

**Michigan State University
Extension 2001-02 Annual Report
of Accomplishments and Results**

Margaret A. Bethel

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Director**

Overview

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 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. In addition, environmental factors (i.e., reduction of state and county dollars, early retirements of senior staff) have affected resources, number of staff, and the educational programs. MSUE uses stakeholder input to identify critical issues, prioritize programming, improve program designs and provide feedback. During 2001-02 MSUE 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. Through a program planning and implementation model, 34 AoE teams and 1,000 staff members with the help of over 200 advisory committees have used this information in developing strategies for helping people improve their lives through an educational process that applies knowledge to critical issues, needs and opportunities. The following report describes the outcomes and impacts of this process.

Inputs and Resources

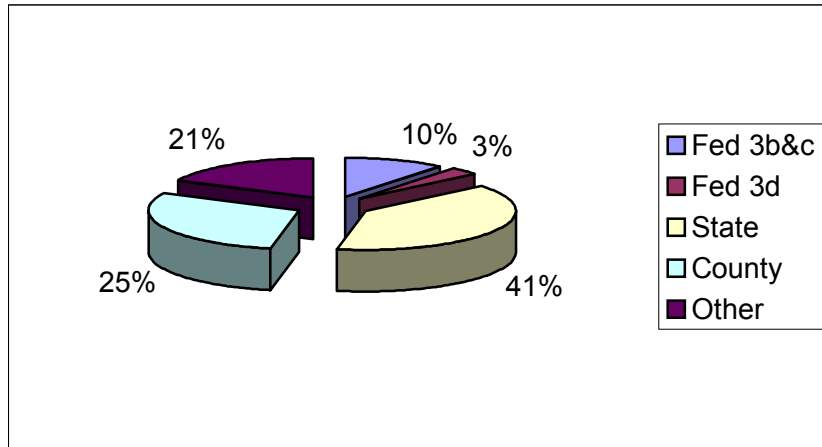
Table 1. shows the overall expenditures for MSUE for the 2001-02 federal programming year to be \$78 million, with \$7.6 million being Federal B and C formula dollars. These dollars have been critical in contributing to base programming in the counties as well as enhancing programs by matching state and county dollars. Because Federal 3B and 3C dollars are integrated into virtually every MSUE program, the following report reflects the whole rather than a part. One part that is missing from the following is in-kind contributions, which range from volunteer time (more than 26,990 volunteers assisted programming in 2001-02) to tangible resources, such as building space, materials, and travel.

Goal	FedBC	Fed3D	State	Local	Other	Total
1) Agriculture	1,646,709	126,888	8,870,317	4,332,841	1,795,097	16,771,853
2) Food Safety	800,937	584,049	4,219,108	2,675,087	2,730,826	11,010,007
3) Food, Nutrition, and Health	762,512	1,291,931	3,459,927	3,375,453	5,133,339	14,023,162
4) Environmental	1,646,709	103,301	7,382,152	4,336,645	3,386,687	16,855,494
5) Community, Human, and Youth Development	2,714,470	17,126	8,315,036	5,254,967	3,500,388	19,801,987
Total	7,571,337	2,123,296	32,246,539	19,974,994	16,546,337	78,462,503

Table 1.

Overall MSU Extension Expenditures by Source of Funding and Federal Goal

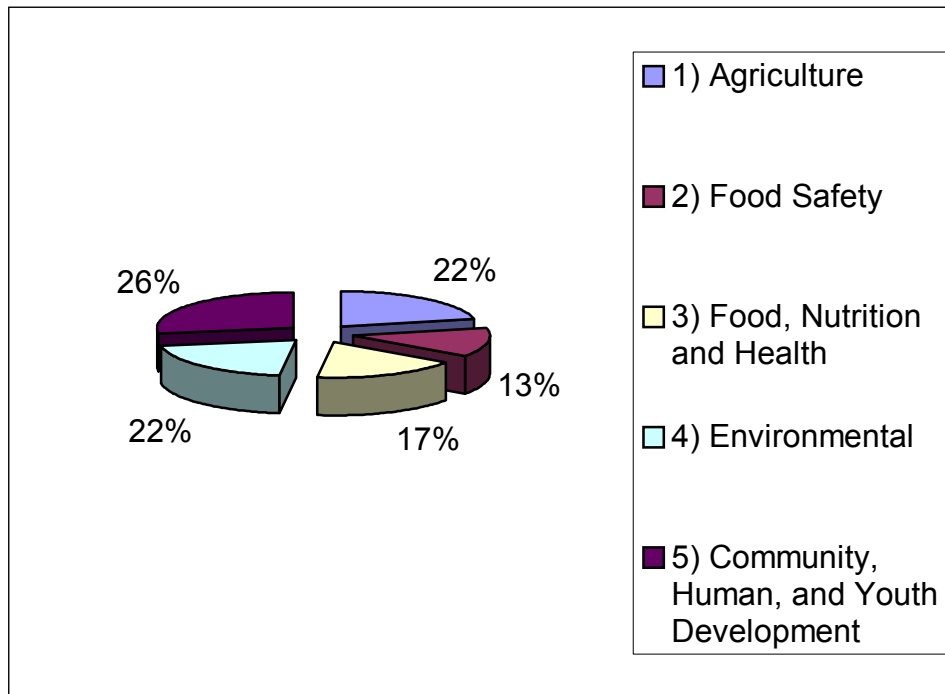
Graph 1. shows 10% of MSUE funds were **Federal 3b and 3c**, 3% **Federal 3d** (mainly EFNEP), 41% **State**, 28% **County**, and 21% **Other** (competitive grants – multiple sources with FNP being the largest) County funding decreased approximately 10% during 2001-2002.



Graph 1.

Overall 2001-02 MSU Extension Expenditures by Source of Funding

Graph 2. shows overall funding for MSUE by Federal Goals: 22% of funding involved programs that addressed **Goal 1)** An agricultural system that is highly competitive in the global economy; 13% for **Goal 2)** A safe and secure food and fiber system; 17% for **Goal 3)** A healthy, well-nourished population; 22% for **Goal 4)** Greater harmony between agriculture and the environment; and 26% for **Goal 5)** Enhanced economic opportunity and quality of life for Americans.



Graph 2.

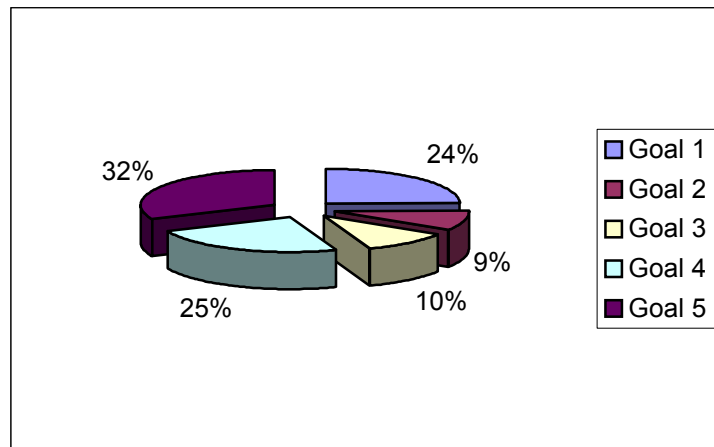
Overall 2001-2002 MSU Extension Funding by Federal Goal

Table 4. shows that in 2001-2002, MSUE staff consisted of 831 full time equivalents (FTE) with 55% Professional (457 FTE's), 16% Para-Professional (134 FTE's), and 29% (240 FTE's) Office and Clerical staff members. Ten percent of the FTE's (85 FTE's) were funded by Federal 3b&c with 80 Professional and 5 Support Staff FTE's. Twenty-five percent of the FTE's (209 FTE'S) were county funded employees.

	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Total
Professional	110	40	48	114	145	457
Para-Professional	10	30	67	10	17	134
Office/Clerical	57	31	28	59	65	240
	177	101	143	183	227	831

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

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



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. Table 3. shows AOE teams grouped by Federal Goal. The number of participants reached for each AOE's is provided:

Goal 1 - Agriculture			
Beef	458	5,959	6,417
Consumer Horticulture	16,151	9,960	26,111
Dairy	7,319	3,845	11,164
Equine	1,053	18,315	19,368
Field Crops	16,031	4,684	20,715
Floriculture	1,136	0	1,136
Forage/Pastering/Grazing	1,216	4	1,220
Fruit	12,238	7,972	20,210
Livestock - Overall	1,578	9,428	11,006
Nursery/Landscape	2,130	0	2,130
Ornamentals - Overall	715	1,196	1,911
Sheep	131	4,385	4,516
Swine	346	8,853	9,199
Turfgrass	160	0	160
Vegetables	4,381	7,972	12,353
	65,043	82,573	147,616
Goal 2 - Food Safety			
Food Safety*	17,388	12,690	30,078
Goal 3 - Food, Nutrition, and Health			
Food, Nutrition & Health*	66,064	41,498	107,562
Goal 4 - Environmental			
Forestry	3,257	1,579	4,836
Land Use	3,628	7,220	10,848
Manure	530	241	771
Renewable Resources (RREA)	913	1,539	2,452
Sea Grant	4,699	3,499	8,198
Water Quality	5,690	13,276	18,966
Christmas Trees	319	0	319

	19,036	27,354	46,390
Goal 5 - Community, Human, and Youth Development			
Community Development	14,204	1,290	15,494
Economic Development	2,178	0	2,178
Family Resource Management	6,787	3,204	9,991
FIRM	4,187	501	4,688
Human Development	12,624	26,694	39,318
LeadNet	3,891	132	4,023
State & Local Government	1,050	30	1,080
Tourism	667	75	742
Volunteer Development	2,554	15,562	18,116
Youth Development**	9,278	69,670	78,948
	57,420	117,158	174,578

* 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 3.

Total Participants Reached Directly by AOE by Federal Goals

In 2001-02, through the efforts of these thirty-three AoE teams and volunteers, MSUE reached 506,399 participants directly through educational programs. Goal 5 (Community, Human, and Youth Development) had the largest number of participants with 174,578, followed by Goal 1 (Agriculture) and Goal 3 (Food, Nutrition, and Health). Table 4. shows the number of participants reached directly for each of the five Federal Goal areas.

Goal Area	Adult	Youth	Total	%
Agriculture	65,043	82,573	147,616	29.2
Food Safety*	17,388	12,690	30,078	5.9
Food Nutrition and Health*	66,064	41,498	107,562	21.2
Environmental	19,036	27,354	46,390	9.2
Community, Human and Youth Development**	57,420	117,158	174,578	34.5
	225,126	281,273	506,399	

* 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).

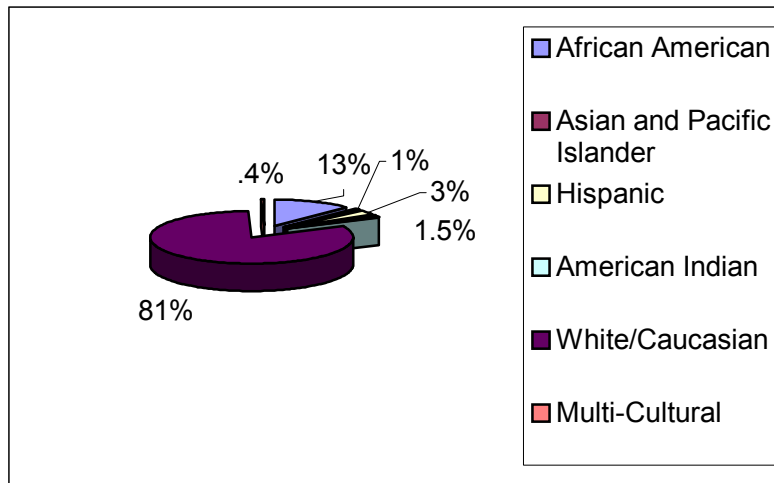
** To avoid duplication, youth who crossed goals were not counted again in youth development.

Table 4.

Total Participants Reached Directly by Federal Goal

Graph 4. shows the ethnic distribution of the 506,399 participants educated directly. Eighty-one percent (81%) of the participants were Caucasian, 13%

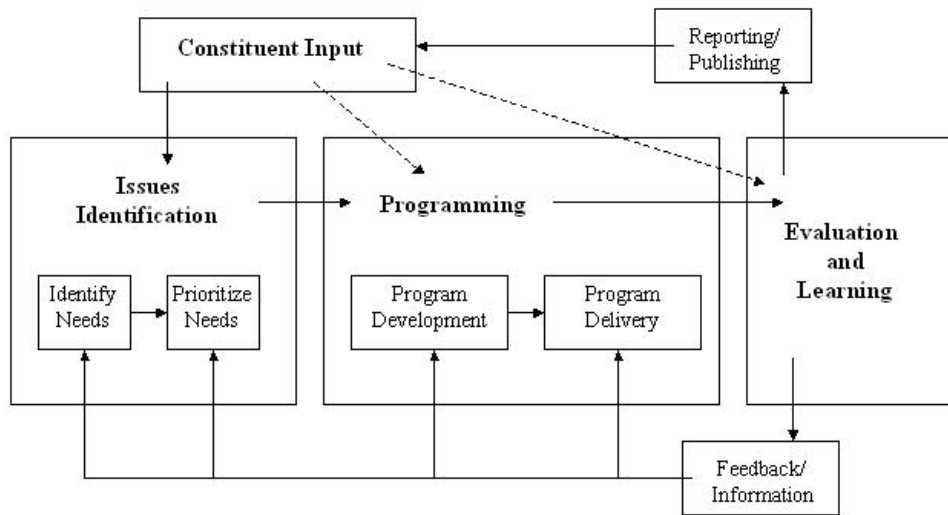
African American, 3% Hispanic, 1.5% Native American, 1% Asian, and .4% Multi-Cultural. This distribution is representative of Michigan's population: 80.9% Caucasian, 14.3% African American, 2.8% Hispanic, .6% Native American, and 1.7% Asian (Multi-Cultural was not used).



Graph 4.
Percentage of Participants by Ethnic Groups

In 2001-02 MSU Extension used the 34 Area of Expertise (AoE) teams as its central vehicle to assess community needs (see Figure 1.) through stakeholders, advisory groups, and community (constituents) involvement in prioritizing programming needs, integrate research with program development, deliver the program, and assess impact.

Issues Identification and Programming



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

Figure 1.
Constituent (Stakeholder) Input Process for
Issues Identification and Programming

From this process, key areas for the AoE Teams in 2001-02 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
- Plant Production Efficiency
- Food Handling
- Food Safety,
- HACCP
- Human Nutrition
- Agricultural Waste
- Forest Resource Management
- Integrated Pest Management

- Land Use
- Pesticide Application
- Water Quality
- Child Care
- Youth At-Risk
- Community Development
- Leadership Training and Development
- Parenting
- Promoting Housing Programs
- Youth Development

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

One hundred forty-seven thousand six hundred sixteen (147,616) participants 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.

Goal 1	Adults	Youth	Total	Federal Key Themes
Beef	458	5,959	6,417	Animal Production Efficiency, Agricultural Profitability, Emerging Infectious Diseases
Consumer Horticulture	16,151	9,960	26,111	Home Lawn and Gardening, Ornamentals/Green Ag
Dairy	7,319	3,845	11,164	Animal Production Efficiency, Agricultural Profitability, Emerging Infectious Diseases
Equine	1,053	18,315	19,368	Animal Production Efficiency, Adding Value
Field Crops	16,031	4,684	20,715	Adding Value, Precision Ag, Agricultural Profitability, IPM

Goal 1 (continued)	Adults	Youth	Total	Federal Key Themes
Floriculture	1,136	0	1,136	Adding Value, Agricultural Profitability, Biotechnology, IPM, Ornamentals/Green Ag
Forage/Pasturing/Grazing	1,216	4	1,220	Adding Value, Grazing, Emerging Infectious Diseases
Fruit	12,238	7,972	20,210	Adding Value, Ag Profitability, Niche Market, IPM
Livestock - Overall	1,578	9,428	11,006	Animal Production Efficiency, Agricultural Profitability, Emerging Infectious Diseases
Nursery/Landscape	2,130	0	3,127	Home Lawn and Gardening, Ornamentals/Green Ag
Ornamentals - Overall	715	1,196	1,911	Adding Value, Agricultural Profitability, Biotechnology, IPM, Ornamentals/Green Ag
Sheep	131	4,385	4,516	Animal Production Efficiency, Small Farm Viability
Swine	346	10,234	8,853	Adding Value, Animal Production Efficiency, Manure Management
Turfgrass	160	0	160	Agricultural Profitability, Ornamental/Green Ag
Vegetables	4,381	7,972	12,353	Adding Value, Precision Ag, Agricultural Profitability, IPM
	92,618	66,673	159,291	

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

Here's a sampling of successes in the Goal 1 area:

Key Theme: Grazing and Agricultural Profitability

**Educational Initiative Title: Forage/Pasture/Grazing Area of Expertise Team
Betsy Dierberger and Phil Kaatz: State**

Description of Program

The Forage AOE has utilized the Michigan Hay & Grazing Council, comprised of 15 commercial hay producers, and livestock grazers from across Michigan plus other key forage producers and agribusinesses statewide, as their advisory council. The Michigan Hay and Grazing Council meets annually to set goals and establish priority areas for education and training. In 2000-2001, the advisory council identified the need for training in a wide range of forage topics as one of their priority areas and suggested these to be held in regional locations across the state of Michigan. The training, called The Forage Short Course for Eastern Michigan, was developed and implemented in 2001-2002 for farmers, custom hay and forage harvesters, livestock producers, agribusinesses, and seed company representatives in the Michigan's Thumb area, where there are large concentrations of livestock and hay acres. Agents and campus specialists planned the programming, developed the educational materials, marketed the program to the field, and presented the workshop sessions. In addition, the team worked with Ohio State University Extension, University of Wisconsin Extension, and South Dakota State University Extension in developing and implementing the program. The short course had a series of comprehensive training sessions designed to enhance producer awareness and attitudes of new management practices leading to improved long-term profitability.

Impact

Training for farmers and livestock producers was held at Ubly, MI during January 2002 and had twenty clients attend. These 20 clients attended classes for three successive weeks with 24 hours of training. The producers represented over 16,000 acres of total acres. There were over 4,600 acres of forages represented by the participants.

Evaluation of the workshop found 76.5% reported knowledge gains in at least one of the areas regarding agriculture producer profitability and 34.3% gained knowledge in all sessions. The evaluation found participants who indicated plans to utilize soil tests increased from 83% to 100%. Participants who indicated they would change liming practices to 6 months prior to seeding increased from 67% to 83%. Participants who would use the GDD (Growing Degree Days) system to predict alfalfa harvest increased from 62% to 83%. Participants who intended to plant sequentially maturing alfalfas increased from 38% to 62%. Over 90% of the

participants planned to make changes in storage of wet and dry forages. Participants plans increased from 71% to 92% to scout for insects, 50% to 79% to utilize time of cutting to control insects, 79% to 85% to evaluate forage quality by forage testing, 14% to 31% to use a contract for custom grown forages, and 50% to 77% to track and analyze custom harvest costs.

In 2001-2002, the Forage/Pasture/Grazing Area of Expertise Team trained 2,692 participants throughout the state.

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

Multi-State

**Key Theme: Agricultural Profitability and
Educational Initiative Title: Swine Area of Expertise Team
Gerald May: State**

Description of Program

Pork Quality Assurance (PQA) is a program originally supported by the National Pork Producers Association (NPPC) and since 2001 by the National Pork Board. The main goal of the PQA program is to assure that the live hog leaving the farm is wholesome, free of damage from handling, and all product withdrawals have been followed. After completing the program the producer is PQA Certified by the Pork Board. This certification expires after two years with the expectation that the producer will re-certify at that time. Semi-annual regional educational meetings have been held offering PQA certification/re-certification. Because these meetings are repetitive in nature, additional material related to pork quality and market access were included in the 2002 sessions covering Risks Associated with Medication Resistance, Trucker Quality Assurance, and Handling Pigs Fed Paylean.

Impact

Seven PQA meetings were held through out Michigan in 2002. Over 135 producers and farm employees attended. These meetings were held in partnership with National Pork Board, Michigan Pork Producers Association, Private Swine Practitioners, United Livestock Producers, and Elanco. Evaluation of the workshop found at the post-test that 97.1% understood the information covering the 10 best management practices of the PQA program, 71% indicated they would make immediate changes in their operations with the majority (65%)

of the changes on how they would handle pigs. One hundred nineteen producers who produced and marketed over 583,751 hogs annually and approximately 34% of Michigan's annual production were either PQA Certified or Re-certified.

During 2001-2002, 346 farmers and 10,234 4-H youth were trained.

Source of Funds

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

Scope of Impact

State

Key Theme: Agricultural Profitability

Educational Initiative Title: Fruit Area of Expertise Team

William W. Shane: State

Description of Program

All the fruit crops and all the fruit growing regions in Michigan were hurt by the cold weather in the spring of 2002. A week of summer like weather in early April caused rapid growth in Michigan's fruit crops. On April 22 and 23 wide spread frosts resulted in significant losses to all fruit crops in Southwest Michigan and to cherries in Northwest Michigan. The weeks following the frost were generally cool, wet and windy, very poor pollination weather. This period of cold weather ended in mid May with another series of frosts and freezes from May 17 to May 21 that severely impacted all the fruit growing regions of Michigan. By early June the impact of the spring frosts and poor pollination were apparent. The tart cherry, juice grape and plums crops suffered 90% damage statewide. Peaches, pears and apples were also severely affected with only 50% of a crop statewide, and many growers and regions suffering near total losses. Blueberries and wine grapes suffered less than 50% losses but many growers still lost all or most of their crop. Most Michigan fruit growers faced the real possibility that they would have little or no income in 2002. It was clear that Michigan fruit growers needed all possible help to work through this disaster.

Impact

MSU Extension developed quick response help to Michigan fruit growers affected by widespread freeze disaster in spring 2002. The Fruit AOE Team reacted swiftly to this crisis in the Michigan fruit industry. At a fruit AoE meeting on April 26, it was decided to focus on helping growers cope with the loss of income in 2002 and their need to maintain the health of their plants, protecting them from insect and disease damage. Another focus would be building awareness in the public and state and federal government of the scope of the disaster in hopes of

gaining an agricultural disaster declaration and funding to help growers weather the disastrous 2002 crop year.

A concerted effort was made to get information out to growers quickly. Two special Frost issues of the Fruit CAT Alert (Crop Advisory Team) Newsletter were published on April 30 and May 8. This statewide fruit Integrated Pest Management newsletter is regularly mailed to 300 subscribers and also posted on the Worldwide Web. It normally receives about 300 hits a week. The special frost issues were mailed to the regular subscribers and to mailing lists submitted by District and County Agents. This supplemental mailing was to over 900 additional growers; three times the normal subscription number. On the Fruit CAT website, the April 30 frost issue was accessed almost 1600 times and the May 8 issue almost 900 times in the month of May. In addition other articles were published in later issues of the 2002 Fruit CAT Alert, as losses in other fruit crops became apparent. A detailed report has been posted on the fruit AOE team web site:

www.msue.msu.edu/fruit/frost02.htm

Campus Specialists and District Agents also put together crop estimates for tart cherries and apples, estimating the crop loss and dollar loss as a result of cold spring weather. The Michigan Farm Bureau, the Cherry Marketing Institute and US Apple Association used these estimates to lobby for a Michigan crop disaster declaration by the USDA. Fruit Aoe team members educated 12,238 adults and 3,786 4-H youth.

Members of the fruit AOE were honored with the 2002 Epsilon Sigma Phi State Team Award for their outstanding rapid response to help manage the 2002 fruit crop disease.

Source of Funds

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

Scope of Impact

State

Key Theme:

Educational Initiative Title: Diagnostic of challenges and opportunities for the Michigan blueberry industry

Carlos Garcia-Salazar: Ottawa County

Description of Program

Since more than 90% of the small fruit industry in West Central Michigan corresponds to blueberry production, special priority has been given to this crop. A preliminary analysis of the conditions of the WC Michigan blueberry industry identified two major factors seriously affecting blueberry production and productivity. One factor is the recurring late spring frosts. The second factor is road salt damage to blueberry fields alongside the major roads in West Central Michigan. Urban sprawl in WC Michigan has created a conflict between agricultural communities and urban dwellers that impose environmental changes amenable to urban life but very often detrimental for communities that depend on agricultural production. That is the case of the use of salt during the winter to de-ice the major highways across WC Michigan. As the highway traffic increases in this region, the need to maintain the roads free of ice and snow has also increased and with this the use of road salt. Salt particles blown onto blueberry fields adjacent to major highways seemed to adversely affect the health of blueberry bushes up to 300 ft away from the highway. Affected blueberry bushes looked stunted in growth and showing symptoms of dieback with bud development limited to the protected side of the bush. It took several years to realize that this damage was caused by road salt. In 2001, the MSU Horticulture Department, MSU Extension and Ottawa County initiated a study to document the extent of the damage to blueberry field proximate to major highways and secondary roads in Ottawa County. A field evaluation conducted from March to May 2002 in 19 blueberry fields indicated that, previous to the first spring frost event (April 22) in the region, bud winter damage in secondary roads was 9.3% in front of the road (> 100 ft away) and 7.9 in the back of the field, approximately 300 ft away from the road. In field located alongside M-45 and US31 bud damage was 33.1 and 63.1% in front of the road and 19.6 and 31.3 % in the back of the fields, respectively. After the frost events that occurred in April 22-23, 25.26 and May 5-6, bud kill increased dramatically in fields alongside US31 and in some instances 90% of the buds were killed.

Impact

Preliminary results indicated that road salt decreases the winter hardiness of the blueberry plants and increases its susceptibility to low temperatures, especially during the bud break period. Symptoms cause by salt exposure are identical to injury from excessively cold winter weather and salt-exposed buds are less able to tolerate cold temperatures. We suspect that the degree of injury in the field may be dependent on both the amount of salt on the buds as well as the minimum temperatures experienced. This research provided consistent evidences of the deleterious effect of the de-icing salt on blueberry fields in proximity to urban developments and highways across West Central Michigan. An immediate outcome from this diagnostic is a change on the public perception on the use of salt to de-ice roads in Ottawa County. In 2002, given the evident impact of our findings on blueberry fields adjacent to major highways and roads that receive salt during the winter, the Ottawa County Board of Commissioners approved the release of \$7,000.00 to support this project. Furthermore, the

Ottawa County Road Commission is actively seeking alternatives to salt use to de-icing roads during the winter.

Source of Funds

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

Scope of Impact

State

Key Theme: Innovative Farming Techniques

Educational Initiative Title: Baling Used Agricultural Plastics

Ron Goldy: Southwest Region

Description of Program

By listening to growers, MSU Extension learned of a need for better ways to dispose of used agricultural plastics. A method of baling this material was developed. It involved the use of certain styles of round hay balers that compress the plastic into a size and shape that growers can take to landfills themselves. The original intent was to compress the material into a form that could be economically transported by a recycler. The secondary benefit was that if no recycler was found it would still save growers money by getting the plastic into a size and shape that they could transport to a local landfill.

Impact

The outcome was that the baling technique was demonstrated on-farm to 114 growers who have 2000 or more acres of vegetables planted in plastic. The immediate impact was that a way of decreasing disposal costs by 50% or more was developed, demonstrated and adopted by growers in a very short length of time. A grower who purchased one of these balers had disposal costs of \$1200 in 2001 compared to \$3600 in 2000. The long-term impact is that an economical way of compressing and hauling plastic was developed. Approximately 600 acres of plastic was baled this way in 2001 compared to none in 2000. Ag Communication made a video of the technique and distributed it to various media outlets. Inquiries about this technique have come from several states including Florida, California and North Carolina.

Source of Funds

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

Scope of Impact

Multi-State

Key Theme: Home Lawn and Garden

Educational Initiative Title: Consumer Horticulture

Robert Bricault: Lenawee County

Description of Program

Master Gardener volunteers provide support for the home gardeners through a phone-in hotline. In 2001-2002 1,555 people were helped through the hotline. The horticulture staff and a team of trained diagnostic volunteers provided evaluations of plants and insects to 494 consumers. Six hundred thirty three (633) participants received soil test evaluations providing specific information on types of fertilizers to use to best meet plant needs.

Impact

Survey evaluations went out for Diagnostic Samples, and for Soil Evaluations. Sixty-nine diagnostic evaluations were returned, with 71% evaluating the service as very positive. 22% felt the service was somewhat positive. One person gave the service a very negative rating. 68% of the returned surveys reported that they did follow diagnostic recommendations and another 11% will do so in future years. Seven percent followed recommendations somewhat and 13 percent did not follow suggested course of action.

Soil Testing Evaluations returned to the office totaled 12% of those sent out. Eighty-six percent reported that the evaluations are understandable, but 14% rated them as somewhat understandable and 0% reported no understanding. Sixty-eight percent said they followed recommendations for fertilizers, 26% reported somewhat following recommendations and 6% did not follow recommended fertilizer recommendations. Seventy percent reported that their fertilizing practices did change due to the information provided. Fifteen percent said fertilizer practices changed somewhat and 15% did not report any change in fertilizer practices. Respondents made these comments: the fertilizers recommended helped to improve their harvest greatly; that they had never known what fertilizer their trees needed; that they used the service to show their clients that their plants need to be fertilized; and that they were glad that organic recommendations were included.

Source of Funds

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

Scope of Impact

State

Key Theme: Adding Value to New and Old Agricultural Products
Educational Initiative Title: Value Added Project: Soybeans as lawn fertilizer
Michael Score: Washtenaw

Description of Program

Grain farmers in Washtenaw County were faced with prices below costs of production. A group of farmers asked MSUE to work with them to find new value-added uses for soybeans. The group realized that it was possible to use a soy-based fertilizer to meet needs of turf and landscape managers. Farmers asked MSUE to help them develop a science-based method for testing the performance of a soy-based fertilizer relative to existing chemical fertilizers, and to determine application rates that respond well to customer expectations. Initial research plots set up in 2000 showed that a soy-based product can perform equal to, or better than chemical fertilizers with and without phosphorous. The work was expanded to evaluate a range of application rates and timing. This research provided data needed for defining a new fertilizer product utilizing a traditional agricultural commodity. Once a suitable product was defined, the farmer group used state funding from Project GREEN to conduct a market analysis and business plan. Favorable reports from this process led the group to form a new limited liability corporation. MSUE expanded research efforts to evaluate other uses for the new soy-based products in horticultural industries. For example, the new company has also collaborated with MSUE and a local chemical company to investigate the possibility of using a soy-based fertilizer as a seed coating for turf seed. Dr. Kevin Frank provided an objective evaluation of initial research results by setting up replicated studies within the turf plots at the MSU Hancock Turf Research Center. Dr. Frank provided funding for two research projects evaluating application rates, product performance, and timing of application. He also worked to create an opportunity for research results to be presented at the annual turf meetings held on campus.

Impact

The new company has applied for a trademark on their product name, and sold more than 100 tons of product in their first year of operation. Five family farms participated in the limited liability corporation. The effect of their work was broad reaching. Washtenaw County government, along with several cities, towns, and townships in the county were ordered to develop storm water pollution prevention plans that reduce phosphorous runoff into surface water. The soy-base product has an analysis of 7-0-1.2. This new product is one of the few available to

communities that meet new federal mandates for cleaner surface water. Publication of research results in MSUE reports, and presentations during major turf conferences at the Hancock Turf Center at MSU extended findings from this work to more than 1,000 turf managers in the region. A news story published by the Ann Arbor News was picked up by AP, and has generated requests for information from across Michigan, as well as from Iowa, North Dakota, and Ohio. The project was also featured in the Macomb Daily, and on Comcast Cable Television "Newsmakers" program.

In 2001-2002, the Field Crop AoE Team trained 20,854 participants throughout the state.

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

Multi-State

Key Theme: Agricultural Profitability

Educational Initiative Title: New Economic Realities

Michael J. Staton: Clare, Saginaw, Berrien Counties

Description of Program

The Field Crop Team's advisory committee identified the need for more information on managing farms as businesses. Members of the Field crops AoE team, the FIRM (Farm Information Resource Management) AoE Team and the Agricultural Economics Department planned, promoted, conducted and evaluated an educational program called Operating a Profitable Grain Farm in a Rapidly Changing World to meet this need. Collaborators included Crop Production Services of Michigan, UAP Great Lakes and Star of the West. This program forced the participants to think beyond production issues and gain a better understanding of the forces external to their farms and how these will continue to impact their businesses' performance. It also provided participants with sound business management strategies that helped them adapt their businesses to these external forces. Topics in the workshop included: Commodity Price Outlook & Foreign Competition; Input Price Outlook; 2002 Farm Bill & Trade Agreements; Farm Income Trends and Projections; Consolidation Among Grain Buyers and Input Suppliers; Managing Price and Production Risk; Importance of Understanding Financial Performance; Understanding and Managing Production Costs; Moving from Commodities to Value-added Products; and Moving from Commodities to Value-added Products.

Impact

The program was conducted in three locations across the state, Benton Harbor, on January 30, Frankenmuth on February 6 and Clare on March 26, 2002. A total of 92 grain farmers were reached with this program. Ninety-eight percent (98%) of the participants reported learning new information regarding key agricultural trends/projections and profitable business management strategies. Seventy-eight percent (78%) of the participants planned to use the information to make more profitable business decisions and 76% of the participants planned to implement one or more of the business management strategies that were presented.

Source of Funds

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

Scope of Impact

State

Key Theme: Ornamentals/Green Agriculture

Educational Initiative Title: Integrated Plant Health Management Program

Rebecca E. Finneran: State

Description of Program

The diagnosis and treatment or management of landscape plant problems is crucial for the financial success of nursery/landscape businesses. However, the Green Industry has had great difficulty in locating properly trained staff. Even college graduates may lack the precise skills and expertise to successfully diagnose ornamental plant problems and assess impact on customers. When MSUE has conducted programs focusing on the identification and management of landscape plant problems, stakeholders have always requested more pest identification and management programs. However, these programs were often times sporadic and not always available to clientele throughout the state. To respond to this challenge, the Ornamentals AoE team developed a statewide multi-year initiative to provide IPM and Plant Health Care education to the Green Industry. MSUE agents and specialists were the program developers, marketers, instructors and host/facilitators. The team developed the curriculum and training materials to implement a three-day, intensive training program.

Impact

Three locations around the state were selected for training sites for 2002.

440 green industry professionals have been trained over the course of three years.

An evaluation of the workshop found 40% of the participants increased their knowledge of abiotic disorders and management, 20% increased in disease identification and management and 43% increased in knowledge of insect damage identification and management. Follow up surveys indicated that 58% of the participants felt a sharp increase in confidence in their diagnostic skills. 38% said they would make changes that would result in cost savings for their company and/or clients. Comments from the participants included: "I'm better able to diagnose and inform customers about problems in the landscape." "I will use more soaps and oils" (i.e. less toxic pesticides). "I will strongly look to properly diagnose problems and find management options before spraying." "Could save our business \$10,000.00." "I will handle pesticides in a safer manner to myself and others." The implementation of this Integrated Plant Health care program clearly revealed how teamwork could deliver a product with high quality and result in more clientele impact that any one individual could create.

Source of Funds

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

Scope of Impact

State

Key Theme:

Educational Initiative Title: Pesticide Education

George Silva: Eaton County

Description of Program

A collaboration organized two pesticide education sessions. Collaborators included: MSU Field Crops Extension Specialists, Drs. Jim Kells, Chris Difonzo, and George Bird, the Field Crops AoE Team, two Michigan Commodity Organizations, and the Groundwater Stewardship Program. The larger session of the two was held on December 18 at the MSU Pavilion with over 200 registrants that included participants from two other states. This was a statewide meeting titled "Integrated Crop Management for Agribusiness and Pesticide Dealerships". The purpose of this annual event was to give advance notice to pesticide businesses and crop consultants about the upcoming (2003 season) changes in pesticide use and MSU pest management recommendations. The 2003 Weed Control Guide (E 434) and the 2003 Insect and Nematode Control in Michigan Field Crops (E-1582) were released for the first time at this meeting. This information was given to the agribusiness first (before farmers received the

information at the statewide corn and soybean meetings in January and November) to enable them to make inventory checks and pesticide purchases.

Based on the previous year's program evaluation by participants, several changes were made to this year's event. One major request was to incorporate a soil management topic into the agenda. Dr. Carrie Laboski, Extension Soil Management Specialist, was brought in as a speaker to talk about soil phosphorus. The other major change was to work with the Michigan Department of Agriculture in terms of securing more than two pesticide credits, specifically the 'commercial core' category because most of our target group were pesticide dealerships and commercial applicators.

Impact

Pre- and post-test questionnaires for the participants were developed to evaluate the session December 18 session. The questionnaire also collected information from repeat participants who attended last year's workshop. The evaluation found on a scale of 1 to 10, 1 being the lowest and 10 being highest, that participants changed from: 6.6 to 8.8 on their level of understanding of MSU's 'Insect and Nematode Control Recommendations' for field crops; and 7.5 to 9.0 for their level of understanding of MSU's 'Weed Control Recommendations'. Eighty eight percent (88%) of the participants who attended last year's workshop reported the educational information had helped them in terms of being more effective with pest management practices and made better business decisions regarding agricultural profitability. Repeat participants reported helping 96,950 acres and roughly saving \$257,000 through changes in practices on the farm.

Source of Funds

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

Scope of Impact

Multi-State

The Agriculture AoE teams met their 2001-02 Plan of Work goals in Goal 1. by reaching its targeted population of low-income and underserved audiences. The team and members have become more active in recruiting stakeholder input and involving collaborators in setting priorities, designing and implementing programs. In addition, the team is engaged in identifying underserved populations and developing strategies and programs to address the needs of these populations.

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 19,905 participants is low for food safety and does not include the majority of participants, who received both food safety and food nutrition instruction to avoid duplication and reflect mainly the efforts that were specifically focused on food safety. Table 6. shows the number of participants and Key Themes addressed by the Food Safety AoE Team.

Goal 2	Adults	Children	Total	Key Themes
Food Safety*	17,388	12,690	30,078	Food Handling, Food Safety, HACCP
Goal 3				
Food, Nutrition & Health*	66,064	41,498	107,562	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.

Some of the successes in Goal 2 were:

Key Theme: Food Safety and Food Handling
Educational Initiative Title: Food Safety Area of Expertise Team
Les Bourquin: State

Description of Program

The goals of MSU Extension’s Food Safety Area of Expertise team (AoE) in 2001-2002 were to provide food safety education for Michigan consumers via

presentations, newsletters, articles, peer and group education, web sites and other forums; work with partners external to MSU to provide food safety education for consumers; provide food safety training for MSU Extension educators, foodservice workers, food processors and food producers; provide food manager certification and front-line food handler training for the restaurant and retail food industries in Michigan; develop and deliver Hazard Analysis and Critical Control Point (HACCP) training courses for the juice processing industry and other interested parties; and provide training on Good Agricultural Practices for fruit and vegetable growers and packers. Stakeholders and collaborators included juice processors, Michigan Apple Committee, Michigan Apple Cider Maker's Guild, Michigan Department of Agriculture and the U.S. Food and Drug Administration.

Impact

Seventeen thousand three hundred and eighty eight (17,388) adults from the food service industry, food processors, fruit and vegetable growers and general population received direct food safety training through programs including ServSafe and HACCP courses. HACCP concepts were presented for Michigan Juice Processors at the MSU Cider Makers School and the HACCP for Juice Processors and Cider Makers short course. An additional 66,043 adults received food safety training as part of their food, nutrition, and health education of FNP and EFNEP. Over 10,000 4-H youth received food safety training.

Source of Funds

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

Scope of Impact

State

Key Theme: Food Safety, Food Handling, and Food borne Illness

Educational Initiative Title: Food Safety Training

Laurie Berant: Macomb County

Description of Program

The incidence of food borne illness in the United States is estimated by the Center for Disease Control at approximately 76 million cases, including 325,000 hospitalizations and 5,000 deaths each year. Consumers who use proper food handling practices can decrease their risk of food borne illness and avoid the by-products of those illnesses such as the need for medical attention and decreases in work productivity. This program focused food safety education on childcare providers, parent mentors, emergency food pantry workers and other groups. Topics included improper handling of foods and food borne illnesses. In addition,

the program encouraged participants to educate low income residents with whom they came in contact at work about food safety. Collaborators and stakeholders included Michigan Food Safety Task Force, MSU Food Science Department, Macomb 4C Program, Macomb Parent To Parent program, Macomb Food Program, and Macomb County Health Department Food Service Advisory Board. The program goals focused on improving the participants' cleanliness, cooking at proper temperatures, storing/handling at proper temperatures and for proper lengths of time and avoiding cross-contamination.

Impact

One of the workshops evaluated was a food safety training presented to 4C child care providers. Post-surveys results found 75% of participants stated that their level of awareness on food safety had increased after the program, while 25% reported they already knew the information and about the practices. A three month telephone follow-up found 88% able to list at least two safe food-handling practices they had adopted in their kitchen, with 12% listing at least one newly adopted practice. All participants reported they felt satisfied or extremely satisfied with the trainers' knowledge and communication skills. The program served over 100 participants in 2001-2002.

Source of Funds

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

Scope of Impact

State

Key Theme: Food Safety and Food Handling
Educational Initiative Title: ServSafe Education
Joan Miller: Washtenaw County

Description of Program

The Environmental Health Department has seen an increase in the number of critical violations in restaurant establishments. Food safety continues to be an issue identified by consumers as a foremost public health concern. Community stakeholders requested that MSU Extension provide education in an effort to reduce these numbers. Michigan State University Extension collaborated with the County Environmental Health Department to develop and implement a program targeting local restaurants, healthcare institutions, businesses and non-profit organizations designed to reduce the number of food safety violation.

Impact

One hundred fifty participants were trained on the ServSafe curriculum throughout 2001-2002 in this county. One hundred percent (100%) of the participants demonstrated safe food handling practices in the classroom setting. Ninety-seven percent (97%) passed the food safety certification test administered by the National Restaurant Association. MSU Extension is currently working with the Washtenaw County Environmental Health Department in a follow-up evaluation of the program to determine improved practices as evidenced by fewer restaurant inspection violations by those who have completed the ServSafe course.

Source of Funds

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

Scope of Impact

State

Key Theme: Food Safety and Food Handling

Educational Initiative Title: Fresh Produce Production: Reducing Risks

Brenda J. Reau: Monroe County

Description of Program

Consumer awareness regarding the safety of fresh produce has risen sharply over the last ten years in response to media coverage of microbial contamination in fruits and vegetables. Retailers in southeastern Michigan 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 the Monroe County Environmental Health Sanitarian, MSU Extension specialists and Extension field staff members designed a multidisciplinary program called "Fresh Produce Production: Reducing Risks". The primary goal of the program was to assist producers in ensuring that the produce they grow and market remains free of microbial contamination. Educational information on irrigation water and its impact on produce safety was presented. Growers learned how to test their irrigation water supply through the Environmental Health Department. Participants were involved in a hands-on activity that demonstrated the importance of good worker hygiene in the handling of fresh produce. The majority of producers were not aware of the impact that proper hand washing has on food safety.

Impact

In a written post workshop of evaluation of 35 growers, 75% of the producers reported that they planned to make changes in their operations to ensure produce safety as a result of what they had learned in the workshop. A follow-up evaluation was conducted one year after the training to determine the outcomes. The response rate was 70%. All of the respondents reported that they had changed at least one management practice in their operations during the past year. Fifty seven percent (57%) made two or more changes in their management practices. Examples of the kinds of management practices 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 represent over 2000 acres of produce production in the Monroe county area and employ approximately 400 workers. The high number of growers involved in this program and the scope of the changes they made demonstrate a major impact on fresh produce safety not only in Monroe County, but on much of the produce marketed in the metro Detroit area.

Source of Funds

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

Scope of Impact

State

The Food Safety AoE team met its 2001-02 Plan of Work goals in Goal 2. by reaching its targeted population of low-income and underserved audiences. The team and members have become more active in recruiting stakeholder input and involving collaborators in setting priorities, designing and implementing programs. In addition, the team is engaged in identifying underserved populations and developing strategies and programs to address the needs of these populations.

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 107,562 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	Children	Total	Key Themes
Food Safety*	17,388	12,690	30,078	Food Handling, Food Safety, HACCP
Goal 3				
Food, Nutrition & Health*	66,064	41,498	107,562	Birth Weight, Human Health, Human Nutrition

* To avoid duplication, participants who received both food safety and food nutrition were counted only once (30% Food Safety and 70% Food, Nutrition, and Health).

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

Some of the successes in Goal 3 were:

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 2001-02 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 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 from this tool indicated 37% more participants reported planning meals for a few days ahead before going grocery shopping; Nineteen percent more participants reported budgeting money for food expenses; 41% more participants reported using information on food labels to compare the fat or other nutrients in the food; 30% more participants reported planning meals to include a variety of food from food groups; 26% more participants reported cooking meals using dry beans or peas at least once a week; 16% fewer participants reported running out of food at the end of the month; and 36% fewer participants reported thawing frozen meat on the counter.

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

State

Key Theme: Human Nutrition

Educational Initiative: Genesee 4-H FNP Program

Mary Davis: Genesee County

Description of Program

Stakeholder input from community leaders and school administrators in the Flint area identified the need to educate underserved inner-city low-income children about nutrition and food safety. In collaboration with several local foundations, an MSU Extension Family Nutrition Program educator worked with five schools to educate children in third through seventh grade.

Impact

Two hundred and eighty-one children were assessed at the beginning and at the end of a 4 week 4-H educational nutrition program regarding their knowledge of where food items fit within the food guide pyramid. From a set of 100 food stickers, children were asked to pick two food stickers for each of the six food groups and place them on the food guide pyramid. Students from third through seventh grades were assessed. The overall evaluation found the program significantly ($p < .000$) improved the children's knowledge in all six food groups of the food guide pyramid. Children gained the greatest knowledge improvement with the protein group changing from 30% to 78%. Knowledge of the fruit group changed the least compared to the other food groups, but still doubled from 29% to 63%. The low scores in the pre-tests in all areas of the food guide pyramid strongly demonstrate the need for the program for all grades assessed. In addition, the knowledge differences between the pre and post-tests demonstrate MSU Extension 4-H youth development program's ability to make a difference regarding nutrition with this underserved audience of low-income children.

Source of Funds

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

Scope of Impact

State

Key Theme: Human Nutrition and Human Health
Educational Initiative Title: Peer Education Program
Teresa A. Clark-Jones: Washtenaw

Description of Program

In 1997, MSU Extension in Wayne, Washtenaw, and Jackson Counties was approached by M-Care (a regional HMO) about providing educational services to their M-Care/Medicaid participants. They were familiar with MSUE programs in

parenting education, breastfeeding support, and nutrition education and were interested in collaborating with MSUE to provide these programs for their HMO participants. The good news was that they were willing to reimburse MSUE per visit. At that time Washtenaw County did not have Program Associates who were providing in-home education in parenting and breastfeeding and felt that this would be a great opportunity.

Along with the new partnership with M-Care, the concept of having a Program Associate cross trained in Building Strong Families, Breastfeeding Initiative, Immunization, and Eating Right is Basic III was unique. This provided families an opportunity to enroll in any or all of the topics available with the consistency of one instructor. Two audiences were targeted: (1) participants were referred through doctors, nurses, lactation consultants, hospital social workers, and medical clinic staff; and (2) low income pregnant women and low income mothers of young children under three.

Impact

Ninety percent (90 %) of the enrolled participants were involved in three of the four programs available. All participants of the Peer Education Program were evaluated using the tools developed for each of these programs. Of the participants completing the six core "Eating Right is Basic 3 " lessons, at least 90% indicated they increased their intake of vegetables and grains food groups and at least 92% made significant improvement in their diets as reported in a pre and post 24 hour food recall. Participants indicated they enjoyed working with the instructor and learning how to prepare meals that were healthy with the food they had available. Forty- seven mothers were given assistance with breastfeeding. The goal was to support these mothers to continue to breastfeed for one year. Approximately 50% of the mothers were still nursing at one year. The most common reason for stopping was returning to work or school. The parents who participated in the Building Families Program made positive changes in parenting behaviors throughout the course of the BSF program. Twenty-four out of the 32 items on a parent assessment showed significant changes.

Ninety (90) mothers were served during 2001-2002 by this program in Washtenaw County and over 400 mothers have been served since starting in 1998.

Source of Funds

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

Scope of Impact

State

Key Theme: Health Care

Educational Initiative Title: Poverty Simulation

Marlene C. Caszatt and Julie Moberg: Otsego and Delta Counties

Description of Program

Service providers and educators working with low income families requested the opportunity to experience a poverty simulation as a way to help become more sensitive to the conditions low income families' experience in their communities. The poverty simulation was designed as a sensitivity training tool for health service providers and educators working with low-income families.

Impact

MSUE collaborated with The Otsego Human Services Coordinating Board to train over 100 participants in the poverty simulation exercise. A follow-up mail survey was conducted. Results showed a 60% increase in understanding of the financial pressures faced by low-income families in meeting basic needs and the difficulties related to poverty. In a workshop conducted in Delta County, the evaluation found 13 out of 28 (46%) health service providers described the workshop as helping them to understand the struggles a low income family faces each month; 46% reported the workshop helped them to understand the difficulties a family faces when working within the human service system; 54% stated the workshop increased their knowledge of community resources; and 89% reported they would recommend the workshop to colleagues. Other knowledge gained included "empathy regarding the challenges and problems with using the system." Additionally they gained an "increase in knowledge regarding community resources."

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

State

Key Theme: Human Nutrition

Educational Initiative: Expanded Food and Nutrition Education Program (EFNEP)

Gayle Coleman: State

Description of Program

In Michigan, 15 counties delivered adult EFNEP programming: Berrien, Clare, Genesee, Gladwin, Ingham, Kalamazoo, Kent, Lenawee, Macomb, Muskegon, Oakland, Saginaw, Sanilac, St. Clair, and Wayne. Only Wayne County delivered EFNEP for youth. There were on average 55 EFNEP paraprofessionals representing 44 FTE working for EFNEP and paid through federal EFNEP dollars. Two youth EFNEP paraprofessionals, representing 1.8 FTE, worked for EFNEP and were paid through federal EFNEP dollars. Fifteen professional Extension agents or County Extension Directors supervised the adult and youth programs in local communities. Most had a portion of their salaries paid through federal EFNEP dollars.

Instructors were encouraged to tailor the pace and specific lesson focus to meet the educational needs and interests of participants.

Impact

During 2001-2002, 4,617 families enrolled in adult EFNEP. More than 3,000 participants completed a series of lessons in the adult program. The 66 percent completion rate is comparable to the national average for EFNEP. Traditional adult EFNEP participants were required to cover a minimum of the six core lessons from *Eating Right is Basic (Third Edition)* in not less than four sessions to graduate from EFNEP in Michigan. Sixty-one percent of participants received intervention through group education and 38 percent of participants received intervention through individual instruction. Youth EFNEP reached 4,197 children. Evaluation of the adults found these changes: 76% of homemakers showed improvement in one or more food resource management practices; 81% of homemakers showed improvement in one or more nutrition practices; and 54% of homemakers showed improvement in one or more of the food safety practices.

Source of Funds

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

Scope of Impact

State

The Food, Nutrition, and Health AoE team in Goal 3 met its 2001-02 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. In addition, the team is engaged in identifying underserved populations and developing strategies 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	3,257	1,579	4,836	Forest Crops, Forest Resource Management
Land Use	3,628	7,220	10,848	Land Use, IPM, Natural Resources
Manure	530	241	771	Agricultural Waste, Water Quality
Renewable Resources(RREA)	913	1,539	2,452	Recycling, Forest Resource Management
Sea Grant	4,699	3,499	8,198	Water Quality, Natural Resources Management
Water Quality	5,690	13,276	18,966	Water Quality, Riparian Management, Nutrient Management
Christmas Trees	319	0	319	Forest Crops, IPM, Water Quality
	19,036	27,354	46,390	

Table 8.

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

Some of the successes in Goal 4. were:

Key Theme: Water Quality

Educational Initiative Title: The Lake and Stream Leader's Institute

Howard Wandell: State

Description of Program

The MSU Extension water quality and fisheries and wildlife area of expertise teams, the MSU Department of Fisheries and Wildlife, and the Michigan Lake and Stream Associations, Inc., developed a new resource management training program to help citizens who live on one of Michigan's many inland lakes and streams learn about water resource management. The Lake and Stream Leader's Institute helped participants develop their potential as resource management leaders and trained them in water resource planning and program implementation. Twenty-four individuals, including county drain commissioners, lake association members, teachers, township officials and Department of Environmental Quality staff members, dedicated seven days to this training. Each daylong session focused on a different aspect of the water resource management process, including leadership and administration, local and state governments' water regulations, watershed management, and lake and stream ecology. To foster practical experience in implementing these leadership skills, the institute required participants to develop projects within their communities that related to water resource management.

Impact

The percentage of participants in the Lake and Stream Leader's Institute who reported that their knowledge and ability to lead group meetings was *high* or *very high* increased from 40% to 100% following the program. Their knowledge and ability to provide leadership in a conflict situation rose from 20% to 70%. They also reported increases in their knowledge and ability around the subjects of ecology and monitoring of both lakes (21% to 79%) and streams (22 to 83%).

During 2001-2002, 5,690 adults and 25,018 4-H youth were educated on water quality issues and practices.

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

State

Key Theme: Water Quality**Educational Initiative Title: Introduction to Lakes Program****Dean R. Solomon: Southwest Region****Description of Program**

Michigan is blessed with over 11,000 inland lakes. The quality of those valuable resources is threatened by over-development, loss of wildlife habitat and water pollution. Lake residents are key to maintaining or improving water quality. Practices on their property and their involvement in lake- and watershed-wide efforts can have tremendous impact. Based on expressed need from local agents and stakeholders (principally the Michigan Lakes and Steams Association), a program was developed by the team of Jane Herbert, District Water Quality Agent, Dean Solomon, Extension Program Coordinator and District Natural Resources Agent and Howard Wandell, Inland Lakes Extension Specialist, to provide training to lake residents in their local community. This effort was based on the curriculum and participant evaluations from MSU's Kellogg Biological Station Protecting Inland Lakes program, scaled to provide introductory-level information and build skills among lake residents. The main goals of the Introduction to Lakes program were to help lake residents better understand lakes, lake ecology and the importance of lake management. The program included three intensive evening workshops covering lake ecology, watershed management, shoreline management, lakes and the law, aquatic plant management and promoting citizen involvement. A CD produced by the team provides tools and presentations for agents throughout the state to deliver the program.

Impact

Over 100 lake residents have participated during the five times the program has been offered. The program has been hosted in Allegan, Barry, Newaygo, Hillsdale and Calhoun Counties. An evaluation survey was conducted at the conclusion of each program. Participants rated the helpfulness of the program 4.53 on a scale from 1 to 5, with 1=not helpful, 5=extremely helpful. Fifty-nine percent of participants rated the program "extremely helpful." Nearly all participants were part of the target audience, with 76 percent of participants year-round lake residents. Participants increased their confidence and abilities in five areas: locating information and resources about lakes and watersheds (4.46); discussing lake issues with other members of your lake community (4.47); improving shorelines to protect water quality (4.39); addressing lake watershed issues at local government meetings (4.05); and developing plans to manage aquatic plants (4.22).

Testimonials from participants included some of the following: "As a county commissioner on the parks board, I found this very enlightening. It has raised many issues which we need to address in this extremely fast growing area." "I

didn't realize how much I didn't know about ownership of lake property, the lake itself, watershed, etc. You should have more of these classes or classes focusing on one aspect of inland lakes, riparian rights, aquatic plants and such." As development pressure continues, there is an on-going need to enable lake property residents to protect the quality of their lakes. The Introduction to Lakes program has been one element along a continuum of Extension programs that build skills within this important group.

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

State

Key Theme: Recycling

Educational Initiative Title: Recycling Special Collections

Beth Clawson: Van Buren County

Program Description

Van Buren County wished to keep tires from entering the environment as pollution. Simultaneously, the resource recovery office needed to develop ways to fund the recycling education portion of the solid waste management plan. Many Van Buren County municipalities had small tire stockpiles collected at various transfer stations throughout the year, and also through their local spring clean-up programs. The cost of tire recycling for the individual municipality was great. To reduce the cost of recycling the tires and to raise funds for environmental education, a collaborative program was created.

Impact

Plans were laid to collect tires from each municipality on a single day and to send them at a bulk rate. A small per tire charge was added to the fee to raise the needed education funds. The municipalities responded positively. The program was twice as successful as initially estimated. The initial collection was estimated to require only one semi-trailer and be completed in one day. The collection ultimately required 2 semi-trailers and 2 days. Over 2500 tires were collected throughout the county.

During 2001-2002, 913 adults and 8,207 4-H youth were trained about recycling and renewable resources.

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

State

Key Theme: Agricultural Waste Management
Educational Initiative Title: Animal Waste Management
Ira J. Krupp: Allegan and Ottawa Counties

Description of Program

To utilize manure in an environmentally response manner, livestock farmers must develop manure application plans for their farms. To comply with Michigan Department of Agriculture Right to Farm Guidelines, farmers need a Manure Management System Plan (MMSP). With the Environmental Protection Agency paying close attention to Michigan agriculture, livestock producers need to be able to better document responsible use of livestock manure. To assist farmers with writing Manure Management System Plans, 10 manure management workshops were presented in Allegan and Ottawa Counties under the leadership of MSU Extension Educator Charles Gould.

Impact

A total of 40 MMSP's were developed in the two counties. Reducing unnecessary fertilizer applications saved these 40 farmers more than \$100,000 in input costs. Better use of manure reduces the chance that manure will become an environmental pollutant. Each livestock producer who has an MMSP developed now operates his/her farm in compliance with MDA Right to Farm Guidelines. In one case, a dairy producer reduced his phosphate fertilizer bill by 100% with knowledge gained while developing his manure management plan. Another farmer learned through development of his plan that he could cut his nitrogen fertilizer rates by 30% by crediting the nitrogen in his manure to his corn crop. A nursery stock producer who was applying manure as a soil additive could cut his application rate by 70% and still get optimal growth of his plants. Other participants stated "I could not believe I don't need all that starter fertilizer any more" and "I thought my manure was just as waste product, I didn't realize it was a good crop fertilizer."

In 2001-2002, 530 adults were trained on manure management.

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

State

Key Theme: Forest Resource Management

Educational Initiative Title: Forestry Area of Expertise Team

Karen L. Potter-Witter, Dean Solomon, and Georgia Peterson: State

Description of Program

The MSU Extension Forestry Area of Expertise team focuses provides education, technology transfer, and training to those involved in the production and use of forest resources and benefits. Since Michigan relies heavily on its forest resources for timber, tourism, recreation, and social and environmental well-being, the team's clientele and partners include managers and users of a variety of forest resources. The team's audiences include industrial and non-industrial private forest landowners; logging and forest products industries; special forest products growers; urban and community forestry interests; not-for-profit forest organizations and groups; public natural resource agencies; and K-12 education. One of the programs offered in 2001-2002 in Kent, Oakland, Livingston and Grand Traverse Counties was the Master Woodland Manager Program. In addition to the basic courses that included ecological principles, silvicultural practices and tree identification, participants learned about current forest health issues, tree planting techniques and forest harvesting income and taxation. In response to changing forestland ownership patterns, a new optional session on managing small woodlands was added. The goal was to better enable volunteers to assist the increasing number of landowners managing one to ten acre forested parcels.

Impact

To identify what practices they've conducted on their lands and to gather input on what they'd like to see in the program for the future, an evaluation survey of participants was conducted. The survey indicated that 100 respondents (from the 183 participants who had participated) completed 2,300 hours of volunteer service. Fifteen percent of respondents earned more than \$5,000 from management activities on their own property since completing the program. Eighty-two percent of respondents engaged in at least one category of management practices since their involvement in the program. The highest management activity was timber stand improvement (64%), followed by 57% planting trees and/or shrubs, and 28% planting wildlife food plots. The information gathered from the survey directed the format and content of the first newsletter, which was sent to over 350 forest landowners.

The evaluation report can be found at:

<http://www.kbs.msu.edu/Extension/MWM/Mwmsurveysummary.pdf>

Another major accomplishment involved the members of the forest industry and environmental organizations reaching a consensus on a set of recommendations that were used as a basis to designate a portion of the state's 3.9 million acres as Biodiversity Stewardship lands.

During 2001-2002, 3,257 adults and 1,561 4-H youth were educated on forestry issues.

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

State

Key Theme: Land Use

Educational Initiative Title: Community Land Use Survey

Terry Gibb and Marilyn Rudzinski: Macomb County

Description of Program

Macomb County has and continues to experience phenomenal growth, particularly in the northern townships and villages. Many of these communities were updating their Master Plans. Stakeholder wanted these plans to reflect the vision of their residents. Many elected officials had no documentation about what local residents want for their communities in the future. Local surveys would confirm or offer other possibilities about growth and development as envisioned by residents and assist in the updating of current plans. These communities needed assistance with implementing a survey instrument to their residents that can be used to identify local needs and visions for future planning and zoning. At the same time, the survey instrument and data results needed to be perceived as being accurate and neutral by residents. Finally, state legislation requiring all communities to review and update any plan that was adopted before the legislation was enacted had passed. As part of this update, communities had to provide plans to adjacent communities and the County Planning commission for review and comment. Another major goal of the project was to facilitate a follow up discussions at community and regional levels assisted in utilizing the data in their Master Plans.

Impact

Over 2,000 citizens from 11 townships in northern Macomb County were surveyed by MSU Extension regarding their opinions on what attracted them to the community, concerns they have about their community, land use and community growth, and coordination of planning and zoning across townships. The results were shared among 40 elected officials, planning and zoning staff, and administrators. Ninety-three percent (93%) of the participants reported the information confirmed many things they already knew, including concerns over growth (especially mobile homes), roads and congestion. Many of the participants commented that although they knew much of the findings, the report helped to document the opinions of the citizens in their community. Ninety-two percent (92%) of the participants reported learning new information that such as: many of the citizens moved to the area because of safety, citizens wanted to keep the rural nature of the county, and citizens wanted more education in these areas. All participants said they would use the information in the reports in their master plans as well as disseminate the report through meetings, newsletters, newspapers, and the Internet. Another aspect of the evaluation was to assess the congruency between what the participants thought their constituents would say in the report and what they actually said. Participants were able to predict approximately 80% of the top items for each question. The main question the participants failed to accurately predict was on barriers to land use, where local officials thought constituents would rate state and federal regulations high as an issue and planning low, but the report found the reverse. Both the citizens and the participants agreed that education around land use and growth is needed in order to build better communities in the future.

Source of Funds

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

Scope of Impact

State

Key Theme: Wildlife Management

Educational Initiative Title: Improving Your Land for Wildlife

Robyn Oliver: North Region

Description of Program

In 1994, bovine tuberculosis was discovered in wild deer in Northeastern Michigan. Landowners needed to learn to manage their land through sound biological practices to attract and manage wildlife. Such practices include timber management, creating openings, establishing food plots, and habitat plantings.

Helping landowners improve their land for white-tailed deer and other wildlife reduces deer concentrations and spreads the population out, reducing deer-to-deer and deer-to-cattle interactions which spread bovine tuberculosis. "Improving Your Land for Wildlife" was created and implemented in 2001-2002 to assist landowners in acquiring information about sound practices and applying it on their property.

Impact

This educational effort reached over 400 people who participated in the full workshop program or in selected modules combined with other programming efforts. In addition, 23,000 copies of a newspaper publication were distributed. Evaluation results from workshops indicated that 40% of the participants would use food plots and other wildlife management techniques instead of baiting and 40% would use woodland management techniques including timber harvest and creating openings to maximize wildlife management on their property.

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

State

The AoE Teams in Goal 4. met their 2001-02 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, all teams are engaged in identifying the needs of underserved populations and developing strategies and programs to address these populations.

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	14,204	1,290	15,494	Community Development
Economic Development	2,178	0	2,178	Community Development
Family Resource Management	6,787	3,204	9,991	Family Resource Management, Children, Youth and Families at Risk
FIRM	4,187	501	4,688	Agricultural Financial Management
Human Development	12,624	26,694	39,318	Parenting, Child Care
LeadNet	3,891	132	4,023	Leadership Training
State & Local Government	1,050	30	1,080	Community Development, Leadership Training
Tourism	667	75	742	Tourism
Volunteer Development*	2,554	15,562	35,519	Youth Development, Leadership Training
Youth Development**	9,278	69,670	78,948	Youth Development/4-H, Character Education, Children, Youth and Families at Risk
	82,250	152,016	234,266	

* Number of adult volunteers who were trained. A total of 21,814 adults volunteered for 4-H and 2,000 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.

Some of the successes in Goal 5 were:

Key Theme: Community Development
Educational Initiative Title: Zoning to Accommodate Home Based Businesses
Donald R. Smucker: Montcalm County

Description of Program

In the spring of 2000, a pallet dealer in the Montcalm County community contacted MSU Extension about a new township zoning ordinance that was threatening to close some Amish owned sawmills that were constructing pallets for him. The newly enacted ordinance was being used to stop operation of an existing sawmill. The township board was dismayed that the ordinance was having this effect, but several local citizens were determined that the ordinance be enforced as written. The township was approached by the Amish community with concerns that the new ordinance would make it impossible to continue their home-based businesses. Clearly this threatened their economic survival. The zoning board was trying to deal with the situation, making no progress and spending most of their time in confusion and conflict. The township board and Amish community were becoming very frustrated about the lack of progress made in over a year's time. The board contacted MSUE and asked for help in exploring alternatives. The MSUE state and local government specialist helped the local agent find some ordinances that defined sawmills as agricultural enterprises and permitted small sawmills on lands zoned for agriculture. These ordinances limited the size of the operations.

Impact

MSUE brought the parties together to try to identify issues and areas of agreement in a one evening session with the township board, zoning commission and a group of Amish. After participants had worked as groups, they shared their concerns with the total group. The Amish groups shared why home-based businesses were important to their way of life. At the conclusion of the meeting, the total group arrived at a consensus to modify the ordinance to permit these businesses in agricultural zones, with limits on size and number. The MSUE state and local government specialist developed ordinance language to modify the definition of an agriculture district to accommodate the necessary changes, along a set of rules for permitted home-based businesses. The township board was able to change the ordinance smoothly. All parties felt they learned a great deal and have a real sense of accomplishment from working together toward a common, mutually identified goal.

Community Development team educated 14,204 adults and 1,290 4-H youth on issues related to community development.

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

State

Key Theme: Community Development

Educational Initiative Title: Better Kid Care Mini-Conference

Marlene C. Caszatt: Antrim and Kalkaska Counties

Description of Program

Headstart, Early Headstart, 4 C Council, and the Mancelona Public Schools Childcare program partnered with MSU Extension to sponsor, coordinate, finance, and promote a Better Kid Care (BKC) conference. The primary goal was to provide parents and caregivers the knowledge/skills needed to help their children reach their potential by increasing knowledge about: child development, breastfeeding, parent-child interactions, guidance/discipline, and decision-making. Other goals were to offer a mini-conference for childcare providers and parents of children 0 to 5 years, utilizing the Better Kid Care satellite topics as workshop sessions; and to build awareness and usage of the Better Kid Care videotape library.

Impact

Over 100 parents and caregivers were trained in 2001-2002. Evaluations of the BKC Conferences demonstrated that participants planned to use ideas and practices learned in the workshops. Almost all (92%) reported they had learned new information; 77% reported the information was relevant to them; 69% reported they would use the information now and 69% reported they would use the information in the future. Nearly two-thirds (62%) reported plans to use the handouts. BKC conference participants were from diverse populations. For example, one session was conducted by a resource person with Native American heritage and focused on the Native American culture.

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

State

**Key Theme: Character Education and Youth Development/4-H
Educational Initiative Title: Showing Character Program
Nancy D. Thelen: Washtenaw County**

Description of Program

The goal of this program was to increase the leadership skills of teens and to provide training for members, parents and leaders on character education. The need was identified through discussions at the Jr. Livestock Committee meetings and at the 4-H Livestock and Dairy Committee Meeting. The teens and several leaders felt that county youth put too much emphasis on winning and not enough on learning other life skills. The groups decided to sponsor a Showing Character workshop after it was previewed at a statewide 4-H youth development workshop. MSUE recruited eight teens to help facilitate and lead small group discussions at the workshops. The leadership ability of teens interested in animals had been utilized very little in past years.

Impact

The program was attended by 22 adults and 39 youth. Understanding and knowledge of character education increased for 89% of the participants, according to pre and post evaluation. The teens that facilitated the training indicated an increase in their self-confidence and felt it helped them to increase their leadership skills. Participants indicated a better understanding of character education and its importance when showing animals and in everything they do. Participants increased their knowledge and use of all six pillars of character. They indicated plans to show more trustworthiness, fairness, responsibility and respect in all their life practices. Leaders reported they would encourage members to care for and exhibit their animals based on the character pillars. Members said they would use the six pillars to become the best person they could be when showing their animal project. They also felt that the workshop helped them be a better role model for future and younger members, teaching everyone to be better people and to demonstrate pride and respect in whatever they do.

Testimonials include: "I especially appreciated being reminded of what self control means. As a parent I can certainly apply this skill and work on increasing my self control." "I will work to reinforce the information given tonight with my own children as well as others in our club and school." "I will try to show trustworthiness, fairness, responsibility and respect in my business and life practices." "This really drives home the points that it's not all about winning in the show ring." "I learned to be a graceful loser and positive winner."

Few leadership type programs for members enrolled in animal projects had ever been held in the county. It was good to bring in members from all over the county who were enrolled in a variety of different animal projects.

During 2001-2002, 4-H trained 125,161 youth in plants and animals and 82,786 youth in personal development and leadership.

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

State

**Key Theme: Youth Development and Leadership Training and Development
Educational Initiative Title: Citizenship Academy 2001
Caton Gauthier: Washtenaw County**

Description of Program

As a result of the Washtenaw County issues identification process, a goal to increase citizen involvement in communities and local government was developed. Additionally, the county Board of Commissioners identified youth development as a priority. It was felt that an effective way to encourage citizens to become involved in government was to actively involve them. A County Citizenship Academy targeting teens, based on a model successfully used in Genesee County, Michigan was developed. To capture the interest of teens, teens were included on the steering committee. Teens with leadership capacity but not currently active in leadership roles were especially sought. The Washtenaw County 4-H Citizenship Academy was established in the spring of 2001 as a way to educate teens on local and county government. The teen steering committee worked with 4-H and MSU Extension community development staff to create a teen-friendly learning experience. The five-event program included: 1) an orientation session consisting of group dynamics; an introduction to local, county, and state government structures, county demographics; and issue identification activities. 2) A full-day county department tour; 3) a commissioner/legislator luncheon where participants presented their key concerns; 4) attendance at a county board of commissioners meeting; and 5) a wrap-up session with evaluation.

Impact

Four teens actively participated in the planning and development of the Citizenship Academy program and 11 teens participated in the five-part program. At the conclusion of the program, the youth reported a 61% increase in knowledge on local and county government structure; 73% had direct contact with five state legislators and four County Commissioners to present their issues of importance; 100 % toured 9 county departments and met with the county Administrator; 82% attended a County Commissioner board meeting; and 18% applied to serve on the 2002 steering committee. In addition, 36% attended the Michigan Association of Counties (MAC) Board Meeting and opening of a conference session as guests of the MAC Chairperson, who is a local commissioner; 45% reported other follow up activities with county Commissioners; and 36% participated in Capitol Experience. The program clearly met its goals of not only involving youth in meaningful ways as well as helped to promote a learning environment for both adults and youth. Youth learned that the county provides services they were unaware of. They connected with commissioners and state representatives on a personal basis and realized that their voice is heard and important. Commissioners and state legislators were provided a forum to hear input and concerns from the teen constituency. It was noted by legislators that this is a very rare opportunity. Teens were also exposed to potential career paths in government and leadership.

Their comments included: "This program helped me to see how diverse our county government is; everything from public health to making laws. It was also neat to see how interested the commissioners were about our group." "I thought that you couldn't really get involved. I didn't know how to before and now I understand how everything works and how I can help to make a difference." "It provided me with the opportunity to learn more about the purpose of the county government. Like what the county commissioners do and how they affect the community." "I now know more about how important government is especially at a local level. This was not a topic I thought about a lot and now I'm really interested!" "I didn't realize how much our county government planned for not only now, but the future, which is very important." "I understand that some of the things in the community are easily changeable and some aren't." "The government officials are very interested in what we have to say!" "I had a lot of fun and learned so much! I'm very interested in government after getting involved with government programs." "I feel that the elected officials will listen to concerned citizens."

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

State

Key Theme: Home Safety
Educational Initiative Title: Radon Education and Outreach
Jean Nichols: Hillsdale County

Description of Program

Hillsdale County has the highest incidence of elevated radon levels in the state of Michigan, according to the Michigan Department of Environmental Quality (DEQ). Radon is a colorless, odorless, tasteless, naturally occurring radioactive gas. It is the second leading cause of lung cancer in the U.S. Smoking combined with radon exposure is an especially dangerous health risk.

The public needed to be educated about radon and its long term effects on health, encouraged to test for elevated levels of radon, and informed about actions to be taken when high levels are found. MSUE worked cooperatively with the DEQ and the Community Health Agency to sponsor a radon workshop for housing professionals. The Radon Education and Outreach program provided radon risk reduction education to Hillsdale County residents and encouraged homeowners to test for elevated radon levels. It also provided a workshop for housing professionals to educate them about their part in radon risk reduction. Planners worked with Kansas State University Extension in developing and implementing the program.

Impact

Of the 495 radon test kits that were distributed by Hillsdale County MSUE, half were used and received results from the laboratory. This is an increase of over 11 times the number of people testing their homes for elevated levels of radon due to this MSUE programming. Twenty-eight percent of the homes tested had elevated radon levels. Follow-up phone calls to participants with high levels found that 58% had retested their homes and 42% had not retested. Thirty-eight percent of those who had not retested decided to retest after the phone calls. Of those who retested and had confirmed elevated levels: 39% installed mitigation systems; 11% were taking other action to reduce their levels, such as filling in cement blocks with foam insulation, installing special sump pump covers and sealing cracks and holes in basement walls; 17% chose to do a year long test; 11% chose to take no action; and 22% retested. Another finding was that the people in the programs did not know that Hillsdale County was one of nine counties that have been designated as a high radon risk area by the EPA.

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

Multi-State

Key Theme: Community Development

Educational Initiative Title: LeadNet AoE Team

Lela Vandenberg: State

Description of Program

Many MSU Extension staff work with Boards, Councils, and other community organizations in a supportive or facilitative capacity. Often they are asked to help the group through a visioning, brainstorming, decision making, or action planning process. LeadNet members have often times been asked for help in these areas by other Extension colleagues, so the LeadNet AoE Team developed a notebook describing a multi-step process of what we call strategic futuring. The notebook included many tools to use in every step of the way, as well as Michigan case studies showing a variety of ways strategic planning can be approached. A one-day workshop provided an overview of the notebook and some practice of the tools.

Impact

Three workshops were conducted in Grand Rapids, Mackinaw City, and on campus. A total of 48 people attended the three. In addition, workbooks were distributed to approximately 25 others. At the end of each workshop participants filled out an evaluation questionnaire. Workshop evaluation forms indicated that participants were extremely satisfied with both the content of the workshop (average rating of 4.7 out of 5), and its presentation (average of 4.44 out of 5). Qualitative comments overwhelmingly expressed participants' appreciation for the interactive, participatory learning design, and the richness, quality, and usefulness of the notebook. Six months to one year later participants were sent a follow-up questionnaire asking them what impact their learning at the workshop had on their work or the work of their organizations. A number of participants had used the materials and processes with other groups. Some examples of successful strategic futuring outcomes included: - Peggy Vuylsteke used mind mapping and asset mapping to help the Port Huron Hospital Foundation look at community assets and develop a plan for follow through. - Dave Glenn used some of the tools and ideas with the Rogers City council and the Presque Isle County Tourism Council. - Bertha Rogers used it with youth and community leaders, who adopted a project and worked together to find ways to make it happen. A library key chain card was one of the goals realized by the group. - Carol Townsend used a visioning example from the notebook in a planning process with the SWAN neighborhood. - Rita Hodgins developed her skills in using PATH, and has used it with a leadership group, and has used strategic

futuring tools in an educational way with over 20 groups since the workshop. The groups now have an understanding of capacity to use a process of planning, goal setting, and strategy development. She writes: "Feedback indicates that all groups benefit from being on the same page and moving in the same direction. Many report goals have been accomplished. Most groups report using the plan to guide their meetings, reporting on progress and keeping focused. All have written or reworked their mission statements. All have arrived at consensus on a shared vision and all have had the opportunity for input into the goal writing and strategy development. All have had the experience of being a part of a team to implement at least one of the goals." - Julie Pioch and Mark Thomas have worked for over two years with Pathfinders, a community improvement group from Covert township. Together they developed a strategic plan, focused on six goals, and made great improvements by providing a public water system, and opening a new medical clinic, among other accomplishments. - Georgia Peterson worked with the Michigan Association of Conservation Districts, and during the course of three sessions, helped them develop a set of strategies for delivering natural resources services to their constituents in 83 counties, in the face of budget cuts.

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

State

Key Theme: Leadership Training and Development

Educational Initiative Title: Leadership Eaton 2002

Mona J. Ellard: Eaton County

Description of Program

MSUE collaborated with the Eaton Intermediate School to implement the Leadership 2002 program in the county. 27 people enrolled in the Leadership 2002 program, with one withdrawing before the kickoff weekend retreat. The retreat was held at Kellogg Biological Station on January 12 and 13, 2002. The DiSC Personal Profile System was presented to help the leaders understand the need for different personal behavioral strengths in community groups and by managing your behavior you can become a successful community leader. Other topics included the concept of what is leadership, how can you get your message across and conducting effective meetings. The 26 people divided into four self-directed teams. The team concept allowed for team building experience and increased networking among members. Following the retreat four educational sessions were held. The first of the four sessions offered information

on the challenges of Public Education and the county's new Early Childhood Connections program. The second educational sessions covered the topic of Team Building and how does a village government function. The third educational session covered the topics of Formal Fundraising, Grant writing and shared information on how township government functions. The final educational session's topics included the CAN DO Visioning Project, Legalities of Running for elected Office, A Panel of Elected Officials and How to Recruit and Maintain Volunteers.

Impact

Immediately following the retreat, the participants were asked to list the two topics that were most relevant to their personal growth. Of the 25 that responded, 84% indicated that the DiSC was the most beneficial to them. Some of their comments can be summed up with this respondent's comments, "The personal profiling assessment was very valuable in understanding self, although I realize everyone has traits of each depending on the situation. Learning how every behavior is different, it is nice to learn how to relate with each behavior type and what makes those types tick." Thirty-six percent of the participants felt that the information on public speaking helped them build skills in that area. At the last session two forms of evaluation were conducted. A post outcome evaluation was given to assess changes in the participants' abilities in conducting effective meetings, developing community networks, knowledge of community resources, knowledge of how to build a team, ability to get their message across, etc. In the pre test before the series of programs, the participants had a total mean score of 519.5. In the post evaluation the scores rose to 707.5. The difference indicates a 36% rate of change increase in abilities as a result of participation in Leadership Eaton 2002. The second tool was a formative evaluation to help determine what part of the program worked and what needed improvement. Eighty-eight percent (88%) indicated that their overall reaction to the Leadership Eaton 2002 was strongly positive and 11% were somewhat positive. Eight-three percent reported they felt more capable of contributing to improving their community. Forty-eight percent had started new projects with leadership roles.

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

State

**Key Theme: Parenting, Family Resource Management, and Human Nutrition
Educational Initiative Title: Families in Touch
Jill Send: Kent County**

Description of Program

Partnered with Spectrum Health-Healthier Communities to target underserved Kent County families of school-aged children who do not always qualify for public assistance including at-risk/low-income families. The goals of the program were: (1) help families to increase positive parenting practices and improve knowledge and understanding of children's ages and stages: (2) help families gain knowledge about improving their family budgeting strategies: and (3) help families gain knowledge about basic nutrition and will help them develop healthier eating habits. Families were encouraged to enroll in all three of the programs over time.

Impact

In 2001-2002, a total of 512 families were evaluated in the three areas of educational programming. The evaluation after the training found for parenting instruction: participants scores changed 23% from pre-test to posts in their knowledge of positive child behavior, 19% changed on positive discipline techniques, and 18% changed in their understanding of developmentally appropriate behavior of their child. The evaluation of the family resource management instruction: pre-test/post-test scores changed 45% regarding knowledge that will help them set financial goals, reduce their debt and stretch their income; and scores changed 40% on their awareness of the importance of saving. Through a 3-6 month follow-up of participants from family resource management, results indicated that 69% developed a workable (participant defined) family budget. The evaluation of the nutrition instruction found: participants changed 25% on their pre-test/post scores on knowledge about basic nutrition that would help them develop healthier eating habits; and 27% of the participants reported increasing their use of the Food Guide Pyramid and inclusion in daily meals. Some of the participants' comments included: "I will be more sensitive and aware to my sons wants and needs." "It gives me better ideas and ways to manage my money. It teaches me to prioritize between the greater need and the lesser needs." "It gives me better ideas and ways to manage my money. It teaches me to prioritize between the greater need and the lesser needs."

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

State

Key Theme: Youth Development
Educational Initiative Title: 4-H Fun Zone
Janet Olsen and Cynthia Mark: State

The project offers children a safe place to be, along with opportunities to explore topics not taught in the classroom (such as food and nutrition, performing arts, conflict resolution, anti-tobacco use strategies, to name a few.) The goal of each project county is to annually involve a minimum of 50 to 100 youth during the school year and 50 to 100 youth during summer programming in ongoing. Each project county is also charged with recruiting, training, and providing ongoing support for community volunteers to support the project long-term.

Impact

Sixteen counties were involved during the second year (2001-2002) of the 4-H Fun Zone Project. The 4-H Fun Zone Project emphasized strengthening life skills and assets in youth participants in the areas of positive values, social competencies, positive identity, safety and support, service to others, and commitment to learning. A "4-H Youth Assets" pre- and post-survey were used with young people aged 10 and over to gauge change in these areas. Results of 102 Pre- and Post-Tests completed by youth in grades five and six found significant behavior changes ($p < .05$) in social competencies, commitment to learning, services to others, positive identity and positive values. Specific changes were in the following items:

Services to Others

I do service communities to help my community.
I like my community.
I actively participate in my community.

Positive Identity

I have something worthwhile to share with others.

Positive Values

I keep my promises.
I eat a combination of five fruits and vegetables a day.
I exercise and do physical activities to be healthy.

Social Competencies

I solve problems.
I know how to plan projects.
I make decisions.
I feel comfortable talking in front of a group.

I would rather work with a partner than work alone.
When I am with my friends, I am a leader.

Safety and Support

I have friends I feel comfortable talking with.
I feel safe when I am in my youth group.
My youth group is a caring environment.

Commitment to Learning

I like school.
I make good use of my extra or after-school time.
I learn new things all the time.
I create things.
I use math everyday.

During 2000-2001 1,390 children took part in 4-H Fun Zone activities led by volunteers who contributed more than 10,500 hours.

Source of Funds

Smith-Lever 3b&c, state, county

Scope of Impact

State

Key Theme: Youth Development

Educational Initiative Title: Michigan 4-H Youth Conservation Council

Andrea Grix: State

Description of Program

The Michigan 4-H Youth Conservation Council was introduced by the Michigan Senate in 1999 and is coordinated by Michigan 4-H Youth Development to provide Michigan youth a voice in environmental legislative advocacy and policy development. The council offers teens, aged 13 to 19, a one-year learning experience and the potential to assume a mentoring leadership role in subsequent years working with key conservation decision-makers in state government on state conservation concerns. The council identified local and statewide conservation issues and chose a research topic based on discussion, professional resources and group consensus. The program involved approximately two FTEs representing percentages of two full-time 4-H program staff members, one university faculty member with some additional volunteer and field staff involvement. Collaborators included Michigan Department of Environmental Quality; Michigan Senate Committee on Hunting, Fishing and

Forestry; Michigan Department of Natural Resources; the Great Lakes Center for Maritime Studies at Western Michigan University; MSU Extension; and Michigan Senate Majority Policy Office.

Impact

After six months of research and meetings in their regional teams, the council provided testimony and recommendations to a state senate or house committee that addressed concerns of the group's chosen natural resource conservation issue. In addition, the teen council members presented their research to local schools, service groups, local government and other community audiences. For the past two years, this teen leadership group has been working specifically on advocating for the development of a Michigan Heritage Water Trails system. During 2001-2002 Youth council membership involved 20 teens serving on teams that represented the six Michigan Extension program regions. In pre- and post-participant self-rating surveys, youth involved in M4HYCC changed from 16.7 to 33.3 percent believing that they could influence "to great extent" how environmental issues and problems are resolved in Michigan and participants went from 5.6 to 46.7 percent feeling knowledgeable about environmental issues and confident that they could present to a group elected officials ideas on how to help prevent or solve environmental issues.

As a result of the work of the Michigan 4-H Youth Conservation Council, Michigan Senate Bill 415, legislation to establish the "Michigan Heritage Water Trail Program" was introduced and passed both the Michigan State Senate and House of Representatives and signed by Michigan's governor as PA454 on June 21, 2002. The bill will designate water corridors within the State of Michigan Heritage Water Trails and provide recognition of their historical and recreational significance. The teens provided both the technical research and legislative advocacy work involved in giving attention to the water trails program concept. They then provided testimony that led to passage of the bill. Upon legislative approval, Michigan State Senator Phillip E. Hoffman, who sponsored the bill said in a June 4 media release, "I am grateful to the Michigan 4-H Council for their determination in getting this program assembled. The water trail program will create more appreciation and awareness of Michigan's water resources, promote tourism and enhance community appeal.

Hoffman also wrote a personal note to the teens saying, "Not only was this program your invention, but it was your energy and passion toward establishing a natural resource program that has made this bill a success. By closely following the bill's progress you've undoubtedly learned that it takes great dedication and hard work on the part of the interested organization to enact legislation. I hope that you will use all that you have learned to work toward establishing more legislation that will benefit the natural resources within the State of Michigan."

Source of Funds

Smith-Lever 3b&c, state, county, Michigan 4-H Foundation

Scope of Impact

State

The AoE teams in Goal 5. met their 2001-02 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, all teams are engaged in identifying the needs of underserved populations and developing strategies and programs to address these populations.

Stakeholder Input Process

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.

Building strong communities

Michigan citizens identified a variety of opportunities for MSU Extension to assist them in their quest for strong communities. They spoke of the need for increased education in community development and collaboration, economic development, housing and health care. Other focus areas identified include education, diversity, leadership, tourism and volunteer development. These themes were prominent in both urban and rural communities.

Helping youth succeed

Residents expressed strong desire for educational programming to help young people avoid behaviors that place them at risk. Positive youth development programming should be enhanced, they said, and particular emphasis should be placed on reducing violence involving youth.

Enhancing profitability in agriculture

Farm economics and viability concerns echoed across the state. Residents asked MSU Extension to help them explore agricultural diversity, niche markets and value-added opportunities and to continue farm management education for producers.

They also asked for increased emphasis on animal health issues, the economic impact of manure issues, maintaining profitability of small and part-time farmers, and maintaining profitability while enhancing environmental stewardship.

Encouraging responsible land and natural resources use

Decision making and leadership development around natural resources and land use issues is important to Michigan residents. In the land use arena, they especially cited farmland preservation, sprawl and planning and zoning issues as areas where MSU Extension should focus resources, along with brownfield redevelopment and urban land use concerns.

County Extension council members asked for more information and education about such issues as environmental quality, forestry, natural resources, water quality and wildlife management.

Building healthy families

Extension council members and other stakeholders in nearly every county asked MSU Extension to focus on enhancing family assets. They also asked for educational programming on quality day care, family relationships, human development and parenting, and family resource management.

Concerns about nutrition and food were also prevalent. Stakeholders asked for educational focus on the safety of our food supply, development of healthy lifestyles, and family nutrition education.

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. 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 target audiences and assess who is being reached and who is underserved for their programs in their educational initiative plans. Based on these assessments, agents develop new educational initiatives to reach underserved populations. During 2001-02, MSU Extension reported progress and impact on over 50 educational initiatives that reached new underserved audiences. 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 2001-2002 toward 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 participating in 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;
- more housing programs for low-income audiences.
- more youth involved in state and local government issues and education;

In addition, Area of Expertise 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 2001-2002 was the creation of an advisory group called "Genesee County 4-H Club Expansion Committee"

that was used to identify strategies for reaching more minority youth through clubs, which resulted in the creation of two new clubs in the urban Flint area.

Program Review Process

MSU Extension continues to use the Area of Expertise (AoE) team structure for the Program Review Process as stated in the Plan of Work. The teams have begun to incorporate the information from the *Sharpening Our Program Focus* process into their goals and priorities.

In addition to the above process, counties and AoE teams during 2001-02 used over 200 advisory groups to identify local needs and action strategies. Information regarding the advisory groups has been added to the Extension Information System (EIS), including 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 the Technical Advisory Committee of the 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 \$182,083 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; a training on yellow perch aquaculture developed with The Ohio State University; Ohio and Michigan greenhouse industry personnel trained in response to 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 occurred when Extension agents, specialists, and agricultural business personnel worked with partners from a local

Chamber of Commerce to conduct a large-scale grain marketing simulation for farmers in southeast Michigan and northern Ohio. One hundred participants were directly involved in this educational program. Thirty colleagues worked as a team to conduct a day long program which included hands-on marketing simulation that helped farmers use a full range of pricing tools to sell grain over a 23 month period; educational presentations on pest management and field crop production; and a review of regional on-farm research results. Farmers who participated in the grain marketing simulation reported that this innovative approach to education had a high level of impact on the way they run their farm businesses. Seventy-six percent of those completing program evaluations report intentions of changing their grain pricing practices as a result of this education.

Evaluation of the Success of Integration Activities

Michigan State University Extension achieved its Integrated Activities goal with \$335,244 spent in this area. That exceeds the 4% goal of \$329,023 (see Appendix B). Examples of integrated activities conducted during 2001-02 include: maturity storage compound (MCP) studies to determine methods to increase storage life of apples, including 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 mortality disposal systems and manure project with Margaret Benson from Animal Science; dairy nutrition updates from Herb Bucholtz; evaluation of plots and determining the differences in the nitrate levels in the various plots by Mathieu Ngouajio from Agriculture and Natural Resources; Dr. Annemiek Schilder from Plant Pathology working with farmers on disease control in grapes and the importance of bloom sprays; and Dr. Sharon Hoerr from Food Science working with extension staff on an obesity project.

A detailed example of integration activities is the work of the Fruit AoE Team that contributed to successes for the Michigan chestnut industry. Market research showed that customers demanded a peeled, semi-prepared product. A USDA Rural Business Enterprise Grant was obtained to assist producers in purchasing commercial peeling equipment. Members of the Fruit AoE Team operated the equipment and conducted research to develop protocols for the effective and efficient use of the equipment for North American chestnuts. A Chestnut Research Team was formed that included MSUE Fruit AoE Team members and personnel from Horticulture, Food Science, Plant Pathology, Packaging and Agricultural Engineering. The team produced peeling research as well as other uses for processed chestnuts. New products under investigation included puree, crumbles and canned soup. Twenty-nine growers united to form Chestnut Growers, Inc., a marketing cooperative that sells frozen, vacuum packed

chestnuts to selected chefs in Michigan. Work is underway to expand the CGI membership to other states, including Ohio, Delaware and Washington.

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

Actual Expenditures

Title of Planned Program/Activity	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004
<u>Multistate Collaboration</u>	<u>0</u>	\$114,754	\$182,083	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
Total	_____	\$114,754	\$182,083	_____	_____

Margaret G. Bethel

Margaret Bethel
 Director

3/1/03
 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)

Title of Planned Program/Activity	Actual Expenditures				
	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004
<u>Integrated Research</u>	<u>0</u>	\$177,639	\$335,244	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
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_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
Total	<u>0</u>	\$177,639	335,244	_____	_____

Margaret G. Bethel

Margaret Bethel
 Director

3/1/03
 Date