

**Michigan State University  
Extension 2004-05 Annual Report  
of Accomplishments and Results**

**Thomas Coon  
Director**

## Overview

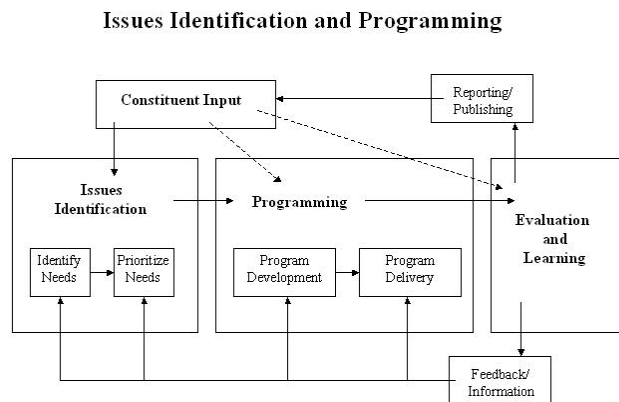
Since its beginning, Michigan State University Extension (MSUE) has focused on bringing knowledge-based educational programs to the people of the state to improve their lives and communities. Today's problems are very complex. Solutions require the expertise of numerous disciplines and the collaboration of many partners. Operating synergistically with the Michigan Agricultural Experiment Station (MAES) and other Michigan State University units, MSU Extension extends the University's knowledge resources to all Michigan citizens and assists them in meeting their learning needs through a variety of educational strategies, technologies and collaborative arrangements. Today, county-based staff members, in concert with on-campus faculty members, serve every county with programming focused on agriculture and natural resources; children, youth and families; and community and economic development. During 2004-05, MSUE directly educated 200,615 adults and 231,929 youth for a total of 432,544 people and reached over 2 million people indirectly. Impacts included:

- Educational programs and applied research projects that addressed health and obesity issues, helped officials and communities deal with land use issues, taught and supported parents, provided strong mentoring and other educational programs for children and youth (including 4-H), promoted value-added agriculture, helped protect the state's environment and natural resources, and controlled and eradicated the spread of infectious diseases.
- Conducted long-term research projects affecting various agricultural and natural resource industries (including forestry and tourism) that made major contributions to the state's economy.
- Strengthened the capacity to address threats to Michigan's food security and the health of its citizens. Key examples of current research included bovine tuberculosis, West Nile virus, chronic wasting disease, hoof and mouth disease, emerald ash borer etc.
- Worked with countless collaborations in communities in which MSU Extension provided the educational component to complement the services provided by other organizations and agencies (e.g., FIA, MDCH, WIC, DNR and MDA). This also included mandated continuing education programs for a variety of industries.
- Strengthened the research and educational capacity of Michigan's land grant university with the loss of MSUE educators and MAES scientists.
- Strengthened the funding partnerships that created the state's land grant system of public access. These partnerships fund positions at the state and local levels and they ensure that state and local issues are addressed.

## Stakeholder Input and Planning Process

Michigan State University Extension (MSUE) uses an ecological model in approaching community needs by providing educational programs and information at multiple levels, which results in blended stakeholder input, funding sources, programs crossing over goal areas, integration of research and educational instruction, and multiple delivery approaches (direct and indirect). For example land use in Michigan plays a critical role in agriculture, environment, and community and economic development, which is addressed by multiple resources (federal, state, county, and other) and through multiple Area of Expertise (AoE) teams. Stakeholder input on land use came from a variety of sources and processes that include local, county, regional, and state levels. Figure 1. shows MSUE's process of using constituent input to identify issues that then gets prioritized by the field and campus staff as they build individual, county, and statewide plans. These plans produce MSUE's programs that are implemented, evaluated, and changed over time through the feedback and lessons learned through the process. This report reflects the accomplishments and impacts from this process.

Figure 1.  
MSUE Planning and Implementation Process



Modified from Ted Ferris & Jim Kells Materials for Coaches and Co-Chairs

The primary planning process for the 2004-05 programming came in 2002 when MSUE staff used the results of a statewide initiative of community input called “Sharpening Our Program Focus” that identified five priority areas: Building strong communities; Helping youth succeed; Enhancing profitability in agriculture; Encouraging responsible land and natural resources use; and Building healthy families. In addition, a survey was done in the spring of 2002 by the Institute for Public Policy and Social Research (IPPSR) called the State of the State Survey (SOSS) assessed a variety of public topics with one set of questions asking for reactions to the identified program priorities for MSU Extension. The 1012 random surveys were conducted in all six regions of the state. The findings supported the five priority areas with 78% of the respondents rated as a high

priority to help youth succeed as well as building healthy families, followed by 70% indicating high priority for encouraging responsible land and natural resource use, 62% for building strong communities, and 51% for enhancing profitability for agriculture. It is noteworthy to state that only 3%-5% indicated any of these areas as a low priority. Local, regional and state focus areas were used by the 29 AoE teams, in collaboration with their advisory committees, partners and stakeholders, to strengthen existing goals, drop completed or obsolete goals, and create new initiatives.

During 2004-05, MSUE repeated the 2002 process by using the Institute for Public Policy and Social Research (IPPSR) to conduct another State of the State Survey (SOSS). Two of the newer top priorities identified by 80% of the public were “Ensuring that the food supply is safe and plentiful” and “Preparing today's youth for tomorrow's jobs.” In addition, MSUE started a new statewide initiative of community input called “Strengthening Michigan's Economy: Issue Identification” to identify key needs in the local communities, regions and state. Finally, the AoE’s used stakeholder input from the SOSS, local stakeholder input, and constituents in their area of expertise to identify and prioritize needs. Findings from these processes will be used in developing the 2007-11 Plan of Work.

### Inputs and Resources

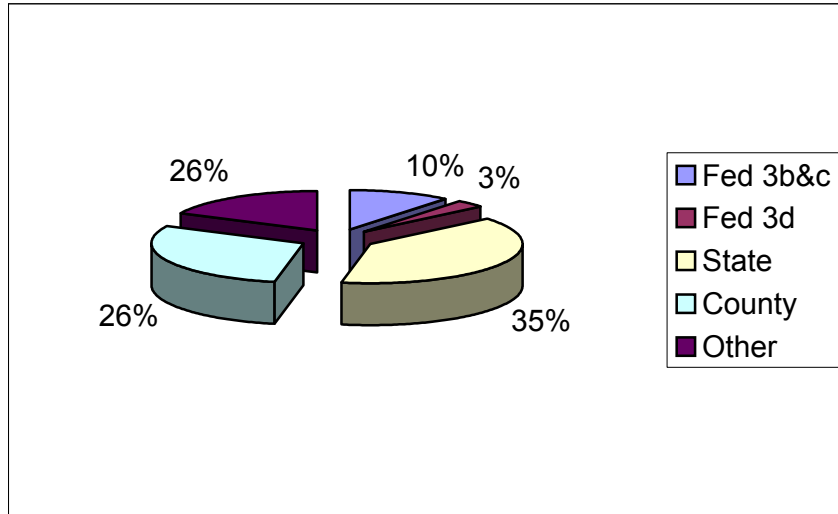
Table 1. shows the overall expenditures for MSUE for the 2004-05 federal programming year to be \$76.8 million, with \$8 million being Federal B and C formula dollars. These dollars have been critical in contributing to base programming in the counties as well as enhancing programs by matching state and county dollars. The match from the state is well over 100%, demonstrating strong support for MSU Extension’s partnership with USDA. Because Federal 3B and 3C dollars, like the state and county dollars, are integrated into virtually every MSUE program, the following report reflects the whole rather than a part. One major part that is missing from the following report is in-kind contributions, which include volunteer time (more than 28,500 volunteers assisted programming in 2004-05 and tangible resources, such as building space, materials, and travel that would be valued in the millions of dollars.

Table 1.  
Overall MSU Extension 2004-2005 Expenditures by Source of Funding and Federal Goal

Goal	FedBC	Fed3D	State	Local	Other	Total
1) Agriculture	1,811,864	55,185	7,195,816	3,675,602	1,547,361	14,285,828
2) Food Safety	856,826	605,806	3,706,546	3,285,513	4,314,995	12,769,687
3) Food, Nutrition, and Health	819,052	1,226,064	3,076,182	4,541,861	7,989,528	17,652,688
4) Environmental	1,753,701	73,085	6,151,772	4,035,118	3,669,470	15,683,146
5) Community, Human, and Youth Development	2,712,859	24,986	6,888,584	4,191,882	2,474,125	16,292,436
<b>Total</b>	<b>7,954,302</b>	<b>1,985,126</b>	<b>27,018,865</b>	<b>19,729,978</b>	<b>19,995,479</b>	<b>76,683,750</b>

Graph 1. shows 10% of MSUE funds were **Federal 3b and 3c**, 3% **Federal 3d** (mainly EFNEP), 35% **State**, 26% **County**, and 26% **Other** (competitive grants – multiple sources with FNP being the largest).

Graph 1.  
Overall 2004-05 MSU Extension Expenditures by Source of Funding



Graph 2. shows overall funding for MSUE by Federal Goals: 19% of funding involved programs that addressed **Goal 1) An agricultural system that is highly competitive in the global economy**; 17% for **Goal 2) A safe and secure food and fiber system**; 23% for **Goal 3) A healthy, well-nourished population**; 20% for **Goal 4) Greater harmony between agriculture and the environment**; and 21% for **Goal 5) Enhanced economic opportunity and quality of life for Americans**.

Graph 2.  
Overall 2004-2005 MSU Extension Funding by Federal Goal

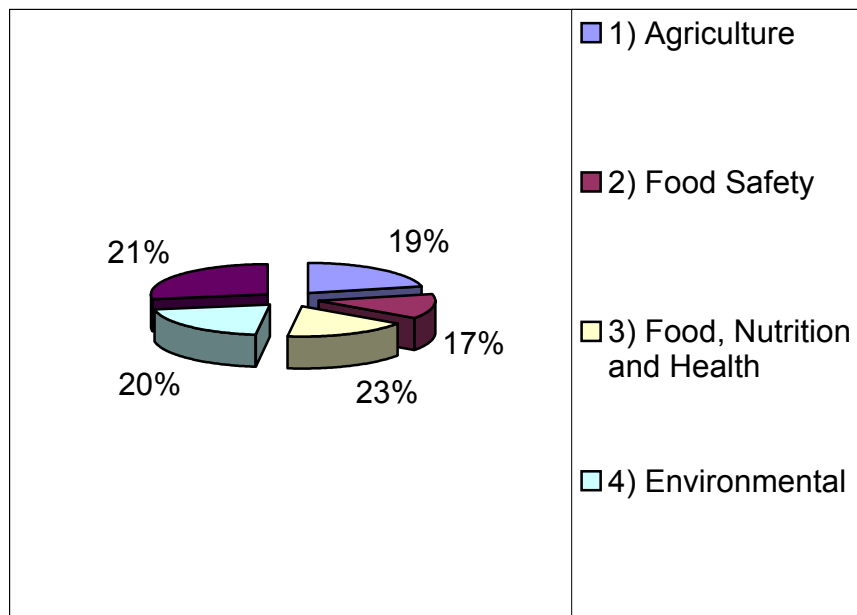


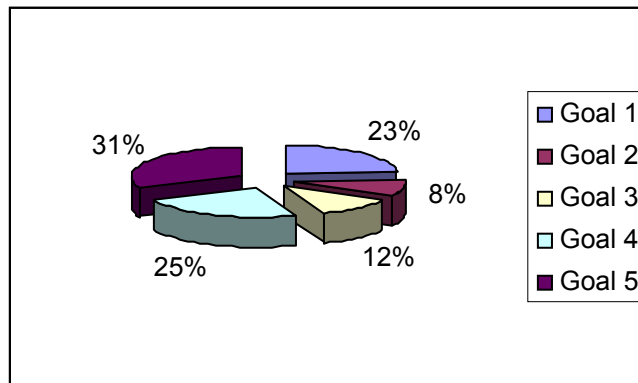
Table 4. shows that in 2004-2005, MSUE staff consisted of 1,052 full time equivalents (FTE) with 49% Professional (544 FTE's), 25% Para-Professional (293 FTE's), and 25% (295 FTE's) Office and Clerical staff members. The major change during this fiscal year was the loss of approximately 80 FTE's or 7% of the FTE's from the previous year. Sixteen percent of the total FTE's (170 FTE's) were funded by Federal 3b&c with 123 FTE's being Professional. Thirty percent of the total FTE's (322 FTE'S) were county funded employees.

Table 2.  
Total FTE by Professional/Para-Professional by Federal Goal

	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Total
Professional	121	45	61	128	162	<b>517</b>
Para-Professional	15	71	142	15	25	<b>268</b>
Office/Clerical	35	54	91	35	52	<b>267</b>
	171	170	294	178	239	<b>1,052</b>

Graph 3. shows the percentage of FTE by Federal Goal for Professional Staff members, where the largest group (31%) fell in Goal 5 (Community, Human, and Youth Development).

Graph 3.  
Percentage of Professional FTE's by Federal Goals

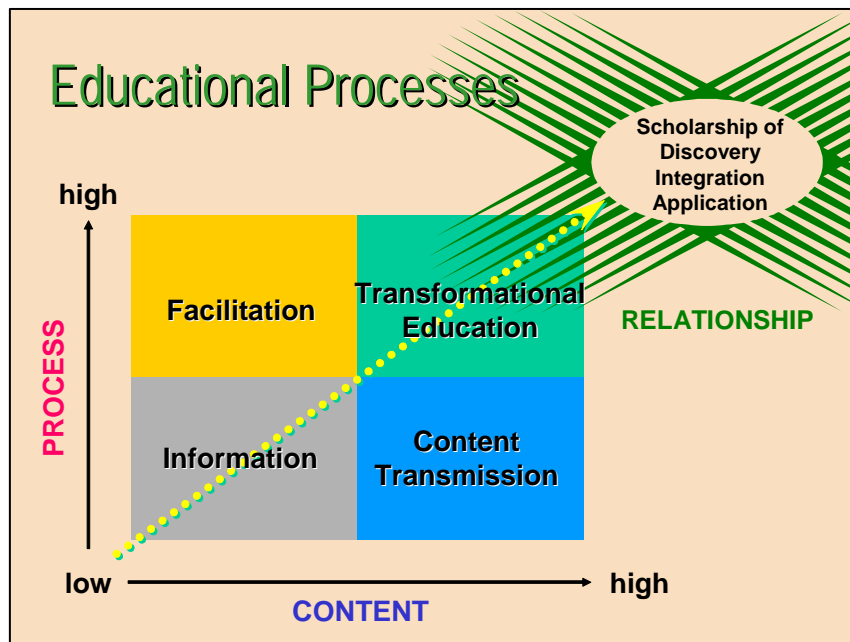


## Outputs

MSUE is dedicated to educating tomorrow's leaders and scholars. Innovative and hardworking MSUE faculty and staff members create knowledge and extend learning to serve Michigan, the nation and the international community. At MSU, faculty and staff members are expected to be active, learner-focused scholars, exemplifying scholarship across the land-grant mission. The essence of this scholarship is the thoughtful discovery, transmission and application of knowledge based in the ideas and methods of recognized disciplines,

professions and interdisciplinary fields. What qualifies an activity as scholarship is that it be deeply informed by the most recent knowledge in the field, that the knowledge is skillfully interpreted and deployed, and that the activity is carried out with intelligent openness to new information, debate and criticism. The primary mechanism for educational program planning, implementation and evaluation for Michigan State University Extension is the Area of Expertise (AoE) team concept, which brings stakeholders, collaborators, faculty members, field staff members, and communities together for community need assessments, prioritization of MSUE programming goals, program development and implementation, and assessment of impact. Documented impacts focused on information that reflect changes in knowledge, attitudes, skills, aspirations, and communities that ultimately lead to transformational education and scholarship of discovery, integration, and application (see Figure 2.)

Figure 2.  
Transformational Education at MSUE



In 2004-05, through the efforts of the AoE teams, staff and volunteers, MSUE reached 432,544 people directly through educational programs. This was similar to the previous year with 430,123. Table 3. shows the number of participants reached directly for each of the AoE Teams by the five Federal Goals.

Table 3.  
Total Participants Reached Directly by AOE by Federal Goals

<b>Goal 1 - Agriculture</b>	<b>Adult</b>	<b>Youth</b>	<b>Total</b>
Beef	1,379	6,470	7,849
Consumer Horticulture	9,521	6,830	16,351
Dairy	4,855	3,112	7,967
Equine	275	17,537	17,812
Field Crops	17,043	4,751	21,794
Floriculture	1,346	0	1,346
Forage/Pastering/Grazing	1,529	12	1,541
Fruit	3,162	3,348	6,510
Livestock - Overall	778	8,590	9,368
Nursery/Landscape	2,478	0	2,478
Ornamentals - Overall	5,342	1,171	6,513
Sheep	20	4,688	4,708
Swine	884	10,847	11,731
Turfgrass	301	0	301
Vegetables	581	3,348	3,929
	<b>49,494</b>	<b>70,704</b>	<b>120,198</b>
<b>Goal 2 - Food Safety</b>			
Food Safety*	<b>12,074</b>	<b>12,050</b>	<b>24,124</b>
<b>Goal 3 - Food, Nutrition, and Health</b>			
Food, Nutrition & Health*	<b>48,297</b>	<b>44,749</b>	<b>93,046</b>
<b>Goal 4 - Environmental</b>			
Forestry	5409	4459	9,868
Land Use	2927	7634	10,561
Manure	1286	970	2,256
Renewable Resources (RREA)	159	3539	3,698
Sea Grant	2636	4326	6,962
Water Quality	7674	14225	21,899
Christmas Trees	513	0	513
	<b>20,604</b>	<b>35,153</b>	<b>55,757</b>
<b>Goal 5 - Community, Human, and Youth Development</b>			
Community Development	6439	8945	15,384
Economic Development	6938	419	7,357
Family Resource Management	20346	13489	33,835
FIRM	3443	16	3,459
Human Development	14814	3,423	18,237
LeadNet	820	11834	12,654
State & Local Government	552	0	552
Tourism	341	0	341
Volunteer Development	6631	18400	25,031
Youth Development**	9822	12747	22,569
	<b>70,146</b>	<b>69,273</b>	<b>139,419</b>

\* To avoid duplication, participants who received both food safety and food nutrition were counted only once.

\*\*\* To avoid duplication, youth who crossed goals were not counted again in youth development.

Table 4. shows that Goal 5 (Community, Human, and Youth Development) had the largest number of participants, followed by Goal 1 (Agriculture) and Goal 3 (Food, Nutrition, and Health). The numbers below do not include the millions of people that are educated through newsletters, TV, internet, radio and conferences on topics that include: [Emerald Ash Borer](#), [Helping Children and Their Families Cope with Disasters](#), and [MSUE Emergency Management](#).

Table 4.  
Total Participants Reached Directly by Federal Goal

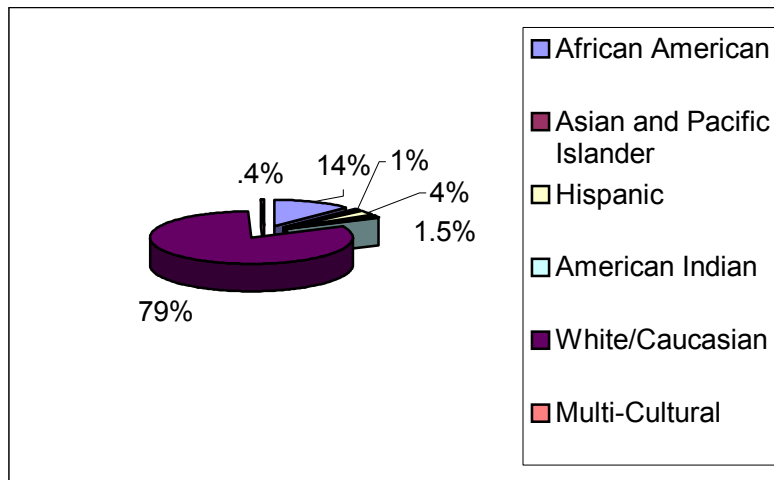
Goal Area	Adult	Youth	Total	%
Agriculture	49,494	70,704	<b>120,198</b>	27.7%
Food Safety*	12,074	12,050	<b>24,124</b>	5.6%
Food Nutrition and Health*	48,297	44,749	<b>93,046</b>	21.5%
Environmental	20,604	35,153	<b>55,757</b>	12.8%
Community, Human and Youth Development**	70,146	69,273	<b>139,419</b>	32.2%
	<b>200,615</b>	<b>231,929</b>	<b>432,544</b>	

\* To avoid duplication, participants who received both food safety and food nutrition were counted only once (20% Food Safety and 80% Food, Nutrition, and Health).

\*\* To avoid duplication, youth who crossed goals were not counted again in youth development.

Graph 4. shows the ethnic distribution of the 432,544 participants educated directly. Seventy-nine percent (79%) of the participants were Caucasian, 14% African American, 4% Hispanic, 1.5% Native American, 1% Asian, and .4% Multi-Cultural. This distribution is representative of Michigan's population: 80.9% Caucasian, 14.3% African American, 2.8% Hispanic, .6% Native American, and 1.7% Asian (Multi-Cultural was not used). Civil Rights information is imbedded in each of the plans with a description of the potential and targeted audiences and then linked to the actual audiences reached through our Extension Information System (EIS).

Graph 4.  
Percentage of Participants by Ethnic Groups



## Overview of Goal 1: An agricultural system that is highly competitive in the global economy

Over 100,000 participants (120,198) were directly involved in MSUE educational programs that focused on the agricultural system. Table 5. shows the number of participants and the Federal Key Themes for each of the sixteen AoE teams that worked in Goal 1. Key themes highlighted in this report demonstrating impact were: adding value to new and old agricultural products, agricultural profitability, animal health, animal production efficiency, emerging infectious diseases, home lawn and gardening, new uses for agricultural products, ornamentals/green agriculture, plant health, and plant production efficiency.

Table 5.  
Number of Participants and Key Themes by AoE for Federal Goal 1.

Goal 1	Adults	Youth	Total	Federal Key Themes
Beef	1,379	6,470	7,849	Animal Production Efficiency, Agricultural Profitability, Emerging Infectious Diseases
Consumer Horticulture	9,521	6,830	16,351	Home Lawn and Gardening, Ornamentals/Green Ag
Dairy	4,855	3,112	7,967	Animal Production Efficiency, Agricultural Profitability, Emerging Infectious Diseases
Equine	275	17,537	17,812	Animal Production Efficiency, Adding Value
Field Crops	17,043	4,751	21,794	Adding Value, Precision Ag, Agricultural Profitability, IPM
Floriculture	1,346	0	1,346	Adding Value, Agricultural Profitability, Biotechnology, IPM, Ornamentals/Green Ag
Forage/Pasturing/Grazing	1,529	12	1,541	Adding Value, Grazing, Emerging Infectious Diseases
Fruit	3,162	3,348	6,510	Adding Value, Ag Profitability, Niche Market, IPM

<b>Goal 1 (continued)</b>	<b>Adults</b>	<b>Youth</b>	<b>Total</b>	<b>Federal Key Themes</b>
Livestock - Overall	778	8,590	9,368	Animal Production Efficiency, Agricultural Profitability, Emerging Infectious Diseases
Nursery/Landscape	2,478	0	2,478	Home Lawn and Gardening, Ornamentals/Green Ag
Ornamentals - Overall	5,342	1,171	6,513	Adding Value, Agricultural Profitability, Biotechnology, IPM, Ornamentals/Green Ag
Sheep	20	4,688	4,708	Animal Production Efficiency, Small Farm Viability
Swine	884	10,847	11,731	Adding Value, Animal Production Efficiency, Manure Management
Turfgrass	301	0	301	Agricultural Profitability, Ornamental/Green Ag
Vegetables	581	3,348	3,929	Adding Value, Precision Ag, Agricultural Profitability, IPM
	<b>49,494</b>	<b>70,704</b>	<b>120,198</b>	

## **Highlights**

- MSU Extension educators developed the Farm Bill Analyzer, a computer program to help producers navigate through the numerous program participation options presented in the 2002 Farm Bill. As a result of programs held across the state, 4,445 producers representing 2,888,357 acres benefited by over \$35 million by choosing the preferred option over the FSA default option 2. These producers who used Extension assistance can expect \$439 million in payments (assuming mid-level prices over six years). The ripple effect or indirect benefits are unknown but probably easily double or triple these values.
- In a study conducted by the Extension Disaster Education Network, Extension was named as the first place crop producers said they would go for advice in the face of an unknown disease outbreak. It was the second choice for

livestock producers, behind veterinarians. Having this network in place is vital if a threat to agrisecurity should arise.

- The MSU Product Center for Agriculture and Natural Resources, created in early 2003, works to help farmers, business owners and entrepreneurs develop new products and ventures related to adding value to the state's agriculture and natural resource commodities. It received a nearly \$1 million grant from the USDA to assist with value-added agriculture ventures. Nearly 20 innovation counselors are now in training with the product center. They will soon be working with clients across the state to identify and test potential products, research their market potential and guide them toward production, all with the assistance of faculty and staff members from across the university and other business development professionals from the Michigan Partnership for Product Agriculture.
- Project GREEN, the plant industry coalition initiative, awarded about \$1.1 million to 36 new research projects during fiscal year 2003. Another \$900,000 was directed toward multiyear projects that started in 2001 or 2002 targeting priority issues affecting Michigan's plant agriculture industries. Project GREEN continues to be an outstanding partnership among industry groups, MSU and state government. Research projects funded during the 2003 fiscal year attained nearly \$9.5 million in matching funds.
- Michigan Agricultural Experiment Station scientists developed a computer model to predict a cattle farm's risk for bovine TB on the basis of farm facilities and management practices. This model is being integrated with an economic model to create a software package for on-farm use. This program will predict a farm's risk for developing bovine TB and provide customized recommendations for management changes to reduce bovine TB risk.

### **Examples of Impact in Goal 1.**

**Key Theme: Biofuels**

**Educational Initiative Title: Great Lakes Ethanol**

**Michael Score: Monroe, Washtenaw, and Lenawee Counties**

### **Description of Program**

MSUE Agricultural Advisory Councils in Washtenaw and Lenawee Counties identified a need to address basic issues of farm profitability. Specifically, they asked MSUE to identify opportunities to convert agricultural commodities into higher-value consumer goods. These requests were affirmed during a regional agricultural economic outlook conference in 2001. MSUE worked in partnership with Ohio State University to conduct two national conferences on value-added

agriculture and biofuel production. Participants learned about costs and benefits of launching new production facilities in our region. Following this focus on corn processing, MSUE worked with the Michigan Corn Marketing Program to facilitate formation of a work group that applied itself to building a new ethanol production facility. MSUE mentored the study group through the business development process and helped Great Lakes Ethanol LLC(GLE) link up with resource people they needed assistance from to launch their business venture.

### **Impact**

From 2004 through early 2005 GLE raised \$15 million in equity pledges. More than 90% of these investments came from Michigan farmers. In summer, 2005 GLE formed a joint venture with a farmer-owned ethanol production facility from Iowa. GLE received all of the necessary environmental permits and zoning approvals needed to break ground in August, 2005.

More than 250 farmers invested in GLE. Every corn producer in southeast Michigan will benefit from the anticipated 5 cents per bushel price increase that will result from conversion of 18 million bushels annually into 55 million gallons of ethanol. Michigan consumers will benefit from cleaner burning automobile fuel in the Detroit metro area. Local livestock producers will have access to more than 150,000 tons of distillers grain for livestock feeding. Refrigeration and carbonated beverage industries will have access to more than 100,000 tons of CO<sub>2</sub> for use in their business operations and product development.

In 2004-05 Field Crops AoE educated 21,794 participants.

### **Source of Funds**

Smith-Lever 3b&c, state, county

### **Scope of Impact**

Multi-State

### **Key Theme: Adding Value to New Agricultural Products**

**Educational Initiative Title: Michigan Swine Finishing Management Program**

**Thomas Guthrie: State**

### **Description of Program**

Pork Area of Expertise (AoE) team members worked closely with pork producers in determining what topics and issues they wished to learn more about in regard to the management of a swine finishing facility. Contract swine farms represent a major production sector of the Michigan Swine Industry. On a contract farm the owner provides the rearing facilities, while the pigs and feed are provided by a

different farm (contractor). Many of these farm owners are new entrants into the hog industry, constructing barns for contract production with limited previous hog production background. In addition, farm owners are raising hogs under contract to diversify their farming operations and supplementing their income through contract swine production. The Michigan State University Extension Pork Area of Expertise team worked in conjunction with the National Pork Board, Michigan Pork Producers Association and the Michigan Agriculture Environmental Assurance Program (MAEAP) to develop and implement this program. The Michigan Pork Producers Association (MPPA) assisted with the promotion of this program by attaching a flyer of the program inside their Michigan Pork Producer News magazine. This program also utilized the National Pork Board's Grower Finisher Management CD, the Pork Quality Assurance Program (PQA), which allowed producers to become PQA Level III certified, and MAEAP allowed this program to qualify for the educational requirement of the MAEAP Progressive Planning option.

## **Impact**

Nine workshops with 217 participants were educated with this program. A follow-up survey found:

Water Management: changed drinker height and flow rate adjustment = 65.5%

Feeder Management: checked feeder adjustment = 93.7%, working to reduce feed waste and prevention of out-of-feed events = 53.3%,

Feed Management: owners of pigs that have monitored feed particle size = 34.4%, owners of pigs that have added fat to rations = 20.3%, owners of pigs that have monitored mycotoxins in feed = 21.9%,

Environmental Compliance: sampled manure after attending program: 81.0%, intent to complete a CNMP = 76.0%,

Composting Mortality: changed methods used to manage mortality = 19.6%,

Animal Comfort and Handling: no longer sort by pig size before placement into pens = 25.0%, calculated the system capacity of ventilation system = 20.6%, changed any portion of ventilation system management = 31.8%, changed animal handling techniques = 17.5%,

Rodent Control: changes to rodent baiting program = 36.1%, changes in cleaning practices = 30.7 %,

Treatment of Sick Pigs: changes to hospital pens= 12.9%, changed the way of sterilizing syringes = 17.7%, changes in treatments that are routinely given to sick pigs = 27.9%.

The Pork AoE team estimates that 50% of all hogs raised in Michigan were represented at the swine grower-finisher program. Additionally, the Pork AoE team anticipates that there would be a 2% increase in feed efficiency in the hogs that are managed by those that attended the program through improved feeder and water management, improved barn environment and reduced death loss. A 2% improvement in feed efficiency equates to 5,000 tons in feed savings, which equals a total feed savings of \$525,000. Many of these farm owners/contract swine growers are paid on incentives such as feed efficiency. Therefore, improved feed efficiency results in the opportunity for the contract producer to make more money. Through improved feed efficiency 50,000 pounds of less Phosphorous would be excreted in the manure. In turn, less phosphorous in manure improves the environmental stewardship practices of these contract swine growers. This project also represented a success in collaboration with all the partners and the ability to meet PQA Level III certification and educational requirements for MAEAP.

In 2004-05, the Swine AoE educated 884 adults and over 10,000 youth in this area.

### ***Source of Funds***

Smith-Lever 3b&c, state, county

### **Scope of Impact**

State

### **Key Theme: Agriculture Profitability**

**Educational Initiative Title: Profitable Farms Build Community**

**Dennis A. Stein:**

### **Description of Program**

A dairy family needed assistance to develop a business plan that would provide a basis for their farm expansion. The expansion program would increase the farms overall profitability long term and add an additional seven FTE jobs to this rural community base. This during a period of time when many industries are cutting back hours and jobs, agriculture reverses the trend and helps to build a stronger Michigan community. Rural communities are limited in resources and support by individuals and firms that service these areas. This makes it less likely that new ventures and the financial support for these ventures will be successfully developed.

### **Impact**

MSUE educator engaged the family members in understanding the process and steps in the development of a useable business plan. In addition, support was provided in the detailed analysis of the farms businesses financial history and how that information could be used to project future expansion options. By providing this family farm with educational and technical assistance they were able to develop and sell an expansion of the dairy production enterprise. The expansion generated an additional economic impact of \$4,000,000 to the local economy and provided employment for an additional seven Full Time Employees. The owner of the farm stated, "Without MSUE support and efforts this expansion of our dairy farm would not have happened!" and "Our dairy farm is now in a position that we will be able to compete on a positive basis in the future."

The FIRM AoE in 2004-05 assisted 3,443 farmers.

### ***Source of Funds***

Smith-Lever 3b&c, state, county

### **Scope of Impact**

State

**Key Theme: Adding Value to New and Old Agricultural Products**  
**Educational Initiative Title: Sugarbeet Advancement Program**  
**Steven S. Poindexter: State**

### **Description of Program**

The sugar beet industry in Michigan was an industry at risk when profitability declined for both producers and companies. Yields had declined for a multitude of reasons. To turn this situation around, the Sugarbeet Advancement program was formed. The mission of the Sugarbeet Advancement program was to utilize research and education in revitalizing the Michigan sugar beet industry through a cooperative effort involving MSU, sugar companies, and producers. The Advancement committee identified critical production problems. Its major efforts were to conduct on farm research and increase educational opportunities for sugar beet producers. The Sugarbeet Advancement Program was funded through an assessment of fees to sugar beet producers and companies. The program also received grant dollars from the stat of Michigan called "GREEN" along with MSUE, and Michigan Agricultural Experiment Station.

### **Impact**

A survey to sugarbeet growers was conducted by the Center for Evaluative Studies to evaluate the initiative. The major findings for the study include: 80% attended MSUE sugar beet related farm meeting/workshops with 81% of these respondents rating the quality of educational programs high. Most respondents (81%) agreed that the program provided research based information, 74% agreed the program provided information not readily available elsewhere and 72 percent indicated they gained new information and skills on beet production. About one-fifth of the respondents indicated that their yield had increased because of advancement efforts. This translates into a potential economic impact of \$2,376,025 for the growers. About 10 percent of the growers indicated savings in beet production cost ranging from \$100 to \$5000 with a mean of \$2330. Many growers indicated that they changed/modified and/or adopted one or more of the ten sugar beet practices surveyed because of Advancement efforts. The percentage of these practices were: Leafspot control 69%, Variety recommendation 56%, Herbicide use 52%, Pelleted seed 45%, Increased plant population 40%, Tillage practices 34%, Date of planting 27%, Planter modification 16%, Fertilizer practices 19%, and Other 4%. Two-thirds of the respondents considered the Sugarbeet Advancement program as the most credible and/or reliable source of sugarbeet production information, while one-fourth considered the processing company. Nearly half (46%) of the growers felt there was improvement in the quality of the Extension services as a result of the Advancement program.

### ***Source of Funds***

Smith-Lever 3b&c, state, county

### **Scope of Impact**

State

### **Key Theme: Plant Health**

**Educational Initiative Title: Soil Sampling for Soybean Cyst Nematodes  
Phil Kaatz and Bruce MacKellar: Genesee, Lapeer, Macomb, and St. Clair  
Counties**

### **Description of Program**

Increasing awareness of soybean cyst nematode, the major soybean pest in the United States, has been one of the key issues for soybean growers in the southern Thumb area. Before the introduction of soybean aphids, soybean cyst nematodes were the most destructive pest of soybean production in the country. The pest can cause problems ranging from complete crop failure to 15% yield losses without showing visible symptoms. Because of the setback distances needed between hybrid seed corn fields and the prevalence of planting soybeans

on these areas year after year, the counties have been showing significant signs that the pest has been causing yield drops for anyone who is able to identify the symptoms. In 2002, there were -0- soil samples taken for soybean cyst nematode (SCN) in St. Clair, Macomb and Lapeer County. The fact that there were no samples taken showed the need for better education for farmers. The cost of soil samples for SCN is at no cost to the producer. Samples are paid for by the check off dollars administered by the Michigan Soybean Promotion Committee through a grant to the MSU Diagnostic Lab. Stakeholders were aware of the need to do testing for the SCN, but had not received adequate training to recognize the signs of the pest. The goal of this initiative was to raise awareness of the prevalence of this pest, to convince producers that it is important to test their fields for the presence of the nematods, and to help them to select resistant varieties and develop management plans to improve productivity on the areas second largest acreage crop.

### **Impact**

Over 300 tests from the counties were conducted during 2004-05, which is a significant increase from the beginning of the initiative. Considering that soybeans from these counties represents 5.75 million bushels of soybeans valued \$34.5 Million dollars, it can be assumed this initiative has assisted in protecting this important industry in Michigan.

### **Source of Funds**

Smith-Lever 3b&c, state, county

### **Scope of Impact**

State

The AoE teams in Goal 1 met its 2004-05 Plan of Work goals by reaching its targeted population. The team and members have become more active in recruiting stakeholder input and involving collaborators in setting priorities and designing and implementing programs. Examples of collaborators included Michigan Cattlemen's Association, Department of Natural Resources, Michigan Department of Agriculture, Michigan Farm Bureau, Farm Credit Services, Michigan Bean Commission, Upper Peninsula Potato Growers Association, Soil Conservation District, Citizens Bank, Saginaw Valley State University/SBDC, Michigan Pork Producers, Michigan Department of Career Development, Michigan Grape Society, Cornell University, Ohio State University, Rutgers University, Michigan Apple Commission, and Michigan Migrant Legal Services.

**Overview of Goal 2: A safe and secure food and fiber system**

Funding and programming for Goal 2. overlaps Goal 3. by approximately 80% through EFNEP (Expanded Food and Nutrition Education Programs) and FNP (Family Nutrition Program) which provide education in both food safety and food nutrition. For this reason, it is difficult to separate the two goals without duplication. On the other hand, it is clear that the majority of effort in each of these programs is focused on food nutrition (approximately 80% of the effort is spent on nutrition). Therefore, the estimate of 21,177 participants is low for food safety and does not include the majority of It is estimated that 105,882 participants, who received both food safety and food nutrition instruction to avoid duplication. Table 6. shows the number of participants and Key Themes addressed by the Food Safety AoE Team.

<b>Goal 2</b>	<b>Adults</b>	<b>Youth</b>	<b>Total</b>	<b>Key Themes</b>
Food Safety*	10,063	10,539	21,177	Food Handling, Food Safety, HACCP
<b>Goal 3</b>				
Food, Nutrition & Health*	42,551	42,154	84,705	Birth Weight, Human Health, Human Nutrition

\* To avoid duplication, participants who received both food safety and food nutrition were counted only once (20% Food Safety and 80% Food, Nutrition, and Health).

Table 6.  
Number of Participants and Key Themes by AoE for Federal Goal 2. and Goal 3.

**Highlights**

- Cost-benefit studies have been done on the Cooperative Extension System’s Expanded Food and Nutrition Education Program (EFNEP) in several states. It has consistently been shown that every dollar invested in EFNEP saves about \$10 in healthcare costs. In 2003, Michigan’s EFNEP has educated more than 4,000 parents, who represent a total of more than 15,000 individuals, plus 800 youths.

**Examples of Impact in Goal 2.**

**Key Theme: Food Safety and Food Handling****Educational Initiative Title: Fresh Produce Production: Reducing Risks****Brenda Reau: Monroe County****Description of Program**

Consumer awareness regarding the safety of fresh produce has risen sharply over the last 10 years in response to media coverage of microbial contamination in fruits and vegetables. Retailers in southeastern Michigan and northern Ohio who purchase fresh produce are placing more demands on local growers to ensure a safe produce supply in the supermarket. In response to these issues MSUE with the help of the Monroe County Environmental Health Sanitarian and a MSUE specialist designed a multidisciplinary program called, "Fresh Produce Production: Reducing Risks," to assist producers in ensuring the produce they grow and market remains free of microbial contamination.

**Impact**

In a written post workshop evaluation, a significant number of producers said they planned to make changes in their operation to ensure produce safety as a result of what they learned in the workshop. A one year follow-up mail survey was conducted to determine the outcome. There was a 70% response rate. One hundred percent of respondents reported that they had changed at least one management practice in their operations. Fifty seven percent made two or more changes in their management practices. Examples of the kinds of management practices that were instituted included monitoring of chlorine level of water in which produce is washed or rinsed, developing a procedure for sanitation of the packing area, and providing workers with training. The most significant management practice that was adopted was instituting a hand washing policy in the operation. One hundred percent of respondents had developed and adopted a hand washing policy for their produce handlers. Growers who participated in the program represented over 2000 acres of produce production in the Monroe county area and employed approximately 400 workers in their operations. Given the scope of the growers who were involved in this program and the reported changes they made in their operations in the past year this program has demonstrated a major impact on fresh produce safety in Monroe county as well as southeastern Michigan as most of the growers supply produce to the metro Detroit area.

**Source of Funds**

Smith-Lever 3b&c, state, local, county

**Scope of Impact**

Multi-State

**Key Theme: Food Safety and Food Handling**  
**Educational Initiative Title: Food Safety Education: ServSafe Training**  
**Darci Seamon and Cynthia Warren: Bay and Cass Counties**

**Description of Program**

The Bay County Department of Environmental Health as well as members of the Bay County Extension Council determined that there was a need to provide education to individuals and organizations preparing food for others. The Tri-County Food Safety Task Force comprised of schools, health departments, division on aging, FDA, MDA and Extension Educators also recognized this as a need. A survey of the recipients of the local Family Focus newsletter showed that residents of Bay County were unaware of the new pathogens causing foodborne illnesses. Individuals and businesses involved in selling and preparing food were confused as to the requirements under the new Food Code. Due to new pathogens, food preservation and storage techniques ServSafe workshops were implemented to help restaurants, schools, and others serving food. In a similar fashion, the Cass County Health Department identified the need for MSUE to provide these types of trainings.

**Impact**

Evaluation of the Bay County workshops found that 90% of the participants gained knowledge regarding food safety and handling. One of the organizations reported in a follow-up that it is saving \$3,000 a year from information gathered at a ServSafe 4-hour class. The organization realized that they were sanitizing dishes and utensils twice what the recommendation was. A six month follow-up evaluation of the Cass County workshops found 86% indicated that they had made changes in their food handling practices as a result of the program and 100% stated that they would recommend the ServSafe program to others. Topics that showed the greatest change were knowledge about food temperatures during cooking and the use of thermometers, wearing gloves, and preventing cross-contamination through proper sanitizing.

**Source of Funds**

Smith-Lever 3b&c, state, local, county

**Scope of Impact**

State

**Key Theme: Food Safety and Human Nutrition**  
**Educational Initiative: Family Nutrition Program**  
**Gayle Coleman: State**

**Description of Program**

Michigan State University Extension (MSUE) worked in collaboration with the state of Michigan's Family Independence Agency (FIA) to provide education through the Family Nutrition Program (FNP) for persons eligible for or receiving food stamps in all of Michigan's 83 counties during the 2002-03 program year. The educational efforts of FNP did not duplicate or supplant the efforts of other food and nutrition education programs such as the United States Department of Agriculture's (USDA) Expanded Food and Nutrition Education Program (EFNEP), Supplemental Nutrition Program for Women, Infants and Children (WIC), or the Commodity Supplemental Food Program (CSFP). In counties that have both FNP and EFNEP, FNP provided education to audiences not reached through EFNEP, such as seniors without children. FNP enabled county Extension Educators to reach a more diverse audience. The primary objective of the FNP was to provide education to help individuals and families eligible for or receiving food stamps make safe, nutritious, and economical food choices. Education provided through FNP addressed four of the core elements identified by the Food and Nutrition Service (FNS) of the USDA: dietary quality, food resource management/shopping behaviors, food safety, and food security. The fifth core element, systems and environmental change, was addressed in a variety of ways. Examples include working with the Michigan Department of Community Health, Michigan Department of Education – Commodity Supplemental Food Program, Michigan Office of Services to the Aging, and three Indian Tribal Organizations to pilot the Senior Farmers' Market Nutrition Program.

**Impact**

FNP educated 52,614 participants directly during 2002-2002. These direct contacts included adults reached through either a series of lessons (7,574 adults) or one-time presentations (44,383 adults). There was a total of 52,693 direct educational contacts with youth. Approximately 2,000 adult participants who received a series of lessons completed both pre and post surveys. Results regarding food safety from this tool indicated: 44% fewer participants reported thawing frozen meat on the counter; 26% fewer participants reported letting food such as milk or meat sit out for more than two hours; and 17% more participants reported washing their hands before preparing or eating food.

**Source of Funds**

Smith-Lever 3b&c, federal, state, county

**Scope of Impact**

State

The Food Safety AoE team in Goal 2 met its 2002-03 Plan of Work goals by reaching its targeted population. The team and members have become more active in recruiting stakeholder input and involving collaborators in setting priorities and designing and implementing programs. Examples of collaborators included U.S. Food and Drug Administration, Health Departments, Substance Abuse Rehabilitation Centers, schools, juvenile centers and courts, Oakland Livingston Human Services Agency, Older Persons Commission, Child and Family Services of Southwest Michigan, University of Michigan, USDA, Kalamazoo Loaves & Fishes, Child Care Network, Great Lakes Indian Fish and Wildlife Commission, food banks, Hunger Action Coalition, Michigan Partnership for Community Caring, Michigan Department of Agriculture, and Salvation Army.

### Overview of Goal 3: A healthy, well-nourished population

As previously stated, funding and programming for Goal 2 overlaps Goal 3 by approximately 80%. EFNEP (Expanded Food and Nutrition Education Programs) and FNP (Family Nutrition Programs) provide education in both food safety and food nutrition. For this reason, it is difficult to separate the two goals without duplication. It is estimated that 105,882 received nutrition and health information. Table 7 shows the number of participants and Key Themes addressed by the Food, Nutrition, and Health AoE Team.

Goal 2	Adults	Youth	Total	Key Themes
Food Safety*	10,063	10,539	21,177	Food Handling, Food Safety, HACCP
Goal 3				
Food, Nutrition & Health*	42,551	42,154	84,705	Birth Weight, Human Health, Human Nutrition

\* To avoid duplication, participants who received both food safety and food nutrition were counted only once (20% Food Safety and 80% Food, Nutrition, and Health).

Table 7.  
Number of Participants and Key Themes by AoE for Federal Goal 2. and Goal 3.

### Highlights

- In 2003, more than 800 Michigan schools participated in Team Nutrition, an effort spearheaded by MSU Extension and the Michigan Department of Education and carried out in collaboration with a variety of other partners. Participating schools reported improvements in their school nutrition and physical activity environments. Team Nutrition has secured more than \$1,700,000 in grants and more than \$60,000 in private contributions since 1996.
- In 2003, more than 30,000 nutritionally at-risk, low-income women and children received education and coupons to purchase fresh Michigan fruits and vegetables at local farmers' markets through the Project FRESH program. In a follow-up evaluation, 57 percent of program participants reported eating more fruit and vegetables as a result of Project FRESH.
- More than 6 million federal dollars were brought into Michigan during 2003 by leveraging state funding for Food Stamp Nutrition Education (FSNE). The FSNE program provided direct education to more than 90,000 adults and more than 100,000 youths in all of Michigan's 83 counties. FSNE, in partnership with private companies, state agencies and MSU faculty members provided education focused on nutrition and physical activity, obesity prevention, food safety and food resource management. More than 200 partners collaborated to reach more than 200,000 people with messages about the importance of eating breakfast.

- More than 4,500 pregnant or breast-feeding women completed MSU Extension's Breastfeeding Initiative, a mother-to-mother peer education program, between 1994 and 2003. Among the women enrolled in the program in 2002-2003, about 95 percent initiated breast-feeding, compared with 44 percent of women in the overall Michigan WIC population. At six months old, twice as many babies enrolled in the program were still breastfeeding when compared to the overall Michigan WIC population. A research study has estimated that for every infant that breastfeeds exclusively for the first 12 weeks of life (instead of formula feeding), HMO medical cost savings would be \$331-\$475 dollars during the child's first year. Another study found savings to Medicaid and WIC of \$478 in the first 6 months of life for infants exclusively breastfed for the first 12 weeks.

### **Examples of Impact in Goal 3.**

#### **Key Theme: Human Nutrition**

#### **Educational Initiative: Family Nutrition Program**

#### **Gayle Coleman: State**

#### **Description of Program**

Michigan State University Extension (MSUE) worked in collaboration with the state of Michigan's Family Independence Agency (FIA) to provide education through the Family Nutrition Program (FNP) for persons eligible for or receiving food stamps in all of Michigan's 83 counties during the 2002-03 program year (see full description in Food Safety).

#### **Impact**

FNP educated 54,534 participants directly during 2001-2002. These direct contacts included adults reached through either a series of lessons (7,317 adults) or one-time presentations (47,217 adults). There was a total of 48,647 direct educational contacts with youth. These direct contacts included youth reached through either a series of lessons (20,328 youth) or one-time presentations (28,319 youth). Approximately 2,000 adult participants who received a series of lessons completed both pre and post surveys. Results regarding nutrition and food preparation from this tool indicated:

- 52% more participants reported using information on food labels to compare the fat or other nutrients in the food.
- 51% more participants reported thinking about healthy food choices.
- 48% more participants reported eating three or more kinds of vegetables during each day.
- 43% more participants reported eating more than one kind of fruit each day.

- 25% more participants reported preparing foods without adding salt.
- 25% more participants reported that their children ate within two hours of waking up.
- 56% more participants reported planning meals for a few days ahead before going grocery shopping.
- 45% more participants reported using a grocery list when shopping for food.
- 41% more participants reported comparing prices when shopping to find the best buy.
- 34% fewer participants reported running out of food at the end of the month.

In 2003, Michigan FNP worked in partnership with the Center for Civil Justice to increase participation in the Food Stamp Program (FSP). The Center for Civil Justice offered a toll-free Helpline that assisted low-income families in understanding how to apply for the FSP and offered telephone screening. MSU Extension staff members across the state provided information on this Helpline to the families with whom they worked, and distributed flyers and similar information to agencies such as WIC and emergency food providers in an effort to increase awareness of the Helpline and FSP. As a result of this project, over 2500 callers contacted the Helpline for screening or assistance. Of these callers, 95% of the callers were not receiving Food Stamps at the time they called, 82% received a Food Stamp screening, and 98% of the households screened appeared eligible for Food Stamps. The average amount for which callers were eligible was \$178.64. Many childless adults, immigrants, and recently unemployed persons were happy to hear that they could qualify for food stamps.

### **Source of Funds**

Smith-Lever 3b&c, Smith-Lever 3d, state, county, local

### **Scope of Impact**

State

**Key Theme: Human Nutrition**  
**Educational Initiative: Breastfeeding Initiative**  
**Gayle Coleman: State**

### **Program Description**

Breastfeeding rates are low among limited income women. Low income mothers have higher infant mortality rates, premature births and low birth weight infants. Breastfeeding has been identified as one of the most important contributors to infant health, yet breastfeeding is not a well established practice in low income communities. There is a significant lack of role models, family/community support

and knowledge of the practice of breastfeeding. This need was identified by the state WIC, local health departments, community programs and local hospitals serving indigent and limited income populations. MSUE responded through a breastfeeding initiative with two main program goals: to increase breastfeeding rates among low income mothers; and lengthen the time mothers breastfeed.

### **Impact**

During the 2002-03 program year, 96% of the 1106 pregnant/breastfeeding mothers who enrolled in the Mother-to-Mother breastfeeding project reported initiating breastfeeding. At the end of two months, 61 % reported that they were still breastfeeding and at the end of 6 months 34% reported that they were still breastfeeding. The average duration of breastfeeding among participants was 20 weeks for this program year compared to 18 weeks last year.

### **Source of Funds**

Smith-Lever 3b&c, federal, state, county, local

### **Scope of Impact**

State

**Key Theme: Human Nutrition**  
**Educational Initiative: Family Nutrition Program**  
**Joan Miller: Washtenaw County**

### **Description of Program**

In the year 2000, 33,450 persons in Washtenaw County lived below the poverty line. This represents an increase an increase from 31,777 persons in 1990. In Ypsilanti and Willow Run respectively, 3.5% and 4.25% of children come from households below the poverty line, while in Ann Arbor, only 1% of children come from poverty status. While services for those in poverty exist in these geographical areas, they are not as organized and well developed as they are in Ann Arbor. At the request of two organizations, Washtenaw County FNP formed special collaborations to bring needed nutrition education to the residents of Ypsilanti and Willow Run. These collaborations included: Hope Administration, a non-profit faith based organization identified the need for nutrition education for many of their clients in the Ypsilanti area and Oasis Cafe, a restaurant in downtown Ypsilanti is supported by Hope Administration and provides sound nutrition for low-income Ypsilanti residents offered at special discounts of 70% on meals.

## **Impact**

During 2002-2003, over 150 seniors were educated through the program. Telephone surveys to Senior Nutrition Network participants found: 85% of participants increased their nutritional knowledge and food preparation skills; 100% of them used less animal fat, sugar and salt in cooking; 100% of them reported using more fresh fruit, vegetables and whole grains; and 63% believed they were able to prepare healthier meals at lower cost.

## **Source of Funds**

Smith-Lever 3b&c, federal, state, county, local

## **Scope of Impact**

State

The Food, Nutrition, and Health AoE team in Goal 3 met its 2002-03 Plan of Work goals by reaching its targeted population. The team and members have become more active in recruiting stakeholder input and involving collaborators in setting priorities and designing and implementing programs. Examples of collaborators included WIC, Head Start, Work First, Early On, pregnant teen programs, Michigan Family Independence Agency, Michigan Department of Public Health, hospitals, Commodity Foods, shelters, Sault Tribe of Chippewa Indians Youth Services, Alpena Community College, U.S. Food and Drug Administration, Health Departments, Substance Abuse Rehabilitation Centers, schools, juvenile centers and courts, Oakland Livingston Human Services Agency, Older Persons Commission, Child and Family Services of Southwest Michigan, USDA, Kalamazoo Loaves & Fishes, Child Care Network, Great Lakes Indian Fish and Wildlife Commission, food banks, Hunger Action Coalition, Michigan Partnership for Community Caring, Michigan Department of Agriculture, and Salvation Army. In addition, the team is engaged in identifying underserved populations and developing strategies, collaborations, and programs to address these populations.

## Overview of Goal 4: Greater harmony between agriculture and the environment

Forty six thousand three hundred ninety (46,390) participants received direct training on key themes in Goal 4. Table 8. shows the AoE Teams in this area, the number of participants, and the federal key themes for Goal 4.

Goal 4	Adults	Youth	Total	Key Themes
Forestry	4,561	6,004	4,836	Forest Crops, Forest Resource Management
Land Use	3,703	7,525	11,228	Land Use, IPM, Natural Resources
Manure	3,511	255	3,766	Agricultural Waste, Water Quality
Renewable Resources(RREA)	535	2,948	3,483	Recycling, Forest Resource Management
Sea Grant	4,097	5,526	9,623	Water Quality, Natural Resources Management
Water Quality	11,972	13,776	25,748	Water Quality, Riparian Management, Nutrient Management
Christmas Trees	663	0	663	Forest Crops, IPM, Water Quality
	<b>29,042</b>	<b>36,034</b>	<b>65,076</b>	

Table 8.  
Number of Participants and Key Themes by AoE for Goal 4.

### Highlights

- MSU Extension's Citizen Planner program trained more than 500 local land use decision makers in 20 counties across the state during 2004-05. These individuals, representing local planning commissions, zoning boards of appeals and similar bodies, learned about the tools and information for making local land use decisions that affect their communities' futures.
- MSU Extension's United Growth for Kent County is helping develop today's elementary school students into tomorrow's land use leaders. The organization recently released a curriculum designed to educate students who will someday address the problems associated with poor land use planning. Titled "This Land is Your Land," the curriculum targets third through fifth grade

students. Nearly 500 educators have already used the curriculum in such settings as classrooms and MSU Extension activities. The curriculum uses activity-based, service learning lessons to help students begin this involvement by working with their parents. Activities include conducting neighborhood surveys, participating in planning commission meetings and planning imaginary cities. These activities can also help parents get involved with land use issues.

- Redeveloping abandoned industrial sites is a key component of revitalizing urban areas and limiting sprawl. To help municipalities navigate through the challenges of reporting brownfield redevelopment authority financial activities to state regulators, MSU Extension specialists developed the Brownfields Reporter. This computer database program can help simplify the process of generating reports, easing the burden on communities that are working to revitalize former industrial sites.
- The Environmental Management and Remediation Certificate Program, an Extension education program offered through the Victor Institute for Responsible Land Development and Use, provides knowledge and perspectives for carrying out environmentally sustainable development practices. The purpose of the program is to inform developers about tools for communities to develop environmentally responsible projects that revitalize contaminated or obsolete sites, especially in the state's core communities.
- Michigan Agricultural Experiment Station researchers have discovered better pest monitoring strategies for Michigan's important fruit industry. Discoveries in how fruit moth pests respond to pheromones, an organic method of pest control, will improve non-pesticide control options. A new wax-based formulation of a pheromone-dispensing system was found to be more effective, long lasting and economical than other systems used to control Oriental fruit moth a major pest of apples.
- Michigan farmers learned to use their manure resources better and protect our water resources through an MSU Extension program to help them develop manure management system plans. The program was offered in 12 counties and was a collaborative effort with the Natural Resources Conservation Service, the Michigan Department of Agriculture and others, with funding support from the USDA's Sustainable Agriculture Research and Education program. After completing the program, participants estimated that they could save an average of \$7,707 in purchased fertilizer expenses and said that they better understood what it means to comply with Michigan's Right-to-Farm Act guidelines.
- MSU Extension staff members, MSU researchers from the Michigan Agricultural Experiment Station, and staff members from a number of state and federal agencies are monitoring the threat to urban and suburban ash trees posed by the emerald ash borer. This exotic insect was identified in southeastern Michigan in 2002 and has caused a widespread ash tree die-off, primarily in a

six-county area. Collaborators are working to identify control methods and helping residents dispose of dying trees. They are also working with the region's landscape industry to help businesses identify potential replacement species.

- The Michigan Lake and Stream Leaders Institute helps participants, primarily lake residents, develop their potential as resource management leaders and trains them in water resource planning and program implementation. The program was first offered in 2002, and as part of their learning, participants were required to develop community projects related to water resource management. One participant's project looked at the effects of stream restoration efforts on Montmorency County's Cheboygan and Black rivers. Another examined the collaborative efforts to manage multiple uses for Eaton County's Carrier Creek. A third explored solutions for problems caused by failing septic systems on Mason County's Gunn Lake.
- A program partnering MSU Extension with faculty members from the MSU departments of Fisheries and Wildlife, Sociology and Agricultural Engineering, local high schools and the USDA is helping communities in five Michigan counties better understand how agriculture affects their water quality. The partnership is part of a multidisciplinary attempt to improve community water quality monitoring efforts and to implement agricultural best management practices (BMPs) -- cost-effective techniques for managing water quality -- in the Stony Creek, Lake Macatawa, Gun River and Rice Creek watersheds of Clinton, Ionia, Ottawa, Calhoun, Jackson, Barry and Allegan counties. MSUE's role includes helping researchers learn what resources communities need to develop their awareness of water quality issues.
- MSU Extension educates members of the forestry industry about the importance of wise resource management through the Sustainable Forestry Education (SFE) Logger Education Program. Since 1996 more than 2,300 people have completed the entire SFE core training program. Additionally, more than 3,000 people have participated in some phase of the core program. Although loggers and foresters have been the primary audience for the program, interest has been growing among private landowners. Landowner participation is valuable because loggers learn about landowner perspectives on logging and forest management.

#### **Examples of Impact in Goal 4.**

**Key Theme: Land Use**

**Educational Initiative Title: Infrastructure Development and Management in Land Use Planning**

**Land Use AoE Team: State**

**Description of Program**

Through a stakeholder input process local governments expressed a need for education and materials on infrastructure development and management as it relates to land use planning, development and community investments, especially given growing interest in neo-traditional designs and cluster zoning. When local governments –especially small under staffed villages– attempt to implement "Smart Growth" principles of cluster design and dense development there is a need for sewage treatment and other infrastructure. However there is not the local knowledge on how government finance works and what funds and planning is necessary to pay for infrastructure. The AoE Team developed an in-service training program of “train the trainers” to prepare AoE members to work with local governments on this issue.

## **Impact**

The pilot for this program was delivered in Traverse City, September 23, 2005. This pilot also served as a train-the-trainer for members of the Land Use team. Intent is the program will be repeated in other parts of Michigan during the next one to two years. Twenty three participants evaluated the program. Results indicated that 96% planned on using the information in the near future with examples being: "Methods of bonding (financing) municipal projects and types of projects these may be used for," "Process and sources of funding for infrastructure," "Communication to public on things needed to be changed in the community," "Capital Improvement Program," and "Waste water system sizes." Sixty two (62%) reported that would do something different in the future and 91% believed their communities will benefit from the trainings.

In 2004-05 the Land Use AoE Team reached 10, 561 participants.

## **Source of Funds**

Smith-Lever 3b&c, state, county

## **Scope of Impact**

State

**Key Theme: Nutrient Management and Water Quality**  
**Educational Initiative Title: Cows in the Creek Project**  
**Thomas G. Rorabaugh: Central Region**

## **Description of Program**

Watering livestock in ponds and streams has proven adverse environmental consequences such as nutrient overload, stream bank erosion, siltation and

negative visual impact on the non-farm community. In response to “Right to Farm” complaints, and observations by the agent of open water contact, a demonstration project was designed to promote “Best Management Practices for Nutrient Management (BMP’s). The goal was to show producers the Best Management Practices for controlling livestock access to stream water sites. Another goal was to demonstrate extended grazing techniques, with new and improved varieties suited to northern Michigan. Three sites were established on a demonstration farm to show livestock exclusion techniques for surface water courses, erosion control methods and buffer strip management to reduce nutrient overload. These sites included two limited access watering sites and an improved stream crossing. All sites were designed with Natural Resource Conservation Services (NRCS) specifications. A field day was held so producers could gain first hand knowledge of BMP’s, and witness approved exclusion structures and buffer strip management. A Microsoft Power Point presentation of this demonstration project was created and has been used to promote BMP’s at producer meetings and as part of the Michigan Agriculture Environmental Assurance Program.

### **Impact**

30 producers from six counties attended the field day and several producers have "stopped" by to look at the stream sites and the extended grazing results. Several Amish farmers also attended the event. Producers witnessed first hand how to properly construct stream watering sites and stream crossings using NRCS approved techniques. Producers also observed extended grazing varieties available for use on their own farms. Four Amish farms have adopted practices learned at the field day and by observing the demonstration site. Two farms have established stream watering sites for dairy cows and draft horses and adopted managed grazing practices. Two other Amish farms have completed pasture divisions and are adopting managed grazing.

During 2004-05, 2,256 participants were trained by the Manure AoE Team and 21,899 participants by the Water Quality AoE Team.

### **Source of Funds**

Smith-Lever 3b&c, state, county

### **Scope of Impact**

State

### **Key Theme: Pesticide Application**

**Educational Initiative Title: Educating Commercial Pesticide Applicators**

## **Mike Staton: Southwest Region**

### **Program Description**

Commercial pesticide applicators in southwest Michigan have had trouble earning enough commercial core, turf grass and ornamental credits to renew their pesticide certification. In addition, in the past MSUE has offered excellent pesticide recertification classes for commercial applicators (turf and ornamental) at Ag Action Day for years, but were not well attended. To address this issue, the team obtained a list of commercial applicators in each county from the Michigan Department of Agriculture (MDA). The list was used to directly promote the turf and ornamental Ag Action Day sessions.

### **Impact**

As a result of the targeted promotional effort, participation increased from around twenty applicators to over 80. In addition, a survey instrument was developed, distributed and summarized to help the team meet the educational needs of commercial applicators in turf and ornamentals. The results of the survey found seventy-nine percent (79%) indicated that they have had trouble accumulating enough commercial core, turf and ornamental credits to renew their pesticide certification. Ninety-eight percent (98%) indicated that we should continue to offer three turf/ornamental pest management classes at Ag Action Day each year. Ninety-two percent (92%) indicated that they would like to see and would participate in other types of recertification seminars such as in-season turf and ornamental pest management meetings. As a result of the training and survey, the team was able to meet the immediate educational needs of an underserved audience and gathered powerful survey information that improved our ability to meet the educational needs of this underserved audience.

In 2004-05, the Turfgrass and Ornamentals AoE Teams collectively reached 6,814 participants.

### **Source of Funds**

Smith-Lever 3b&c, state, county

### **Scope of Impact**

State

**Key Theme: Water Quality**

**Educational Initiative Title: Effective Irrigation Management for Nurseries**

**Thomas A. Dudek: Ottawa County**

### **Description of Program**

New Water Use reporting legislation and increased emphasis on water issues created a local need to educate nursery growers on more efficient water usage. Ottawa County and surrounding counties are the focal point for nursery production in the state. Also the EQIP program piloted an effort to involve nurseries in their cost sharing and Ottawa County was chosen to be a pilot county. One of the areas they would cost share in is Irrigation System Efficiency testing. But before nurseries could apply for the funds they needed to understand the concepts of system efficiencies. A three session program developed by the University of Florida staff was used and adapted to Michigan's growing conditions and needs.

### **Impact**

Seventeen growers representing 10 nurseries including the 3 largest nurseries in the state participated in the program. The impact of this effort was that 14 individuals showed a 17% gain in knowledge based on pre and post test scores (i.e. 74% to 91%). Fifty percent (50%) of the attendees planned on utilizing the written materials provided and conducting distribution uniformity tests on their overhead and micro irrigation systems. Sixty four percent planned on purchasing a pilot tube to measure nozzle pressures on their overhead irrigation systems. Over 4900 acres of nursery stock production was represented by the attending growers.

### **Source of Funds**

Smith-Lever 3b&c, state, county

### **Scope of Impact**

State

### **Key Theme: Wildlife Management**

**Educational Initiative Title: Forests & Deer-Striving for Balance**

**Bill Cook: Multi-State**

### **Description of Program**

Deer overabundance has become a major natural resource issue in many eastern states, including Michigan. Deer pose one of the most serious threats to Michigan forest health and sustainability. Browse impacts are widespread and often severe, resulting in major long-term ecosystem changes, loss of biodiversity, inability to reproduce commercial tree species (multi-billion dollar

industry), degrade wildlife habitat, and cause unnecessary damage to life and property (tens of millions of dollars, injuries, deaths).

A professional conference was conducted that looked at some of these impacts and examined management challenges. Twelve speakers addressed pertinent issues about forest impacts, recovery, and management. The conference emphasized that while biological and ecological resources are threatened, the solutions lie largely in the socio-political arena.

### **Impact**

200 people attended the conference in St. Ignace, most of which were natural resource professionals that consisted primarily of foresters and wildlife managers. Results from evaluation surveys found: nearly half the respondents were surprised by at least one presentation; 75% learned something new; 80% cited deer overabundance relevant to their jobs; 90% indicated the conference met/exceeded their expectations; and 100% of the respondents believed that agencies & organizations should reduce deer densities. Knowledge gains from this conference will help address the negative impacts of deer overabundance that can lead to habitat degradation that affects a wide range of plant and animal species, and a number of major ecological processes.

The Forestry AoE in 2004-05 reached 9,868 participants.

### **Source of Funds**

Smith-Lever 3b&c, state, county

### **Scope of Impact**

Multi-State

The AoE Teams in Goal 4. met their 2004-05 Plan of Work goals by reaching their targeted population. All teams and members have become more active in recruiting stakeholder input and involving collaborators in setting priorities, and designing and implementing programs. Examples of collaborators have included: Northwest Michigan Council of Governments, planning departments, Western Michigan University, watershed groups, Rotaries, Chambers of Commerce, League of Women Voters, Farm Bureau, schools, DNR, U.S. Forest Service, drain commissioners, and Michigan Department of Agriculture.

## Overview of Goal 5: Enhanced economic opportunity and quality of life for Americans

Table 9 shows the AoE Teams, number of program participants, and federal key themes address by the AoE teams for Goal 5. It is important to note that youth were distributed by the content area and were not duplicated in Goal 5., whereby, an additional 164,115 youth from Goals 1 through 4 should be added to make the total number of youth to be 281,273.

Goal 5	Adults	Youth	Total	Key Themes
Community Development	7,897	2,342	10,239	Community Development
Economic Development	3,481	165	3,646	Promoting Business Opportunities
Family Resource Management	20,216	19,042	39,258	Family Resource Management, Children, Youth and Families at Risk
FIRM	7,455	1,672	9,127	Agricultural Financial Management
Human Development	21,868	23,557	45,425	Parenting, Child Care
LeadNet	1,712	171	1,883	Leadership Training
State & Local Government	1,988	19	2,007	Community Development, Leadership Training
Tourism	169	6	175	Tourism
Volunteer Development*	5,210	17,316	22,526	Youth Development, Leadership Training
Youth Development**	10,568	56,275	66,843	Youth Development/4-H, Character Education, Children, Youth and Families at Risk
	<b>80,564</b>	<b>120,565</b>	<b>201,129</b>	

\* Number of adult volunteers who were trained. A total of 23,814 adults volunteered for 4-H and 3,000 for Master Gardeners.

\*\* To avoid duplication, youth who crossed goals were not counted again in youth development.

Table 9.  
Total Participants Reached Directly by AOE for Federal Goal 5.

### Highlights

- The need to better prepare children to read well is critical across Michigan. About 35,000 students from kindergarten through third grade in 24 Michigan counties developed reading skills through the 4-H Club Read program during the project's first three years (September 2000-03). At least 78 percent of

participants were from low-income families. Ninety percent of the children in Club Read's in-school tutor/mentoring programs improved reading skills by at least one grade level. Seventy-seven percent of the children in the out-of-school tutor/mentoring programs improved their reading skills by at least one grade level.

- Michigan 4-H's Double Klick program helps youths learn technology skills to improve success in school and later in careers. Program evaluation of the pilot program, which was conducted in Wayne, Chippewa and Lake counties, showed that 80 percent of the youths directly linked skills learned through 4-H's Double Klick with schoolwork. Most connections were based around using the Internet for research or developing presentation skills. All 100 percent of the youths reported learning some aspect of technology that they didn't know before entering the program.

- In 2003, Pyramids Between the Pages, a pilot program that links nutrition education with literacy was implemented in over 25 schools and out-of-school-time programs. Over 1500 low-income students took part in hands on lessons that taught healthy eating and physical activity habits, while teaching and reinforcing the development of basic literacy skills. The content for each lesson has been aligned with the Michigan Curriculum Framework. While teaching students about nutrition and physical activity, MSU Extension staff members also teach to State core subject standards and benchmarks for reading/language arts, math, science, and social studies.

- Studies show that youngsters who are unsupervised after school are at higher risk of getting poor grades, being crime victims, or experimenting with tobacco, alcohol, drugs and sex. Michigan 4-H annually involves 276,000 Michigan youths. It is the largest out-of-school-time program in the state, largely coordinated by a volunteer core of 21,000 adult mentors. Each of these volunteers annually contributes an average of 36 hours to Michigan's young people. The value of their time contribution is roughly \$12.5 million per year.

- Michigan 4-H Youth Development created the 4-H Fun Zone project to provide unsupervised children in low-income communities with fun and educational after-school activities. Sixteen counties participated in 2002, the project's second year. More than 1,300 children took part in activities led by volunteers, who contributed more than 10,500 hours.

- Since 2000, more than 18,918 Michigan young people have been directly involved in 4-H character education efforts. These include communitywide Character Counts! programs involving parents, schools, after-school programs, youth and family agencies, law enforcement, faith-based and other organizations. Anti-bullying education is conducted with community members representing a variety of organizations (4-H, schools, child and family services, juvenile facilities,

child care groups, faith community, scouts, camps, Big Brothers/Big Sisters, Y's and police departments) and for hundreds of teens.

- Residents in low-income neighborhoods can learn the skills and information they need to become licensed childcare providers through MSU Extension's Better Kid Care program. Participants are prepared to apply for licensing and take part in a support network through this program. During 2002, Saginaw County graduates of the Better Kid Care program generated \$1.7 million in income as a result of their new businesses.
- More than 3,500 pregnant or breast-feeding women completed MSU Extension's Breastfeeding Initiative, a mother-to-mother peer education program, between 1994 and 2000. Among the women enrolled in the program in 2001-2002, about 95 percent initiated breast-feeding, compared with 44 percent of women in the overall Michigan WIC population. At six months old, twice as many babies enrolled in the program were still breastfeeding when compared to the overall Michigan WIC population. A research study has estimated that for every infant that breastfeeds exclusively for the first 12 weeks of life (instead of formula feeding), HMO medical cost savings would be \$331-\$475 dollars during the child's first year. Another study found savings to Medicaid and WIC of \$478 in the first 6 months of life for infants exclusively breastfed for the first 12 weeks.
- The Building Strong Families program works in 43 Michigan counties to help parents of children from newborn to age three gain knowledge and learn skills to help their children reach their full potential. In 2002 nearly 3,500 families participated in the program. A long-term evaluation found that as a result of completing the eight-week program, parents are more likely to promote their children's cognitive, emotional, social, language and physical development, use positive discipline and encourage their children's self-help skills. They say they have increased feelings of personal power and are more satisfied with their social support.
- MSUE is involved in a multi-year initiative to increase access to the Earned Income Tax Credit (EITC) in underserved areas of Michigan. A program offering free tax services, financial education, and financial services was piloted during 2002 in four communities in Cheboygan, Muskegon, Lansing, and Saginaw counties. In a survey that was completed in conjunction with the free tax services, 75.8 percent of all individuals who filed in those communities were using their tax refunds to pay bills. Survey results showed that the EITC increased household income and people used their refunds to consume local goods and services. This year, staff members are working with the governor's office to expand access to the EITC statewide. The goal is to insure that all eligible Michigan residents take advantage of the federal EITC and that affordable tax preparation services can be sustained in those communities with the highest number of eligible households.

- The Michigan Family Independence Agency contracted with MSUE to assist in developing a financial literacy curriculum to help foster care youths make the transition out of the system to financial independence. A curriculum was piloted in two locations—a 10-county region in northwest Michigan (Antrim, Benzie, Charlevoix, Emmet, Grand Traverse, Kalkaska, Leelanau, Manistee, Missaukee, and Wexford) and in Detroit. MSUE developed the curriculum and educated youths about opening and maintaining individual development accounts.
- MSU Extension is assisting a group of urban citizens on Detroit's east side to realize a vision for a thriving, healthy community surrounding a bustling farmers' market. Revitalizing the Detroit Chene-Ferry Farmers' Market is the aspiration of the Michigan Coalition of Black Farmers. Members are working to bring fresh produce, jobs, education and training opportunities to a depressed area with the help of MSU Extension. A conference was held and support for the vision garnered at the local, state and federal levels. Their goal is to reopen the market in 2004.
- Cities and towns of all sizes face issues related to topics such as planning downtowns, designing walking or biking paths and industrial parks, land use planning and brownfield redevelopment. MSU's Small Town Design Initiative (STDI) offers communities with fewer than 15,000 residents opportunities to develop projects to improve their physical environments with help from campus-based faculty members, students and programs. Nineteen small towns in 14 Michigan counties took part in the STDI in 2001 and 2002.
- The Urban Collaborators initiative is a joint effort of MSU Extension, the MSU College of Social Science and MSU's Urban Affairs Programs. It links MSU's research and outreach resources with the urban community and economic development needs of residents in Detroit, Flint, Grand Rapids, Lansing, Pontiac and Saginaw. The program offers mini-grants, including one that made it possible to offer a summit that gave residents in southwest Grand Rapids the opportunity to develop a vision and ideas for redeveloping their neighborhood. Another funded a Flint economic development project to redevelop Windmill Place, an obsolete commercial/retail/office facility. The program also offers student internships, planning partnerships that match student work teams with urban planning projects, and research aimed at creating and disseminating new knowledge about the urban condition.
- An intensive two-day diversity and pluralism educational program developed by Extension focuses on helping staff members increase their awareness of areas of prejudice, discrimination and oppression including racism, sexism, classism and heterosexism. This workshop has been offered in numerous locations across Michigan to encourage participants to reflect on how they've learned to think about human differences and on the widespread tendency to view differences within a monocultural view of "better than/less than"

thinking. The MSUE diversity team is currently working with the city of Lansing to develop a custom training program for city employees.

### **Examples of Impact in Goal 5.**

**Key Theme: Promoting Business Programs and Agricultural Profitability**  
**Educational Initiative Title: Fast Track and Business Education**  
**Economic AoE Team, Mark Thomas: State**

#### **Description of Program**

Business Education program obtained training with assistance from the Extension Economic Development AoE and the USDA RBE Grant. Eight Extension agents and three Iosco County Extension contractors received certification for facilitator training by FastTrac programs in Bay City due to cooperation among the AoE leadership, Bay County Extension Director, Kauffman Center FastTrac national staff and Iosco County Extension. Iosco County advertised and began its first New Venture FastTrac class with 14 enrollees. In addition, the Business educator and the CED began intensive marketing toward producing a FastTrac Planning class for people already in business. Attended "Going Solo" youth entrepreneurship curriculum training in Chicago, Illinois. Promotion and recruitment for the NxLevel "Tilling the Soil of Opportunity Business planning program was in full swing. A joint program with Marilyn Thelen in Clinton Co. Open the Window of Opportunity was an excellent program to kick off this project and motivate participants. The sign up for NxLevel has ended up at about 15. Nine potential new business start-ups are examining their business dreams in light of cold reality. These individuals (and one team of two) are developing business feasibility plans that will be more realistic and have greater chances of success. Some thirty businesses have a better sense of community appreciation for their efforts and their problems. Most have expressed interest in seeing the summary report from the BRE work group this fall. NxLevel Entrepreneurship Course for individuals looking at launching new business enterprise, or those with existing businesses who are seeking to enhance their business skills. A partnership with the Broad School of Business allowed MBA students to work with my class participants in further developing their business plans.

#### **Impact**

The participants indicated that they intend to create 24 new jobs (10 full time, 14 part-time) as a result of growth within their business. Agricultural Entrepreneurial Training - Fourteen individuals are better prepared to expand or launch an agricultural value added business as a result of a 10-week entrepreneurial business planning program conducted by Clinton, Gratiot, and Isabella MSU-Extension staff. Eight participants have projected an estimated combined sales

for the next year of \$966,000, an increase of over \$360,000 from previous levels. Business training such as this will help provide more profitable agricultural operations and a financially stronger community. Assistance was provided to 18 existing or start-up businesses.

In 2002-2003, the Economic Development Area of Expertise Team trained 3,646 participants throughout the state.

### **Source of Funds**

Smith-Lever 3b&c, state, county

### **Scope of Impact**

State

**Key Theme: Agricultural Financial Management**  
**Educational Initiative Title: Farm Information Systems - Telfarm**  
**Roger Betz: Southwest Region**

### **Description of Program**

Many of the commodity groups and AoE teams identify financial management and profitability as an important goal. In order to improve profitability, one has to understand what ones actual profitability is in order to compare. Besides useful income tax information, producers need to have accurate business analysis information to evaluate if the farm is actually making money, or is cash flow being obtained from outside sources? Businesses also need a comparative tool so that they can evaluate their business compared to others to help identify strengths and weaknesses within their business. State summaries are used from the individual's input data in order to create state type of farm reports. Individuals can use information to compare from one year to the next. Also, Michigan uses the information for various activities including the status of individual commodity groups. This is used, for one example, to help law makers determine state and federal programs to assist producers. This helps secure and maintain a national healthy and adequate food supply.

### **Impact**

120 Financial Business Analysis were completed in the southwest region through the cooperation of the southwest staff. The number of people impacted was much higher as many operations have 2 or more operators for the business. Producers were asked to rate their understanding of 11 financial indicators and ratios for their business, both before and after the Telfarm Business Analysis session. Of these indicators, producers indicated a change from 7.3% to 68.0%

increase in their understanding of these individual ratios and financial indicators for their business. Additional questions from the formal written evaluation: 1) How valuable do you consider this session to be to your farm business? 90% rated very valuable, with 10% somewhat valuable, 0 of little, and 0 of no value, indicating a very strong feelings of the importance of this session; 2) Did you learn something about your business today that you did not know before? Even though several of these producers have participated in these sessions for many years, 83% of them indicated yes, only 17% indicated no. When asked if yes, what they've learned? Examples included: Can see trends and assumptions quantified that I had a better year than what I realized; that we should continue in the business; gain an understanding of the previous year's balance sheet and how you have to use both of them; profitability appears to be low because of land values (in other words, a person understands the difference between profitability and inflation of land in terms of their balance sheet); we learned that debt to asset ratio isn't bad, and that we need to get our operating expenses down; how to make an expansion budget plan for the lender; that an expansion may be okay; understand the need for accurate records; that their draw was more than what their income was for the year; what areas to watch for as to not to get into financial trouble; good job of explaining things; business is in better shape than we anticipated; 3) Will the information received about your farm business influence your decision making in the next year? 80% indicated yes, only 20% indicated no. As a result of participating in the Telfarm system, producers from Southwest Michigan benefited by over \$1.5 Million in income tax savings for the year.

### ***Source of Funds***

Smith-Lever 3b&c, state, county

### **Scope of Impact**

State

### **Key Theme: Promoting Housing Programs**

**Educational Initiative Title: Washtenaw Housing Education and Partners Collaboration**

**Caton Gauthier: Washtenaw County**

### **Description of Program**

Washtenaw County and the City of Ann Arbor have identified affordable housing as a key community issue which needs to be addressed. Working class households are priced out of the county's housing market and this is creating a void of lower paid workers for area businesses. Helping individuals and families to purchase affordable homes benefits the general economy as well as households directly. As there are many barriers to attaining affordable

homeownership in Washtenaw County, MSUE focused program efforts on collaborating with government and non-profit agencies to provide a variety of educational and Down Payment Assistance options in the community. MSUE organized the MSDHA Certified Housing Counseling agencies, including Community Housing Alternatives and POWER, Inc. to collaborate to offer comprehensive education and counseling services for the MSHDA Links to Homeownership program. The three-agency partnership known as the Washtenaw Housing Education Partners (WHEP), now collectively markets its homebuyer education program and, cooperates to support shared clientele.

### **Impact**

In the three years of partnership the WHEP collaborative has helped 58 families attain homeownership and helped them receive over \$560,000 in down payment assistance, buy down funds and rehab assistance through state and local funding sources. WHEP has gained an excellent reputation within the community and its recognition has been exemplified by funding that partner agencies have subsequently received. Partner agency POWER, Inc. received \$100,000 of administration and matching funds for 27 participants in the Washtenaw County IDA program. Partner Agency Community Housing Alternatives received \$75,000 for a County Funded Down Payment Assistance program in 2002. Community Housing Alternatives launched its Acquisition and Rehab program with \$430,000 from Washtenaw County and received an additional \$30,000 in Down Payment Assistance funds, all which serve WHEP customers. The WHEP partnership is currently collaborating with the City of Ann Arbor and Vaneck and Associates to find and educate families for a 55-unit affordable Stone School Townhome project. The City of Ann Arbor is providing \$480,000 in buy down subsidies to purchasers of the units and \$300,000 in revolving loan funds. The Builder is contributing \$110,000 to WHEP for services and is foregoing a \$3,000,000 profit by to provide a builder subsidy. The partnership is currently focusing on preparing buyers for the Stone School Townhome project in Ann Arbor, which will provide 55 two- to four -bedroom unit condos which will be subsidized to be affordable to individuals and families at the 60%, 80% and 100 % Area Median Income levels. Each agency serves on the Stone School Townhome Steering Committee and specializes on specific areas of the homebuyer education program.

In 2002-03, over 12 hundred participants received training on affordable housing throughout the state.

### ***Source of Funds***

Smith-Lever 3b&c, state, county, local

### **Scope of Impact**

State

**Key Theme: Children, Youth and Families At-Risk**  
**Educational Initiative Title: Dawn Farm: A Drug and Alcohol Rehabilitation Center**  
**Caton Gauthier: Washtenaw County**

### **Description of Program**

Dawn Farms, a residential treatment program for adults, recognized a need for life skill education. Participants of this program have numerous issues stemming from their addiction and are preparing to go out and make changes to their lives. Many have low levels of life skills, especially in the area of communication. Dawn Farms requested MSUE to provide communication workshops to participants in a drug and alcohol treatment center. Washtenaw County/MSU Extension has been working with Dawn Farms for approximately three years.

### **Impact**

An evaluation of the program found: 83% of survey respondents gave examples of knowledge gained on communication skills as a result of the class; and 100% of survey respondents indicated that they plan to use assertive communication and active listening skills in their every day lives. In addition, evaluations have found: 63% increased in the understanding of the difference between assertive, passive and aggressive communication styles; 32% increased in knowledge level of factors that contribute to how a message is heard and interpreted; 36% increased in their awareness of their own communication style; 22% increased in their understanding of the ways "I" influence people by what "I" say and how "I" say it; and 37% increased their understanding of how "I" respond to other peoples' communication styles.

### **Source of Funds**

Smith-Lever 3b&c, state, county, local

### **Scope of Impact**

State

**Key Theme: Community Development**  
**Educational Initiative Title: Small Town Success Strategies**  
**David Ivan and Dave Thomas, Economic AoE Team: Clinton County and State**

## **Description of Program**

While some communities in Michigan have prospered during the past decade, According to USDA Rural Development, and the Michigan Economic Development Corporation (MEDC) many rural communities (less than 10,000 in population) have struggled. Vacant storefronts, half-filled industrial parks, and limited programs/activities for their youth/senior populations have resulted in a declining population base. In visiting with representatives of the Michigan Municipal League, and community leaders from Mid-Michigan, communities were eager to pursue new strategies, however, they were unsure of proactive initiatives to pursue, and the potential costs involved. Succinctly put, many communities were unaware of where to turn for assistance, advice and ideas for improvement. Utilizing an advisory committee composed of community leaders from six rural communities, the most pressing issues facing their communities were identified, and sorted into three areas of concern: economic development, land use coordination, and overall quality of life. Additionally, representatives from Michigan Municipal League, MEDC, and MSU Extension, were solicited to identify "best-practice" communities. Each best practice community visited was solicited for additional progressive communities in which they benchmark against. The goals of the initiative were: assist downtown development authorities, economic development corporations and other units address priorities and reinvigorate groups toward broader development actions; implement Premier Fast Trac programs for small business development in rural communities; enhance community capacity through facilitation, resource linkage, and leadership development; and through a best-management practices approach, enhance the knowledge and skill level of sustainability strategies for smaller communities in mid-Michigan.

## **Impact**

A statewide seminar, entitled "Small Town Success Strategies" was conducted in December with 160 participants from all regions of the state attended. The evaluations spoke highly of the program, and the materials presented were "institutionalized" for AoE use statewide. Based on a follow-up survey of 100 participants of the statewide community sustainability seminar, 88% of the program participants indicated that the program improved their understanding of the various tools of community development. 90% of the survey participants indicated that they brought at least one new idea back to their community from the program. Individual written comments were also highly supportive of the initiative's impact. The curriculum and materials were used at three regional Michigan Municipal League meetings and an article was printed in MML publication.

During 2002-03, seventeen counties had local initiatives addressing violence prevention.

### **Source of Funds**

Smith-Lever 3b&c, state, county, local

### **Scope of Impact**

State

### **Key Theme: Youth Development**

**Educational Initiative Title: Teaching Our Kids to Kill**

**Julie Moberg: Delta County**

### **Description of Program**

MSUE assisted the Family Coordinating Council in completing a full community assessment. The Compass, a United Way tool, was utilized for the survey process. Telephone interviews, mailed surveys, face to face surveys, and data collection were utilized in the process. One of the needs identified was community violence prevention. MSUE participated on a collaborative community violence prevention council which coordinated a workshop on "Teaching our Kids to Kill". A national speaker was brought into Escanaba. He presented to 72 participants. The focus was upon the effect of media violence and children.

### **Impact**

Pretests and posttests were completed for the workshop "Teaching Our Kids To Kill". MSUE assisted in the development of the survey tool. The pretest indicated that 31% of the participants had a high knowledge of the effect of TV violence on children's behavior. Posttest indicated 95% of the participants had a high knowledge of the effect of TV violence on children's behavior with a net increase of 64%. The pretest indicated that 37% of the participants had a high knowledge of the effect of movie violence on children's behavior. Posttest indicated 95% of the participants had a high knowledge of the effect of movie violence on children's behavior with a net increase of 58%. The pretest indicated that 35% of the participants had a high knowledge of the effect of video game violence on children's behavior. Posttest indicated 97% of the participants had a high knowledge of the effect of video game violence on children's behavior with a net increase of 62%. The pretest indicated that 32% of the participants had a high knowledge of the media's role in desensitizing youth to violent behavior. Posttest indicated 98% of the participants had a high knowledge of the media's role in desensitizing youth to violent behavior with a net increase of 66%. One of the next steps is a community plan to address media violence in children that is being developed by the Community Violence Prevention Council.

**Source of Funds**

Smith-Lever 3b&c, state, county, local

**Scope of Impact**

State

**Key Theme: Children, Youth and Families at Risk**

**Educational Initiative Title: PLANT-A-ROW FOR THE HUNGRY PROGRAM**

**Mary Wilson and George Silva: Genesee and Eaton Counties**

**Description of Program**

PLANT-A-ROW FOR THE HUNGRY PROGRAM This is a national project in cooperation with the Garden Writers Association of America and the Home and Garden Television Network. The mission is to provide an avenue through which more than 70 million gardeners in this country can help more than 35 million men women and children who go to bed hungry daily. Seven counties started programs to help feed the poor in their communities.

**Impact**

During 2002-03 in Genesee County, Plant-a-Row for the Hungry donated over 19,000 pounds of fresh produce to the Food Bank of East Michigan this season. Since the program started in 1999, 56,500 pounds of fresh produce has been donated for the hungry and homeless in Genesee County. In Eaton County, Channel 6 TV(CBS) covered this story on six separate prime time newscasts. Radio and print media were highlighted on this project. Aided by this publicity, our gardening community pledged unconditional support by donating a bountiful supply of fresh food. We ignited the spirit of goodwill in our communities and rallied support for this worthwhile cause. As a result, MSUE donated over 1,500 pounds of fresh produce to the Salvation Army, Cristo Rey Community Center, and the Eaton SIREN Shelter.

**Source of Funds**

Smith-Lever 3b&c, state, county, local

**Scope of Impact**

State

**Key Theme: Family Resource Management**  
**Educational Initiative Title: On the Path**  
**Resource Management AoE Team, Linda Huyck: State**

### **Description of Program**

Through stakeholder input and focus groups, the need for an educational program that focused on family resource management for low income families was identified. The family skills needed were effective money management practices to purchase food and provide proper nutrition for their families, to be able to provide housing and clothing for their family members and to gain assets for future needs. In response to this need, MSUE developed a program called, On the Path, that offers hands-on activities to help low-literacy adults to understand and recognize the need for assistance with organization, tracking of expenses, and paying of their bills. MSUE developed a curriculum and the program that focused on family strengths rather than deficits.

### **Impact**

Thirteen counties tested the new program and collected evaluation information. Approximately 110 individuals completed the program. Evaluation of the program found: 86.4% felt they were more able to organize bills and papers; 78% had attitude changes and 88.8% intended to use the organizational tools learned in the future. The program continues to expand and train more participants.

During 2002-03, the Family Resource Development AoE Team trained 39,258 participants.

### **Source of Funds**

Smith-Lever 3b&c, state, county, local

### **Scope of Impact**

State

**Key Theme: Parenting**  
**Educational Initiative Title: Building Strong Families**  
**Dawn Contreas: State**

### **Description of Program**

Several governmental and human services agencies look to MSU Extension to provide sound research base parenting education. In 1989, the Extension Home Economics Program developed a comprehensive parenting program called

"Building Strong Families: Parenting Young Children." "Building Strong Families" is designed to deliver parenting information to limited-resource parents of children aged 0 to 3 in small groups or one-on-one. The educational materials that are part of "Building Strong Families" include multicultural, cartoon-style flipcharts and real-life videotapes. The flipcharts present scenarios that parents often encounter with their children and prompt discussion of behavioral choices parents can make. The curriculum stresses the importance of parenting in the child's early development. It is intended to empower the parents to positively affect their children's future.

### **Impact**

During 2002-03, 1061 parents received training. Evaluation of the program found parents significantly interacted differently with their children, where parents were more likely to encourage their child to play pretend (Pre-36%, Post-56%), make up games for their child to play (Pre-43%, Post-72%), encourage child to do things on his/her own (Pre-65%, Post-81%), talk to their child about how things look or happen (Pre-53%, Post-73%), let their child make choices (Pre-48%, Post-67%), and encourage their child to move and explore safely (Pre-74%, Post-88%). In addition, parents were more likely to set limits for their children (Pre-59%, Post-77%), teach their children through example (Pre-63%, Post-78%), act calm when child has temper tantrum (Pre-56%, Post-77%), give child time to calm down (Pre-66%, Post-82%), and discipline child without spanking (Pre-62%, Post-75%). Finally, parents were more likely to read to their child (Pre-65%, Post-83%).

### **Source of Funds**

Smith-Lever 3b&c, state, county, local

### **Scope of Impact**

State

### **Key Theme: Youth Development**

**Educational Initiative Title: Building Youth Assets in 4-H Clubs**

**Cynthia Mark and Bruce Haas: State**

### **Description of Program**

The vision of Michigan 4-H is that involvement in 4-H helps kids explore new ideas, experience a variety of new opportunities and friendships, and build skills designed to help them achieve. In 2002-2003, 276,377 youth participated in 4-H with 70,000 involved in intensive ongoing club activities. To date, little information has been available about the impact of these clubs. During 2002, nine counties volunteered to collect information from their clubs to better

understand the impact of their programs and improve them. Counties involved were: Allegan, Cheboygan, Clinton, Grand Traverse, Ingham, Isabella, Kalamazoo, Leelanau, and Wexford.

### **Impact**

Evaluation of 200 youth in clubs found 95% were highly satisfied with their clubs, 90% felt the club leaders cared about them, 88% felt their 4-H club was a caring environment, and 87% felt safe in their 4-H club. In addition, 90% stated they learned new things (i.e., knowledge about animals, nutrition, and photography) and 83% learned new skills (i.e., skills that included archery, raising sheep, growing plants, working with wood, and writing calligraphy). Research from the youth asset data revealed several findings useful for program design and evaluation that included: youth at the age of 13-14 dropped in all of the six youth asset areas assessed (i.e., positive identity, positive values, service to others, social competencies, safety and support, and commitment to learning); and adult support and encouragement was significantly correlated with youth positive identity ( $r=.513$ ), youth positive values ( $r=.420$ ), and youth's commitment to learning ( $r=.416$ ).

### **Source of Funds**

Smith-Lever 3b&c, state, county, local

### **Scope of Impact**

State

The AoE Teams in Goal 5. met their 2002-03 Plan of Work goals by reaching their targeted population. All teams and members have become more active in recruiting stakeholder input and involving collaborators in setting priorities, and designing and implementing programs. In addition, the teams are engaged in identifying underserved populations and developing strategies, collaborations, and programs to address these populations. Examples of collaborators have included: Farm Credit Services, Intermediate School Districts, Chambers of Commerce, Community Foundations, Capital Area United Way, Kellogg Community College, Community Mental Health, Michigan Townships Association, Farm Bureau, Michigan State Police, Spectrum Health, Michigan Nonprofit Association, Michigan Department of Transportation, Small Business Development Center, Michigan State Housing Development Authority, Harvard University, Lutheran Social Services, Michigan Family Independence Agency, Family Counseling Center, Early Headstart, W.K. Kellogg Foundation, University of Wisconsin, American Youth Foundation, 4C, Child Abuse and Neglect Council, Community Action Agency, Michigan Department of Public Health, University of Michigan, NAACP, YMCA, Michigan Council on Crime and Delinquency, and Big Brothers/Big Sisters.

## Stakeholder Input Process

MSU Extension is committed to creating access to research-based knowledge to meet the needs of Michigan residents. As an organization, we are constantly gathering input on RESPONSIVE program direction based on a variety of inputs, including:

- Extension councils.
- AoE advisory groups.
- Industry or stakeholder groups.
- Partnering agencies and organizations.
- Current community or industry issues.

Michigan residents' needs and interests are the driving force behind MSU Extension programs. In 2001, volunteer county Extension council members, along with staff members in every Michigan county, selected focus areas for local programming. Regional Extension council conferences provided an important opportunity to highlight the issues identified by stakeholders across the state.

The primary purpose of the *sharpening our program focus* process was to identify local needs for educational programming. Each county undertook a customized process and selected initiatives specific to its communities. Five major statewide themes emerged from these processes:

- Building strong communities.
- Helping youth succeed.
- Enhancing profitability in agriculture.
- Encouraging responsible land and natural resources use.
- Building healthy families.

## Developing action strategies

MSU Extension's 34 area of expertise (AoE) teams were each asked to carefully review the statewide program input, synthesize the results with their external stakeholder and advisory groups, refine the needs cited and develop program plans supporting attention to broader focus areas (see Update to 5-Year Plan of Work). In addition, all field staff are now reporting each year on their progress in Civil Rights that uses stakeholder and advisory group input to clearly identify goals and priorities, target audiences that include underserved audiences, researched based information, program planning and implementation, methodology for evaluation of impact, and, sometimes, feedback.

An example of the impact of stakeholder input and the county advisory council process of Sharpening Our Program Focus, was that many counties reported

collaboration building as one of the most important roles for MSUE in Building Strong Communities. As a result of this identified need, the Community Development AOE team formed a collaboration with USDA Rural Development, Michigan Economic Development Corporation and Michigan Housing Development Authority to provide informational workshops locally to better inform local decision-makers and leaders of educational opportunities and resources available for their communities.

## **Reaching Underserved Audiences**

All agents identify in their educational initiative plans their target audiences for their programs and assess who is being reached and who is underserved. Based on these assessments, agents develop new educational initiatives to address reaching underserved populations. During 2002-03 MSU Extension reported progress and impact on over 50 educational initiatives that reached new underserved audiences in their counties. Progress was made in reaching new audiences for programs, involving new stakeholders from underserved areas and groups, expanding programs in new geographic (underserved) areas, and development of new programs.

Examples of progress in 2002-03 towards reaching underserved audiences included:

- more diverse audiences in 4-H Youth Development;
- more males in food and nutrition programs;
- more commodity marketing workshops that specifically targeted farm wives/spouses;
- more seniors and underserved youth recruited through a variety of organizations serving these populations;
- more fathers recruited for parenting programs;
- more low-income mothers recruited for parenting programs;
- more pork producers served, where they indicated they have recently become an underserved audience because feed companies and producer organizations no longer provide educational events;
- more low-income African American youth targeted through 4-H;
- more leaders were trained from underserved areas and populations;
- more outreach through Chambers of Commerce and local libraries to provide local community contacts, (especially underserved groups) through which information on classes, programs and volunteer opportunities was distributed;
- more services to Amish farmers;
- more collaboration with county health department clinics that resulted in more educational services to underserved audiences;
- and more housing programs for low-income audiences.
- more youth involved in state and local government issues;

In addition, AoE teams are examining the stakeholder input from Sharpening Our Program Focus to address new needs and underserved populations.

An example of addressing underserved audiences in 2002-2003 was a program in Clare County that helped Project FRESH clients receive housing assistance. In the Clare community, WIC and the Allen Foundation identified WIC participants needed not only nutrition education, but also housing assistance. MSUE expanded its Project FRESH program to include housing education. Integrating the WIC families reached during Project FRESH with the housing programs provided one more avenue to reach a previously underserved population.

### **Program Review Process**

MSU Extension continues to use the AoE team structure for the Program Review Process as stated in the Plan of Work with no changes. As mentioned above, the teams have begun to incorporate the information from the new round of stakeholder input.

In addition to the above process, counties and AoE teams during 2004-05 used over 200 advisory groups to identify local needs and action strategies. Information regarding the advisory groups have been added to the Extension Information System (EIS) that include names and demographics of the members, purpose and role of the advisory group, recommendations, and, in time, impact of the group. These groups ranged from local 4-H Foundations to Technical Advisory Committee Southwestern Michigan Solid Waste Consortium. This information will continue to be used for stakeholder input and Civil Rights compliance.

### **Evaluation of the Success of Multi-state and Joint Activities**

MSU Extension met its goal of 2% or \$164,511 as proposed in the Plan of Work by spending \$165,778 on multi-state activities (see Appendix A). The majority of these activities involved sharing information and educating others from other states. Some of the major collaborations consisted of: Floriculture Programming in Michigan, Ohio, Indiana, Illinois; National Issues Forum leadership with The Ohio State University Extension; "Learning From Land Use Change Models" with The Ohio State University; leadership academy and diversity training with The Ohio State University; developed with The Ohio State University a training on yellow perch aquaculture; trained Ohio and Michigan greenhouse industry personnel in response steep increases in fuel costs (from two to five times year-ago costs) that threatened profitability and even survival of these family-owned firms; collaborated with University of Wisconsin Extension on poverty issues; the Tri-State Dairy Management Conference with Purdue University and The Ohio

State University; five state beef alliance with North Central Region states; national Emergency Management & Disaster Response; North Central Region Aquaculture Conference; North Central Show Stock Producers; Michigan-Ohio Grain Marketing Expo; and National Extension Tourism Conference. In all of these collaborations, staff members reported sharing resources and information as well as building stronger relationships between the states.

A detailed example of multi-state activity (Michigan, Ohio, Indiana, and Illinois) was Great Lakes International Grazing Conference (GLIGC) CD-ROM Project . In terms of total costs, "Conferences" are very expensive and are extremely inefficient. With a great deal of trust and cooperation from the Conference presenters and the CD-ROM Project Team an entire two day conference was digitized and captured on a series of interactive CD-ROM disk. The Great Lakes International Grazing Conference is a highly successful Conference that just completed it's tenth annual Conference. This year's Conference and Trade Show was held in Battle Creek with 200 participants. The Conference is a multi-state Extension event committed to rotating to a different state every two years. This multi-state leadership and support has helped to create new audience potential, maintained program quality and attracts leading speakers and trade show exhibitors while spreading the overhead cost and labor. This year 27 speakers and producer/industry panel members made presentations. These were identified by a Multi-State Planning Committee as the best available resource people to share research and acquired knowledge with the conference participant. In spite of this continued success this Conference is very expensive in terms of total costs typical of many Extension events. This years Conference cost over \$20,000 in cash expenses and another estimated \$130,000 of other cost for a total cost of \$150,000 to hold and attend this event. That results in approximately \$1,000 cost per registered conference attendee at this year's event. By the production of this CD-ROM Project this year's GLIGC has a realistic audience potential in the thousands instead of what has been it's traditional several hundred attendees. This would not have been possible without the multi-state cooperation and contributions. The potential of expanding outreach of this conference information as well as the financial savings and impact is in the thousands of dollars.

### **Evaluation of the Success of Integration Activities**

Michigan State University Extension achieved its Integrated Activities goal with \$341,393 spent in this area that exceeds the 4% goal of \$317,007 (see Appendix B). Examples of integrated activities conducted during 2004-05 included: conducted MCP studies to determine methods to increase storage life of apples, that included work with Janice Harte in Food Science to develop the protocol/mechanism for proper scientific evaluation; development of farm Manure Management System Plans (MMSP) with Maynard Hogberg from Animal Science; feeding strategies to lower Nitrogen and Potassium in Manure through

Dave Beede from Animal Science; pathogen kill in morts and manure project with Margaret Bensen from Animal Science; dairy nutrition updates from Herb Bucholtz; Mathieu Ngouajio from Agriculture and Natural Resources helped in the late summer evaluation of plots and determining the differences in the nitrate levels in the various plots; Dr. Annemiek Schilder from Plant Pathology worked with farmers on disease control in grapes and the importance of bloom sprays; and Dr. Sharon Hoerr from Food Science worked with extension staff on an obesity project.

An example of integration activities was the development and implementation of a new fruit sprayer technology, MSU researchers developed the new improved technology and MSU extension agents brought the new technology to the industry and growers. Extension agents and specialist demonstrated the new sprayers at sprayer demonstrations, at meetings and on personal farm demonstrations. Growers learned from extension personal the benefits of the new technology sprayers. Agents informed growers on the proper usage of the machine and the proper rate of pesticides applied by the sprayer. Evaluation of the process found that spray rates were reduced by 33% and time was cut in half. Approximately 5,000 acres of fruit trees were impacted by this project.

**For further information** regarding this report or MSU Extension contact Bruce E. Haas, Ph.D. at [haasb@msue.msu.edu](mailto:haasb@msue.msu.edu) or (517) 432-3491.

## **Appendix**

### **Michigan Multistate Extension Form and Documentation And Michigan Integrated Extension Form and Documentation**

Appendix

U.S. Department of Agriculture  
 Cooperative State Research, Education, and Extension Service  
 Supplement to the Annual Report of Accomplishments and Results  
 Multistate Extension Activities and Integrated Activities  
 (Attach Brief Summaries)

Institution Michigan State University Extension  
 State Michigan

Check one:  Multi-state Extension Activities  
 Integrated Activities (Hatch Act Funds)  
 Integrated Activities (Smith-Lever Act Funds)

Title of Planned Program/Activity	Actual Expenditures				
	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004
<u>Multi-state Collaboration</u>	<u>0</u>	\$114,754	\$182,083	\$227,379	\$165,778
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<b>Total</b>	<u> </u>	\$114,754	\$182,083	\$227,379	\$165,778

Tom Coon  
Director

4/30/06  
Date

**Appendix**

**U.S. Department of Agriculture  
 Cooperative State Research, Education, and Extension Service  
 Supplement to the Annual Report of Accomplishments and Results  
 Multistate Extension Activities and Integrated Activities  
 (Attach Brief Summaries)**

Institution Michigan State University Extension  
 State Michigan

Check one:  Multistate Extension Activities  
 Integrated Activities (Hatch Act Funds)  
 Integrated Activities (Smith-Lever Act Funds)

**Actual Expenditures**

<b>Title of Planned Program/Activity</b>	<b>FY 2000</b>	<b>FY 2001</b>	<b>FY 2002</b>	<b>FY 2003</b>	<b>FY 2004</b>
<u>Integrated Research</u>	<u>0</u>	\$177,639	\$335,244	\$329,023	\$341,393
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<b>Total</b>	<u>0</u>	\$177,639	\$335,244	\$329,023	\$341,393

Tom Coon  
 Director

4/30/06  
 Date