registry that would substitute for certification. All legally authorized farm workers available to fill jobs must register with local Employment Service offices. If a farm employer requested 100 workers from the registry at least 21 days before they were needed, and the registry had only 40 workers willing to report to the requesting employer seven days before the need date, the grower would automatically have permission to bring 60 foreign farm workers into the United States. U.S. workers would be dropped from the registry and deemed unavailable for U.S. farm jobs if they rejected three registry requests for workers from farmers or failed to show up for jobs as they promised.

Joseph Amato, Southwest State University—Southwest Minnesota is becoming the home place of strangers. Setting the stage is a decline of population caused by death, an aging population, and emigration—especially the loss of the region's youth**.** Newcomers employed by the meat industry are also part of a true metamorphosis of the region and its way of life. The newcomers came from across the globe, arriving from southeast Asia (especially Vietnam and Laos),

northeast Africa (particularly Somalia and Kenya), Central and South America (mainly central and northern Mexico) the southwestern United States (in greatest majority from the Rio Grande valley in Texas). These immigrants offer an amazing spectrum of ethnicity, class, religion, and culture whose diversity merits the attention and study of teams of field anthropologists who have yet to materialize, despite the expressed good will of liberal and philanthropic groups. By their diversity, they elude the meaningless term "people of color" every bit as much as they exceed such older catch-all pejorative as "strangers," "foreigners," or this author's own euphemistic "newcomers."

The immigrants constitute an impressive amalgam of peoples, classes, and cultures. Their diversity can be measured concretely by comparison. It is the differences that exist between literate Lao military officers and their families who lived in a trailer court in Jackson, Minnesota, and the pre-literate mountain Hmong villagers who inhabit Tracy and Marshall. It is measured by the distance that exists between these Asian political refugees from the Vietnam War and those from internecine conflicts in Ethiopia and Somalia. Found principally in Worthington and Marshall, are tribal and Muslim northeastern Africans. They are divided by marriage practices (monogamy or polygamy), tribal, religious, class, educational, urban, and rural backgrounds.

Amongst the dominant group of regional newcomers, the so-called Latinos or Hispanics, one encounters a stunning array of cultures and backgrounds. They are composed of new immigrants directly from central Mexico and non-Spanish speaking Indians of southern Mexico and Guatemala, as well as Mexicans and long-time Mexican-Americans from *la frontera*—the Rio Grande River valley. A handful of middle-class Cubans and Puerto Ricans and other Latin Americans also add to the diversity.

Mexicans and Mexican-Americans first arrived, as is common with immigrants, in groups of single young males. It was reported that in some instances, they were brought by busloads directly from the valley of the Rio Grande on the promise that another bus would return them if they wished at the end of the week. In other instances, they trickled into the region car by car, pickup truck by pickup truck. They often followed trails long familiar to relatives and fellow villagers seeking work as seasonal migrant field hands who had worked picking rock or hoeing beans for at least a generation. Other groups, like the Hmong and Lao, arrived under the sponsorship of private philanthropic associations like Lutheran Social Services (an organization that had brought the now-vanished Vietnamese newcomers a decade earlier). Some groups were even solicited by the meat processing companies, while others, like the Somalians who came to Marshall, Minnesota, as a direct result of a processing plant's closure in nearby Sioux Falls.

By their diversity, immigrants elude the meaningless term "people of color" every bit as much as they exceed such older catch-all pejorative as "strangers," "foreigners," or this author's own euphemistic "newcomers."

The vast majority of newcomers appeared only to vanish rapidly, staying for periods of only a few months or less. They were, for all practical purposes, nearly invisible. They temporarily lived with friends, family, and compatriots. Such dramatic influx and turnover (which often exceeded 200 percent in the first year of a company's existence), posed unexpected and even dramatic tests for social services, schools, law enforcement, and the court system. Social services faced the onslaught of numbers of new peoples, all with different cultures and myriad needs. Educational systems confronted non–English speaking children who, especially in the case of the Latinos, had unprecedented absentee and drop-out rates, whereas law enforcement encountered the presence of gangs, increased drug trafficking, and elevated (seemingly astronomically) felony rates. Assault, kidnapping and murder headed the list.

The vast majority of newcomers came to work in the region's new and expanding hog and turkey processing plants of southwestern Minnesota located at Madelia, St. James, Worthington, Luverne, Marshall, Willmar, Montevideo, and elsewhere. The nature of the meat processing industry shapes many of the dimensions of these immigrants' world and their experiences.

Other factors differentiated the immigrants' experience in a town and the various towns' experiences with the newcomers. Included were total numbers and mixtures of the newcomers, which brought, as groups and subgroups, a range of diverse cultures and behaviors that spanned the gamut of human conduct. They included manners of working and relaxing, habits of saving and spending, attitudes about sexuality and reproduction, customs of dressing, eating, courtship, and socializing, along with religious beliefs and practices. These differences could win the host community's approval, but they could also provoke resentment and anger. The Hmong's nearly unbridled love of hunting and fishing provoked criticisms as did the Mexican and Mexican-Americans with their front yard car repairs and the Somalian quick purchases of nice cars and their free style of driving.

On the other side, the individual town's economic resources, attitudes, institutions, and leadership determined its receptivity and hospitality (or lack of it) to the newcomers. Given the diverse and changing institutions, policies, and leaders that characterized each town, it is, therefore, not surprising that each town's reactions to the newcomers were stunningly mixed and varied.

Figure 2. Southwest Minnesota.

Source: Joseph A. Amato. *To Call It Home: The New Immigrants of Southwestern Minnesota.* Marshall MN: Crossings Press, 1996. Reproduced with Permission.

The countryside is in a state of metamorphosis. Farm, village, and town are disappearing from the heartland. These working laboratories of American democracy, freedom, and independence are vanishing from our midst. Soon the metropolis will look into the mirror of the countryside and only see itself. In the not too distant future, historians will have to tally what has been lost and gained.

The comings and goings of new peoples of the 1990s (as important as they are) will only appear as a small chapter in the book of the countryside's immense transformation. The keenest queries will be, "What is a nation without places and localities?" and, "What is a society in which every place is like every other place?" The moral matter (one asked of Rome) will be, "Did this nation sacrifice its republic for the sake of empire?" No doubt, it will be difficult to distinguish the story of rural areas like southwestern Minnesota from the familiar and dreary tale (repeated throughout the world) of how the countryside ends at the hands of the ever-expanding and always appealing industrial revolution.

Kent S. Nelson, St. James Public Schools—In 1986, Swift-Eckrich opened a food processing plant in Watonwan County, Minnesota. Since that time, St. James, Minnesota, has gone from an exclusively white population to a 20-25 percent Hispanic population. The most recent U.S. Census estimate of the Hispanic population in Watonwan County shows an increase from 11 percent in 1990 to 14.1 percent in 1997. While the overall population in the region declined (-2.5 percent) during the 1980's, the Hispanic numbers increased dramatically (+55 per-

cent) during the same period of time. Most planners expect the surge to continue in the future.

The rural communities comprising Watonwan County are agrarian with much of the economy dependent on agriculture. The largest employers are food processing plants which typically pay low wages which are at or slightly above minimum wage. The result is both Hispanic parents and children are at risk. The poverty level of Hispanic children is 64.4 percent compared to the state average of 30.7 percent. The free and reduced lunch rate is 50 percent in elementary schools. Fifty-four percent of Hispanic children were not current with their immunizations by age 2. Eighty percent of Head Start children who began kindergarten were non-English speaking and were one-half year behind the other children at mid year.

Watonwan County has the highest teen pregnancy rate in Minnesota.

The teen pregnancy and dropout rate is significantly higher for the Hispanic population. During the 1997-98 school year, the Hispanic dropout rate was 14.5 percent; the non-Hispanic rate was 1.5 percent. The Minnesota Organization of Adolescent Pregnancy, Prevention and Parenting statistics for 1997 indicate Watonwan County has the highest teen pregnancy rate in the state. Females age 15 to 19 account for 9.8 percent of all births. This percentage is approximately three times higher than the Minnesota average of 3.2 percent of all births.

Approximately 20 percent of the school children speak Spanish at home. Many of the Hispanic parents have low formal educational levels. Statistics from families served in the Family Literacy Program revealed the following: 50 percent had grade school, 30 percent some high school, and only 10 percent had technical or vocational training. Many Hispanics are not only illiterate in English, but also in their primary language, Spanish. This is understandable since many of the Hispanic families coming to St. James were raised in a migratory setting. Families moved to various parts of the country as farm laborers, and much of the children's education was interrupted every few months as they moved to new jobs. Because of their low educational level and non-English speaking status, these parents only qualify for very low-paying jobs with little chance for advancement.

The St. James community and its resources are responding in a variety of positive ways to the new population. Resources include both institutions and committed individuals. Institutions have started many programs to meet the variety of needs brought about by these changes. Committed individuals have devoted time and energy providing leadership and inspiration to bring about changes in attitudes and beliefs in both the Anglo and Hispanic populations.

Institutional changes have been brought about in the schools, churches, legal systems, social services, city council, and hospital. Many strides have been made by both the Anglo and Hispanic cultures to make St. James a community where raising a family, making a living, and enjoying the American dream a possibility. It has required time, effort, and hard work on both sides for this process to occur. It is an evolving process subject to state, national and international politics, and finances. There is no reason to believe that the success cannot continue into the future.

Additional Resources:

Joseph A. Amato. *To Call It Home: The New Immigrants of Southwestern Minnesota* (Marshall MN: Crossings Press, 1996)

Joseph A. Amato and John W. Meyer. *The Decline of Rural Minnesota* (Marshall MN: Crossings Press, 1993)

Dr. Philip L. Martin's Home Page at UC-Davis: ***http://www.agecon.ucdavis.edu/Faculty/Phil.M/Martin.html***

Supporting Families by Strengthening Communities

Dave A. Riley, University of Wisconsin—How can extension professionals "give away" the research-based knowledge of the land grant universities in a way which it can be used by local policy makers? I have directed two projects in the last decade, each replicated in over 50 communities, as a means of overcoming local denial about community conditions, and/or as a means of generating financial commitment to a local program for families. Each project utilized different methods to create change in communities and individuals.

The projects produced meaningful changes in the local social institutions serving families. These changes included 92 new school-age child care programs established in response to one project and, for the other project, 80 community partnerships reaching 45,000 families per year with an effective parenting intervention.

Three conceptual themes recur, which have relevance for anyone interested in local policy making and community development. The first is a contrast between two methods used, one being the expert diffusion model of knowledge dissemination, and the other being an empowerment (or collaborative action research) model of community development. Each was effective, but in different circumstances.

The second theme concerns the roles of scientist and practitioner. The two roles are very distinct on campus, but were merged in these projects.

The third theme was the push to move beyond successful pilot projects, to gain sustained local funding and then widespread adoption of the project in other communities across the region. These are crucial processes about which we have almost no systematic knowledge.

James Garbarino, Cornell University—Youth violence is a major problem in the United States. Understanding its origins in the early experience of children is important for interpreting the actions of violent youth and acting to reduce their aggression. This presentation illuminated these issues by tracing the developmental pathways taken by difficult children who become criminally violent youth. It focused on the accumulation of risk factors in the lives of criminally violent children.

The risk factors which were discussed include: experiences of child maltreatment and other forms of trauma, difficult temperaments, parental and teacher mishandling of troubled children, and the social toxicity of the community. Contributors to the toxicity of the social environment for children and youth include instability of relationships, civic cynicism, terminal thinking, economic polarization, desensitization to violence, "the spiritual crisis," and the nastiness of popular culture.

The effects of social toxicity are felt and expressed most by the most vulnerable youth—e.g. those from de-stabilized families, those subject to racism, and poverty, and those with disabilities. Efforts to deal with the issues of social toxicity involve both strengthening youth to decrease their vulnerability, and simultaneously detoxifying the social environment.

Additional Resources:

The University of Wisconsin Cooperative Extension—Parenting Page: *http://www.uwex.edu/ces/flp/parenting/*

James Garbarino. *Raising Children in a Socially Toxic Environment* (San Francisco: Jossey-Bass Publishers, 1995)

James Garbarino. *Lost Boys : Why Our Sons Turn Violent and How We Can Save Them*. (New York: The Free Press, 1999).

Regulation of Confined Animal Feeding Operations

Charles W. Abdalla, Penn State University—Public policies for concentrated animal feeding operations (CAFOs) and animal production facilities are in flux. In response to public concern and adverse media coverage related to manure spills and fish kills, excessive odors, and other perceived or actual impacts of animal operations, the pace of policy-making at the state and local level has quickened.

From a national viewpoint, the result has been a diverse, uneven and somewhat unstable policy landscape that shifts as new legislative, administrative and judicial decisions are made. In the last 18 months, federal government initiatives have increased, including development of a joint United States Department of Agriculture/Environmental Protection Agency (EPA) animal feeding operations strategy under authority of the Federal Water Pollution Control Act of 1972. Despite the high level of public concern, it is unlikely for significant congressional action to address animal waste issues in the near future. Unless a major change in national policy direction occurs, most significant policy decisions related to CAFOs and animal waste pollution will continue to be made by state and local officials.

Extension's Role. Extension educators can contribute to local policy decisions about animal production facilities. They must recognize the multifaceted nature of the concerns about animal production, some of which are currently only able to be addressed in local land use and siting decisions. It is at the local level where extension faculty and county staff most frequently get involved with these issues.

The setting for environmental issues in the 1990s has been a challenging one for public policy educators. Several developments affecting this setting, include:

- The proliferation of interest groups and their increasing sophistication.
- Declining respect for science and educators.
- The need for answers despite scientific uncertainty.
- Expectations of "losers" in policy decisions to be compensated.

Recent changes have made the policy setting even more complex. Many issues today involve overlapping or "nested" problems and concerns. Education is now more difficult because the Internet has revolutionized the ways people access information and organize to influence policy. In addition, there are some unique challenges of CAFO problems including:

- New off-site or external effects have arisen from the rapid industrialization of some animal production sectors. Animal production has changed in terms of scale, geographic location, and who influences production decisions as new patterns of business organization have emerged. Existing institutions and policies are ill-equipped to address these changes. Individuals and organizations that perceive that they are harmed or helped by change are attempting to influence policy to advance or protect their interests.
- Significant diversity in natural resources and production regimes exist by region, state, and local area as well as by animal species and waste characteristics. The ability of ecological systems

to assimilate waste varies. There are also significant differences in economic and cultural factors and in public preferences for environmental and health protection, and in how these priorities are balanced.

- Our science with respect to understanding the external effects of large scale animal production is still developing and significant uncertainties exist. There is much more to learn about the nature of these problems and solutions. Due to pressure to respond to constituencies, policy decisions must be made based on existing information.

- Despite passage of federal legislation in the early 1970s that encompassed CAFOs, the federal government role in overseeing animal agricultural pollution has been uneven and weak. The shortcomings in the federal approach were a factor that led concerned states and local governments to become active and often out in the lead on animal waste issues in the mid-1990s. The resulting proliferation of policy approaches and varied enforcement efforts have created a "patchwork" of policies and incentives facing animal facility operators and owners.

Public Policy Education Challenges. The above changes have important implications for public policy educators working on CAFO issues:

- Understanding the decision process at the local and state level.

- Providing information when concerns about objectivity and trust are pervasive.

- Developing effective ways of delivering programs.

- Deciding upon extension and research roles that effectively address complexities of the issues.

The dynamic setting of the CAFO policy process is causing extension educators to revisit known realities and forcing them to face some new ones. The rapid pace of change, interrelated and nested issues and uncertainties are making the policy and institutional adjustment process complicated and difficult to work in. The audiences are broader and they are more willing to question extension educators' credibility and the objectivity of their information.

Land grant universities can contribute to the resolution of CAFO policy issues by using traditional basic public policy education model, both in extension and research activities. Given the issues of trust that are present, the pursuit of balance and objectivity inherent in this model is invaluable for these educational settings. However, some traditional methods of policy education that focus only on content roles are insufficient. Fortunately, we have developed newer educational models and methods that blend content and process and have some experience with them. These models are more appropriate for current policy issues related to animal agriculture.

Some successes at contributing to CAFO policy decision-making by extension educators are evident. In the coming months and years, opportunities will present themselves for educators to help communities and states choose a path through these complexities. Over the longer term, there will be much opportunity for researchers to conduct studies on the broader and systemic issues and to frame them in ways that highlight key trade-offs to stakeholders, craft new policy options, and predict consequences. Exploiting these extension and research opportunities will require leadership and organizational change that expands our ability to work together across disciplines and with other agencies and organizations.

Steve Smutko, North Carolina State University—Swine production has increased dramatically in North Carolina since 1990. The industry nearly tripled in size since that time, moving North Carolina to the number two position in hog production in the United States, behind Iowa. This growth has not occurred without controversy. As the industry has expanded, concerns about odor and water pollution have been voiced by rural neighbors, environmental organizations, and public health advocates.

The Conflict. A massive manure-lagoon eruption in June 1995, tilted public sentiment and political action toward tighter controls of the industry. At the state level, the legislature handed new tools to its regulatory agencies to reduce the risks of water pollution and isolate animal production areas from residences, churches, schools, and businesses. Local governments began to use their police powers and health rules to curtail, and in some cases, halt further expansion of intensive livestock operations.

With tightened environmental controls and a dramatic drop in hog prices, many animal producers expressed the fear that they would no longer be able to continue farming if the cost of environmental compliance continued to increase. In many cases, concerns have been raised to a fever pitch as communities have grappled with the issue of trying to balance the economic benefits of increased livestock production with quality of life and environmental protection. Collaborative approaches like mediation and facilitation have much to offer to the resolution of these issues and the development of sound public policies that satisfy the needs of the regulated community as well as those who are affected by increased levels of production.

Finding a Solution. Two case studies were presented on recent policy negotiations on local actions to limit the expansion of intensive livestock operations in Craven and Beaufort counties in eastern North Carolina. A discussion ensued on the challenges of bringing people together to make policy recommendations on issues where there is strong disagreement on not only potential solutions, but on how the various stakeholders define the problem. Ways were discussed to enable citizens to become knowledgeable enough to make informed choices on highly technical issues. Examples include when:

- The issue is highly technical.
- Good scientific information exists, but it is difficult to understand and apply.
- Scientific information is skewed and/or overwhelmed by political spin and media hype.
- There is huge scientific or technical uncertainty and opinions among experts are deeply divided.
- Scientific information is available, but the science and/or its source are distrusted.

Issues—problems, controversies, opportunities for change—are expressed and communicated through language. How we frame an issue and how we describe it to others, greatly affects how we and others perceive it and our ability to view the issue as a conflict or a problem to be solved. Issues are typically framed using a dualistic, mutually exclusive reference such as, "We should (or should not) take some specific course of action." Framing an issue in this way naturally highlights a point of conflict between those who think we should and those who think we should not.

> *Reframing* is the act of transforming the expression of an issue from a point of disagreement or conflict toward the task of solving the problem.

Reframing is the act of transforming the expression of an issue from a point of disagreement or conflict toward the task of solving the problem. In its simplest form, issue reframing is a rephrasing of the problem statement from the dualistic, exclusive form of "should we or shouldn't we" to a more abstract yet inclusive form of "how can we." Issue reframing is an initial step in the process of resolving policy disputes. It takes place in the pre-deliberative phase of the dispute resolution process, before the parties come face to face to resolve their differences.

Glen L. Keppy, National Pork Producers Council—I operate a modern pork operation in Iowa. Agriculture is changing in ways my father and grandfather could not imagine. I am trying to adopt all of the new technologies and be proactive.

Regulation is also increasing. I am required to go to manure management classes. I need a permit to haul a load of manure out to the field. My hog farm has undergone an odor audit.

Regulation is also increasing. I am required to go to manure management classes. I need a permit to haul a load of manure out to the field. My hog farm has undergone an odor audit. I am required to have an insecticide/pesticide license so that I can farm grain for my hog operation. I go to yearly classes for pork quality assurance. I am also on the planning and zoning commission of my county.

Farmers today are facing many challenges. Urban sprawl is creeping out into agricultural areas. The public is watching farmers much more closely. Through state agencies and the Environmental Protection Agency (EPA), citizens are demanding cleaner and safer water, reduced soil erosion, pathogen-free and residue-free foods. The goal of my farm is to meet all of these requirements and provide a wholesome and economical food product.

Through better and open communication, I believe that local and federal governments, conservationsists, producers and trade organizations can help insure an environmentally-enhanced and viable livestock industry. For that reason, I was a member of the National Environmental Dialogue on Pork Production. It was composed of pork producers, county and state government officials, and special interest groups. We conducted a series of 12 meetings and discussed how we could work together to develop a blueprint for a level playing field so that producers could continue to produce pork in a manner consumers and environmentalists were comfortable with. You have to include everybody when you have a dialogue. You cannot just talk among yourselves.

Roberta Parry, Environmental Protection Agency (EPA)—There have been regulations concerning concentrated animal feeding operations (CAFOs) for over 20 years. These regulations have been pretty much ignored. This is changing at the federal level. EPA is in the process of rewriting our regulations and we are also involving outside stakeholders in this process. At this time (September 1999), we have written a draft permit guidance to define our current regulations. There has been much debate over the years on what they actually mean and that is why you have seen a lot of states writing regulations on top of the federal regulations.

The public needs to understand that EPA is only responsible for environmental questions. Too many times, EPA is dragged into conflicts by others to further social issues. There are many issues with CAFOs besides the environmental concerns such as the large verses small farm debate. We need to deal with farm structure issues in some other manner than the environmental framework.

I hear a lot of concern from environmental groups and the public. They want to know if they can trust the agricultural industry. The agricultural community needs to demonstrate to the public and environmental

groups that progress is being made on environmental concerns from CAFOs.

James R. Van Der Pol, University of Minnesota—The United States does not have a livestock pollution problem, it has a livestock concentration problem. Livestock that are environmentally safe or even environmentally beneficial can be found on well run, well diversified farms. The general thrust of the present-day agricultural thought is that collecting livestock together in huge numbers affords the economies necessary to buy and install certain environmental "safeguards." In doing this, we overlook important synergies among ecology, livestock and plant biology and economics. These synergies, if taken advantage of by an astute manager, render unnecessary much of the "waste" spending by farms and regulation by government.

My farming operation blends livestock production with the cropping. Farm-raised grains and hay provide the feed. One of the grain crops is a blend of oats, peas and barley, which when grown together make an excellent sow feed requiring very little supplementation. The straw from this crop is necessary for our farrowing and hog growing enterprise. The manure from the hogs provides much of the fertility for the corn crop. The hay is winter feed and the corn is hog feed. Very little cash grain or hay is sold.

The hogs are all raised on deep straw beds and grass in the summer. We do not use confinement. As I pointed out to the Environmental Protection Agency (EPA) when they visited last summer, the use of the straw as bedding and subsequently a medium for holding and storing manure elements means that it is virtually impossible to overapply the product to the land. The large volume of straw would make field operations impossible. The straw holds the urine and feces tightly enough that run off even from a stockpile is small to nonexistent.

The summer pastured hog enterprise is rotated (on an annual basis) across four locations in a pasture otherwise grazed by a group of sheep and stock calves which make up another of the farm's livestock enterprises. This helps control parasites with less treatment and it builds a wonderfully thick and tough sod which has put a stop to sheet and gully erosion in that area. The sheep and calves are overwintered by means of a lot on hard days and a slow pasture rotation plus hay feeding. Generally, they spread the manure themselves since they live on the pasture.

The use of the straw as bedding and subsequently a medium for holding and storing manure elements means that it is virtually impossible to overapply the product to the land.

The poultry business is summer only and entirely out of doors after the age of three weeks so that there is almost no manure handling issue. Perimeter fence is being constructed so that the sheep flock can forage in the crop fields after harvest. This will be economically beneficial, of course. It will also improve the animal impact and, thus, the fertility of the farm as a whole.

My view is that if a farm is diversified—if effort has been made to fit the pieces together in a way that provides a whole greater than the sum of its parts—if the farm is an intensively managed blend of crops and livestock—it probably needs no regulation. The danger is that regulations devised to fit the larger confinement operations could, if wrongly applied to my farm, cause considerable difficulty. I ask that the EPA distinguish one kind of farm from another and operate accordingly. As a citizen, I want the large concentrated animal feeding operations (CAFOs) to be very well regulated. As a diversified farmer, I do not want the EPA to inflict unreasonable rules on me.

There is a need for research into the kind of farm that I operate. Diversified agriculture has been virtually ignored by academics since the 1940s. There is economic strength as well as ecological benefit in diversity.

Innovative Extension Land Use Policy Programs

David B. Patton, The Ohio State University—The continuing spread of urban development into rural areas has created many conflicts over land use. The National Public Policy Education Committee, in cooperation with Farm Foundation and the Kettering Foundation, has produced a resource booklet, *Land Use Conflict: When City and County Clash*. The booklet is designed to help citizens and decision makers identify their goals and beliefs and reach common ground for community development strategies. It presents an overview of sprawl and discusses four alternatives for addressing land use problems:

- **Reestablish the Free Market**—The free market and private enterprise should determine the use of the land. Private property owners ought to have the right to determine the use of their land without government influence.

- **Protect Farmland and Open Space**—Prime farmland and open space areas should be protected from uncontrolled urban development. The government and the private sector should step in to save these resources for future generations.

- **Redevelop Central Cities**—Blighted core areas of central cities (and rural main streets) should be rejuvenated. This would slow migration to the suburbs and lessen the urban development pressure on farmland and open spaces.

- **Manage Growth on the Rural Urban Fringe**—Incentives and subdivision design standards should be established to encourage developers to increase population density in new developments, protect prime farmland and open space, and utilize public resources more efficiently.

The consequences and trade-offs of each land use alternative are evaluated. *Land Use Conflict: When City and County Clash* is an excellent resource for public policy education programs. For copies, contact Ohio State University Extension Specialist David B. Patton at (614) 292-8436 or *patton.4@osu.edu*.

James J. Wiesing, Michigan State University Extension—Traverse City, Michigan, is not significantly different from other high growth coastal and mountain towns. It is a small resort town of 17,000 residents, encompassing eight square miles on Lake Michigan's Grand Traverse Bay, surrounded by 150,000 people and visited by hundreds of thousands more each year. The population has increased dramatically in the Grand Traverse region over the past 30 years. This has brought about an outcry from residents concerning sprawl and loss of rural character.

Michigan State University Extension has been involved in many land use programs in the Grand Traverse Region over the past seven years. Some of these programs are:

- **Visions South Grand Traverse**—Extension participated in Visions South Grand Traverse, a comprehensive planning process involving five townships and two villages. Extension designed and facilitated the citizen involvement process—which involved over 220 people—utilizing visioning sessions, nominal group work sessions and

focus groups. From the information gathered, extension developed the written plan from the citizen input and assisted with the formation of a nonprofit corporation to implement the plan.

• **Purchase of Development Rights**—In Peninsula Township, Michigan, an ordinance was adopted to levy 1.25 mills for 15 years to purchase development rights of farms on Old Mission Peninsula. Extension created the educational programs to help the farmers understand the financial and tax implications of "selling" their development rights. Other departments of the university were also involved in survey and landscape architecture.

• **Project Greenfields**—Project Greenfields is an extension/conservation district program to identify ways to increase the productivity of farms, thereby preserving farmland, in the Grand Traverse Region. Extension facilitated the process, conducted educational programs, conducted focus groups, drafted results of the focus groups and identified actions. This was a team-driven program involving several different agents from the Grand Traverse county office.

• **New Designs for Growth**—New Designs for Growth is a five-county growth management program. In 1991, residents expressed a desire for Grand Traverse County to create a regional development "Guidebook" to help identify good growth management policies. This was created and distributed to all units of local government in the five-county area in 1992 at a cost of $125,000. By 1994, many wondered why the principles of the guidebook were not being implemented and a task force, led by the Chamber of Commerce, was formed to review the issue. In December 1994, Extension took an active role on the steering committee and was instrumental in identifying and bringing all stakeholders to the table. Extension conducted a mailed survey to determine the needs and attitudes of local government officials on growth and development. Extension became a contractor and received $25,000 to create a workshop curriculum and training program to be used to train facilitators to conduct community workshops in the 93 municipalities in Northwest Michigan.

Extension can have many roles in land use policy but, should never be an advocate for a particular policy position. Only the community members, staff, and local officials involved in the process collectively should make policy decisions.

Extension can have many roles in land use policy: partner, facilitator, educational resource and/or contractor. Extension, though, should never be an advocate for a particular policy position. Only the community members, staff, and local officials involved in the process collectively should make policy decisions. In order for the extension agent to be invited into the land use arena as a resource, extension must cultivate the following conditions:

- **Trust—**Trust must be present or established.
- **Credibility—**The agent must be credible or seen as having access to credible resources if they do not have the particular content skills.
- **Neutrality—**The agent must be seen as neutral and not come to the table with a particular agenda, i.e., environmentalist, developer, etc.

- **Communications**—Communications must be continuous and complete, and the process must be open to all.

- **Honesty**—The leaders must be open to new ideas, or state "givens" when there is no flexibility.

- **Actions**—Actions must follow words, you must do what you said you were going to do when you said you were going to do it.

David Sharpe, Montana State University—Seven of the ten fastest growing counties in the United States are in the West. Many people are moving into the West because they are attracted to the perceived quality of life and amenities—scenery, open space, "westerness"—not because of economic opportunity. Unfortunately, the very presence of the new residents and the size and location of their residences tends to diminish the quality of life of many long-term residents. Developing a comprehensive development plan is not easy anywhere. Such efforts are further complicated in the West since its residents have a greater tradition of individualism and individual property rights than other areas of the country.

The Western Community Development Committee is in the process of developing a program to help communities envision what their future will be like without a development plan. We believe that by using a vision of the future, communities can then move backwards and determine what tools can help them reach a desired future. The committee recognized that we needed to develop a means of preventing citizens in local communities from becoming polarized. We see our role as helping citizens develop goals for their communities and provide them with a toolbox of techniques which they can use to realize these goals.

To help create awareness in communities of the issues which are involved in land use in a neutral and objective manner, we developed two videos, *Growing Pains* and *Managing Community Growth*. With a grant from the Murdock Foundation, a task force of the Western Extension Community Development Committee, is developing a toolbox of land use techniques from which communities can direct their future growth. We have started to pilot pieces of the project with Lewistown, Montana.

Janet Ayres, Purdue University—The relationship between the Purdue Cooperative Extension Service and land use in Indiana is unique. In the 1950s, state legislation was passed mandating that agricultural extension educators serve on county plan commissions. This has frequently placed extension staff in uncomfortable situations as controversial issues have arisen before the plan commission. It has also afforded extension unique educational opportunities.

The need for statewide land use assistance was reinforced in 1997-98 when extension developed its five-year plan of work. Each local extension office was asked to conduct a needs assessment with a broad base of local leaders. Nearly two-thirds of the counties in Indiana identified land use as one of the top three issue areas. Subsequently, over 60 counties included land use in their county plan of work. It is also one of the 16 state issues.

Many people are moving into the West because they are attracted to the perceived quality of life and amenities—scenery, open space, "westerness"—not because of economic opportunity.

In 1996, the Purdue Land Use Team was formed. The team consists of an extension educator from each of the 10 extension administrative areas. The staff were chosen based on their experience with plan commissions, communication skills, respect among other educators in their area, and interest in land use planning. Collectively, these 11 (one area has two staff) educa-

tors have over 140 years of experience serving on county plan commissions. They understand the technical aspects of planning, plan commission operations and procedures, as well as local economic development pressures, politics and controversial public issues. In addition, the team is supported by campus-based specialists from the departments of agricultural economics, forestry and natural resources, horticulture, agronomy, and agricultural and biological engineering.

In 1998, the team began working with educators from across the state to assist local communities. The work has involved meeting with plan commissions to answer questions about updating the comprehensive plan and ordinances, farmland preservation techniques, or septic systems. Other assistance has included conducting community forums on specific land use issues, teaching land use programs in the schools, or giving presentations at local civic organizations. Some communities have been in conflict over land use issues and the team has facilitated meetings to resolve the conflict.

Also launched in 1998, was a series of training programs for members of local plan commissions. There was little training available in Indiana for plan commission members. Purdue extension built a collaborative program with Ball State University's College of Architecture and Planning to offer a series of training workshops titled, *The Nitty-Gritty Work of Plan Commissions.* Professional planners/trainers were brought in from outside the state to conduct the training. These respected planners attracted other professional planners and plan commission members to the workshops. The Indiana Planning Association, Association of Cities and Towns and Association of Indiana Counties are cosponsors of these training workshops. To date, 11 workshops have been conducted with over 700 elected officials, plan commission members, and others in attendance. Advanced workshops are planned for next year. Special workshops are being offered for real estate professionals, forestry professionals, and plan commission attorneys.

Since initiating the team in 1996, specialists have come forward to be a part of the effort. Two research initiatives have been funded totaling nearly $200,000. A faculty position in agronomy will be filled with a specialist in soils and land use. Hopefully, another faculty position in agricultural economics will have some land use responsibility. In addition to the continued development of "fact sheets," the campus faculty are looking at ways to develop web-based curriculum. Various analytical tools are being developed in agricultural engineering. The Land Use Team is currently developing funding proposals to be able to expand current programs, to develop additional analytical tools, and to better utilize the web and other technologies for more efficient delivery of information.

Additional Resources:

Mark A. Edelman, Jon Roe and David B. Patton. *Land Use Conflict: When City and Country Clash.* Oak Brook, IL: Farm Foundation, 1999.

The two videos mentioned in David Sharpe's presentation, *Growing Pains* and *Managing Community Growth*, are available from Montana State University Extension, (406) 994-3273, at $14.95 each.

Public Policy Education Awards

R.J. Hildreth Award for Career Achievement in Public Policy Education

To encourage scholarship and leadership within the policy education professional community by recognizing individuals who have demonstrated excellence through public policy education programs over their careers.

Farm Foundation President Walter J. Armbruster, Philip Favero, Harold M. Harris, Ronald C. Fass, and Mark A. Edelman, 1998-99 chair of the National Public Policy Education Committee.

Ronald C. Faas. Ron has had a distinguished career in public policy, local planning and community development. He is known as a man who lives what he teaches. He is regarded as a mentor to his coworkers and supporter of new and young faculty members.

Ron has a B.S. in Agricultural Education and a M.S. in Agricultural Economics from Iowa State University, a M.A. in Economics and a Ph.D. in Agricultural Economics from Michigan State University. He began his Extension career as a Youth Assistant in Jackson County, Iowa. He was an International Youth Exchange Delegate and a Peace Corps staff member in Brazil. After completing his Ph.D., he joined the faculty at Washington State University as extension economist. He has been an adjunct professor of environmental science and regional planning since 1990, and director of the Program for Local Governmental Education since 1991.

Ron has made many contributions to the Western and National Public Policy Education Committees. Among them, are working on issues such as coping with growth, and serving as coauthor of several publications of NPPEC and he has served as a member of the ethics subcommittee.

Philip Favero. Philip Favero's career in public issues education reflects a strong faith in four ideas: (1) the more informed a public policy decision is, the better the decision tends to be; (2) land grant universities bear a serious responsibility to citizens to be neutral sources of information about public issues and to provide facilitation services to solve those issues; (3) policy education work with governments, particularly local government, is vitally important; and (4) in public decision making, policy educators should be "on tap," while citizens and public officials they elect should be "on top."

Phil has a B.A. in history, and a M.A. in political science from Montana State University, and a Ph.D. in Agricultural Economics from Michigan State University. He holds a certificate in African Studies from the University of Wisconsin and Tuskegee Institute. He served in the Peace Corps as agriculture advisor in Kenya. He has experience as an extension specialist in South Dakota and is currently at the University of Maryland, and has been a visiting professor to the Northeast Center for Rural Development at The Pennsylvania State University.

Phil has served on both the North Central and the Northeast Public Policy Education committees and has served on the Maryland Public Issues Education committee since its inception in 1995. Most recently, Phil and other policy educators, have developed a program to teach extension educators nationwide about the nexus of conflict resolution and public issues education.

Harold M. Harris, Jr. One of Hal Harris' favorite quotations is, "For every difficult problem there is an easy solution—that won't work." Helping individuals and groups

ask the right questions, work through alternative solutions, and study their probable consequences has been the focus of Hal's extension education programs for 29 years. National leadership in public policy is the hallmark of his distinguished career. His expertise related to national food, agricultural and trade issues is sought by the U.S. Congress, state legislators and farm group leadership. He is an outstanding communicator who stimulates citizens to understand the implications of policy issues and become involved in the policy process.

Harris received a B.S in Agricultural Administration and M.S in Agricultural Economics from Auburn University and a Ph.D. in Agricultural Economics from Purdue University. He has spent his career as an extension educator with Virginia Polytechnic Institute and State University and Clemson University.

Hal has served on the National Public Policy Education Committee, including chairing the group. He was an active participant in each of the NPPEC omnibus farm bill projects, cochairing the effort for the 1996 farm bill, a member of the public issues education task force and serves on the animal waste task force. He is president-elect of the Southern Agricultural Economics Association.

Outstanding Achievement in Public Issues Education

To encourage scholarship and leadership within the policy education professional community by recognizing extension education programs that have demonstrated excellence in scholarship, provided important public service and demonstrated innovativeness.

Farm Foundation President Walter J. Armbruster, Michael F. McKinney, Marlene Rebori, and Mark A. Edelman, 1998-99 chair of the National Public Policy Education Committee.

County Based Multi-disciplinary Public Policy Education Program (PPE) for Hillsborough County (Tampa) Florida.

Michael F. McKinney, *Team Coordinator, Hillsborough County Public Policy Advisory Committee and Hillsborough County PPE Water Committee.*

Since forming in 1994, the primary focus of the Hillsborough County PPE program has been to develop and implement a multi-disciplinary education program to provide an opportunity for local citizens and decision makers to study various community issues incorporating established public policy methodology. The spectrum of educational programming has included land use issues, water issues, agricultural and environmental issues, nature/eco tourism issues, hunger and food security issues, and issues of acceptance and respect. Nearly 15,000 PPE contacts were made in 1998.

Collaboration to Achieve Agreement on Natural Resource Decisions: Different Approaches to Natural Resource Education in Eastern Nevada.

Robert E. Wilson, Sherman Swanson, Hudson Glimp, Don Holloway, Alice Crites, Michael Havercamp, Bill Evans, Marlene Rebori, Dan Weigel, Gene Kolkman, Brent Eldridge, Ray Flake, Richard Carver, Joel Twitchell and Gerald Miller.

Change in the Great Basin rangeland during the past 150 years has resulted in a reduction in plant species diversity, resulting in reduction of forages for wildlife and livestock and threatening the economic, recreational, and ecological health of the region. Because of intense conflicts between individuals regarding natural resource use, a new community-based process was developed to enable people with varying interests to work together.

1999 National Public Policy Education Conference Participants

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The 50th National Public Policy Education Conference will be held in Albany, New York, September 17-21, 2000. Contact Farm Foundation for information.

Farm Foundation

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