Wisconsin's Cooperative Extension State Annual Report of Accomplishments and Results for the Agricultural Research, Extension and Education Reform Act (AREERA) for FY 2004

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1. Programs: National Goals

Goal 1: An agricultural system that is highly competitive in the global economy. Through research and education, empower the agricultural system with knowledge that will improve the competitiveness in domestic production, processing, and marketing.

Goal 2: A safe and secure food and fiber system. To ensure an adequate food and fiber supply and food safety through improved science-based detection, surveillance, prevention, and education.

Goal 3: A healthy, well-nourished population. Through research and education on nutrition and development of more nutritious foods, enable people to make health promoting choices.

Goal 4: Greater harmony between agriculture and the environment. Enhance the quality of the environment through better understanding of and building on agriculture and forestry's complex links with soil, water, air, and biotic resources.

Goal 5: Enhanced economic opportunity and quality of life for Americans. Empower people and communities, through research-based information and education, to address economic and social challenges facing our youth, families, and communities.

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

Executive summary

Situation:
Although milk prices reached a record high of $20 per hundredweight (CWT) in June 2004, dairy profitability remains volatile. Much of Wisconsin's dairy farm infrastructure is obsolete. Farmers are looking for affordable ways to increase efficiency and modernize without investing heavily in new facilities.
Consumers demand high quality milk from healthy cows. Dairy herds with chronic mastitis and other infections lose out on milk quality premiums, treatment costs, and milk that must be discarded — or cows that must be culled and replaced.

Wisconsin's $3.5 billion dairy industry depends on adequate supplies of high quality forages and grains. The 2004 growing season began with record rainfall and finished dry. Forages and grains delayed by heavy rains developed slowly and retained moisture. Pest insects new to Wisconsin expanded their range and numbers. Forage and grain production technologies are constantly changing and the most up-to-date information is needed to increase yields, improve feed quality, and control crop pests.
The permanent agricultural workforce is increasingly diverse. Spanish-speaking immigrants work year-round in dairy and horticulture, nurseries, greenhouses, landscaping and urban agriculture. Hmong and other immigrants raise fresh market vegetables, selling their produce through farmers' markets. Amish and Mennonite growers seek ways to incorporate research-based recommendations into their traditional practices.

Extension response:
Since 1998, ANRE self-directed teams have developed, delivered and evaluated educational programs addressing priority issues. Issue teams are composed of Cooperative Extension campus and county faculty and staff as well as community, state and national partners sharing the same priorities.
During 2004, Wisconsin's Agriculture and Natural Resources Extension (ANRE) campus and county faculty and staff continued to address the key issues identified with stakeholders through the 1999 program planning process. Backed by university research, county educators worked with colleagues and community partners to help farmers respond quickly to voracious new crop pests, unusual weather and market conditions, and to anticipate consumer needs in their neighborhood and around the world.

Impacts:
A major issue facing Wisconsin agriculture is maintaining farm profitability and viability in a highly competitive and increasingly global environment. While all ANRE self-directed teams address this priority, these five report the following impacts of their research-based educational programs during 2004.

- **Dairy Team** improves profitability through research-based education on modernizing dairy cow and heifer housing, improving milk quality, balancing rations, and training Spanish-speaking dairy workers.
- **Emerging Agricultural Markets Team** helps establish niche markets through counseling and resources to start a value-added business, training farmers' market managers, and organizing cooperatives with increasingly diverse clientele.
- **Team Forage** and **Team Grains** conduct on-farm research to help producers grow high yielding, quality crops and effectively manage insect pest complexes. Campus and county faculty and staff use this research-based knowledge to keep growers, crop consultants and farm support businesses ahead of emerging issues.
- **Farm and Risk Management Team** educational programs are meeting the needs of under-served and under-represented populations. Heart of the Farm eases the isolation of women in farming while improving their financial skills. New partnerships help farmers with disabilities keep farming.

Total expenditures
(By percent of full-time equivalent and source of funding)

FTEs	Smith-Lever Act	State match
49.30	$698,215	$4,988,242

Scope of impact: State specific

Key Themes: Agricultural Competitiveness, Small Farm Viability

Modernization education helps dairy and heifer producers keep costs down, improve efficiency to stay competitive

Situation:

The Wisconsin' dairy industry is under severe competitive pressure. Yet most dairy farms with less than 200 cows (15,000) still operate in labor-intensive and inefficient tie/stanchion stall barns. Farmers are looking for ways to become more efficient without investing heavily in new facilities.

Extension response:

As these farmers struggle to decide between changing their management, dairy infrastructure and herd size (80%) or exiting the business (20%), the statewide UW-Extension Dairy Team can help them make informed decisions to achieve their personal and business goals.

For dairy and heifer producers who decide to stay in business, the Dairy Team provides educational materials and programs on adopting management practices or modernizing the dairy with newer, more labor efficient system such as a retrofit milking parlor or freestall barn. Campus and county faculty provide educational programs through dairy meetings, farm tours, one-on-one farm calls, and on-line or CD-ROM.

In 2004, the Dairy Team developed the educational CD "Low Cost Parlor and Dairy Housing Alternatives." The compact disk format offered the team a useful way to combine design information with photos, and resources from dairy educators and agricultural engineers with video testimonials from producers.

UW-Extension educators in all 72 counties, vocational and technical school instructors, agricultural consultants and farmers have received this CD. Based on their feedback, the team made improvements to other dairy modernization projects, including educational CDs on dairy housing alternatives, Johnes Disease, and dairy heifer housing.

Impacts:

Statewide, overall impacts of Dairy Team educational programs include:

- 1,454 dairy producers increased their knowledge of modernization options and management practices that may lead to improved profitability or productivity.
- 1,868 dairy producers and agribusiness professionals learned strategies to better manage dairy operations.
- 571 dairy producers determined the future viability of their businesses.
- 454 dairy producers made a decision on a modernization option based on information and knowledge acquired from UW-Extension.
- 1,353 heifer producers increased their knowledge of modernization options and management practices that may lead to improved profitability or productivity.
- 136 heifer producers made a decision on a modernization option based on information and knowledge acquired from UW-Extension.

- 55 heifer producers adopted a technology and / or labor management practice based on information acquired from UW-Extension.

Dairy producers who used the "Low-Cost parlor and Dairy Housing alternatives" CD to learn about low-cost options for modernizing their dairies are making small changes that can make a big difference in their bottom lines.

More than one-fourth of those asked to complete a survey (53 of 196) provided feedback during fall 2003. Most — 96 percent — found the "Low-Cost Parlor and Dairy Housing Alternatives CD useful. As a result of what they learned, 40 percent said they had taken direct actions on their farm. For example:

- "Got estimates on parlor and cement work which gave me even more incentive to do it myself." — Dairy producer
- "Good ideas and concepts in consultant work." — Agricultural consultant
- "I sent CD to farmers who made changes" — Dairy educator
- "Some producers procrastinate about modernizing –- this has helped them to see the benefits in their own non-threatening environment." — Dairy educator

Responding to another survey, about 12 percent said they had built a low-cost parlor system because of what they learned from the CD. Interest in low-cost dairy modernization remains strong, and the Dairy Team plans to produce an enhanced CD in 2005.

In Jefferson County: Start-up of a modern milking system has proven particularly stressful for the uninitiated producer. In response, county dairy and livestock agent Ken Bolton and UW-Extension agricultural engineer Doug Reinemann developed the award-winning, peer-reviewed video "New Milking Facility Start-up." This was initially distributed on CD to the Dairy Team, all 72 county UW-Extension offices, and Milking Management Short Course classes.

In 2004, nearly 400 more CDs were distributed through the UW-Madison Center for Dairy Profitability, *Hoard's Dairyman*, short course classes, a Low-Cost Dairy Modernization seminar, and milk quality resource manuals. As a result:

- North Central Region short course attendees identified 52 new ideas that they learned and planned to use either directly on the farm or with producer clientele.
- 100% of workshop participants indicated the "New Milking Center Start-Up" CD contains information that is of benefit to producers who are new to parlor milking.
- A dairy producer who installed a low-cost milking parlor reported reviewing the material on the CD three times before milking cows, and found the section on "Cow Entry" of particular value.
- The UW-Madison Dairy Science Department is translating this material into Spanish.

In Southwest Wisconsin: Green County ANRE educator Mark Mayer led dairy modernization farm tours to discuss options for 150 dairy producers from 12 counties and 3 states. Mayer reached 50 more through a compressed video program, and helped Dan Nankee, Southwest Technical College Farmer Training Program, conduct a satellite TV program for dairy producers in Grant, Green, Iowa, Lafayette and Richland counties. As a result, 28 producers report improvements and advantages such as:

- Realized cost savings of 25 to 50 percent over new conventional parlors with a separate building, and these savings can go toward building a new freestall facility to improve cow comfort.
- Provides an alternative use for empty dairy barns that remain on the property tax rolls.
- Allows for phasing in milking facility upgrades over time, reducing stress and interest costs.
- Compared to conventional stall barns, milking in a parlor ...

  — doubled the number of cows milked per person per hour.

  — created a safer and more comfortable environment for the milker;

The 11 dairy producers who built low-cost parlors through Mayer's help have found significant cost advantages in building retrofit parlors in an existing stall barn, and have been able to keep their debt load down.

Key Themes: Agricultural Profitability, Animal Health
Other: Under-Served Population

Local milk quality teams make dairy farms more profitable, train Spanish-speaking workers in modern milking techniques

Situation:
Producing high quality milk is essential for profitability. Consumers demand milk produced under the most hygienic standards from healthy cows. Commercial buyers measure milk for the somatic cells produced by mastitis infections — less than 250,000 somatic cells per milliliter (SCC/ml) is generally considered "good" quality.
Cheese makers get higher yields and dairy plants pay an incentive premium for top quality milk from cows free of infection. Treating mastitis and discarding the milk — or culling the cow — can cost farmers dearly.
Wisconsin dairy farms have been hiring more Spanish-speaking immigrants, Training has been tedious and clumsy. The employees need training in modern techniques of dairy production. Educational materials to provide such training need to be developed in both English and Spanish.

Extension response:
In partnership with the UW-Madison Department of Dairy Science and Wisconsin Milk Marketing Board, the UW-Extension Dairy Team helps dairy producers establish local milk quality teams.
The statewide Milk Money program builds on the research of milk quality specialist Dr. Pamela Ruegg, DVM, UW-Madison / Extension. Through this program a team of professionals is pulled together to address an individual dairy producer's milk quality problems. The producer often initiates this process through their county UW-Extension agent.
County UW-Extension agents work with producers, veterinarians, nutrition consultants, experts on housing and milking equipment, and others to develop a comprehensive approach to improving milk quality. This team meets regularly at the dairy farm for 4 months to identify causes of the milk quality problem, consider solutions, make recommendations and evaluate

progress. In 2004, county agents served on 78 percent of Milk Money teams. Extension-led teams tended to perform better than those led by other professionals.
Local milk quality teams help producers adopt best management practices such as performing routine analysis of milking equipment; performing bulk tank cultures; culturing for clinical mastitis; keeping better treatment records; developing standard, written milking routines; wearing gloves during milking; consulting more often with dairy professionals; and adopting team management that continues after the formal program ends.
Campus UW-Extension faculty coordinate and support the program, providing research-based educational resources in English and Spanish on the Milk Money web site: http://www.uwex.edu/milkquality/

Impacts:

In 2004, statewide impacts of Dairy Team milk quality education included:

- 483 dairy producers made changes to their operation to improve milk quality.
- 251 dairy producers implemented improved training programs on their farm.
- 226 Spanish-speaking dairy employees improved their knowledge and skills in milking technique, herd health, feed mixing and delivery.
- 226 Spanish-speaking dairy employees now understand the need for better milking hygiene, improved feed bunk management and estrus detection.

Local milk quality teams make dairy farms more profitable:

- Producers adopting best practices improved udder health and reduced mastitis cases for nearly 30,000 dairy cows, resulting in lower costs for treating infections, less treated milk that must be discarded, and fewer cows culled than when the program started.
- Overall, bulk milk somatic cell count, an indicator of quality, was reduced by 20.2 percent compared to the first meeting. Individual cow indices of clinical and subclinical mastitis improved significantly.
- The 113 dairy farms completing the 3-year Milk Money program increased their monthly milk income by an average $1,033 each from added quality incentive payments.

If their improvements continue these families completing the program will receive an added $116,727 total monthly income — about $1.3 million more a year. And the Wisconsin Milk Marketing Board can promote more top quality dairy products worldwide.
In Calumet County: Agriculture agent Matt Glewen organized Milk Money teams on 5 dairy farms. Somatic cell count on each farm dropped from an average 420, 000 SCC/ml at the beginning of the program to 210, 000 at the end. The higher quality premiums, more milk produced due to improved udder health and lower treatment costs increased income per farm ranging from $731 to $2494 per month. Across all 5 farms, the added income from improved milk quality surpassed $70,000 per year.
Spanish-speaking dairy workers are improving their knowledge and skill in dairy production..

- Calumet and Kewaunee counties pilot-tested milk quality workshops for 92 Latino workers on how to use the California Mastitis Test (CMT). Participants received

instructional materials in Spanish. This skill helps them better determine which cows have clinical mastitis and elevated somatic cell counts.

- Buffalo and Trempealeau County ANRE educators Carl Duley and Jon Zander held a series of milk quality discussions with Mexican employees explaining the reasons behind the milking routine and other tasks. As a result, 17 Mexican employees from 3 dairy farms learned the reasons proper milking protocol is necessary. Two farms reported lower SCC and better milking procedures since the discussion series.

Key Themes: Niche Markets

Emerging Agricultural Markets Team trains Ag Innovation Counselors, farmers' market managers, produce cooperative

Situation:

As profit margins shrink, Wisconsin agricultural sectors are consolidating into fewer, larger production operations — from dairy, poultry and swine to cranberries, vegetables for processing, and others. This consolidation creates niche market opportunities for thousands of farmers. Niche market issues and opportunities are extremely varied. Individual producers might be looking at improving basic skills such as marketing produce directly to consumers or starting a new value-added food business. Small groups of producers might be coming together to form a cooperative.

Farmers' markets are ideal for linking specialty crop growers with urban consumers and those who have little access to fresh fruits and vegetables. But these temporary gatherings of open-air food stands require coordination, regulation, safety and other considerations.

Extension response:

The UW-Extension Emerging Agricultural Markets Team works with local and state government agencies to address issues and expand opportunities for individuals and groups to explore new or niche markets.

In 2004, this team partnered with the DATCP Marketing Division and Michigan State Product Center for Ag and Natural Resources to provide an extensive training for agricultural professionals and private certification as instructors to teach a business planning curriculum for agricultural entrepreneurs. As a result, the new UW-Extension Ag Innovation Center is offering its "Tilling the Soil" NxLevel™ business planning course in 2005
http://aic.uwex.edu

The Emerging Agricultural Markets Team developed a workshop for farmers' market managers on market promotion, legal issues, and food safety. Project coordinators included: Paul Dietman, Sauk County; Kristin Kleeberger, Waukesha County; Rami Reddy, UW-Platteville, Rose Skora, Racine and Kenosha counties; and Karen Delahaut, Fresh Market Vegetable Program coordinator, UW-Madison.

In March 2004, project coordinators brought California Farmers' market Association board member Gail Hayden to Waukesha County to conduct a workshop for farmers' market managers and those interested in starting a farmers' market. UW-Extension and DATCP staff provided information on rules, regulations, and food safety precautions.

Impacts:

In 2004, 997 producers or agricultural entrepreneurs received technical assistance as they developed or expanded their value-added agricultural business. The Wisconsin Ag Innovation Center provides:

- local network counselors who work with clients by connecting them to the UW System, the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) and other public and private resources.
- 26 trained professionals — mostly UW Extension educators and DATCP staff, — now serving as Ag Innovation Counselors.

The March 2004 multi-county workshop trained 51 farmers' market managers in the skills and networks needed to manage successfully. Market managers expressed a desire for this to become an annual event. Evaluations completed by workshop participants were very favorable. Their comments included:

"Great depth of experience and extremely useful promotional ideas."

"Nice not to have to learn everything the hard way."

"Good networking opportunity."

Success story

Five-county produce auction continues to grow: Columbia County agriculture agent Laura Paine and community resource development educator Kathleen Haas started the Badgerland Produce Auction in 2003 with 30 fresh market fruit and vegetable growers in Columbia, Dodge, Green Lake, Marquette and Sauk counties.

In 2004, Laura Paine and Marquette County agriculture agent Keith Vander Velde worked with the auction board and staff to provide one-on-one consultations at auctions and farms, grower workshops, a winter produce quality and packaging program, and a summer pest management field day. In pre- and post-workshop evaluations, growers rated their knowledge of production practices 2.98 on a 5-point scale before and 4.08 after — an average 22 percent increase as a result of educational programs.

These auctions increase producer income, and allow small-scale farmers to market produce in volume with little time involved. The Badgerland Produce Auction's growth may be the best evidence of

Impacts:

- Buyer participants increased from 171 in 2003 to 308 in 2004, including two locally owned grocery stores.
- Grower participants increased from 71 in 2003 to 128 in 2004, including 53 Amish farmers for whom this was a new income-generating enterprise.
- Growers sold a total $155,864 in fresh fruit and vegetables, more than tripling the first year's $49,567 total sales.
- Growers' average income nearly doubled, increasing to $1,218 per farm.
- Auctions increased to 57 total from late April through October, up from 43 in 2003.

- Keith Vander Velde conducted training sessions for 53 vegetable growers. As a result of the training, 20 attendees indicated that they would construct greenhouses and coldframes so they could market produce earlier in the season.

Key Theme: Plant Production Efficiency

UW-Extension research testing hybrids and managing moisture improves dairy forage feed quality, increases milk production

Situation:

Wisconsin depends on adequate supplies of high quality forage and grains to feed its 16,000 dairy herds. Forage and grain production technologies, research-based recommendations and tested varieties are constantly changing. Growers need the most up-to-date information to improve production efficiency, feed quality, and crop yield.

Corn silage is a key component in dairy rations, ranging from 30 to 70 percent on most farms. High quality corn silage is key to profitable production and dairy cow health. The Professional Crop Consultant Advisory Committee identified a need for more feed quality information among dairy farmers requesting local data for making corn silage production decisions.

Extension response:

The University of Wisconsin is recognized as a leader in applied agronomic research. UW-Extension campus and county faculty and staff use this research-based knowledge to help keep Wisconsin growers and farm support businesses ton top of new recommendations and practical applications. Working through Team Forage, UW-Extension educators statewide help forage and grain producers grow high yielding and quality forages and feed.

Impacts:

Outagamie County UW-Extension educator Kevin Jarek organized and coordinated a research project in partnership with professional consultants; seed company representatives/dealers, host farmers, and UW-Extension campus faculty. In 2004, 10 companies provided seed for 6 test plots in Outagamie County, and 1 each in Waupaca and Shawano counties. In the fall, plots were harvested, yields measured, and samples analyzed through the Marshfield lab.

The research team examined results to distinguish those hybrids that performed in the higher percentiles from those in the lower percentiles for both yield and quality over multiple locations. They also measured what real impact hybrid selection could have on dairy profitability. Researchers consider two milk measurements when evaluating silage:

- **Milk per ton (MPT**) measures quality by comparing how well animals perform when fed equal amounts of a given hybrid

- **Milk per acre (MPA)** evaluates not only quality, but also takes total yield into account.

Three hybrids averaged in the top 40 percent for both MPT and MPA, indicating top quality and yield, two came up short in both MPT and MPA. Crop consultants, seed dealers, and agronomists reported that by year's end 16 producers had already used this data to buy seeds. By using this data to purchase top-rated seeds for the coming growing season, the average 110-cow dairy farm receiving $16 per CWT of milk could earn $1,4,85 more.

In Shawano County: Agriculture agent Tom Anderson collaborated with the Shawano County Forage Council to evaluate whole corn plant moisture, a predictor of quality. With this analysis, producers began harvesting early. Corn silage feed quality benefited from this timely harvest:

The County Corn Silage Moisture web site lists harvest dates by storage method: http://www.cft.uwex.edu/ces/ag/silagedrydown/index.cfm

Impacts:

In 2004, growers statewide improved forage and corn silage feed quality by learning and adopting recommended practices. As a result of UW-Extension education, producers and agricultural professionals...

Improved forage and corn silage quality

- 26,658 producers gained knowledge about improving forage quality or reducing dry matter losses by changing harvesting equipment or handling practices.
- 6,709 producers and agricultural professionals gained knowledge about research-based information that improves forage or corn silage quality.
- 1,814 producers or agricultural professionals gained knowledge about results from a UW-Extension on-farm forage research trial, and 39 producers participated in on-farm forage research.
- 1,241 producers implemented research-based management practices that improved forage or corn silage quality.
- 634 producers implemented a research-based management practice that reduced dry matter losses and improved the quality of stored forage.

Increased crop yield

- 8,775 producers and agricultural professionals gained knowledge about research-based information that increases forage or corn silage yield.
- 2,909 corn silage producers used whole-plant dry down information to make a harvesting decision.
- 1,261 producers implemented research-based management practices that increased forage or corn silage yield.

Improved the use of forage in dairy rations

- 2,458 dairy producers and agricultural professionals gained knowledge about research-based management practices that improve the use of forage in the dairy ration.
- 2,356 dairy producers implemented research-based management practices that improved the use of forage in the dairy ration.

Key Themes: Grazing, Pasture Management, Small Farm Viability

Grazing education improves pasture development and management practices, renews dairy and livestock profitability

Situation:

Using pasture as a forage source has increased dramatically on Wisconsin dairy and livestock farms. In a survey by the Program on Agricultural Technology Studies (PAT):

- 46% of new dairy farmers plan to use improved pasture to supply feed to their milking herd.
- 44% of established dairy farmers said they rely on pasture as a source of forage for their milking cows.
- 30% use **Management Intensive Rotational Grazing (MIRG)** — a system in which pastures supply at least part of the forage ration of their milking cows, and these cows move to fresh pasture at least once a week.

Pastures can be a viable choice for farms struggling to maintain profitability by reducing the costs of harvesting and storing forage and feed, handling manure, and maintaining herd health and infrastructure. Statewide surveys show that dairy farmers developing pastures average $2.53 net farm income/per hundredweight (CWT) of milk, while farmers confining cows net a mere 85 cents per CWT.

Extension response:
UW-Extension Team Forage provides research-based information on developing and improving pastures, fencing, over-wintering, and MIRG practices and techniques through publications, field days, pasture walks, agent and other agency in-service trainings, on-site and on-line courses. Campus and county UW-Extension faculty partner with local and regional **grazing networks** — farmers and agency staff who:

- Host frequent pasture walks and winter meetings for sharing grazing information.
- Help develop research and demonstration plots and conduct research trials.

State specialist Dennis Cosgrove (UW-River Falls / Extension) posts grazing research results and resources at: http://www.uwrf.edu/grazing

Impacts:
In 2004, the Central Wisconsin Beef Grazers Network established forage test plots on several members' farms. Yield per acre was measured on different forage species, and different fertilizer and lime applications. Marquette County UW-Extension educator Keith Vander Velde reports that as a result of these on-farm research trials:

- Producers are now:
  - — interseeding pastures with red clover and orchardgrass.
  - — adding lime and potash to pastures.
  - — using rotational grazing.
- Most are obtaining a 25 to 40 percent increase in cow-carrying capacity on the same pastureland.

In Columbia County: Crops and soils agent Laura Paine developed a grazing education program combining formal teaching with sessions on participants' farms, monthly pasture walks, winter conferences, workshops, on-farm research projects and quarterly newsletters. More than

40 producers attended each pasture walk in 2004, compared with 5 to 10 in 1999 More than 100 farmers participated in 2004 grazing network education. As a result:

- About one-third of these participants converted to pastures.
- 7 network members increased their managed pasture acreage an average of 45.4 acres per farm.
- While alfalfa costs $156 per acre, a pasture costs $64 per acre. Adding pasture saves each producer $4,177 per year — a total $29,238 for all 7 farms.

In partnership with the local Natural Resources Conservation Service (NRCS) and Land Conservation offices, Paine provided formal and informal education for farmers applying for cost-sharing to develop pastures in 2004. As a result:

- Cost-share recipients converted more than 1,300 acres of cropland to well-managed pasture. These 1,300 acres of pasture could save the 14 participating farmers $119,600 over alfalfa
- Using the county average of 2.5 tons of soil lost per acre from cropland, their new pasture lands retain about 3,250 tons of soil and 32,500 pounds of soil-attached phosphorus.

Key Themes: Plant Health, Plant Production Efficiency
Other: Integrated Pest Management

Integrated Pest Management helps growers and crop consultants better understand and manage soybean aphid virus pest complex

Situation:
Wisconsin's 3.65 million acres of corn, 1.54 million acres of soybeans plus small grains are a $1.55 billion industry. Cash grain profitability is closely linked to crop management decision-making and cost-effective production practices.
New or newly adapted crop pests recently emerging in Wisconsin include the soybean aphid, bean leaf beetle, Variant Western Corn Rootworm, glyphosate-tolerant weed escapes, and soybean rust. Crop scouting, timing, and balancing the costs and benefits of using pesticides are key to controlling these emerging pests. For example, applying insecticides at the wrong time or when insect populations are low can cost more than the potential loss in crop value. Yet economic thresholds and treatment guidelines change over time and vary from state to state, resulting in considerable confusion around when to treat.

Extension response:
UW-Extension Team Grains generates research-based educational programs and trainings to bring grain producers and agricultural professionals timely information addressing emerging issues in three areas: Grain Crop Agronomy, Soil Management, and Integrated Pest Management (IPM).

A grower rarely makes management decisions with only one pest or disease in mind, and control strategies change with insect population fluctuations, climate conditions, soil types and location . The Team Grains IPM work group provides educational outreach on effectively managing pests as a complex in soybeans. Decisions on scouting methods, seed treatments, foliar insecticide

timing, soybean planting date, herbicide stewardship, and crop rotation length and diversity all must be made within the context of this pest complex. UW-Extension IPM education provides strong pest management decision support and basic IPM practices to grain producers, consultants and agri-business to improve producer profitability and environmental stewardship.
In 2003, soybean aphids reached outbreak proportion in Midwest soybean fields. While millions of soybean acres were sprayed with insecticides, this new pest insect decimated yields in untreated fields.
In 2004, UW-Extension campus and county ANRE faculty worked with colleagues in Illinois, Iowa and Minnesota to develop and deliver the regional Soybean Aphid Management Distance Education Workshop. Extension entomologists from the four states linked by phone and the Internet or CD-ROM with 800 soybean producers, crop consultants and other ag professionals at 50 sites.
Entomologist Eileen Cullen, UW Madison / Extension, and Columbia County UW Extension crops and soils agent Laura Paine organized workshop sites in 13 Wisconsin counties, reaching 185 people. Each participant earned 4 hours of Continuing Education Units.
Workshop participants learned about soybean aphid biology, potential yield loss, control tactics, guidelines for making treatment decisions for infested crops, and optimal insecticide application timing based on integrated pest management field scouting and soybean aphid thresholds.
Eileen Cullen and Laura Paine received the Outstanding Educational Program award from the American Distance Education Consortium for the workshop's economic importance to a rural farming audience, cost-effective technology delivering an immediate message to remote locations near participants homes, and collaboration among experts from four states.

Impacts:
As a result of statewide UW-Extension Team Grains Integrated Pest Management education during 2004:

- 830 soybean producers gained knowledge of the soybean aphid-virus pest complex and its management.
- 779 agricultural professionals gained knowledge of the soybean aphid-virus pest complex and its management.
- 661 soybean producers implemented best management practices to address the soybean aphid-virus pest complex.
- 83 agricultural professionals used and recommended best management practices to address the soybean aphid-virus pest complex.

In post-workshop evaluation. 474 participants responded from 41 regional soybean aphid management workshop sites:

- 96% indicated the information helped them better understand soybean aphids and their impact on soybeans.
- 92% felt the information gave them a better understanding of soybean aphid management options.
- 91% said they will scout fields for soybean aphids because of what they learned.
- 72% said they will change or adopt new pest management practices for soybean aphids.

Following the 2004 growing season, six Wisconsin crop consultants surveyed from among participants reported that as a result of the soybean aphid management workshop:

- They felt more confident that they could help growers with treatment decisions.
- They shared what they learned about soybean aphid management with 1,272 soybean growers who made management decisions affecting an estimated 377,500 acres.

In Dane County: Soybean aphids have depressed crop yields since 2000. To help growers learn about soybean aphid staging, UW-Extension county educator David Fischer worked with Eileen Cullen and a team of others to produce the fact sheet *Reproductive Soybean Development Stages and Soybean Aphid Thresholds* : http://www.planthealth.info/soyaphid/uwexsoystage.pdf Fischer secured funding from the Wisconsin Soybean Marketing Board, and distributed 18,000 fact sheets to Upper Midwest producers through field days, the Wisconsin Soybean Association, Wisconsin Fertilizer, Aglime and Pest Management Conference, and the Wisconsin Corn/Soy Expo. Responding to a survey after receiving the fact sheet::

- 100% of pest management conference participants indicated they agree or strongly agree that they would use the handout in managing soybean aphids.
- 75% of Soybean Association members indicated they agree or strongly agree that the information will be useful in soybean aphid staging, and for timing pesticide applications.

These outcomes will equip Wisconsin soybean producers to protect yields when economically necessary, while avoiding economic and environmental impacts of unnecessary insecticide applications.

Key Themes: Small Farm Viability; Other: Under-Served Population

Heart of the Farm risk management education provides women financial skills and support networks, eases isolation

Situation:

Many women own and operate their own farm business or are equal partners providing labor and management to compliment their husband's skills. Yet few women were participating in UW-Extension educational programs.

In 2002, UW-Extension campus and county faculty developed Heart of the Farm - Women in Agriculture in response to the 2001 report "The Roles of Women on Wisconsin Dairy Farms at the Turn of the 21st Century." This study outlined the challenges facing farm women, and proposed education that UW-Extension could provide to help meet these challenges.

Evaluations of the first two workshops piloted and their 6-month follow up evaluations gave the Heart of the Farm planning committee valuable insight into the educational and support needs of Wisconsin farm women.

Respondents indicated they would be more likely to attend a UW-Extension agricultural event if:

- They knew that other women were attending.
- The topics were pertinent to their farm business.
- They were familiar with the event location.
- Workshops were held within 30 to 60 miles away.

Participants surveyed noted it is very important to continue these workshops so farm women can access risk management education and begin building support networks to alleviate their isolation.

Extension response:
Guided by this information, the committee planned six Heart of the Farm workshops to reach more farm women in 2004. The committee worked with county UW-Extension educators Aliesha Crowe (Rusk), Mark Mayer (Monroe), Randy Thompson (Rock), Jeff Key (Winnebago), Kevin Jarek (Outagamie), Bob Cropp (Pepin), Jon Zander (Trempealeau), Lee Milligan (St. Croix), Tina Kohlman (Sheboygan), and Joy Kirkpatrick (Richland) to bring Heart of the Farm to Rice Lake, Brodhead, Oshkosh, Eau Claire, Sheboygan Falls, and Richland Center.
Risk Management Agency funding supported promotions, facilities, travel, and 25 percent of Joy Kirkpatrick's time to coordinate workshop planning, implementation and evaluation.
UW-Extension county agents and state specialists taught 121 farm women from 10 counties about managing financial, human, production, marketing and legal risks. When participants requested more in-depth financial management information, Jenny Vanderlin, UW-Madison Center for Dairy Profitability, and Stan Schraufnagel, UW-River Falls, provided additional financial record-keeping workshops.

Impacts:
When farm women know more about risk management, they can make better informed decisions for their farms or with their farming partners.
Workshop evaluation showed that participants expected to use what they learned in making farm management decisions. The 90 women completing surveys indicated they increased their knowledge of issues concerning communications, personnel, risk management, and working with legislators. They consistently affirmed the importance of educational programs specifically for farm women. In their own words:

- "I am a woman farming myself and need some good Educational ideas that may help me succeed."
- "Women on the farm need to network with other farm women. It is easy to feel isolated on the farm and there is always a need to learn new information."

Key Themes: Small Farm Viability; Other: Under-Served Population

AgrAbility education helps disabled farmers stay in business, improves understanding among service providers

Situation:
More than 4,000 injuries occur on Wisconsin farms each year, many resulting in permanent disability. Farmers are also as likely as anyone else to be injured in a non-agricultural incident or to develop a disabling medical condition. When this happens, the farming business is in jeopardy.
Vocational rehabilitation counselors who had no experience farming were unaware of assistive technology or community resources to help farmers keep farming — including their county UW-Extension office.

Extension response

AgrAbility of Wisconsin provides education and assistance to farmers with disabilities, and has helped about 1,200 people stay in farming businesses since it was founded in 1991.
In 2004, UW-Extension AgrAbility staff worked with local vocational rehabilitation counselors to help farmers with disabilities achieve there goal of continuing to farm. As counselors grow familiar with the assistive technologies and community resources available, they can provide more support to these farmers.
Through AgrAbility, a partnership serves Wisconsin farmers with disabilities:

- **UW-Extension Cooperative Extension** campus and county faculty and staff provide education, counselor training and evaluation.
- **Easter Seals of Wisconsin (ESW)** assesses what each farmer needs to keep farming and develops an assistive technology plan to accommodate those needs in the workplace, such as for harvesting crops, feeding animals or milking.
- In 2004, the **Wisconsin Division of Vocational Rehabilitation (DVR)** began funding farmers' assistive technology plans, helping 100 farmers.

DVR now provides funding for UW-Extension's counselor training and evaluation, for the Easter Seals on-farm needs assessments and accessibility plans, and for the assistive technology to implement those plans. Average support for each farmer exceeds $20,000.

Impacts:
UW-Extension AgrAbility staff provided training for all DVR counselors, about 220. Evaluation of counselors trained during 2003 and 2004 indicated:

- 96% gained a better understanding that farm work is a collection of tasks.
- 96% gained a better understanding of the farmer's view of accessing DVR services.

The partnership of UW-Extension, ESW and DVR allows these farmers to continue their profession — farming. Many of these farmers would have discontinued farming if they did not receive this assistance. Of farmers responding to a survey:

- 44% said AgrAbility's help led to an increase in productivity.
- 35% said the help they got from AgrAbility of Wisconsin increased financial return.

Farmers surveyed said AgrAbility's assistance increased their ability to:

- Operate machinery (64.4 percent).
- Modify machinery (62.8 percent).
- Perform management functions (61.4 percent).
- Do farm chores (55.7 percent)

Between 20 and 30 percent reported they were still unable to do these tasks.
One dairy farmer commented:

> "The reason we still have cows is because of AgrAbility of Wisconsin. Otherwise, we wouldn't be farming anymore."

Goal 1

Evidence: Campus and county-based faculty and staff report their work against desired outcomes through Cooperative Extension's Planning and Results System (PRS). They also submit more detailed success stories of their work for the PRS database. Heart of the Farm workshop evaluation summaries are available at:
http://www.uwex.edu/ces/heartofthefarm/conferences.html
Dr. Pamela Ruegg (UW-Madison / Extension) has implemented an independent reporting mechanism to monitor the progress and capture the results of local Milk Money teams. These results are entered in Cooperative Extension's Planning and Results System (PRS) and are summarized through various reports.

Evaluation of the success of multi-state and joint activities

Multi-state and joint activities ANRE

Three-state collaboration — Wisconsin, Michigan and Ohio — was initiated to provide training to extension agents, agency personnel, and consultants on agriculture innovative/value added education. 26 agriculture innovation counselors from Wisconsin were trained over three multi-day sessions during the latter half of 2004. These counselors are initiating educational programs at the county and regional levels.
Participation: Greg Lawless — 0.15 fte.

Four state dairy education — Wisconsin, Minnesota, Iowa and Illinois— concluded another successful programming year, focusing on applied dairy nutrition and management. The focal point of the effort was the 4-State Applied Dairy Nutrition Conference in Dubuque, Iowa, in June. About 425 dairy industry and academic professionals attended this event.

Participation: Randy Shaver — 0.10 fte.

Four state livestock programming — Wisconsin, Minnesota, Iowa and Illinois — was initiated in 2004 and involved specialists and agents who provide educational programming in beef and swine along with the program leaders from the four states who facilitated a planning meeting in August, 2004. Specialists and agents formed the beef and swine sub-teams who have been sharing programming information and educational materials and will plan further work in 2005.
Participation: Rick Klemme — 0.05 fte.

Wisconsin and Minnesota Ag Engineering Newsletter was published four times during 2004. The newsletter reached professional agriculture engineers, county agriculture agents and others. The newsletter has been a successful venture connecting colleagues from both states, saving time and resources.

Participation: Ron Schuler — 0.05 fte; Dave Kammel — 0.05 fte, Brian Holmes — 0.05 fte, and Doug Reinemann — 0.05 fte

The Minnesota Beef School is a distance education program that reaches into Wisconsin. Three Wisconsin agriculture agents advised about 40 Wisconsin participants in the Minnesota Beef

Schools correspondence course in 2004. The course topic was Beef Reproductive Health Management, Marquette County agriculture agent Keith Vander Velde wrote one of the chapters for the course.

Participation: Mahlon Peterson — 0.05 fte, Rhonda Gildersleeve — 0.05 fte, Keith Vander Velde — 0.05 fte

The Great Lakes Grazing Network Grazing Dairy Financial Data project is an ongoing effort to gather financial data on grazing dairy farms under many different management practices. Participating states include: Illinois, Indiana, Iowa, Michigan, Missouri, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin. The Canadian province of Ontario is also involved. First and second year project reports as well as five fact sheets derived from the reports have been completed and are available at http://cdp.wisc.edu
Tom Kriegl had submitted a detailed success story on this work.

Participation: Tom Kriegl— 0.66 fte

A consortium consisting of Extension and Research faculty and staff in Iowa, North Dakota, South Dakota, Minnesota and Wisconsin are integrating research, extension, and education activities to address economic, social and ethical issues associated with agricultural biotechnology. The research portion of the project examines determinants of product adoption, consumer behavior, industry response, product regulation, intellectual property rights, values influencing consumer and producer decisions, and producer and consumer attitudes toward acceptance or rejection of agricultural biotechnology. Findings are being used in developing extension and educational materials for diverse audiences to help them understand the benefits and risks associated with agricultural biotechnology.

Participation: Ken Smith — 0.2 fte, Brad Barham — 0.05 fte, Tom Zinnen — 0.05 fte, Mohammad Douglah — 0.05 fte

Budgeted: $144,211

Goal 2: A safe and secure food and fiber system

Executive summary

Situation:
During 2004, Wisconsin's Family Living Programs (FLP) campus and county faculty and staff continued to address key food safety issues identified with stakeholders through the 1999 program planning process. Wisconsin Nutrition Education Program (WNEP) campus and county nutrition educators continued to reach under-served and under-represented low-income children, youth and families, and older adults.
Foodborne illness remains a serious health concern, especially among pregnant or breastfeeding women, young children, and older adults. Food safety guidelines — such as fish advisories for mercury and other toxins — add more cautions each year.
Effective education is critical so consumers handle, prepare, serve and store food safely to ensure quality for the entire household, and so food processors are fully trained and able to implement federally mandated food safety programs.

Extension response:
UW-Extension Cooperative Extension food safety and food quality education targets not only consumers and food industry personnel but also allied interests within state and local governments, with the following intended outcomes:

- Communities will encourage and support the safety of food and water for all consumers.
- Individuals/families will choose, handle, prepare and store food safely.
- Food processors and food industry personnel will produce safe/high quality food for consumers.

Backed by university research, UW-Extension campus and county faculty and staff work with colleagues and community partners to respond to emerging food safety and food quality needs. Educational materials are reviewed and adapted to address diverse cultural needs in English and Spanish — and also maintain food safety recommendations consistent with the national Fight Bac / Combata a Bac™ campaign of five steps to food safety.
The Wisconsin Nutrition Education Program (WNEP) responds to the diverse needs and resources of officially poor individuals and families by implementing community-based nutrition education programs.
In 2004, WNEP entered into 1,415 agreements with 896 partner agencies to provide community nutrition education to Food Stamp-eligible individuals and families. More than half of these agreements led to in-kind matching support, in accordance with program guidelines.

- 59% of participants were women and girls.
- 48% were school-age youth.

With these community partners, WNEP operated as 39 projects in 59 Wisconsin counties. Nutrition educators made 318,982 educational contacts with Food Stamp-eligible individuals and families statewide. Of these:

- 28% were families with young children
- 14% were adults age 65 or older.
- 7% were childless adults between ages 18 and 65.
- 3% were pregnant women.

Nearly three-fourths of low-income participants were white (74%). Community-based educators reached out to under-served culturally diverse individuals and families most at risk

- 11% of learners were African American.
- 10% were identified as Hispanic or Latino/a.
- 7% were people with disabilities.
- 4% were American Indian.
- 4% were Asian American.

UW-Extension nutrition educators and coordinators in rural counties design and deliver educational programs that meet the needs of isolated learners in northern and western Wisconsin. In heavily populated urban areas of southern and southeastern Wisconsin, WNEP staff develop education to help learners navigate and use the variety of community resources available

Impacts:
More than 23,000 learners received food safety lessons, accounting for 32,992 teaching contacts. Community nutrition educators and coordinators taught food safety to multi-session and one-time groups, and provided food safety training through learn-while-you-wait education. Under the statewide self-directed Eating Well and Being Active Team, the WNEP Food Stamp Nutrition Education Program and Expanded Food and Nutrition Program report the following impacts of food safety and food quality education during 2004.

Total expenditures
(By FTEs and Source of Funding)

	FTEs	**Smith-Lever**	**State Match**	**FSNEP Match**
Smith-Lever	5.95	$84,267	$602,029	--
EFNEP/ FSNEP	11.95	$169,243	$572,792	$572,792

Scope of impact: State specific

Key Themes: Food Safety; Other: Under-Served Populations

Low-income elementary students and adults with children learn the basics of keeping food safe

Situation:

Food safety is important to everyone. Pregnant women, infants and young children, and older adults are especially susceptible to foodborne illness. While proper hand washing can prevent many illnesses, very few individuals or care givers take time for even this simple preventive measure.

University of Wisconsin-Extension Cooperative Extension has the research-base, expertise, networks and culturally appropriate educational materials to help low-income children, youth, families and older adults learn the basics of keeping food safe to eat.

Extension response:

The Wisconsin Nutrition Education Program (WNEP) is two federally funded nutrition education programs serving low-income individuals and families, a partnership of the U.S. Department of Agriculture Food and Nutrition Services, Wisconsin Department of Health and Family Services, and University of Wisconsin-Extension.

UW-Extension Cooperative Extension campus and county faculty and staff teach safe food handling, preparation and storage practices so people of all ages can choose, purchase, prepare and serve food that is safe to eat.

Research-based educational programs use safe food handling messages consistent with the national Fight BAC / Combata a bac™ campaign, providing consumers five brief, positive actions to reduce their risk of foodborne illness:

1. **Clean:** Wash hands and surfaces often.
2. **Separate:** Prevent cross-contamination.
3. **Cook:** Cook or reheat foods to proper temperatures.
4. **Chill:** Keep cold foods cold and cool leftovers promptly.
5. **Store:** Store food properly to prevent illness.

In 2004, two primary audiences for food safety education were families with children, and youth ages 5 to 11 eligible for free or reduced-price School Meal programs. Community-based nutrition educators and coordinators reached 7,240 youth learners and 7,722 learners in families with children. Older adults, teenagers and adults without children also received food safety education.

Food safety lessons were offered in partnership with schools (K-12), senior meal sites and programs, WIC — Women, Infants and Children clinics, Head Start, public and tribal health clinics. Easy-to-read educational materials are culturally reviewed and adapted to address the needs of diverse learners, in English and Spanish.

Impacts:

UW-Extension faculty and staff assessed food safety education effectiveness through an evaluation project with more than 1,700 low-income adults. A knowledge assessment was conducted before and after a single lesson on each of the five steps to food safety.

The pre- and post-lesson results show

- 51% of participants knew how long to wash hands before the lesson,
  83% knew the correct time needed after the lesson.
- 63% knew the proper way to handle foods to prevent cross-contamination before the lesson,
  93% knew correct handling after the lesson.
- 41% knew the correct end temperature for cooking hamburger before the lesson,
  88% knew the correct end temperature after the lesson.
- 33% knew how to chill hot leftover foods properly before the lesson,
  81% understood proper chilling after the lesson.
- 47% knew how to evaluate stored food to be sure it was safe to eat,
  82% could evaluate the safety of stored food after the lesson.

Comments collected from adult food safety education participants include:

> "I learned that I should separate meats from produce in my shopping cart when I'm at the store."
>
> "I learned the benefits of sanitizing a cutting board with bleach and so I plan to buy some bleach."
>
> "I'm pregnant I didn't know I was more susceptible to foodborne illness."

Evaluating food safety education for young people, pre- and post-lesson assessments indicate that UW-Extension education was effective in motivating school-age youth to practice food safety:

- 56% of about 2,500 students could initially wash their hands properly,
  95% knew how after the lessons.
- 75% of about 2,900 students initially knew they should wash their hands before preparing a sandwich.
  93% knew they should do this after the lessons.
- 74% of about 550 students initially knew they should not eat meat that smells bad,
  85% knew they should not do this after the lessons.
- 75% of about 200 students initially knew they should throw meat that smells bad into the trash,
  97% knew they should do this after the lessons.

Goal 2

Evidence: Campus and county-based faculty and staff report their work against desired outcomes through Cooperative Extension's Planning and Results System (PRS). They also submit more detailed success stories of their work for the PRS database. Wisconsin Food Stamp Nutrition Education Program (FSNEP) 2004 annual reports are available at: http://www.uwex.edu/ces/wnep/evaluate/reports/FY04/FY04arindx.cfm

Evaluation of the success of multi-state and joint activities

University of Wisconsin-Extension state specialists continue to participate in multi-state extension food safety education for consumers and food industry personnel, and to conduct applied research that supports this education.

Multi-state consumer education

Safely handling food at home is key to decreasing the risk of food borne illness, and this can be especially important for low-income households. Consumers often lack the basic skills and knowledge of how to handle prepare and store food safely and special multi-state efforts focus on food safety education for consumers.

UW-Extension continues to partner with New York and Louisiana in the final phase of a project designed to develop, pilot and distribute materials to educate low-income consumers in food safety.

More than 300 families have been trained to date, and results of the project are currently being summarized. Educational materials developed will be distributed to colleagues nationwide.

Multi-state food industry training

UW-Extension campus faculty integrated within the College of Agricultural & Life Sciences at the University of Wisconsin-Madison work collaboratively with colleagues across the country, most heavily in Minnesota, Iowa and Illinois.

Collaborations with the University of Minnesota include:

- Better Process Control School, a U.S. Food and Drug Administration-required course for supervisors working in the nation's canning plants..
- Cider maker training for individuals to meet federal requirements.
- Seafood HACCP training for processors.

The University of Wisconsin continues to work with the North Central Regional Aquaculture Center to distribute educational videos aimed at training seafood processors to meet federal standards.

In addition to the Better Process Control School with Minnesota (above), UW-Extension offers other professional training that attracts industry personnel from across the nation and internationally:

- Brewers' Course
- Master Cheese Maker series of short courses
- Milk pasteurization short courses

UW-Madison / Extension campus faculty participated in training Iowa and Illinois fruit and vegetable growers on safely applying manure to their crops.

Applied research

UW-Madison / Extension applied research strengthens multi-state and statewide food safety education:

- Continued evaluation of consumer food handling practices led to development of improved educational messages for clients.

- Research on the safety of applying non-composted cow manure as fertilizer in vegetable production improved methods for evaluating the hygienic condition of ready-to-eat foods.
- Improved processing of sprouted seeds and alternative processing techniques for apple cider allowed specialists to better address the needs of consumers, state and local governments, and the industry.

A major contribution to the industry was establishment of the University of Wisconsin Center for Meat Process Validation in 2003, addressing small and very small meat and poultry processors' need for applied research to meet federal HACCP guidelines.
In 2004, the Center for Meat Process Validation scientifically evaluated a wide range of meat processing techniques for safety. A portion of the center's work is supported by an integrated food safety grant, with the Eastern Regional USDA-ARS lab as an investigative partner.

Budgeted: $33,786

Goal 3: A healthy, well-nourished population

Executive summary

Situation:
UW-Extension Cooperative Extension continues as a research-based, well-respected resource for scientifically valid information for Wisconsin consumers.
Wisconsin's people are faced with increasingly complex lifestyle choices that can affect health for themselves and their families. According to 2000 U.S. Census data, 8.7 percent of Wisconsin adults and 10.8 percent of children live in poverty. In many more households, incomes are considered above the official poverty line, but still low enough to qualify families for government assistance programs such as food stamps and Badgercare health insurance.
Hunger is a *real* problem for Wisconsin families — many do not have enough food to maintain a healthy life. Statewide, more than half a million people live in households that are **food insecure** — they do not always have access to enough food for an active healthy life. Low income families have alarmingly high rates of food insecurity and **hunger** — the most severe form of food insecurity.

Extension response:
The UW-Extension statewide self-directed Eating Right and Being Healthy Team and Poverty and Food Insecurity Team include faculty with research and extension appointments, drawing on the expertise of the College of Agricultural and Life Sciences, the School of Human Ecology, and the Center for Biotechnology.
Wisconsin's goals for working toward a healthy, well-nourished population include:

1. Communities will promote healthy food, physical activity and lifestyle choices.
2. Individuals/families will achieve optimal health throughout their lifespan by choosing and preparing nutritious meals and snacks and balancing the food they eat with physical activity.
3. Communities will ensure that all people at all times have physical and economic access to sufficient acceptable food to meet their dietary needs for a productive and healthy life.
4. Individuals/families will manage their resources so they are healthy and well nourished.

UW-Extension educators form close collaborations with colleagues and health professionals to reach shared audiences, work carefully with local advisory committees, and take initiative to reach under-served and unfamiliar audiences.
Audiences for nutrition, poverty and food security education include parents and caregivers of young children, limited resource families, culturally and ethnically diverse individuals and families, under-served and under-represented populations, youth and older adults — and those who serve them.
Wisconsin Nutrition Education Program (WNEP) community-based nutrition educators and coordinators work with individuals, families and communities affected by economic poverty, tailoring messages to Food Stamp recipients and those eligible for the Food Stamp program

(FSNEP), as well as Expanded Food and Nutrition Education Program EFNEP) families in counties.

Impacts:
Wisconsin enjoys success in implementing programs related to creating a healthy, well-nourished population. The statewide self-directed Eating Well and Being Active Team and Poverty and Food Insecurity Team report the following impacts of nutrition education for 2004.

Total expenditures:
(By FTEs and source of funding)

	FTEs	**Smith-Lever**	**State match**	FSNEP match
Smith-Lever	8.60	$121,798	$870,160	--
EFNEP/ FSNEP	129.47	$1,833,629	$6,205,809	$6,205,809

Scope of Impact: State specific

Key Themes: Human Nutrition; Other: Under-Served Populations

Wisconsin Nutrition Education Program helps low-income individuals and families make healthier food choices

Situation:

An average person now eats more than one-third of their food away from home. Compared with food prepared at home, food obtained away from home tends to be higher in fat, saturated fat, sodium and sugar, and lower in calcium and fiber.

Obesity and Type 2 diabetes are increasing, especially among children, low-income individuals and families. Rates are disproportionately high among African Americans, American Indians and Latinos/as.

As need grows for healthier diets and more active lifestyles, UW-Extension Cooperative Extension has the research base, culturally appropriate educational materials, networks and expertise to help Food Stamp-eligible children, youth, families and older adults at risk.

Extension response:

The Wisconsin Nutrition Education Program (WNEP) responds to the diverse needs and resources of low-income families by offering nutrition education programs in a variety of community settings using group sessions, learn-while-you-wait, lessons for individuals and other strategies. Bi-lingual nutrition educators help reach underserved families using culturally reviewed educational materials in English, Spanish and Hmong.

See the Goal 2 executive summary for descriptions of WNEP community partnerships, audiences, and cultural diversity.

Impacts:

In 2004, 68 percent of WNEP educational contacts — 217,774 — were on diet quality topics, taught in K-12 schools, summer school/feeding programs, Head Start, technical schools, job training centers, food stamp offices, emergency food pantries, Community Action agencies and family resource or neighborhood centers, senior meal sites, WIC — Women, Infants and Children clinics, public and tribal health offices, home-visiting programs, correctional facilities, and half-way houses.

More than 1,600 low-income individuals and families participated in evaluations before and after lessons on using Food Guide Pyramid guidelines, eating plenty of vegetables, reading the Nutrition Facts ingredients panel on packages and identifying whole grains. Results show how learners increased their knowledge:

- 14% of 435 learners could label food groups correctly before the lesson,
  73% of 424 learners could do this after the lessons.
- 88% of 107 learners could correctly place foods in the pyramid food groups following a lesson.
- 81% of 443 learners could name at least one thing they plan to do to bring their eating closer to pyramid guidelines after the lessons.
- 66% of 322 learners initially knew that 3 to 5 servings of vegetables is the daily recommendation for good health,
  81% of 309 knew this after the lesson.

- 67% of 409 learners could use the food label to choose whole grain bread before the lessons,
  89% of 410 learners could do this after the lesson.

After lessons simulating choosing foods with less fat from a fast food menu, learners demonstrated that they could modify a fast food menu for fat content. Pre- and post-lesson evaluations showed that as a result of the lessons:

- Adults could reduce the fat content of their choices by an average 25 grams per meal, adolescents could reduce the fat content of their choices by an average 35 grams per meal.

- 91% of adults and 84% of teens indicated at least one change they are willing to make when they eat in fast food restaurants.

Young children ages 3 to 5 adjust their meal size according t o the energy density of the food they eat — they regulate their energy intake. When parents control meal size or encourage children to eat rather than letting them heed their own sense of hunger, children have a harder time regulating their own energy intake.

Nearly 300 low-income pregnant teens and adults with children participated in a lesson on creating a positive feeding environment for toddlers and preschoolers. Before and after the lesson, participants were asked to identify appropriate parent/and child roles in feeding:

- 40% of 299 parents initially said that their child is responsible for whether to eat at meal or snack time,
  90% of 210 parents said this after the lesson.

- 50% of 298 parents initially said their child is responsible for how much to eat,
  89% of 211 parents said this after the lesson.

- 76% of 189 participants initially agreed that parents should not tell children they have to eat everything on their plates,
  92% of 170 agreed with this idea after the lesson.

Across 5 counties, 790 adults age 65 and older participated in lessons on the Food Guide Pyramid, eating plenty of fruits and vegetables, fiber, fluids, milk and other calcium sources, and meals without cooking. Of those participating in evaluations:

- 69% of 157 older adults said they plan to eat food from all five food groups every day following a Food Guide Pyramid lesson,

- 68% of 662 older adults said they were now thinking differently about eating vegetables or whole grains.

- 51% of 603 older adults said they plan to share the information they learned with a family member or friend.

- 56% of 603 older adults said they intend to change their eating habits as a result of the lesson.

- 44% of 111 older adults said they plan to eat five or more servings of fruits and vegetables each day as a result of a fruit and vegetable lesson.

Participant comments included:

"I want to do a better job of eating a variety of foods every day."

"I will make meals that have healthier food. I learned what is better for kids. I learned to eat balanced food throughout the day,"

"I am going to try some vegetable I haven't eaten before,"

"I didn't know that there was fiber in vegetables,"

"I thought all brown breads were whole grains,"

"I think I will change to whole wheat bread instead of white bread."

Whole grains are recommended because they are associated with a lower risk for coronary heart disease and type 2 diabetes. Diets rich in fruits and vegetables are associated with lower risk for stroke, type 2 diabetes, and certain cancers. Gaining knowledge and awareness related to key dietary recommendations is an important step to choosing a healthful diet.

The Wisconsin Nutrition Education Network's 2004 education campaign "Walk, Dance, Play… Be Active Every Day!" encouraged 2,523 Food Stamp eligible caregivers of children to adopt healthy nutrition and physical activity behaviors and to serve as good role models. UW-Extension is a major partner.

Organized in 34 teams, serving 39 counties and the Great Lakes InterTribal Council, educators from 144 network partner agencies taught 11,036 adults using Walk, Dance, Play educational materials. These educational activities helped a large number of parents and caregivers reflect on their influence on children, and express their intention to improve their behaviors. About 65 percent of these adult learners completed an evaluation. Results include:

- 60% of participants said they would choose healthier snacks for themselves and their children.
- 57% said they will be more active as a role model for children.
- 56% said they will be more active with children.
- 56% said they would encourage children to be more active every day.
- 40% said they were already practicing these behaviors.

Key Themes: Human Health, Human Nutrition
Other: Food Security, Under-Served Populations

Food security and poverty education increase community capacity to lessen hunger among low-income individuals and families

Situation:

More than half a million people or 1 in 11 Wisconsin households (9$) are **food insecure** — they do not always have access to enough food for an active, healthy life. Around 1 in 30 households experiences **hunger** — the most severe form of food insecurity.

Hunger and food insecurity are r*eal* problems for Wisconsin families. Statewide, about 540,000 people live in households that are food insecure. Low-income families have alarmingly high rates of food insecurity (44 percent) and hunger (19 percent).

According to 2000 U.S. Census data, 8.7 percent of Wisconsin adults and 10.8 percent of children live in poverty. In many more households, incomes are above the official poverty line, but still low enough to qualify families for government assistance programs such as food stamps and Badgercare health insurance. About 1 in 5 Wisconsin residents — more than a million people — are either living in poverty or are considered low income.
Several trends indicate that these situations may be worsening for low-income families:

- Statewide unemployment rates increased from 3 percent in 1999 to 5.6 percent in 2003.
- Relative to other states, Wisconsin households have become more food insecure and hungry.
- Emergency food providers, such as food pantries, report that demand is at an all-time high

People are also seeking more food assistance. For example, participation in the food stamp program — now called FoodShare in Wisconsin) — increased 82 percent between October 1999 and October 2004. This increase ranks among the largest in the nation.
Wisconsin continues to rank at the bottom nationally for School Breakfast program participation. Less than half (47 percent) of Wisconsin schools that offer free or reduced-price lunch programs also offer breakfast programs. Only a quarter (25 percent) of low-income students who receive subsidized school lunch also receive school breakfast.

Extension response:
The Wisconsin Nutrition Education Program (WNEP) works in local communities to raise awareness about food insecurity and poverty, and to help low income families gain knowledge and skills to improve their situations.
See the Goal 2 executive summary for descriptions of WNEP community partnerships, audiences, and cultural diversity.
The UW-Extension statewide self-directed Poverty and Food Security Team develops, delivers and evaluates research-based educational programs in two areas:

1. Helping individuals, such as by teaching families how to get the most value from their limited food dollars.

2. Helping communities, such as by convening a local hunger task force or teaching poverty awareness.

Impacts:
1. Helping individuals
A major goal of the UW-Extension Food Stamp Nutrition Education Program (FSNEP) is to help limited resource families become more food secure by teaching them the skills needed to track their spending, manage food dollars and plan nutritious meals for their families. To accomplish this in 2004:

- 15% of all 46,743 educational contacts focused on lessons related to helping low-income learners better manage their food dollars and plan and buy food for their families.
- Community-based nutrition educators taught food resource management at WIC — Women, Infants and Children and other public and tribal health clinics, job training

centers and Food Stamp offices, food pantries, family resource centers and senior meal sites.

- 59% of food resource management teaching happened in group lessons.
- 40% happened in learn-while-you-wait education settings.
- 45% of teaching contacts on food resource management topics were with young families with children;.
- 25% were lessons for childless adults between ages 18 and 65, and adult learners age 65 or older.

In 2004, Money for Food lessons and evaluation tools were used to teach more than 5,500 learners. After these lessons, more than 85% of the learners reported that they had learned something or would do something differently.

- After a lesson on using Food Stamps and other programs to put together a food budget:

  — 83% of 470 learners said they had learned something that would make it easier for them to get enough food or money for food;

  — half reported improving their food shopping practices, such as planning

  —meals ahead of time and using a shopping list;
  nearly a third reported that their families were more likely to make it to the end of the month without running out of food, an indicator of food security.

- After a lesson on wants and needs,
  85% of 1,495 learners could name a food "want" that they would try to buy less often than they would a food "need."

- After a teaching activity about food shopping strategies,
  93% of 158 learners said they planned to use at least one new way to get more for their food dollars.

- After learning about choosing low-cost foods based on the Food Guide pyramid,
  90% of 362 learners indicated they would be able to identify more low-cost options.

- After a practice activity on developing a family spending plan,
  63% of 97 learners reported that they intended to try to use a spending plan for their families.

- After playing a learning game on the benefits of meal planning,
  84% of 1,277 participants indicated they would do more planning ahead for their meals.

- After playing a learning game on saving money when eating away from home,

  — 91% of 216 participants reported that they had learned a new way to eat away from home occasionally without spending too much;

  — 64% of 103 participants predicted they would save $5 to $10 per week by using the new tips they had learned.

Low-income consumers who participated in FSNEP lessons about managing their food resources learned relevant skills and planned to practice behaviors that will contribute to improved food security for their families. In the words of one learner from northern Wisconsin:

"This will help me feed my kids."

2. Helping communities

UW-Extension builds community capacity to assess and address local hunger and food insecurity concerns.

In 2004, 26 active hunger prevention coalitions were serving 30 counties. These coalitions are often convened by UW-Extension. And Extension plays key roles in cultivating new coalitions, providing on going consultation and support, systematically documenting coalition activities and successes, and facilitating communication.

- **In Pierce County:** A hunger prevention council formed as a result of a grant written by the UW-Extension family living educator and the public health WIC — Women, Infants and Children director. Recent efforts resulted in distributing 3,000 pounds of donated venison to more than 800 individuals and families along with nutrition, food preparation and storage information.

- UW-Extension is co-leading an effort with the Wisconsin Department of Health and Family Services to create a new statewide coalition to better coordinate hunger prevention activities. Extension had served as an active member of a former statewide group, the Wisconsin Food Security Consortium. Accomplishments of that group included partnering with UW-Extension to create an online tool for identifying local resources and gaps in service for Food Stamp-eligible individuals and families; creating an annual Hunger Report Card on the state of hunger and food insecurity in Wisconsin; and examining federal and state policies to improve capacity to distribute emergency food.

UW-Extension enhances access to locally produced fresh produce through community gardens and farmers' markets, providing increased quantity and quality of nutritious food to low-income families. A wide variety of ethnically diverse groups regularly participate in UW-Extension Community Garden programs. Pregnant women, families with children, youth and older adults have more fresh fruits and vegetables to eat because of these programs.

- **The Dane County Hunger Prevention Council** created a south Madison farmers' market to reach diverse under-served low-income populations. The goals of the market have been accomplished:

  — WIC families and low income older adults are able to use their farmers' market vouchers, bringing more fresh fruits and vegetables home.

  — Of the market's 27 vendors in 2004, more than 20 were certified to accept the WIC vouchers.

  — Among shoppers, WIC and elderly participants have increased by more than 50 percent.

- **The Nutrition Coalition of the Chequamegon Region,** recently renamed FEAST, created a Mobile Farmers' Market to reach rural areas of Ashland and Bayfield Counties where no local farmers' markets exist for senior citizens and WIC participants to use

their farmers' market vouchers. The Mobile Market made 17 visits to 7 sites benefiting both the producers and consumers. Responding to a follow-up survey:

— 97% said they would use the Mobile Farmers' Market next year.

— 84% of older adults and WIC clients with vouchers indicated an increase in consumption of fresh fruits and vegetables.

— Producers were also most positive, as the mobile market created a new outlet for their crops.

- **The Hunger Task Force of La Crosse, Inc.** began an award-winning community garden to provide low-income families with fresh produce. The garden program is improving diets, saving money and teaching healthy eating. In the first four years of operation, 77,000 pounds of organic produce have been grown. According to a survey of garden clients:

  — 94% said the community garden increased their consumption of fresh produce.

  — Families reported saving an average of almost $9 per week on their grocery bills.

- **In Waukesha County:** UW-Extension conducted a survey to better understand community needs related to food security. A key finding was that low-income residents wanted better access to fresh fruits and vegetables.

  In response, the Waukesha County Nutrition Coalition created a garden gleaning project. In 2004, the program collected 35,017 pounds of fresh produce (a 205 percent increase over 2001), and donated it to food pantries and meal programs.

Poverty and food insecurity are closely linked. UW-Extension provides poverty awareness education and training on strategies for working with low-income audiences.

- Throughout Wisconsin, UW-Extension has facilitated more than 75 local poverty awareness programs reaching more than 4,000 people. Program evaluations document striking increases in understanding among participants, and report changes in the way participants interact with low-income clients. Fourteen more programs are planned for 2005.

- UW-Extension also leads educational programs to develop skills for working with families in poverty. 141 people have been trained to conduct education programs to help participants understand the effect of economic class on behaviors and mindsets.

- During the past 3 years, UW-Extension trainers have facilitated more than 135 workshops, reaching more than 3000 staff and volunteers from more than 40 community agencies and organizations. Trainers have reported significant increases in participant knowledge and understanding of issues of generational poverty, as well as identification of skills needed to work more effectively with families in poverty.

UW-Extension provides hunger awareness education to help communities better understand the scope of the problem, underlying causes and potential solutions. Food security specialist Kadi Row worked with Extension Publishing and the UW-Madison Applied Population Laboratory to create Hunger Close to Home — a set of 72 on-line publications customized for each Wisconsin county. Hunger Close to Home helps local educators and other stakeholders share research-based

information about hunger issues in their own community. This paved the way for a series also covering affordable housing, poverty and obesity, with related research-based educational resources: http://www.uwex.edu/ces/flp/demographics
In 2004, county UW-Extension faculty and staff reported that educational programs based on Hunger Close to Home are making a difference:

- 74% of participants reported having, at best, only a "moderate" understanding of the extent of food insecurity and hunger before the presentations. About 1 in 4 participants said they had "little" or "no" understanding.
- 90% reported "quite a bit" or "almost complete" understanding after the presentations.

WNEP collaboration with schools and community partners improves food security among school-age children:

- UW-Extension helped communities determine the food security status of local families through a school-based research project. Survey results yielded information about the food security status of local families, participation in federal nutrition assistance programs, child and parent preferences related to school meals, and more. n 2003 and 2004, 42 schools in 14 counties participated in the survey project. Each received a customized report to share with parents, teachers, school administrators, local officials, and other stakeholders.
- **In Brown County:** WNEP identified the need for a summer breakfast program, and with program partners, made it possible to serve over 6000 meals at three sites in the initial year. Due to its success, the Green Bay School Food Service continued the program in subsequent years, expanded it to also serve lunch. The program now serves more than 1,500 children on an average day at 38 county sites.

Goal 3
Evidence: Campus and county-based faculty and staff report their work against desired outcomes through Cooperative Extension's Planning and Results System (PRS). They also submit more detailed success stories of their work for the PRS database. Wisconsin Food Stamp Nutrition Education Program (FSNEP) 2004 annual reports are available at: http://www.uwex.edu/ces/wnep/evaluate/reports/FY04/FY04arindx.cfm

Evaluation of the success of multi-state and joint activities

Dr. Judith Bartfeld, Department of Consumer Sciences, UW-Madison / Extension, collaborates with Dr. Rachel Dunifon, Cornell University, on a project involving use of self-administered surveys to assess food security among households with elementary school children in Wisconsin and New York. The Wisconsin portion of the study has been funded by a Hatch grant as well as a USDA grant administered through the Institute for Research on Poverty.

Dr. Susan Nitzke, UW-Madison Department of Nutritional Sciences, continues her leadership for research affiliated with a five-year multi-state Hatch and Extension project on Stages of Change and fruit/vegetable behaviors of young adults. She is the principle investigator for a complementary multi-state IFAFS project that applies Stages of Change and other constructs of

the Transtheoretical Model to a set of tailored newsletter-based interventions that is being extensively evaluated to determine the effectiveness of this approach in reaching economically disadvantaged young adults. For this study, Wisconsin:

- Developed a password protected website for principal investigators to share grant-based information on progress reports, minutes, meetings and events, and internal contact information.
- Recruited 212 study participants of which 206 (97.2%) completed the first survey.
- Followed payment procedures and traced subjects whose initial phone numbers lapsed. In January, Wave 2 surveys were completed for 159 participants (77.2% of Wave 1).
- Worked with the University of Wisconsin-Madison's Survey Center to disseminate bi-monthly quota management reports that assessed participant involvement from all research partners in 10 states. In March 2004, Wave 3 final surveys began.
- Took the lead in assessing the educators' evaluations of the educational phone call component of the intervention gathered via an online survey.
- Partnered with other states to analyze the cost-effectiveness of the educational phone calls as part of the intervention process.
- Took the lead in organizing and cleaning Wave 1 and Wave 2 data and performed mid-point analysis.
- Worked with a multi-state team to develop an internet-based system for presenting messages from this intervention in a more practical format for widespread use at the community level.
- Organized and participated in the NC219 annual meeting in Chicago, October 8-12, 2003.

Impact

Stage-tailored, individualized intervention materials provided to young adults were found to improve consumption of fruit and vegetables. These findings will enable nutrition educators to provide more effective programs to promote nutrition-related lifestyle behaviors. The materials and assessment methods are being adapted to promote increased fruit and vegetable intake on-line.

Publications

Journal Articles

Chang, MW, Baumann LC, Nitzke S, Brown R. Predictors of fat intake behavior differ between normal weight and obese WIC mothers. American Journal of Health Promotion (in press).

Chang MW. Brown RL. Nitzke S. Baumann LC. Development of an instrument to assess predisposing, enabling, and reinforcing constructs associated with fat intake behaviors of low-income mothers. Journal of Nutrition Education & Behavior. 36(1):27-34, 2004.

Chang MW. Nitzke S. Brown RL. Baumann LC. Oakley L. Development and validation of a self-efficacy measure for fat intake behaviors of low-income women. Journal of Nutrition Education & Behavior. 35(6):302-7, 2003.

Nitzke, S. N., K.R. Kritsch, B. Lohse, T. Horacek, A. White, G. Greene, C. Georgiou, N. Betts, L. Boeckner. Extension and research professionals join forces to address a critical nutrition issue. JOE. 42(5), October 2004. The online Journal of Extension is available at www.joe.org/joe/2004october/iw1.shtml

The F&V Connection to feeling good and looking hot. The Initiative for Future Agriculture and Food Systems (IFAFS) Multi-state Research Team. Supported by the USDA grant to Iowa State University, Kansas State University, University of Maine, Michigan State University, University of Nebraska, Oregon State University, University of Rhode Island, South Dakota State University, Syracuse University, Tuskegee University and the University of Wisconsin-Madison. URI NFS Department 2003.

Abstracts

Chang M, Nitzke S, Brown R, Baumann L. Self-efficacy in relation to fat intake behaviors of Black and White obese WIC mothers. Society for Nutrition Education Annual Conference, Salt Lake City, UT, July 2004.

Nitzke S. Working with an interdisciplinary team to develop and test a theory-based intervention. National Extension Outreach Scholarship Conference, Madison, WI, October 2003.

Stotts J, Lohse B, Shafer K, Boeckner L, Kritsch K, Nitzke S. Educational telephone calls in a stage-of-change tailored intervention serve dual purpose as an intervention and in-progress quality measure. Experimental Biologists Annual Conference, Washington DC, April 2004.

Other

Krueger, Kelly. Assessment of educational phone calls as a critical component of a nutrition intervention based on the Transtheoretical model. University of Wisconsin-Madison College of Agriculture and Life Sciences Undergraduate Honors in Research Senior Thesis and Symposium. May 14, 2004.

Dr. Sherry Tanumihardjo, Department of Nutrition Sciences, is finishing a multi-state project this year which was funded by the USDA-IFAFS from 2000-2005. This was a research-extension integrated grant and Dr. Philipp Simon, USDA geneticist, was the Project Director. The research of Tanumihardjo, determined the bioavailability of various carotenoids from specialty carrots of multiple colors. The extension component involved two inservices titled, "What are functional foods?" and "Nutrient Bioavailability." These were offered throughout the state in the past few years. This included both PowerPoint presentations and outreach materials. One of these materials, a produce booklet entitled, "How does your garden grow?" resulted in more than 40,000 requests and is now available to all states in the form of a CD.
The newest award is a USDA-NRI funded grant research-extension integrated grant from 2004-2008 entitled, "Promotion of high vegetable consumption as a weight-loss strategy and general well-being." Dr. Tanumihardjo is the project director for this grant. The research component

continues until 2006 and then a comprehensive extension component will be developed for widespread use.

Budgeted: $26,189

Goal 4: Greater harmony between agriculture and the environment

Executive summary

Situation:
Better use of natural resources and protection of the environment continue to be priority concerns in Wisconsin. Agriculture and residential areas compete for the same land, citizens demand safe drinking water, and communities must comply with regulatory requirements. When 4 of the 5 manure spills reported in spring 2002 were by for-hire applicators with less than 2 years experience, their professional association turned to UW-Extension for help.

Extension response:
UW-Extension Cooperative campus and county faculty and staff work with many partners to help Wisconsin agricultural communities become better stewards of the land and resources. Research-based education has focused on best practices for managing cropland pesticides and nutrients, mainly manure. As a result, producers have saved money while reducing environmental impacts. Newer research shows that changing livestock rations can reduce excess nutrients they generate, such as phosphorus. This has become a newer area for educational programs.
Another new audience is the growing Professional Nutrient Applicators Association of Wisconsin (PNAAW), founded in 2002 with UW-Extension help. Custom manure applicators handle around 40 percent of the state's dairy and livestock manure.
UW-Extension Agriculture and Natural Resources Extension (ANRE) and Community, Natural Resources and Economic Development (CNRED) campus and county faculty worked with PNAAW and manure handling regulators to develop certification training. This program is improving professional practices, reducing risks, and being adapted for neighboring states.

Impacts:
While many UW-Extension statewide self-directed teams address environmental issues, the Nutrient Management Team and Basin Educators Stormwater Control Team report the following impacts of educational programs during 2004.

Total expenditures
(By FTEs and Source of Funding)

FTEs	Smith-Lever Act	State match
67.75	$959,515	$6,855,038

Scope of impact: State specific

Key Theme: Agricultural Waste Management, Water Quality

New certification program helps custom manure applicators adopt safer practices, develop a code of ethics and standards of beconduct

Situation:

Managing manure is a major public relations and environmental challenge for Wisconsin farmers and the custom manure applicators they hire. Custom manure applicators handle around 40 percent of state dairy and livestock manure, making this growing industry a significant partner in nutrient management.

While properly handled manure can add nutrients to soil for crop production, spilled or improperly applied manure can contaminate food crops, streams, and drinking water. During March 2002, 4 of the 5 major manure spills reported (80 percent) were by for-hire applicators with less than 2 years of experience. The Professional Nutrient Applicators Association of Wisconsin (PNAAW) turned to their UW-Extension advisors for help. They asked for a certification program to improve professionalism among their members.

Extension response:

The UW-Extension Cooperative Extension Nutrient Management Team is developing an integrated approach to provide applied research and education for sustainable nutrient management on Wisconsin farms, combining the interests and skills of personnel from UW-Extension, governmental agencies, and the private sector to increase custom manure haulers knowledge and ability to follow nutrient management plans andregulations.

In 2003, the Nutrient Management Team Custom Applicator Subcommittee — county crops and soils agents Jerry Clark (Chippewa) and Ted Bay (Grant), plus CNRED state specialist Kevin Erb, conservation professional development and training coordinator (UW-Green Bay) — worked with PNAAW and Wisconsin Department of Natural Resources (DNR) staff to develop and pilot-test best practices education with 12 commercial manure applicators.

The professional association wants all custom application firms to achieve three levels of certification:

- **Level 1 certification** — All business owners and employees have achieved a basic understanding of manure spill prevention, response and cleanup, common sense handling and application, and Wisconsin nutrient management regulations.
- **Level 2 certification** — All business owners and crew supervisors have successfully completed 8 hours of advanced training based on the Midwest Plan Service national LPES curriculum, Success is measured by quizzes and exams at the training or on-line following training.
- **Level 3 certification** — Custom application firms develop and implement an Environmental Management System (EMS).

The UW-Extension developers assessed the pilot project and consulted with their colleagues in Illinois and Michigan. They then adapted the certification program to address the need for train-the-trainer education, so startup manure applicator firms could prepare their crews and “hit the ground running.”

In 2004, the Custom Applicator Subcommittee developed a professional training packet for new firms. Educational materials include presentation outlines and highlights, exams and grading sheets for instructors, a handout explaining the training program, and fact sheets on key points for employees.
For the PNAAW Board of Directors, the UW-Extension subcommittee provided principles and guidelines for developing professional ethics and standards. A PNAAW board committee then developed a 7 point code of ethics and accompanying standards of conduct.

Impacts:
While evaluation cannot pinpoint manure spills prevented, less than 20 percent of major spills reported July through December 2004 involved a custom manure applicator (compare to the worrisome 80 percent in 2002).
Train-the-trainer sessions in Brown, Chippewa, Grant and Marathon counties drew 40 people from 20 manure application firms. Including the initial participants, more than 100 employees of 40 firms have received these educational materials.
As a result of UW-Extension certification training during 2004:

- Agreements have been negotiated with insurance companies to secure a 10 percent discount on vehicle and liability premiums for custom manure applicators earning level 1 certification, and a discount of 10 to 40 percent for firms achieving level 3 certification.
- Ten of the first 12 Wisconsin firms trained in 2003 completed level 1 certification for all of their employees.
- Ten firms completed an Environmental Management System plan.
- Six firms have received their insurance discounts, saving from $900 to $4,800 per year depending on the firm's size.
- One insurance underwriter noted that his client reduced claimable incidents by 80 percent in the first year.
- For firms that completed their first year and continued into a second, their insurance discount increased as their risk of accident decreased.
- DNR spills coordinator Roxanne Chronart and animal waste specialist Dave Bougie have observed that custom manure applicators are reporting and handling incidents much more professionally.

In Southwest Wisconsin: Three business owners and 7 employees participated in the Dodgeville training. Pre- and post-training evaluation showed that this certification program:

- Increased applicator understanding of manure spill prevention, response and cleanup.
- Increased understanding of regulatory requirements of manure application.

In Chippewa County: Crops and Soils agent Jerry Clark trained 21 custom applicators representing 7 firms. All 21 successfully completed Level 1 certification. Through this train-the-trainer program:

- Crew supervisors trained another 6 employees.

- Certified firms reduced their environmental and vehicle liability insurance premiums — saving certified custom manure applicators $1,200 to $3,500 per firm per year:

  — Level 1 certification reduced vehicle liability premiums by 10 percent.

  — Level 3 certification reduced vehicle liability by 20 percent, and environmental liability premiums by 50 percent.

Key Theme: Nutrient Management, Water Quality

Calumet County producers develop nutrient management plans spend less on fertilizer, reduce contaminants in drinking water

Situation:

Some Calumet County cropland lies over shallow bedrock, which makes groundwater highly susceptible to contamination from surface runoff. A survey showed that nearly half of the area's wells (47 percent) were unsafe due to either nitrate or bacteria contamination.

While not all contaminants originate from area agriculture, extensive dairy and crop production contribute significantly to the problem. And while certain producers practice some form of nutrient management, such practices are neither widespread nor well-understood among others.

Research shows that producers save about $10 per acre by fully crediting the nutrient value of manure. By following nutrient management plans, producers apply just enough nitrogen and phosphorus at rates their crops can use, reducing leftovers that wash into streams and contaminate shallow groundwater.

For producers to create and follow sound nutrient management plans, they first need to understand basic practices. UW-Extension Cooperative Extension has the research base, expertise, networks and county faculty to provide the practical education producers need. These

Extension response:

UW-Extension research-based nutrient management education helps farmers manage their nutrient resources to maximize profitability and environmental protection. With community and agency partners, UW-Extension campus and county faculty and staff provide resources and assistance for developing nutrient management plans. Farmers learn best management practices for manure collection, handling, treatment, storage and land application, as well as application technologies.

County UW-Extension agriculture agent Matt Glewen collaborated with Calumet County Land and Water Conservation staff, and secured MALWEG grant funding to develop and implement nutrient management planning for those farming on shallow bedrock. The 10 producers in the program collectively manage more than 900 cows and 2,800 acres within the designated shallow bedrock area.

Early in fall 2004, Matt Glewen worked with these producers and area crop consultants to collect and analyze soil samples from the 2,800 acres of cropland. In late fall, the 10 producers and 5 crop consultants who worked with them attended two day-long workshops on the basics of managing nitrogen and phosphorus.

During winter, Matt Glewen weighed manure spreaders on each farm and discussed spreading options with each producer. Either he or a crop consultant worked on-farm with each producer to develop a nutrient management plan using the SNAP nutrient management software.

Follow-up visits with producers indicate that they are sticking to their nutrient management plans as they apply manure. Producers will be visited annually over the next 2 years, and will receive additional assistance revising nutrient management plans to reflect crop needs in changing rotations.

Impacts:
Producers completed nutrient management plans for their 2,800 acres of cropland.
Pre- and post-workshop tests showed that participants significantly increased their practical understanding of concepts crucial to nutrient management planning. This helps producers realize maximum nutrient value from their manure, thereby reducing purchased fertilizer inputs and increasing net profit.

Key Themes: Nutrient Management, Water Quality

On-farm research helps growers apply nitrogen only at rates corn can use, improving profitability, protecting the environment

Situation:
Wisconsin corn growers continue to look for ways to minimize production costs, yet maintain respectable yields and improve profitability. Farmers are also under increasing government scrutiny to minimize the risk of nutrients entering surface and groundwater and degrading the environment.
Combined with the increasing cost of nitrogen (N), these factors have growers asking UW-Extension whether they can reduce their N application rates to improve profitability.

Extension response:
Since 1998, Jefferson County UW-Extension crops and soils agent Matt Hanson has coordinated on-farm research to determine the economic optimum nitrogen rates (EONR) for corn. Studies have now been completed at 30 sites in Dodge, Jefferson, Rock, Walworth and Waukesha counties to compare results of both corn grown after corn and corn grown after soybeans across many soil types and environmental conditions.

These studies focused on side-dressing N to corn 12 to 20 inches high. During this growth stage, the crop has established a root system and can most efficiently use the applied N. Previous research documented that N applied from fall to planting is most at risk of loss by leaching or flooding. Side-dress applications of N to foot-high corn should minimize those losses. Matt Hanson's on-farm research has documented that the EONR for side-dress application is 40 to 60 pounds less than UW recommendations. Side-dressing N when the crop has established a root system and can most efficiently use the nutrient is key to reducing N application rates, maintaining yield, increasing profitability and protecting water quality.
UW-Extension soils specialist Larry Bundy presented these results to more than 180 producers during the 2004 statewide Soil Fertilizer Dealer meetings. Matt Hanson presented his findings at Agronomy Field Days, during Pest Patrol Crop Scouting meetings, in the *Agronomy and Agribusiness* newsletter that reaches more than 1,100 producers and agribusinesses in Jefferson and Waukesha counties, and statewide in the December 2004 *Wisconsin Agriculturist*.

Impacts:
At the 2004 price for N fertilizer, growers can save around $18 per acre by side-dressing N. An average size farm can save more than $2,000 per year on just the cost of nitrogen.
Formal and informal evaluations demonstrate that as study participants gain trust in the lower application rates, they have reduced their N application rates by 35 pounds on average.
Producers say N rate research has been the most valuable information they have learned. They have shared this information with other producers who are now side-dressing N and evaluating the cost savings of reducing rates on their own farms.
Key Theme: Water Quality

Northeast Wisconsin Stormwater Consortium:
Building a shared regional approach to managing stormwater

Situation:
In March 2003, new state rules (NR 216) took effect, directing designated communities to comply with federal stormwater regulations (EPA Phase II rules).
In Northeast Wisconsin, these rules affect 43 municipal entities, including towns, villages, cities and counties. In the midst of increased local responsibility and tight budgets, these new stormwater rules presented a challenge to local governments as well as an opportunity to build a regional approach to meet the regulatory requirements, save money, and improve stormwater management in the Fox-Wolf watershed.

Extension response:
UW-Extension faculty and staff worked collaboratively with colleagues and appropriate partners to address these local need. UW-Extension educators from four counties worked to develop and convene a partnership to meet these local needs.
Other partners include the Fox-Wolf Watershed Alliance (FWWA), Wisconsin Department of Resources (DNR), representative Cities and Counties, municipal sewerage districts, and consulting firms. This collaboration is called NEWSC — Northeast Wisconsin Stormwater Consortium. FWWA obtained two community foundation grants for initial funding.
Outagamie County UW-Extension educator Dave Muench provided leadership in developing and supporting NEWSC capacity:

- Researched other community stormwater collaborations;
- Helped organize and coordinate a broad-based steering committee, and identify the coalition's vision and mission..
- Led a focus group of city engineers, county departments, and key community professionals to assess

  — local concerns about managing stormwater.

  — what was already being done.

  — which needs could be met across communities.
- Developed to specific ally to address logistical issues and community concerns about how NEWSC would function.

In September 2004, NEWSC officially became a membership organization as a branch of FWWA, hired a part-time coordinator, and met with interested communities. FWWA has committed administrative support.

Impacts:
Quantitative data that indicate first year success include:

- Continued participation in meetings and work groups by interested communities.
- Number of member communities as of mid-January 2005:

  — 7 communities and 2 private organizations have paid membership dues to NEWSC.

  — 14 more communities have committed to pay membership dues.

NEWSC work groups are addressing Plan of Work items, and have:

- Analyzed proposed policy.
- Compiled written comments on the DNR NR 216 Permit process and application.
- Organized review of proposed guidelines for stormwater rules.

The NEWSC staff person delivered work group comments to the DNR public hearing and for the record, saving staff time and taxpayer dollars.

Goal 4

Evidence: Campus and county-based faculty and staff report their work against desired outcomes through Cooperative Extension's Planning and Results System (PRS). They also submit more detailed success stories of their work for the PRS database. The insurance companies providing discounts on liability insurance conduct annual reviews of all certified custom manure applicators.

Evaluation of the success of multi-state and joint activities

Kevin Erb, CNRED state specialist, coordinates an interagency effort to increase professional practices among the growing custom manure application industry. Piloted in 2004, this 3-level certification training has now been expanded to 2 other Midwest states under a CSREES 406 Water Quality grant.
In 2004, the statewide UW-Extension Nutrient Management Team Custom Applicator Subcommittee — county crops and soils agents Jerry Clark (Chippewa) and Ted Bay (Grant), plus Kevin Erb, CNRED conservation professional development and training coordinator (UW-Green Bay) —assessed the pilot project and consulted with their colleagues in Illinois and Michigan. They then adapted the certification program to address the need for train-the-trainer education for startup manure applicator firms. Evaluation and impacts of Wisconsin certification training are documented above under Goal 4 key themes.
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The Wisconsin train-the-trainer model is now being adapted for Michigan and Illinois. Ohio brought together an interagency/industry team to develop their own program based on UW-Extension's, for trainings in 2005.

Budgeted: $176,249

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

Executive summary

Situation:
Adult leaders and decision-makers continue to recognize that young people are valuable community resources and potential leaders, not simply consumers or recipients of services. Many community-based organization boards are beginning to involve youth as partners in planning, decision-making and ongoing work.
While adults may desire this kind of youth participation, they typically lack the knowledge or experience in how to effectively engage youth in community contribution. Young people also require additional skills and experiences that enable them to participate effectively in community decision-making. Government and community-based organizations need models and assistance in creating youth roles that have the requisite policy and practice support for sustainability.

Extension response:
UW-Extension Cooperative Extension campus and county 4-H Youth Development faculty and staff continue to focus educational programs on expanding the role of youth as community leaders and active citizens.
The Youth in Governance initiative is a statewide research-based educational program to involve youth in civic life and to encourage adults to share power and decision-making with youth. This includes providing youth with training and experiences with democratic practices, engaging youth in community decision-making and community governance, working with elected officials to establish youth positions on public boards and councils, sitting on juries hearing juvenile misdemeanor cases, and training adults on effectively working with youth as partners.

Impacts:
The statewide 4-H Youth Development self-directed Youth Voices in Community Action & Governance Team reports the following impacts of educational programs during 2004.

Total expenditures
(By Source of Funding and FTEs)

FTEs	Smith-Lever Act	State match
5.80	$82,143	$586,852

Scope of impact: State specific

Key Themes: Leadership Training and Development, Youth Development / 4-H
Youth advising government officials and other public decision-makers communicate more effectively with adults, share valuable insights

Situation:
Youth who get involved in their communities make significant contributions to the quality of life and are more likely to be active, productive citizens as adults. When adults and young people cooperate on civic work, youth develop citizenship skills and both youth and adults gain an appreciation for the contributions of youth. However, administrative rules, meeting times, and adult misconceptions of youth contributions can be barriers to participation.

Extension response:
UW-Extension 4-H Youth Development (4-H YD) campus and county faculty and staff work to expand the role of young community leaders and active citizens. This includes providing training and experiences with democratic practices, engaging youth in community decision-making and community governance, working with elected officials to establish youth positions on public boards and councils, and training adults on effectively working with youth as partners.

Impacts:
Statutes and policies have been changed in 7 counties to permit young people under age 18 to be seated on local government committees. Youth now serve on local government boards and committees in these counties.

- **In Douglas County:** Four youth serve as members of the Superior City Council and 6 youth serve on the Douglas County Board of Supervisors. Public officials have indicated their satisfaction with the process, and recognize that young people can articulate issues and add valuable contributions in local government decision-making. The United Way Board of Directors has also agreed to appoint a youth member to serve on their board.
- **In Jackson County:** Five youth serve on the Extension Education Committee, a subcommittee of the County Board of Supervisors. These youth state that they:

  — Developed better communication skills.

  — Are more likely to state their opinion in a group.

  — Communicate with adults more effectively.

  — Gained a better understanding of county government.

  As a result of this successful initiative, the County Law Enforcement Committee added 3 UW-Extension-trained youth members who provide input to 5 county board members.
- **In Milwaukee County:** Functioning as a subcommittee of the Milwaukee County Board of Supervisors, 28 youth have been sworn into service as Milwaukee County Youth Commissioners.
- **In Vernon County:** Five youth serve on the Kickapoo School Board budget, policy, building/grounds/transportation and post-graduate survey committees, attend regular board meetings and participate in public discussion. Three youth serve on the Viroqua

Partners Board, and one joined the Chamber of Commerce Syttende Mai Board of Forward Westby. Twelve adults participated in preparing for youth to serve as equals on these boards.

- **In Washburn County:** The County Board of Supervisors created a committee that has approved adding three youth as members of the County Board beginning April,2005. They plan to pay youth the same per diem as adult board members.
- **In Waukesha County:** The New Berlin Youth Advisory Board surveyed 1,700 local middle and high school students, and found 71 percent wanted the city to establish a teen center. Youth board members presented these findings to the New Berlin Common Council, and are now working to build a comprehensive proposal for city funding.
- **In Waupaca County:** After 4-H and CNRED training in land-use planning at Waupaca High School, three young people are participating actively in each of 2 different township board committees and the county executive committee for the Comprehensive Planning Process. One young person serves on a committee drafting a public survey, and has worked to ensure that youth perspectives will be gathered.

  Youth serve on 7 Waupaca City Council advisory committees. City ordinances were changed to permit youth membership and voting rights. Two youth also serve on Waupaca County Board committees, and one youth serves on the board of the Waupaca Community Foundation.

Key Themes: Character, Youth Development / 4-H

Appearing in Teen Court before a jury of their peers reduces repeat offenses among youth, improves teen jurors' communication skills

Situation:

About two-thirds of Wisconsin juveniles who get in trouble with the law are likely to become repeat offenders — back in juvenile court again before they become adults. Studies have shown the powerful benefits both to youth and their communities when young people play meaningful civic roles. Nationwide, more than 1,000 Teen Courts offer school-age youth seats on their juries.

Extension response

UW-Extension Cooperative Extension plays a major role in developing new Teen Courts and training youth jurors. County UW-Extension youth development agents and campus 4-H Youth Development specialists have helped create 34 Teen Courts now at work in 16 Wisconsin counties. They also provided educational programs and materials in dozens of other communities, and more Teen Courts form every year.

In Teen Court, trained middle and high school jurors hear cases of other juveniles cited for first time misdemeanors such as shoplifting or vandalism. Where traditional juvenile courts might simply impose a small fine, Teen Courts are empowered to "sentence" offenders to:

- Perform community service.
- Attend classes relevant to their offenses.
- Write letters of apology to the people they have wronged.

Impacts:
In the 16 counties with Teen Courts where teen jurors hear cases and have the authority to determine penalties for first-time juvenile offenders, those "sentenced performed community service valued at an average of $4,500 per county. While about two-thirds of teens who appear in traditional juvenile courts reappear for later offenses, only 13 percent of young people who appear in Teen Court become repeat offenders.

- **In Columbia County:** UW-Extension established and trained a Teen Court to begin hearing cases in 2005.
- **In Lincoln County:** The Lincoln County Teen Court Steering Committee has met monthly since March 2004,, chaired by 1 adult and 2 youth. In all, 30 adults and 23 youth have been designing a Teen Court that will begin in 2005.
- **In Oconto County:** Teen Court members became concerned over high school expulsion policies, and several joined a task force that presented recommendations to the school board. Having garnered board support, they will form a student-adult group to implement their ideas.
- **In Polk County:** UW-Extension-trained youth proposed their service to the Unity school board, and gained board approval. In fall 2004, these youth began hearing Teen Court sessions on truancy issues.

One Teen Court juror commented on personal benefits of serving:
"Being on the Teen Court panel is an excellent experience. Not only is it a good thing for college applications, it helps put people on the right track, like it helped me."

Key Theme: Youth Development / 4-H
Expanding 4-H Leader Boards forms more youth-adult partnerships sharing decision-making, shaping program direction
Situation
Before 1997, volunteer 4-H Leader Boards were adult domain — decisions and directions for youth educational programs were in adult hands. Then research showed how youth make valuable contributions to joint youth-adult decision-making, and even suggests more adults would be likely to participate when young people are involved.

Extension response:
UW-Extension 4-H Leader Boards are one of the most significant ways that 4-H volunteers support and set direction for county 4-H programs. In most, but not all, counties, 4-H Leader Boards are also an important venue for youth-adult partnership. Some Wisconsin counties have a long tradition of youth serving on 4-H Leader Boards and others are taking the first steps. Campus and county 4-H Youth Development faculty and staff provide training and support to youth and adult members. More than 14,500 4-H adult and youth volunteers work with more than 33,000 4-H members. Training, resources and support are critical to their continued success, and essential for long-term sustainability of the 4-H Youth Development program.
As youth become stakeholders and change agents in communities and organizations, they bring perspectives, knowledge and relationships that lead to better decisions and more productive

action. UW-Extension trained and supported youth and adults to overcome the barriers to effective partnership.

- **In Eau Claire County:** Through the 4-H Public Adventures process, 4th and 5th grade students identified a community project that met a local need, developed, and with adult help, carried out a plan resulting in a public bench and area that memorialized a resident who had been a friend, mentor and advocate for the youth of the community.

- **In Fond du Lac County:** When the Fair Board sought more input from young participants, 4-H youth took on leadership for an event, and attended meetings to provide youth perspective and learn fair operations.

- **In Iron County:** As part of local comprehensive planning, 40 students photographed how they would like their community to look in 20 years — and how they would not like it to look. They arranged each set of photos on boards, and presented their findings before 25 adult leaders.

  UW-Extension led a youth survey of after-school needs and formed a steering committee of 17 adults and nine youth. The group now sponsors an after-school program. UW-Extension led a youth survey of after-school needs and formed a steering committee of 17 adults and nine youth. The group now sponsors an after-school program.

- **In Jackson County:** As a result of UW-Extension youth-adult partnership training and ongoing team building, the community coalition Together for Jackson County Kids:

  — Involves youth as voting members.

  — Conducted study circles on youth issues co-facilitated by youth and adults.

- **In Kenosha County:** The Youth as Resources board includes 7 youth and 4 adults who conduct community education and raise funds for youth-led community service projects.

- **In Oneida County:** UW-Extension led a teacher and 3rd to 5th grade students through a planning process for an environmental education facility, for which the students demonstrated ownership by committing to work days.

- **In Pierce County:** Three 4-H Community Clubs wrote proposals and received grants to work on preventing tobacco sales to minors. They developed a variety of educational approaches including poster campaigns, postcard reminders of the rules for sales of tobacco to minors, and “Thank you for doing the right thing” artwork for retailers in three cities.

- **In Portage County:** Twenty-five teens became members of the Volunteer Center Youth Advisory Committee. The group has organized fundraisers for local organizations, and is planning recruitment and training for youth volunteers in the community.

- **In Shawano County:** Working with adults on fundraising and connecting with local government, the 4-H Skate Team secured land from the city to create a permanent skateboard park.

- **In Sheboygan County:** Youth worked with 4-H and legislative groups to interview and offer guidance on selecting the 4-H program coordinator.

- **In Taylor County:** Eight youth and one adult director formed the Youth Board for Big Brothers / Big Sisters of Taylor County. Also:

  — Six youth formed a committee of the Chamber of Commerce to do a 4th of July fundraiser.

  — Four youth and one adult work with the Chamber of Commerce.

  — Three teens became full voting members on the Taylor County Fair Board.

- **In Waupaca County:** Youth participate and contribute to decisions in many sectors including:

  — Executive — city council committees; appointed boards.

  — County cross sectional coalitions — tobacco, nutrition and activity coalitions,

  — School improvement work community service committee.

  — 4-H Leaders Board.

  — Non-profit — trails, triathalon, park foundation, community foundation.

Statewide, Youth as Partners in Civic Leadership meetings included 7 adults and 12 youth representing 9 county and state organizations, 3 USDA-funded Extension EYSC sites, 4-H Youth and Adult Leader Councils (YLC president on committee to allocate Program Area Special Funds), and the Wisconsin Department of Public Instruction.

- **In Calumet County:** . Four high school students plan, implement, and evaluate the Youth Center Without Walls program under the guidance of an adult college intern. In 2004, Youth Center Without Walls provided four activities for 7th to 8th grade students.

- **In Columbia County:** A local government project engaged 4-H youth in participating at meetings, interviewing elected officials, and providing information to 7 town boards, 2 villages, 2 cities and 28 county supervisors.

- **In Dane County:** Seven 4-H members of the Public Adventures group organized the Amazing Government Race for 30 4-H youth who learned experientially about county government offices.

- **In Oneida County:** High school students organized a community forum on school issues, and a legislative forum to encourage young people and community members to get out and vote. Election officials reported 18-year-olds participating in spring county elections for the first time in memory.

- **In Vilas County:** Three high school youth participate in the VILAS Vision program, a formerly all-adult leadership development program. They will participate in the group community service project and help with the youth issues training.

- **In Winnebago County:** 4-H Youth Development faculty trained AmeriCorps volunteers from 24 sites in Public Adventures. Each member will develop service learning and civic involvement projects with youth partners in out-of-school settings.

The UW-Extension Central District received a Centennial Fund grant to conduct a youth-adult partnership capacity-building process. 4-H Leader Board members conducted a self-assessment of their youth-adult partnership practices, sent representatives to a January 2005 workshop, and will follow up with training, examination of board policies about youth involvement,.

Goal 5

Evidence: Campus and county-based faculty and staff report their work against desired outcomes through Cooperative Extension's Planning and Results System (PRS). They also submit more detailed success stories of their work for the PRS database.

Evaluation of the success off multi-state and joint activities

Two Wisconsin 4-H Youth Development staff have been a part of the national Youth In Governance development effort — one serving on the national steering committee, and one on the research and evaluation team. Most of the 2004 effort revolved around developing a national strategy.

Three Wisconsin staff also developed tools for supporting Youth in Governance activities, which have been shared with national staff.

Budgeted: $41,818

2. Stakeholder Input Process

Stakeholder input process

1. Actions taken to seek stakeholder input that encourages their participation:
   Multiple approaches were taken to seek stakeholder input. The approaches included formal surveys, focus groups, key informant approaches, advisory councils (collaborating groups, agencies, and organizations) and combinations of the preceding methods. Efforts were made to ensure that the stakeholders involved were representative of the total community in terms of ethnicity, geographic location, family status, income level, age, gender, disability status, and users/nonusers of existing educational programs.

2. Process used to identify individuals and groups who are stakeholders and to collect input from them:
   A ninety-four page booklet " Guidelines for Program Priority Setting," an eighty-six page booklet "Trends Analysis," and a video tape "Planning for Our Future" were developed by a statewide committee of county-based faculty/staff and campus faculty with research and extension appointments. The materials were used to train Cooperative Extension county-based faculty/staff and campus-based faculty with research and extension appointments. The materials were also used with county government oversight committees and advisory committees to help them better understand the importance of seeking a broad base of stakeholder input at the community level. The materials were distributed in print form and are also available on the WWW at the following URL:
   http://www.uwex.edu/ces/pdande/ProgramPlanning/statewide.html.

3. How was collected input considered?
   Input from the local stakeholders was used to identify local issues and concerns. The local issues and concerns were gathered on a statewide basis and made available for review by all county-based faculty/staff and campus-based staff with research and extension appointments. The information is available in the Cooperative Extension Planning and Results System at the following URL: http://www.uwex.edu/ces/prs/. The county "issues and concerns" and the "Trends Analysis" document noted above served as the foundation for the creation of programming teams made up of county-based faculty/staff and campus-based staff with research and extension appointments. The teams prepared a plan of work that identified resources that were available or would be developed by the teams. The teams are identified at the following URL:
   http://www.uwex.edu/ces/admin/2004Teams/TEAMDEFS.html. The team plan of work and related materials are intended to be a dynamic document that will change and evolve as additional stakeholder input is provided.
   At the county level the stakeholder identified "issues and concerns" and the plans of work/resources identified by the statewide teams served as the basis for identifying an initial list of county specific program priorities. The priorities are adapted as additional county stakeholder input is received.
   On a four-year basis stakeholder input is requested in a rigorous and formal process at the county level and on a statewide basis. Input is also requested on a continuous basis, using many of the same approaches identified above. The continuous input is analyzed at the county level and provided to the statewide teams via the WWW sites maintained by each team. Additional input is also provided via participation in team meetings, seminars, audio conferences, and newsletters. Stakeholder input continuously shapes the plans of work and

the program priorities of county-based faculty/staff and campus-based faculty with research and extension appointments.

The stakeholder input process is very helpful in refocusing and reaffirming priorities on an ongoing basis. The process is also critical in identifying emerging issues. However, some stakeholder groups have had difficulty seeing beyond the critical issues they face today. As a consequence, the "Trends Analysis" document prepared by county-based faculty/staff and campus-based faculty with research and extension appointments has been very important in helping stakeholders see beyond their immediate crisis and strategically plan for the future.

3. Program Review Process: Merit Review

Wisconsin Cooperative Extension has made no significant changes in their merit review processes since their 5-Year Plan of Work.

4. Evaluation of the Success of Multi and Joint Activities

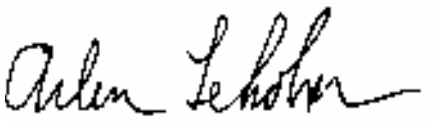
This information is listed under each Goal.

5. Multi-state Extension Activities

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

Institution UW-Extension
State Wisconsin
Check one: _X_ 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
Goal 1	$0	$50,573	$163,696	223,005	$144,211
Goal 2	$0	$ 7,083	$ 13,650	9,512	$ 33,786
Goal 3	$0	$13,940	$ 48,364	14,437	$ 26,189
Goal 4	$0	$66,937	$ 50,391	46,520	$176,249
Goal 5	$0	$36,484	$ 36,484	26,943	$ 41,818
Total	$0	$175,017	$312,585	$320,417	$422,253



Arlen Leholm, Dean and Director

3-31-05
Date

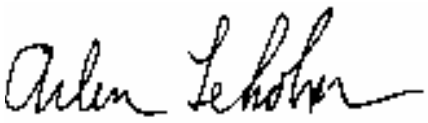
Form CSREES-REPT (2/00)

6. Integrated Research and Extension Activities

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 UW-Extension
State Wisconsin
Check one: ___ Multistate Extension Activities
___ Integrated Activities (Hatch Act Funds)
_X_ Integrated Activities (Smith-Lever Act Funds)
Actual Expenditures

Title of Planned Program/Activity	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004
Goal 1	$0	$500,000	$500,000	$500,000	$500,000
Total	$0	$500,000	$500,000	$500,000	$500,000



Arlen Leholm, Dean and Director

3-31-05
Date

Form CSREES-REPT (2/00)