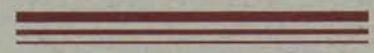


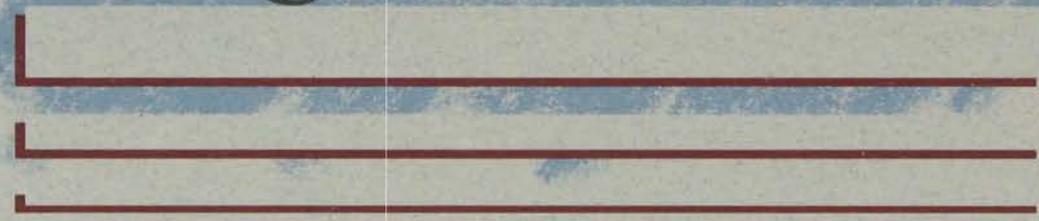
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MINNESOTA EXTENSION SERVICE



UNIVERSITY OF MINNESOTA

Taking the Initiative



1990 Annual Report

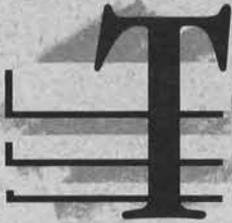
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Director's Report



This has been the Year of the Program for the Minnesota Extension Service (MES). After reorganizing into multi-county clusters and preparing county agents for specialized educational activities within those clusters, the past year has seen a record number of excellent extension programs. Our emphasis on innovative, community-oriented programs has put extension in touch with new clientele at the same time that we have continued ongoing agricultural and home economics programs, 4-H work and so many enduring activities that help Minnesotans run their businesses, raise their families and make important decisions in their lives.

As I travel this state, I hear many positive comments about the programs that MES faculty have had a hand in tailoring for local needs. I know that they have an impact on the people of the state. Increasingly, our emphasis is on programs tied to such national initiatives as water quality, community economic development and youth and families at risk. It is these important initiatives that serve as the focal point for this annual report, "Taking the Initiative." Reading the following pages will give you an understanding of the seven initiatives that are currently the pivotal ones for MES staff.

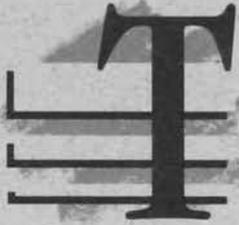
1990 was also a significant year for MES because it included the signing of the revised County Extension Law. This culminated many hours of work and a thoughtful look at the organization's current role in extending the resources of the University of Minnesota to the people of the state. The new law broadens the definition of county extension work to reflect the contemporary mission of MES responding to the ever-changing needs of the state's citizens and communities. I am grateful to the MES Citizens' Advisory Committee and the Blue Ribbon Advisory Committee that worked so hard to get these important changes made in the law that helps define our role in providing educational opportunities to Minnesotans. The new law reflects the dynamic programs and innovative approaches you will read about in this report and sets the stage for more relevant issue-based programs in the years ahead.

I am confident that 1991 will continue the momentum of the past years. The Minnesota Extension Service is poised and ready to continue the leadership and the high quality educational programs that contribute to our valued way of life.

Patrick J. Borich
Dean and Director
Minnesota Extension Service



Extension makes a difference in Minnesota's water quality



The Minnesota Extension Service has been a leader in helping to preserve the state's fresh water supply, certainly one of Minnesota's greatest resources.

Although it is always difficult to balance economic considerations against preservation of the environment, extension has risen to the challenge with a statewide water quality education program. Through it, farmers in Minnesota can save millions of dollars in fertilizer costs. And in the process, they can reduce chances of polluting groundwater supplies.

Many farmers on Minnesota's karst soils of southeastern Minnesota who apply manure for growing corn also apply about 100 "extra" pounds of fertilizer nitrogen per acre that's not required by the corn crop. That's what a newly released study financed by extension's Center for Agricultural Impacts on Water Quality shows.

Researchers and educators in the center are members of the Minnesota Extension Service and the Minnesota Agricultural Experiment Station.

"This study was a very significant piece of work. It shows there can be a strong, fast link between research and practical application by farmers and consumers," says Jim Anderson, director of the center.

Another project involved a cooperative study of 76 households with reverse osmosis (RO) water treatment devices in Brown and Nicollet counties. Families said they were satisfied with the quality of their treated drinking water, although they were dissatisfied with treatment costs.

"Township Testing" programs sponsored by Community Health Services of the two counties and township boards of 29 townships resulted in over 3,000 families having their drinking water tested. Water testing has been a part of many extension programs in metro and rural counties. In one cluster with 8 locations, 27 percent of the participants with private wells had never before had their water tested.

Even though the RO treatment devices functioned so that all drinking water met water quality standards, the units still need routine maintenance and performance checks. Families choosing water treatment devices need to have their water tested in order to select the right treatment appliance, extension researchers found.





Other water quality programs:

- Eight publications on environmental management of agricultural chemicals have been developed. Titles include Setting Realistic Yield Goals, Understanding Nitrogen in Soils, Providing Proper Nitrogen Credit for Legumes, Nitrogen Inhibitors and Use in Minnesota. Also, Irrigation Water Management for Sandy Soils, Managing Nitrogen for Corn Production on Irrigated Sandy Soils, Rinsing Pesticide Containers, and Pesticides: Surface Runoff, Leaching and Exposure Concerns.

- County extension staff throughout Minnesota are promoting recycling and waste reduction projects. New disposal laws for leaves and lawn debris have stirred interest in composting. Since fall, 1989, the MES has distributed over 25,000 publications on safe, effective ways to compost lawn waste. Composting saves landfill space and returns nutrients to the soil.

- Over 100 Anoka County area people learned about water quality at three meetings on how septic systems function and proper lawn care. People not only learned, they:

- Had their septic systems pumped (58 percent)
- Had their septic system checked (50 percent)
- Had their soil tested and analyzed (30 percent)
- Changed the way or amount they fertilized their lawns (30 percent)
- Had their water tested (23 percent)

Here's what some of the participants said:

"I now fertilize away from the well head."

"I now know why the septic system was not working properly."

"We no longer drive over our drainfield."

"I now have a buffer zone between the mowing area and the lake and I cut down on the amount of fertilizer I use."

"The Water Quality Minute," a series of radio programs, was broadcast on 55 radio stations between May and October, 1989. The broadcasts reached all or part of 76 of the state's 87 counties.

In a follow-up survey, 23 percent of the agents said the number of people requesting water quality information from their offices increased when the programs were broadcast.



Keeping our communities vital, prosperous is Extension goal



stimulating community vitality is a complex undertaking requiring a well-coordinated effort on the part of local citizens, business and industry, government and education. The Minnesota Extension Service approaches this complex arena with diverse and interdependent programs.

Project Future

Extension's Project Future enables citizen groups to assess strengths and weaknesses in their communities, tailor a vision for the community in the next 20 years, seek broad-based local involvement in that process and then plan and carry out action projects aimed at implementing their vision.

In 1990, Extension, through Project Future, played an educational role in assisting local action teams with such important projects as a teen center, a housing study, trade area and labor force surveys, an environmental education center, a community theater and the formation of an economic development commission.

Project Future has helped identify new leadership within communities, tapping diverse social groups for broad representation. Working with Extension faculty on campus as well as within counties, local citizens have had the needed resources to tackle local priorities and make a difference to residents of their areas.

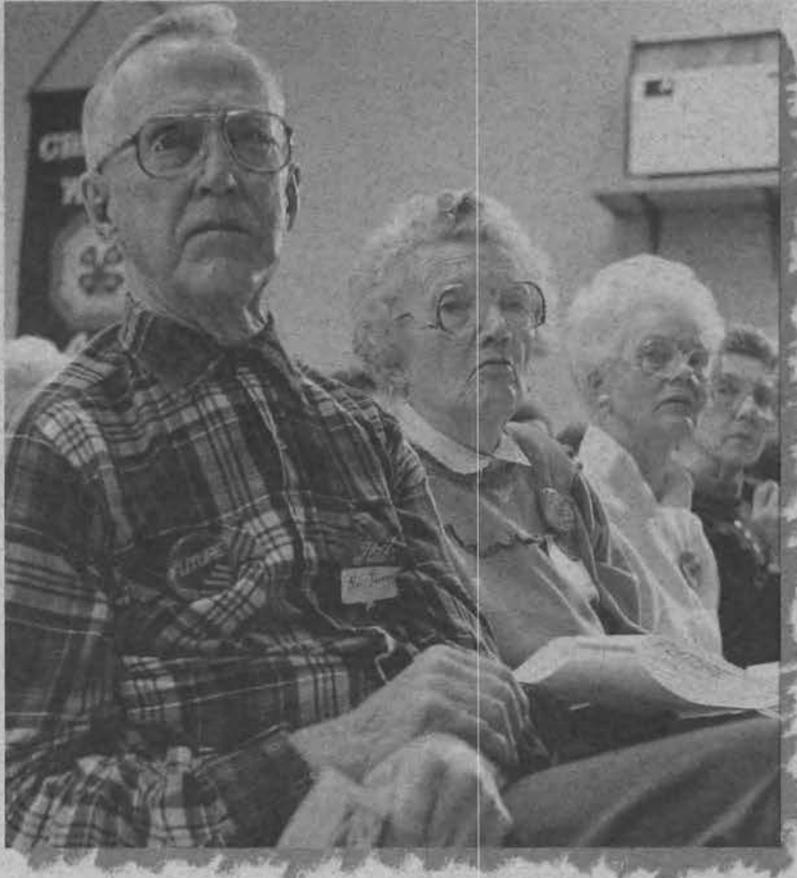
From its beginnings with five communities in 1988, Project Future has grown to involve more than 1,000 people in 40 communities across the state. The Project Future teaching materials and methods for looking at local concerns are proving valuable to dynamic citizen groups in every corner of the state.

Tourism

Tourism is a leading industry in Minnesota and one that has the potential for great growth in the future. In some parts of the state it is already the cornerstone of the local economy. In recognition of this importance, Extension's Tourism Center works cooperatively with the Minnesota Department of Tourism. Extension contributes research and educational programming in support of the state's travel and tourism industry.

In 1990, the center sponsored research, conferences and educational programs related to wilderness resources, hospitality, bed and breakfast inn development, local festivals and events, marina management, Lyme





disease and more. The Tourism Center includes faculty from the Crookston, Duluth and St. Paul campuses of the University. In addition, the center works closely with the Minnesota Office of Tourism and other state and federal agencies, community groups, and the industry to assure that its programs and products support this important element of the state's economy.

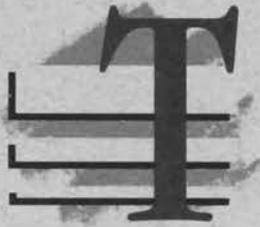
Community Economics

The complex array of issues affecting community vitality requires specialized skills from those who work with community planners and leaders. Extension is helping its county and area staff to strengthen their expertise in community economics with a fellowship program supported in part by the Bush Foundation. Bush Fellows are participating in an 18-month program of coursework and practical experience under the guidance of the Community Economics Program faculty.

In addition to coursework, the Bush Fellows collaborate with campus faculty in the development and delivery of information and educational programs directly applicable to community economic development issues and projects in their home counties. Extension's investment in this type of training allows agents to return to their county positions better equipped to assist with local development strategies and projects. During their training, they also prepare materials and contribute to staff development efforts that increase the community economics expertise of county and area agents throughout the state.



Reducing Risks for Youth and Families



The evidence is everywhere: many of today's families are in crisis, and children and youth are especially at risk.

Examples and statistics abound: substance abuse, illiteracy, depression and suicide, family violence, crime, unemployment, teen pregnancy.

These problems cut across all levels of our society; no one is immune. The Minnesota Extension Service, however, has chosen to focus on low-income people and others at special risk.

Nationally, the Cooperative Extension Service has organized a nationwide response to youth and families at risk. In Minnesota, statewide, county, and multi-county programs have addressed the issues of drug abuse, teen pregnancy, child abuse, child care, homelessness, nutrition, money management, family violence, and childhood stress and depression. Extension programs at the county and state level have strengthened programs for families and youth. Here are a few examples of recent programs:

Poverty and nutrition

More than 6,000 low-income people in 13 counties learned how to manage their limited food dollars and get good nutrition through the Expanded Food and Nutrition Education Program. Additionally, metro area home economics agents trained more than 125 agency professionals to help their low income clients manage money.

Substance abuse

The 4-H Alcohol Decisions program, in which teens teach elementary students to make decisions about alcohol and drugs, reached 11,000 elementary students last year. They were trained by 1,000 teens who learned in the process. Another 5,000 children received information from Project 4 Teens, a chemical abuse prevention program co-sponsored by 4-H and Hazelden.



Teen pregnancy

Growing concern over teen pregnancy and parenthood has led 4-H and Home Economics to organize several programs. Using the Project 4 Teens model, teenagers learn about sexual health issues and relationships, then work with their peers and younger children. In Clay and Chisago Counties, more than 300 junior high students have learned about the issue. The Home Economics "Mentor Moms" programs in northwestern Minnesota trains adult volunteers to work one-to-one with pregnant teens and teen mothers. Four extension-sponsored teen pregnancy prevention conferences have attracted 500 professionals from a variety of agencies.

Child care

More than 1,000 family child care providers were trained last year by extension home economics agents. Their evaluations showed they not only learned to do their job better but came to see themselves as professionals doing important work. Extension staff educate employers and community leaders about child care needs. Some 8,000 providers receive a monthly Extension newsletter on family child care.

Because many working parents are forced to leave their school-age children alone for part of the time, several counties have organized workshops and activities for self-care children and their parents, to increase the children's safety and confidence.

Parenting skills

Many parents with special needs got direct help and information from extension. More than 120,000 families receive the quarterly *Young Families Newsletter*, and audio tapes on parenting topics are being used by single parents, those with financial problems, teen parents, and others. Extension programs in two counties are helping prison and jail inmates prepare for a return to family life.

Teen stress and depression

Tackling Tough Stuff, a 4-H curriculum, is helping teenagers react to problems in healthy ways. It includes information and activities on recognizing stress and depression, building support systems, communicating assertively, and solving problems. Additionally, the I'll Take Charge curriculum is being used to put teens "in charge" of decisions about their future: dreams and expectations, family, education, lifestyle, and work.

At both state and county levels, extension staff work with many other community agencies. Agents have helped form coalitions of health, youth, social service, religious, business, and educational agencies to develop prevention programs and support youth and families.



MES helps Minnesota agriculture prosper



A bank loan officer studies a computer analysis of the cash flow of a family farm operation. An executive of a food processing company outlines a procedure for keeping micro-organisms out of a new food product. A corn grower reduces the fertilizer he uses for his corn crop, but harvests his best yield ever. A veterinarian shows her client how to keep hogs healthier and thus reduce the amount of feed needed to produce a pound of pork.

Each of these people is applying information obtained through the Minnesota Extension Service. Producing, processing and distributing agricultural products is the largest industry in Minnesota. Providing educational programs to enhance the success and profitability of this industry and its people is one of the main priorities of the Minnesota Extension Service.

One approach MES has used to enhance agriculture in Minnesota was to help to establish the Center For Farm Financial Management. This center has developed innovative computer software for financial analysis and planning by farm families and agricultural lenders.

"We estimate that the software programs developed by the center have been used to analyze or plan finances for some 50,000 farms, or roughly half the farms in Minnesota," says Earl Fuller, one of the U of M extension farm management specialists on the faculty of the center.

The software systems developed by the center include four core programs, each directed to a specific question. "The one we've emphasized the most is FINLRB, a computerized long-range budgeting procedure," says Fuller. "This helps farm operators answer the question, 'Where do I want to be?' The next question is, 'How do I get there from here?' The answer to this comes with the use of FINTRAN, a computerized program that plans the transition over a three-year period, and FINFLO, which plans monthly cash flow. There is also FINAN, which provides an annual farm financial analysis."

Fuller says this package of programs, collectively called FINPACK, eased the adjustment of many farm families caught up in the financial problems of the early '80s. The programs helped them evaluate alternatives and decide what to do about their circumstances.

The programs also help families make decisions about bringing another generation into a farming operation. "It's better to make mistakes on paper than in the real world," notes Fuller. "The programs can show what will happen in an operation if there are no changes and what will happen if the family borrows money to expand."





In Minnesota, there were 528 users running the center's computer programs for farm families in 1989. These included 132 in extension, 82 banks, 70 Farmers Home Administration offices, 191 vocational agriculture teachers, and 53 others. Some 40 other states and one foreign country are now members of the center, paying fees to have access to its services.

MES has also developed educational programs to help grain merchandising firms develop marketing strategies. It has conducted workshops for bankers and other agricultural lenders to help them use FINPACK results, understand farm financial stress and work through debt resolution processes.

In the farm policy area, MES has helped farmers understand their options in using crop insurance, disaster aid programs and payment-in-kind (PIK) certificates. It has shown farmers and lenders how to compare the benefits of leasing versus buying land, cash renting versus crop share renting, and how to determine a fair cash rent amount.

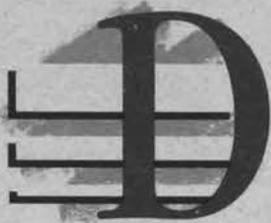
MES also helps improve the processing of Minnesota's agricultural products. "Five of Minnesota's 19 Fortune 500 companies are food processing corporations," says Bill Schafer, U of M extension food technologist. "Food processing accounts for an estimated \$9.5 billion in shipments annually, first among the state's manufacturing industries. Food accounts for nearly 25 percent of shipments from manufacturing in Minnesota."

MES provides education for new and established food processors on such topics as labeling requirements, government regulations, control of micro-organisms, quality and safety implications of ingredients, packaging and nutrition.

The 1990s will bring new challenges, problems and opportunities for those who produce, process and market crops and livestock. Providing these people with educational programs and research information to enhance their efforts will continue to be a key mission of the Minnesota Extension Service.



Protecting the environment through education



Dozens of innovative extension programs have looked at the environment and offered ways to manage our resources in ways that are fair to a variety of business and development interests as well as to consumers, homeowners and outdoor enthusiasts.

Waste management

When yard waste was banned from Twin Cities' landfills, metro residents needed an alternative. To provide answers, extension produced publications and informative slide sets on waste reduction and composting. Master Gardeners were trained in composting and, in turn, trained others. As a result, thousands of people are learning to reduce and compost yard waste and extension has emerged as the state leader in yard waste education.

Use and protection of rural and community forests

Community trees help to moderate the climate, reducing energy needs and creating a more pleasant living environment. The most important shade tree species in Minnesota is oak. Home construction frequently damages oak trees, resulting in oak wilt infections. Tree deaths reduce residential and commercial property values.

Extension has mounted a major educational effort to train construction workers, homeowners, developers and others how to avoid damaging oaks during the spring and summer when spores that carry oak wilt are present.

Aquatic resource management and protection

The Minnesota Sea Grant Extension program helps Minnesotans maintain high quality aquatic environments in Lake Superior and other Minnesota waters. Exotic zebra mussels, which have invaded Lake Superior, clog intake pipes serving industries and water treatment plants and they can ruin sport fishing habitat. Sea Grant agents are providing information on the mussels to policy makers, industry, fishing groups, state agencies, and the public.

Aquaculture, also known as fish farming, is the fastest growing sector in U.S. agriculture. Extension agents and specialists work with fish farmers, state agencies and trade groups to promote this industry while protecting our valuable aquatic resources.



Youth development through environmental education

Through Extension 4-H Youth Development programs, a sense of respect for all things wild is instilled in our next generation of land stewards.

MINNAQUA, a cooperative aquatic resource education program, gives urban youth an opportunity to learn about aquatic habitat preservation, water quality and water ecology. The 4-H camping program has hosted more than 10,000 youth at its residential camps where the land and skies serve as the classrooms. The State Shoot/Wildlife Invitational gives youths and their families a chance to observe nature directly and also to learn about wildlife and wetland conservation.

Cold Climate Housing Center

Programs offered by the Cold Climate Housing Center emphasize a "systems" approach in which people, mechanical systems and building structure work together to achieve efficient, affordable, durable and healthy homes.

The center's workshops and on-site seminars for building professionals and homeowners include such topics as indoor air quality, energy conservation, moisture management and radon problems. The center has collaborated with the building industry and state agencies on model home projects that demonstrate cold climate housing technologies. A video series is being developed and publications on a variety of cold climate topics are available. The Cold Climate Housing News quarterly reaches more than 6,000 people statewide. The center's literature database includes more than 2,600 citations and abstracts and is available to extension staff and clientele.

Soil erosion abatement on agricultural lands

The Dust Bowl of 1934 awakened farmers, ranchers and the general public to the importance of protecting fertile topsoil. A tree planting program created windbreaks; subsequent droughts of the 1950s, 1970s and 1980s served notice that vast areas of farmland still need protection and existing windbreaks needed renovation or replacement.

Today the Minnesota Extension Service trains field personnel in the Soil Conservation Service and the Soil and Water Conservation Districts on the latest research-based recommendations for successful establishment, maintenance, protection and renovation of field windbreaks and farmstead shelterbelts.



Extension strives to improve nutrition and health for Minnesotans



Better nutrition and health for the state's residents have been extension priorities through all of the organization's 80-year history. New challenges and audiences continue to make this a goal that unites extension faculty in a wide variety of activities and educational efforts.

Diet and heart disease education

Extension clientele representing 17 counties were surveyed on their awareness of coronary heart disease as it relates to cholesterol and nutrition. Responses indicated interest in the subject, a widespread desire to make health-related dietary and lifestyle changes and a need for accurate information on fat and cholesterol. A three-year plan will identify individuals who are at high risk for heart disease. Extension will then develop and implement appropriate multidisciplinary educational efforts to help participants change their attitudes toward foods and their behavior.

Successful Aging: Overcoming the Barriers to Nutrition and Health was an Extension program delivered via satellite last fall in 13 of the state's multi-county cluster groupings. National experts brought more than 400 health and nutrition professionals up to date on nutrition research related to aging. Speakers reported on research showing that good nutrition can improve aging-related health problems. The teleconference focused on special needs of minority elderly who have shortened life expectancies. Experts stressed that community agencies need to work with elderly groups to assure that these senior citizens will take advantage of health services that could improve the quality and length of their lives.

Food, Agriculture and Nutrition (FAN) Forums

Five Food, Agriculture and Nutrition (FAN) Forums have been held in the past two years. Those participating in these programs include medical professionals, educators, elected and appointed officials, food producers and processors and a variety of other people involved in the food and health care industries. Those participating number more than 300 and include representatives of more than 100 organizations. The FAN Forums have provided an interdisciplinary approach to educational problem solving and have brought together thoughtful, concerned professionals who benefit from sharing ideas and perspectives.





Spinoff programs from the FAN Forums have included ten regional forums involving nearly 500 participants, sessions on fat and cholesterol attended by 600 consumers and a variety of local educational efforts on current nutrition topics of concern to consumers. At the most recent forum, educators and health professionals examined how nutrition information is communicated to consumers. Workshops and discussions centered on contradictory food advertising claims and the possible roles of public policy, the food industry, consumers, and health and nutrition educators in clarifying these mixed messages.

EFNEP

The Expanded Food and Nutrition Education Program (EFNEP) continues to help limited-resource families throughout Minnesota learn how to eat nutritiously on small food budgets. More than 2,500 families have been involved in the program. EFNEP recently received a Minnesota Dietetic Association award for its efforts in promoting good nutrition.

Among EFNEP's accomplishments are these:

- On the White Earth Indian Reservation in Clearwater County, more than 50 families have successfully completed the EFNEP curriculum.
- In Ramsey County, 200 high school students learned how to select and prepare nutritious foods during a six-week, EFNEP-sponsored class.
- In cooperation with public health nurses and nutritionists, EFNEP staff improved the nutritional status of pregnant teens in Dakota County through diet assessments and nutrition instruction.
- As a result of EFNEP, limited-resource mothers in Hubbard and Wadena Counties have initiated meetings to discuss nutrition and food-budgeting solutions.



Developing leadership is part of Extension's rich tradition



The Minnesota Extension Service gives a high priority to leadership education programs for youth and adults. The goal is to foster broader involvement of citizens and more leaders to bring about desired changes in the state. Extension has a rich tradition of developing leaders through 4-H clubs, volunteer programs and advisory boards as well as other involvement with Extension programs.

In addition to these continuing efforts, several high quality, in-depth programs have been designed to meet relevant needs for youth leadership, agricultural leadership and family community leadership. The following are four examples of leadership education programs that are making a difference for individuals and communities.

Youth LEAD ... an adventure in leadership

About 80 young people from Pope, Grant, Stevens, Douglas and Traverse Counties participated in Youth LEAD. The goal of the program was to equip youths with leadership skills and have them apply these skills in the community. The effort's achievements include a recycling contest organized by three youths from Stevens County. The winners were featured in local newspapers and their ideas were put in a brochure to be used for an extension education program on recycling. In addition, youths from Grant County raised funds from city and community groups to rebuild an unsafe playground.

CO-LEAD

Fifty-two adults from Waseca, Nicollet and Dakota Counties have been participating in a two-year program to learn to frame and analyze problems within their community and to become aware of the relationship of these problems to the larger world.

Participants are community leaders who report that they are more confident of their leadership abilities because of participation in CO-LEAD. They also say that participation in the program has prompted them to take a longer term view and to look at what causes a problem instead of focusing on a response to it. One member of the group has applied his CO-LEAD skills to lead politically sensitive cooperative arrangements with neighboring school districts.





Family Community Leadership

Forty-five teams involving more than 200 community volunteers and Extension staff have completed a 30 hour leadership training program and have returned to their communities to teach leadership skills and raise awareness of public issues.

A coalition of five statewide older women's organizations held a series of workshops to empower older women as leaders. The 110 participants who attended the first series were so positive in their response that another series is planned in four locations in Minnesota for the coming year.

Minnesota/Iowa Leadership Program (M/I LEAD)

Leaders in agriculture and rural communities who help create options, clarify problems and alternatives, build morale and coalitions and work toward a common vision for communities are qualities that describe 39 graduates of the M/I LEAD program. These young leaders completed four one-week institutes over a two-year period.

One participant developed a leadership project to research a more sustainable method for sugar beet production. Results include saving on chemicals, fuel, labor and costs with increased yields. His project is being shared with other farmers nationwide.

Bringing about a positive image to a small town next to a regional center was the goal of another M/I LEAD participant. Working with the Chamber of Commerce, this person helped heal old wounds between warring factions and formed a coalition on economic development. This economic development group hired a director and increased membership at monthly meetings of the Chamber of Commerce from about 20 people to more than 100.

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