

A Report to Our Partners



2007 Programs

MICHIGAN STATE
UNIVERSITY
EXTENSION



If you and I crossed paths this year, chances are good that our conversation included some aspect of gardening. I'll confess that I'm not a practicing gardener, but I remember fondly learning how to garden from my father. Preparing the soil, planting the seeds or seedlings, weeding, scouting for pests, harvesting the vegetables and then tilling the residue back into the soil taught me the importance of stewardship and the joy of seeing healthy plants and sharing the produce with family and neighbors. In many communities, gardening is much more than a creative outlet. It's not just about growing tomatoes. It's about creating opportunities for families that have long suffered from lack of access to fresh produce and giving communities a chance to thrive by fulfilling the most basic of human needs.



In many ways, the gardening projects that MSU Extension faculty and staff members conducted over the past few years are metaphors for the entire organization. Our job is to plant the seeds so other others may reap the bounties of the harvest.

This Report to Our Partners is representative of the many programming efforts around the state that help develop entrepreneurs, promote healthy lifestyles, prepare for the expanding bioeconomy, educate and support decision makers, and build leaders. It is by no means a complete list of accomplishments. Nor it is an overview of all our programming. It is simply a glimpse into how MSU Extension teams up with organizations throughout the state to have a positive effect on the lives of Michigan residents.

As you read these articles, I hope you'll take note of the life-changing seeds that MSU Extension planted in communities throughout the state. And I hope you'll continue to support the groundbreaking efforts that make Michigan bloom.

Sincerely,

A handwritten signature in black ink, appearing to read 'Thomas G. Coon', enclosed within a dashed-line oval.

Thomas G. Coon
Director
MSU Extension

OUR KEYS TO SUCCESS

All MSU programming is focused around five strategic priorities, determined by Michigan residents during a lengthy input process that ended in 2005. This key can help you see how each story in this publication fits into at least one of those priority areas.



Developing entrepreneurs



Promoting healthy lifestyles



Preparing for the expanding bioeconomy



Educating and supporting decision makers



Building leaders for today and tomorrow



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Making the desert bloom

Detroit was proclaimed a “food desert” in 2007, but the influx of family and community gardens may soon change that.

by Amy Whitesall

Each summer, Lisa Yamin, 45, used to squeeze whatever vegetables she could out of her Bloomfield Hills yard. Then she discovered the community gardens at Charles L. Bowers School Farm — 70-some garden plots 25 by 25 feet set aside for people with an itch to grow things and no place to plant them.

“When I discovered all that space out there, I thought “This is for me!” she said. “They fertilize it and till it; it’s the best.”

Yamin’s not alone. A growing number of southeastern Michigan gardeners are putting sweat equity into public spaces and quite literally reaping the rewards — fresh food for their families and communities. But that’s just the beginning.

“Gardens are really a great way to address a lot of problems that are very common to urban areas,” said Kristine Hahn, MSU Extension horticulture edu-

cator in Wayne County. “They’ve been shown to reduce crime. They take a vacant lot — of which there are at least 60,000 in the city — and instead of becoming a crime magnet and an area for dumping, it’s a place of beauty. People are out there doing healthy things, and neighbors are out there talking to each other.”

That’s exactly what happened in the Detroit 1700 garden, a formerly weed-filled lot on Forest near Van Dyke in a neighborhood that’s seen better days. Community leader Mike Wimberley, of Friends of Detroit and Tri-County, initiated the garden and recruited MSU Extension Master Gardeners to establish it. Its plantings represent the flora that explorer Antoine Cadillac described to the king of France in a letter in 1701, the year he founded the fort and settlement that would become Detroit. The history is interesting; but the present-day effect has been dramatic.

Now sections of prairie and a Three Sisters Garden of corn, beans and squash provide cover for pheasants. Butterflies float through the herb garden, and bees buzz around apple, pear and plum trees. And around the garden, neighbors have begun to talk more, to watch out for one another and to pick up litter. Property owners on both sides of the garden have started fixing up their houses. Showing that someone cares about the neighborhood has helped persuade others that it’s worth caring about.

“The garden has done a couple of things,” said Wimberley, who lives nearby. “It’s beautiful, so it gives people some beauty, and in a city that’s like really hard and gritty, it’s given people a slice of nature. There’s been a marked uptick of civility in the neighborhood — people say to me, ‘Wow, it really feels like a neighborhood.’ The revitalization effort has gotten deeper than ‘I like playing in the dirt.’”

A place to grow

Spend enough time in the garden and you might just learn something.

In Oakland County, people serving court-ordered community service for misdemeanors can work in community gardens run by the corrections department and the MSU Extension Master Gardeners. The gardens produced 14,000 pounds of food — which was donated to food banks, soup kitchens and senior citizens — in its first year.

Master Gardeners support a similar program at the Goodwill Garden in Heritage Park in Taylor.

“I meet people that have a lot of knowledge and I meet some who have none, but by the time they’re done, they have all learned something,” said Oakland County community corrections specialist Linda Muiter-Carmean, an advanced Master Gardener.

With the help of a local church, Earthworks, a program of Detroit’s Capuchin Soup Kitchen, runs a Growing Healthy Kids program that teaches 5- to 11-year-olds how to grow a garden, then takes them to the kitchen to cook what they’ve grown. Earthworks, a partner with MSUE in the Garden Resource Program Collaborative, also grows food for Capuchin and WIC vegetable markets. Its youth farm stand program, like similar 4-H youth entrepreneurial programs in southeastern Michigan, helps young people grow fresh produce in the city and sell it at local farm stands and markets.

The community gardens at Bowers Farm actually grew out of the farm’s original mission as a “land laboratory” for the school district’s students. Younger students learn about plants and animals; older students can explore technology and animal science. And each third-grade class plants a garden plot, tending and harvesting it over the summer.

Over time, the farm added community plots to the class gardens, renting



Property owners on both sides of the garden have started fixing up their houses.

the space for \$40 a year. Bloomfield Hills school district residents get first dibs; people who live outside the district snap up the remaining plots on a first-come, first-served basis.

Last year’s third-graders included Lisa Yamin’s youngest daughter, Isabelle. Isabelle’s been gardening with her mom for years, and her older sister Grace, 16, raises prize-winning vegetables on a plot of her own. Gardening with her classmates just made it that much better. This year, 9-year-old Isabelle took on her own garden plot and raised a crop of produce that earned her Gardener of the Year honors at the Oakland County 4-H Fair.

“We have a lot of families that actually garden together,” said farm manager Holly Glomski. “It’s really rewarding to see the parents helping the children, and the little kids out there with hoes or harvesting. It gives you such a sense of where your food comes from and how much work it takes.”

Making the desert bloom

In June 2007, a LaSalle Bank study tagged Detroit as a “food desert,” noting that 550,000 city residents have to travel at least twice as far to get to a mainstream grocer as they do to get to a convenience store.

But at the time the report came out, this season’s fresh produce was already growing in family, school and community gardens across the city — each plant a little green drop in the desert. The Detroit-based Garden Resource Program Collaborative — a joint effort of MSU Extension, the Detroit Agriculture Network, The Greening of Detroit and Earthworks — provides low-cost training, seeds and plants, lends tools and gives gardeners access to compost. It’s all part of a three-year-old program called Urban Roots.

MSU Extension and its partners currently work with 220 family gardens, 18 school gardens and 114 community gardens in the city of Detroit. That’s up significantly from just three years ago, when participants included 39 community and school gardens combined and 41 family gardens.

“Community gardening is growing by leaps and bounds in the city,” said Hahn, whose introduction to Detroit’s community gardens came through the Detroit Agriculture Network’s community garden bus tour, an annual early August showcase of Detroit’s best community gardens.

“It’s very hopeful,” Hahn said. “A lot of people see all the decay and get very depressed and/or disgusted. This is really such a ray of hope. I went [on the garden bus tour] in 2000, and I was just so geeked after that. That’s what inspired me to develop Urban Roots”

Through the nine-week Urban Roots classes, Hahn teaches prospective urban gardeners the horticultural ins and outs while others cover equally important topics such as how to organize volunteers and find community partners. Community gardens don’t usually fail because things won’t grow, Hahn explains — they fail because of organizational problems. And in a city that doesn’t officially support urban agriculture, zoning and water access hurdles can add to the burden.

Leah Retherford was finishing a degree in applied physics at Wayne State University when she started gardening with a friend at Birdtown Garden at Cass and Peterboro. After one thrilling year of growing their own food and a second, more overwhelming year in which they had too much work spread between too few volunteers, Retherford took the Urban Roots class. It not only opened her eyes to aspects of garden management she'd never considered before — it opened a career path. Retherford now coordinates work groups and runs education programs for The Greening of Detroit and has completed an apprenticeship with the MSU Student Organic Farm.

“In a lot of ways that Urban Roots class was like the first step,” she said.

And in Detroit, where major grocery stores are very few and very far between, collaborative-supported community gardens give people in the city access to good, fresh food. One collaborative work group developed a “Grown in Detroit” label to promote locally grown fruits and vegetables sold at five farmers’ markets this past summer.

“Urban gardening is one of our best ways to provide the city with food security,” Hahn said. “We could definitely use some support for it in the city of Detroit.”

With abundance, of course, comes the eternal question, “Um, does your family eat zucchini?”

In Bloomfield Hills, Lisa Yamin’s plots have produced tomatoes, cabbage, beans, peas, onions, lettuce, herbs, eggplant and, of course, the obligatory overgrown zucchini-that-ate-Cleveland. There’s far more than her family will eat, but that’s never been a problem.

“Mostly I give it away,” Yamin said. “I wish I could can it all, but I can’t. Besides, it’s fun to give it away. It’s a good way to meet neighbors and make friends.”

Amy Whitesall is a former 4-H'er who now makes her living as a freelance writer. This article was adapted from a piece that appeared in Metromode magazine (www.metromodemedia.com) in October 2007.



The Healing Garden

If you were to wander across this garden just 20 miles south of Sault Ste. Marie in Michigan’s Upper Peninsula, you’d find a dedicated group of men meticulously tending to their tomatoes, squash and ornamental plants like researchers striving for a Nobel Prize.

“They note everything — growing degree-days, time to maturity and pounds of produce,” explains Jim Lucas, Chippewa County Extension director. “They take their work very seriously.”

But you’ll never just wander into this garden. Not without a weapons search and a trip through a metal detector. That’s because this garden is smack dab in the middle of the Kinross Correctional Facility. And the gardeners are inmates.

Since 1996, MSU Extension has conducted a successful Master Gardener education program in this medium-security prison. The program has graduated 145 Master Gardeners since MSU Extension began working inside the walls

of Kinross. Over the years, 28 of those inmates went on to receive advanced Master Gardener education.

“Because they are prisoners, we’re not allowed to track their progress when they leave,” Lucas explains. “But they keep track of one another. We often hear stories about those who are released and use the education we gave them to get good, honest jobs on the outside.”

What started as a small patch of ground 11 years ago has become more than 5 acres of gardens, including a greenhouse that now provides most of the fresh produce for the prison cafeteria. To date, they have donated more than 100,000 pounds of their bounty to food banks, low-income families and a local soup kitchen.

The group — nicknamed HOGs, short for Horticultural Organic Gardeners — has even spurred a thriving farm market in an area where people once thought growing fresh vegetables was neither economical nor wise.



“When locals heard what we were doing, they started to realize that they could do the same thing despite the climate challenges here in the U.P.,” Lucas explains. “We’ve now got a nice farm market in Sault Ste. Marie, and it’s growing bigger every year.”

Lucas believes the added skills and spark to the local economy are only some of the benefits of this non-traditional program.

“Some of the older prisoners believe this is the first time some of the young guys have ever nurtured anything in their lives,” he says. “All of a sudden, they are taking responsibility for something and feeling proud of their accomplishments. There is definitely some healing going on here. That makes us all very proud.”



The east side of Lansing is not exactly a fresh fruit and vegetable mecca, but thanks to a joint MSUE and Michigan Department of Community Health (MDCH) project and a Somali refugee who owns a local market, at least it is no longer a food desert for more than half the year. From May to August, the Allen Neighborhood Farmers' Market is open on Wednesdays, but until the Al-Haramain Market on Kalamazoo Street started offering fruits and vegetables, local residents had to go outside of their neighborhood during the rest of the year to find salad fixings or put fresh fruit on the table.

Store owner Abjul-kader Soufi thought that fresh fruits and vegetables would just rot in his store when MDCH staff members asked him about adding them to his market. Instead, Soufi found that the produce he brings into the store every Wednesday is sold out by Friday. Encouraged by the increased demand for fruits and vegetables, Soufi says he will increase the variety and quantity if demand continues to improve.

This success story from Ingham County is just one of many from the 26 counties that participated in 2007 in the Supporting Community Coalitions to Promote Healthy Lifestyles program supported by MSU Extension Food Stamp Nutrition Education (FSNE) grant dollars. In fact, 106 sites — including 72 schools, two grocery stores and three churches — helped reach nearly 100,000 people with messages about eating more fruits and vegetables, increasing physical activity, eating breakfast, reducing salt

intake, reading food labels, preventing cross-contamination and smart food budgeting.

The key to success is building, extending and maintaining strong com-

port the success of community coalitions and, ultimately, the goal of having healthier citizens.”

Because each coalition pursued different ways of reaching the project's goals — increasing fruit and vegetable consumption and increasing physical activity — the measures of success vary as well. For instance, in Chippewa County, a youth series of education efforts showed participants who engaged in physical activity at least an hour every day increased from 76 percent to 86 percent. In Ionia County, the percentage of students who correctly answered questions about the Food Pyramid increased from 47 percent to 100 percent after they received nutrition education. Thirty-five percent of Kent County youth who participated in a nutrition education program read nutrition labels, compared with 28 percent prior to the program. And in the tri-county area of Bay, Midland and Saginaw counties, staff members from 54 schools and 38 daycares were trained to use a healthy eating and physical activity toolkit. In

addition to the youth they routinely reached through school and daycare, the group also reached 1,600 middle school youth at a health fair.

The outcomes are as varied as each county's needs, a strength of grant-funded programs that allow each county to pursue its own solution to similar — but not identical — problems.

HEALTHY SOLUTIONS



ONE SIZE DOES NOT FIT ALL

munity coalitions, says Gretchen Hofing, project coordinator and MSUE family and consumer sciences educator.

“If one group comes to the table with certain resources and another comes to the table with a different set of resources, they can do more by teaming up,” Hofing says. “Our training showed coalition leaders how to invite groups to the table and walked them through what to do during the first five meetings. It's a way to sup-



Sweeping the slate CLEAN

Disposal program takes hazardous products out of the home



by Leslie Warner

If you take a close look around, you may find dangers lurking under your sink, in your garage or on the shelves of your storage shed. Unused products, such as ethylene glycol-containing antifreeze, can be hazardous to curious children and family pets.

The Environmental Protection Agency states that Americans annually generate 1.6 million tons of household hazardous waste, and that the average home contains as much as 100 pounds.

MSU Extension helped make Lapeer County a safer place through Household Hazardous Waste (HHW) and Clean Sweep programs. More than 130 households safely disposed of decades' worth of old or unwanted hazardous products through the two programs. In 2006 and 2007, Lapeer County residents removed over 9 tons of household hazardous waste from their living places. During the same period, more than 5,000 pounds of pesticides were collected that could have negatively affected the local environment.

"The primary reason for the Clean Sweep program is to keep pesticides out of the environment and, secondarily, to provide homeowners and farmers the opportunity to remove products from their homes and farm storage facilities," says Phil Kaatz, Lapeer County MSU Extension director. "It's the right thing to do for the public good."

One participant confessed to storing unwanted chemicals in his basement for more than 30 years.

"This is a great program," he said. "I knew I needed to get this stuff off my property, I just didn't know how to do it."

The Clean Sweep program collects unwanted chemicals nationwide. In Michigan, many communities sponsor collection events. Lapeer County MSUE serves as the regional coordinating body in the Thumb.

"As a collection of old paint, pesticides and other unwanted chemicals continues to grow, it might seem easy to dump these items down the drain or throw them in the trash," Kaatz says. "But out of sight is not out of mind."

Pesticides pose a threat to groundwater, and mercury, a component of oil-based paints produced prior to 1991, is exceptionally dangerous. Mercury spills are expensive to clean up, can affect daily routines and can influence your health. Young children and developing infants are especially susceptible to the adverse health effects of mercury.

Clean Sweep reduces the dangers of these chemicals by removing them from the home and keeps them out of the environment. Disposing of unwanted chemicals through Clean Sweep is easy and convenient.

Clean Sweep is funded by a grant from the Michigan Groundwater Stewardship Program, a division of the Michigan Department of Agriculture.

Leslie Warner is an MSU senior studying animal science, and a student employee with MSU's ANR Communications.





Boomers on the brink

Health programs aimed at seniors not only improve lives but may also help keep the country from going bankrupt!

As the clock strikes midnight on Dec. 31, 2007 and others are listening to “Auld Lang Syne” and kissing in the new year, Kathleen Casey-Kirschling claims a glass of bubbly just for her and celebrates her 62nd birthday. She also claims the dubious distinction of being the very first Baby Boomer to become eligible for Social Security retirement benefits. Casey-Kirschling leads what has been dubbed America’s “silver tsunami” — nearly 80 million Baby Boomers who will become eligible for Social Security over the next 20 years.

“I just happened to be the first. The first of many,” Casey-Kirschling said in an ABC News report.

Casey-Kirschling and more than 3 million senior citizens will become eligible for another benefit starting in 2011 — Medicare. As millions of Baby Boomers begin using their Medicare benefits in earnest, Medicare costs are expected to rise from 3 percent of the U.S. economy to 11 percent over the next 75 years, according to a report in USA Today. Although many solutions are

being proposed to stem the coming imbalance between what is paid into entitlement programs and what is paid out, one of those solutions involves trying to curb medical expenses at the source — by encouraging seniors to live healthier and take better care of themselves.

In Michigan, one of the programs that is helping older adults live healthier is in Muskegon County, where 12 senior citizens who are living with disabilities decided to learn more about good nutrition and how to be more physically active to improve their health and their lives. Through two series of cooking club classes offered at a local housing project, MSUE Food and Nutrition Program educator Cynthia Will was able to show seniors how to prepare foods with less fat and salt, and to encourage them to drink more water, try new foods, eat more fruits and vegetables, and be more physically active.

The seniors actively participated in classes and put together a cookbook of easy, healthy recipes. One month after taking the classes, more than half of the participants said they were continuing to implement the positive changes they had learned.

Said one senior, “I learned about smaller size meals and to try new things. I am looking at fat intake and sugar and reading cans and box labels.”

Across the state in Wayne County, another pilot program for seniors took place during the summer of 2007. Pilot partners were MSU Extension, the C.S. Mott Group, the Detroit Area Agency on Aging (DAAA) and Focus: HOPE.

Veronica Padmos, of the DAAA, organized “Nutrition Education for Seniors” in early August at the Summit on the Park, a community and recreation center that provides activities and services for seniors in Canton.

Seniors who arrived at the center as usual to pick up their commodity foods could receive Senior Project FRESH coupons (yet another program aimed at improving senior nutrition), redeem them at a mini-market set up on the Summit grounds, participate in food tastings, and learn how to prepare fresh fruits and vegetables with healthy cooking demonstrations and recipe cards. Focus: HOPE and DAAA staff members encouraged eligible seniors to sign up for Senior Project FRESH coupons and guided them from one nutrition education event to another within the community center.

The farmers from Fairview and Good Medicine Farms made it easy for seniors who qualify for Senior Project FRESH in Canton to enjoy fresh fruits and vegetables. These local farmers also benefited by selling produce to passers-by at this busy community center. By summer’s end, the DAAA had offered four “Nutrition Education for Seniors” events in Wayne County as part of this pilot program.

All three of these programs, including Senior Project FRESH, would undoubtedly meet with Casey-Kirschling’s approval — she’s a retired New Jersey schoolteacher who spent her working life teaching food and nutrition to seventh-graders.



GALLONS PER BUSHEL



Price per gallon. Miles per gallon. Americans are certainly familiar with these fuel-related phrases. At Michigan State University, Kurt Thelen, an associate professor of crop and soil sciences and an Extension specialist, tracks another ratio: gallons per bushel. Recently, he studied how many gallons of starch-generated ethanol that various varieties of corn yielded.

Thelen and his colleagues compared 286 corn hybrids and were surprised to find how much the gallons of ethanol per bushel of corn varied — from 2.66 gal/bu to 3.05 gal/bu. This variation might sound small at first, but consider this: the 0.39 gallon difference between the high and the low varieties translates to more than 58 more gallons of ethanol per acre at the national average yield of approximately 150 bushels per acre.

The difference in yield signifies that the amount of ethanol that each plant produces can be increased with management- and breeding-based improvements. Increasing ethanol yield per bushel of corn is an important way that Michigan corn producers will be able to help supply consumers with a renewable fuel source while also meeting the needs of food manufacturers and livestock producers.

Thanks to MSU research, Michigan corn growers have a new measure of success

“Michigan used 67.9 million bushels of corn for ethanol in 2006-07,” says Lisa Scramlin, communication and program coordinator for the Corn Marketing Program of Michigan. “With both manufacturing plant expansion and new construction, the demand for Michigan corn for ethanol is expected to increase to 141 million bushels in 2008-09.”

In addition, President Bush’s “Twenty in Ten” goal could boost long-term demand. The plan calls for a 20 percent reduction of gasoline consumption in 10 years and the use of 35 billion gallons of renewable fuel by 2017.

Thelen’s research didn’t stop with variety differences. He also looked at which areas in a field and which regions in the state had the highest ethanol per bushel yields.

“An interesting trend we observed with the 2006 crop was that the farther

north we sampled in the state, the higher the ethanol yield,” Thelen says. “And we saw swings of 20 percent in the number of gallons of ethanol produced per bushel depending on where it was grown in the same 120-acre field.”

Michigan’s northern latitude may translate to higher ethanol yields compared to more southerly states.

Through high demand for a superior Michigan product, ethanol might fuel not only our cars but also the state’s economy.

Thelen and his colleagues hope to continue their work by developing a greater understanding of how in-field variation, landscape and soil conditions affect ethanol production. Such knowledge could help both corn growers and ethanol producers make better management decisions.

“The work we’re doing is directly applicable to Michigan growers. It will not only benefit our state economically, but it will ultimately provide us with access to more sustainable and environmentally beneficial energy sources,” Thelen says. “As a state, Michigan is committed to becoming the leader in developing alternative energy sources, and research such as this helps to establish our position.”



Bay County Cloverbuds learn early about healthy living

Chubby. Husky. Plump. Big-boned. No matter what word or phrase we use to try to soften the blow, the fact is that many American children weigh more than they should. In Michigan, 26 percent of our youth are overweight or at risk of becoming overweight. And overweight kids have a more than 50 percent chance of becoming overweight adults. That means more chronic diseases such as diabetes and heart disease, and that means rising insurance costs and billions more dollars being spent on healthcare. Whoa! How do we get off this slippery slope?

In Bay County, MSU Extension believes in attacking the problem early as part of its 4-H Cloverbud Camp. For four days in June, 20 youth ages 5-8, four teen volunteers, one adult volunteer and two MSUE staff members spent six hours together each day doing crafts, participating in on-the-go outdoor activities, learning new ideas, and preparing and eating healthy snacks.

Kids started their healthy lifestyles lesson by learning about good and bad germs and how they travel from various surfaces to their hands, and the importance of washing hands before meals and after using the restroom.

Representatives of The Bay Area Women's Shelter talked with the young campers about all the good ways they can use their hands and stressed that hands should not be used for hitting others. At the conclusion of the program, children received T-shirts with the words "Hands Are Not For Hitting" on them. The shirts were ready to take home after the participants had added their handprints to the shirts.



4-H Cloverbuds is a program for youth ages 5 to 8 that concentrates on children's physical, emotional, social and cognitive development. Children can participate in activities geared to younger school-aged youth, activities that allow them to develop in a well-rounded manner. Michigan has 58,000 Cloverbuds in programs throughout the state.

These budding health "experts" discussed the food guide pyramid, the importance of being healthy and all of the things that help keep us healthy, such as eating right, exercising and getting enough sleep.

Programs such as the Bay County Cloverbud Camp and other health-related 4-H programming such as Jump Into Foods and Fitness (JIFF) are filling a health education gap that schools are having a difficult time filling. In fact, in a recent survey, 90 percent of Michigan teachers surveyed indicated that they think it is important to offer nutrition education to students, but 75 percent say that lack of resources is a barrier to its inclusion in the classroom, along with competition for teaching time with other subjects. With Michigan's tough budget situation making it look as if our schools won't see relief from limited resources any time soon, 4-H can use its resources and its ability to reach up to 240,000 Michigan youth to help in the fight against increased youth obesity.



Every Step Counts!

4-H, coalition help elementary students make healthy choices

by Wanda Repke

Something strange is happening at Traverse Heights Elementary School: students are shrinking. And administrators are blaming MSU Extension.

Traverse Heights was one of the first Traverse City area public schools (TCAPS) to embrace the MSU Extension Jump into Foods and Fitness (JIFF) curriculum. As a result, a district-wide survey of grades K-6 shows that body mass index levels have decreased

— a phenomenon that is almost unheard of in a nation whose obesity levels continue to rise.

Thanks to a grant from the U.S. Department of Education Physical Education for Progress (PEP) program, MSU Extension joined forces with the Every Step Counts! Coalition to offer in-service training to teach TCAPS staff members about JIFF, an MSU Extension program that arms students with information about healthy food choices and the importance of daily activity. A follow-up survey yielded some astounding results:

- 83 percent of the youth reported that they almost always eat vegetables every day, up from 50 percent at the start of the program.
 - 100 percent reported that they almost always like to try new foods. Only 67 percent made that claim when the program started.
 - 100 percent said that they almost always think about whether foods are good for them when choosing what to eat.
- In addition, data from fitness testing at both the elementary and secondary levels are helping physical education staff members determine students' health and fitness needs.

Wanda Repke is a 4-H Extension educator in Grand Traverse County.



HEALTH ON A BUDGET

U.P. nutrition education encourages healthy choices for limited-resource families

by Joanne Pihlaja

A stressed economy has left scars on many Michigan families. Some of the deepest cuts are inflicted on Upper Peninsula families, many who struggle to feed themselves.

Those families can rely on the Upper Peninsula Food Stamp Nutrition Education (FSNE) program, a joint project between MSU Extension and the U.S. Department of Agriculture Food and Nutrition Program that helps improve the health of limited-resource families by encouraging them to make healthy choices when spending their food stamp dollars. The program, which began in 1993, is facilitated by MSUE staff members, who reach out to adults and youth with a variety of nutrition-related programming.

In 2007, more than 700 adults enrolled in a course series. That resulted in 3,605 direct contacts with FSNE clients in the U.P. region, 1,033 direct contacts with Breast-feeding Initiative participants and 3,023 individuals contacted through one-time presentations.

In addition, youth regularly interact with FSNE and other 4-H staff members in classrooms and after-school programs. From October 2006 through August 2007, more than 4,300 youth were reached through a course series, and another 3,369 took part in one-time presentations.

Follow-up evaluations show that people who complete at least six lessons from the FSNE curriculum vastly improve in four key money-saving areas: planning meals in advance, comparing prices, not running out of food by the



end of the month and using a grocery list. In addition, 66 percent improved their nutrition practices by planning meals, making healthy food choices, preparing food without adding salt, reading labels and ensuring that their children eat breakfast. And 48 percent improved their food safety habits by thawing and storing foods properly.

Joanne Pihlaja is the regional coordinator for the Upper Peninsula MSU Extension Food Stamp Nutrition Education Program.





At the "Assessing Equine Welfare" session, Exploration Days attendees learn about horse behavior and welfare.

Changing the future through Exploration Days

For many youngsters, 4-H Exploration Days is a time to have fun with friends on the Michigan State University campus while taking in educational opportunities. For others, it can be a life-altering event.

The three-day career development event brings more than 2,000 12- to 19-year-olds to East Lansing each June. They live in residence halls, eat in cafeterias, attend classes and have fun during recreational activities.

In 2007, 21 Luce County teens attended the event. Eleven of the teens were first-time attendees; among them were three siblings who not only had fun but found their horizons expanded.

According to their mother, before their 4-H involvement, none of the youngsters had one person they could call a best friend.

"For their birthdays I tell them that they can have some friends over, and they find it very difficult to think of even one or two," the mother said.

Participating in 4-H Exploration Days was a huge step for this mother and her teens.

Since returning from Exploration Days, the siblings, ages 15, 13 and 12, have a whole new set of aspirations and goals.

The oldest has always loved animals and wanted to become a veterinarian but didn't know how to bring that dream to life. After taking animal-related classes at Exploration Days, she is now certain that she wants to be a veterinarian and feels confident that MSU is within her reach.

A very shy young woman, she met another teen and her mother who were training a leader dog at Exploration Days. Upon returning home, her parents were amazed that not only did she research the whole process of raising a leader dog, but she even contacted the teen she'd met throughout the summer to get more information about the program.

"Being around the other teens and feeling like she fit in just gave her a whole new sense of confidence," her mother marveled. "The two younger chil-

Each year, MSU awards 60 college scholarships worth \$2,000 to eighth-grade students who participate in one of the university's many precollege programs.

In 2007, 75 percent of the recipients were 4-H members who had participated in at least one 4-H activity on campus.

dren were kind of negative with school. They were just, 'Let's get out of school and forget about college.'"

Exploration Days changed their attitudes. After attending Exploration Days, the 13-year-old boy now says he would like to attend college and pursue a career in mechanics.

The greatest impact occurred with the family's then 11-year-old daughter. She is dyslexic and has become increasingly frustrated with academics.

"She has never wanted to have anything to do with college. She tells me she just wants to finish high school, get married and be a mom," her mother said.

To her mother's amazement, the youngest child's whole outlook changed after Exploration Days. The pre-teen now says she wants to attend college and become a kindergarten teacher.

"I didn't know there were going to be that many people and that much fun and at a college," the girl said. "Before, I didn't want to go to college, I didn't see the sense in it. Now, after going and meeting all of the people, I want to go."

For this family, a three-day activity has turned into a life-altering event.

"Exploration Days was the best experience that my kids have ever had the opportunity to take part in," the mother said. "They learned things that they will retain for the rest of their lives."





Rural youth use technology to get connected

Grand Traverse and Ottawa County 4-H Youth Development are working with the MSU Department of Telecommunication, Information Studies and Media on a project funded by the Kellogg Foundation. The study is looking at how the use of social networking technologies by rural youth affects relational and informational aspects of life in rural communities.

The objective of the project is to create an online community tool built on the capabilities of “cool” technologies currently used by teenagers in rural Michigan — such as Facebook, instant messaging, blogs and chat rooms — that makes it easier for youth organizations, families and young people to get to know one another, share ideas, coordinate

activities and acquire job skills. The research project design begins with conducting a focus group — talking with rural teens about their lives and how technology plays a role.

“We have done a focus group with teens in each of the two counties and will be having kids that attend Exploration Days participate in another focus group with the MSU professors while we are at MSU,” said Wanda Repke, 4-H educator in Grand Traverse County. “It’s an 18-month project funded by Kellogg.”

Research suggests that rural youth have Internet access, that social network tools are popular with young people, and that rural communities experience problems that could be positively addressed through online networking services. This

project will provide the understanding, tools and training to exploit the capacity of new communication technologies to address a major problem in rural communities: when young people leave rural areas and do not maintain connections with the community, it loses the social and economic capital they represent.

The bottom line is to improve the lives of rural youth by expanding their ability to access resources and information and by providing a conduit through which they can share expertise and knowledge with their communities as they enter the next phase of their lives. Ultimately, the hope is to improve the quality of life for youth in rural America and to make rural communities more attractive to them.



Ready, set, **ACTION!**

Active teens help others and themselves

by Leslie Warner

What's the difference between a teen who participates in volunteer or other activities and one who doesn't? It could be tobacco, alcohol or drug use. The importance of helping others is the leading reason that teens name as their incentive to volunteer, but teens who participate in volunteer and other activities also help themselves — by improving their outlook and staying off drugs.

The MSU Extension 4-H Youth Development program offers Michigan teens numerous volunteer opportunities and programs that specifically address substance abuse issues, including 4-H's anti-tobacco program, Life's A Kick — Don't Start Tobacco. Volunteer opportunities through 4-H, such as Natural Helpers and Youth Experiencing Action (YEA), can help young people maintain positive attitudes and live drug-free.

"Natural Helpers keeps me busy — I'm never bored," said youth participant Megan McBride, of Isabella County. "Through 4-H, I have seen the effects of

drugs via speakers, movies and photos. I have no desire to get involved with that."

The National Survey on Drug Use and Health (NSDUH) Report found that youths aged 12 to 17 who participated in numerous activities were less likely to have used cigarettes, alcohol or illicit drugs than young people who participated in fewer or no activities.

Inactive young people — students who did not participate in any activities — were more than three times as likely to have used cigarettes as youth who participated in seven or more activities in the past year. These inactive students were also nearly twice as likely to have consumed alcohol and nearly three times as likely to have used illicit drugs in the past year as their active counterparts.

The fight against drug abuse is not new to 4-H. The 4-H curriculum Life's A Kick — Don't Start Tobacco features facts about tobacco, tobacco prevention-themed activities, and the opportunity for both teens and adults to become teen health educators and advisers. Even without mentioning drug use, all 4-H

programs can help prevent it by engaging youth in activities on a regular basis. Programs such as YEA, a community service-learning program, and Natural Helpers, a peer-to-peer mentoring program, not only let teens help themselves by staying active but also provide much-needed venues for teens to become volunteers.

"I mentor through Natural Helpers because it allows me to gain the personal knowledge that I'm helping someone just by being a friend and someone they can talk to," said Erica Breen, a high school senior from Leelanau County. "Natural Helpers opened my eyes to what's out there. It allowed me to help myself stay away from negative activities, like drugs, by staying involved in positive things."

Teens 16 to 19 years old volunteered more than twice as much in 2004 as teens did in 1989 — 15.5 million teens volunteering 1.3 billion hours of service in 2004. Even so, the Corporation for National and Community Service highlighted the need for increasing the volunteerism rate for all youth but especially among disadvantaged youth. The rate of volunteerism among all teens is 55 percent. When this rate is broken down by family income levels, only 43 percent of disadvantaged teens volunteer, compared with 59 percent of all other teens. Michigan 4-H cuts across income lines and encourages volunteerism among all its 240,000 youth members. Because of its scale and diversity, 4-H stands in a unique position to support and promote positive change.

Personal betterment is a common theme of volunteerism that extends beyond preventing drug abuse.



An ancient Chinese proverb says, "So long as a man is angry, he cannot be in the right." Although most people recognize that anger does little to solve problems and usually makes tense situations worse, there are still a lot of angry people out there.

MSU Extension's Alternatives to Anger (A2A) program was created as a low- or no-cost alternative to pricey classes and therapy for anger management. The Department of Human Services (DHS), juvenile court, the probation department and other service agencies in Macomb County told MSUE they needed such a program during a county needs assessment process.

Created by the MSUE Human Development Team, the A2A curriculum addresses the anger and communication issues of a broad audience, from children as young as 6 to senior citizens. A2A helps participants gain insight into their anger responses, learn alternative behaviors and get hands-on practice in those behaviors. The program is offered in four parts, and those who complete all four classes receive certificates of achievement.

C'mon, get happy!



A2A program teaches alternatives to anger

Since the program was introduced in November 2002, more than 1,100 people have attended at least one session, and about one-third completed all four sessions and earned their certificates. A study of pre- and postsession surveys completed at the end of 2006 showed significant behavior change as a result of the A2A classes. Fully 61 percent had reduced screaming and yelling, 54 percent had reduced the number of times they brought up old issues, and 74 percent increased their ability to stay calm and talk things through. Because

the program improves resolution skills, it reduces the need for intervention by police, human services and the courts, consequently reducing costs for the community.

"I get referrals from the probation department and juvenile court, but the rest of the people are just folks like you and me who struggle with anger," says Susan Porter, MSUE family and consumer sciences educator in Macomb County. "I recently ran into a woman who often thanks me because her grandson uses ideas we shared in class to calm down before reacting."

Grandma's not alone in her praise. One attendee told classmates that the free training he received taught him more than his \$175-per-hour visits with a therapist.

"My reasoning skills are a lot stronger," another said. "I can handle stressful situations with more calmness."

That participant has made a discovery shared by Ralph Waldo Emerson, who said, "For every minute you are angry, you lose sixty seconds of happiness." And after all, who couldn't use a little more happiness in life?



Volunteering is also a time-tested way to gain knowledge and skills, an aspect of volunteerism that is of special significance to disadvantaged teens, who are more likely to cite gaining work experience as a motivation to volunteer.

"4-H leaders should embrace this motive when planning volunteer opportunities focused on disadvantaged young people," said Cheri Booth, state leader for 4-H Youth Development. "For youth who face many challenges in their own lives, volunteering can help them feel a

sense of control, and they can use those feelings to change and grow."

As a path for improving the attitudes and actions of teens, volunteering works. Teens from low-income backgrounds who volunteer become empowered; they are more likely to become politically engaged, and they are more than three times as likely to volunteer again. They are also more likely to believe they will graduate from college and make a difference in their communities.

From promoting positive actions to discouraging drug abuse, 4-H has been working to transform struggling young people into responsible adults for more than 100 years. The challenges facing teens may change through the decades, but young people will continue to help themselves by helping others through the programs of 4-H.

Leslie Warner is a senior in animal science. She was involved in 4-H through the dairy goat program as a teen and will graduate from MSU in May 2008.



Value-added agriculture: *The next step in ag evolution*

by Amanda Sollman

In a day and age of large commercial operations, smaller producers are looking for ways to add value to their commodities and improve their profits. Lamb feeders Rex and Judi Hannewald are doing just that through a partnership with a pet food company.

Up until four years ago, the Hannewalds, owners and operators of Hannewald Lamb Company, had sold their lambs to wholesale packers who took care of the marketing of all parts of the animal. Upon entering the retail business for themselves, however, the Hannewalds faced a dilemma — getting rid of variety products such as hearts and kidneys. But when Judi, who runs a hair salon on the side, had a client suggest that dehydrated lamb liver makes excellent dog food, an idea was born.

“I never dreamed that I could sell parts for dog food,” Judi says. But soon she and Rex began marketing the dehydrated lamb liver dog treats through several farmers’ markets and direct sales off the farm. Pound-per-pound, dog treats

are the most expensive item the Hannewalds carry.

Soon after, the Hannewalds met with Phil Tocco, MSU Extension educator in Jackson County, and took their project to the next level. Tocco connected them to a pet food company in search of producers with extra variety meats for their dog food. The Hannewalds fit the bill perfectly. Although they don’t have enough variety of meats to satisfy all of the needs of the pet food company, the Hannewalds now have a market for their extra hearts and kidneys.

“We are able to turn what would otherwise be a loss into a profit,” Judi says.

Additionally, the project has the ability to grow and expand. Feeder lambs that do not reach the Hannewalds’ high standards of quality in body weight and composition for the retail market or that are unable to return a profitable margin through commercial marketing channels can be directed toward the pet food industry.

Considering value-added projects like the Hannewalds’ is extremely important in today’s tight economy, Tocco said.

“Four-dollar corn doesn’t last, and producers need to have a more stable income,” he says. “There is a need to look beyond the logical end-point for your product besides what happens when it leaves your hands. Extension will be a sort of ‘help desk’ to help businesses at all stages of product and business development by helping answer questions from ‘how do I turn this idea into reality?’ to ‘how do I reinvent my business?’ and ‘how do I get more customers?’”

Judi agrees. She says Extension plays a great part in building relationships. She also encourages the involvement of producers in the pet food industry.

“People are concerned about food safety and healthy nutrition for their pets as well as their families,” she says. “Smart consumers are willing to spend money for peace of mind. There’s no reason not to take advantage of that when it helps producers profit.”

The Extension connection helps expand markets

Phil Tocco loves helping clients find alternative markets for their agricultural products. Recently, the MSUE educator from Jackson County helped connect the head chef of the Henry Ford Museum to a group of budding chicken producers.

The Springport FFA Chapter raises pastured poultry as a way to create supervised agriscience experiences (SAE) for students who want to try their hand at livestock production but don’t have their own land. The group began by marketing directly to consumers in their community. But when they found themselves with more chickens than they could sell, Tocco hooked them up with the Henry Ford chef. Now the group sells an additional 1,200 pounds of chicken annually.

“He has several restaurants within the museum that he wants to stock with Michigan foods, and we’ve got students eager to make some extra money while they learn about poultry production,” says Megan Merrill, the Springport agriscience teacher in charge of the program. “It’s a perfect relationship.”

Amanda Sollman is an MSU sophomore from Brown City, Mich., studying agriscience education and agriculture and natural resources communications. She is active in the Michigan FFA Association and 4-H and looks forward to continuing to educate youth and adults about agriculture.



4-H'ers

get hands-on environmental experience

by Rebecca Stier

Natalie Blackmer, a nine-year 4-H member, never understood the impact that recycling has on the environment until she spent nine days in Puerto Rico.

“It is so beautiful there,” she says. “It’s hard to see it being destroyed by pollution. I now understand why it’s important for all of us to take an active role in protecting our natural resources.”

Blackmer, a Lakewood High School senior, was one of 20 4-H’ers — 12 from Michigan and eight from North Carolina — who spent nine days in Puerto Rico as part of an environmental study and serv-

ice learning trip. In addition to the nature preserve, the group visited El Yunque National Rainforest, Guanica Dry Forest Reserve and mangrove forests off the coasts. The 4-H’ers were also able to kayak through a bioluminescent bay.

The group, ranging from high school juniors to a college sophomore, was led by Dixie Sandborn, MSUE 4-H youth specialist in horticulture, and Dave Radloff, MSUE 4-H youth educator in Delta County.

used to reforest urban areas after hurricanes to prevent runoff into the ocean and were able to participate in the construction of a greenhouse.

“It was a great life learning experience,” Blackmer says. “I now understand why recycling is so important and how we all have a responsibility to keep the Earth clean.”

Along with the environmental experience the students gained, they were also able to experience a different culture firsthand.



“This was the best 4-H experience I have ever had with kids,” Sandborn says. “Students were able to study various environments on the island and were able to personally grow.”

Many students reported gaining a new outlook on the impact that each of them can have on the environment.

“After the trip, the students realized that one person can make a difference,” Sandborn says. “They could relate the environmental issues of Puerto Rico to the environment of their own communities.”

The students got hands-on experience while transplanting trees to be

Blackmer, who has studied Spanish for four years, found the trip to be a great way to get real life practice speaking the language.

Despite the language difference, the students were able to see past cultural differences.

“Puerto Ricans have some of the same concerns and interests that we have,” Blackmer says. “It made me realize that maybe the world isn’t quite as big as I thought.”

Rebecca Stier is an MSU senior from Bath, majoring in agriculture and natural resources communications.



China art exchange

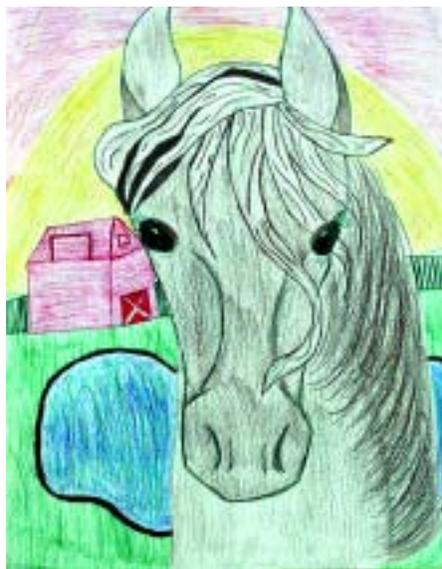
helps 4-H'ers learn about diverse cultures

by Laurie Rivetto

The MSUE Michigan 4-H China Project, conducted in cooperation with the People's Republic of China, is a global education program that uses the arts for in-school and after-school learning experiences.

The project provides Michigan kindergarteners through sixth graders a chance to learn about the many similarities between their lives and the lives of their counterparts halfway around the world and gain a sense of being part of one world, regardless of where they live.

It also gives them a significant learning experience that is both experiential and interdisciplinary (language, social studies, natural science and art). Students are invited to send "visual letters" to children their own ages in China. They get to see pieces of art and photographs of the Chinese children

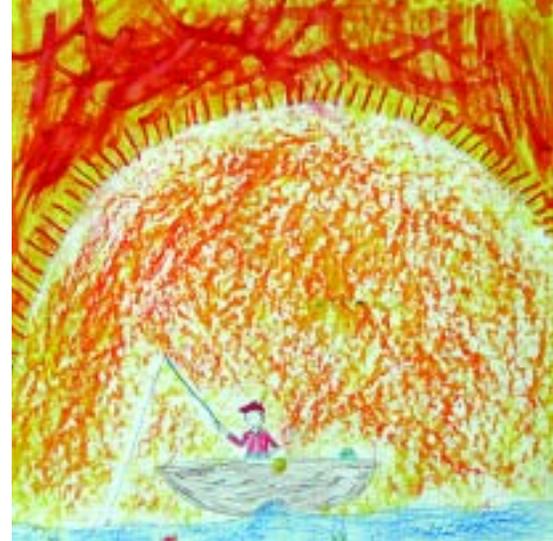


who created it, and their teachers get strategies on assisting them in discussing the pieces and creating their letters.

In Wayne County, Bulman Elementary School in Redford and River Oaks Elementary School in Dearborn Heights, as well as the Wayne County 4-H Critter Club, participated in the 4-H China Art Exchange Program in 2007.

More than 500 youngsters discussed the cultural similarities and differences that they saw in the Chinese artwork, including experiences related to religion, free-time activities and national monuments. The artwork opened doors to family discussions, too.

One art teacher commented that the class "liked learning about [the Chinese people's] characters in their



writing and relating characters to character traits and story characters." Another mentioned that the project "made students think about the things that are alike and the differences among kids. Many of the students from this class are from the Middle East; one boy is from Romania. They shared experiences from their lives in another country."

Of the 70 pieces of art by 4-H'ers from across the state selected to be sent to China, four pieces came from Wayne County's elementary schools and 4-H clubs. The selected pieces show a Disney vacation, horseback riding, painting flowers and a walk in the woods. They will be included in a kit that goes to China and will allow Chinese youths to learn about Michigan, the United States and the lives of children here.

Laurie Rivetto is an Extension 4-H Educator in Wayne County.



From Amble to Albania

A Peace Corps volunteer remembers his 4-H roots

by Jessica Dudenhofer

Last summer, Matthew Newman missed his first Montcalm County 4-H Fair in 18 years, something he wouldn't have dreamed of doing if he hadn't been on the other side of the globe.

Originally from the small town of Amble, Mich., the 25-year-old has been a Peace Corps volunteer in Albania since March 2007. There, he conducts seminars, designs lesson plans and works with native students to improve the quality of English education.

"I really enjoy interacting with people from different cultures, and I've already developed a new-found appreciation for opportunities and conveniences available in the United States," Newman says. "I can only imagine how much more I'll learn before I return home in June 2009."

Before trading Amble for Albania, Newman was an active member of the Winfield Hustlers 4-H Club in Montcalm County. Though he has fond memories of his days at the fair, he also recalled that it was only through the force of his mother that he gave 4-H a chance.

"I joined 4-H because my mom told me to," Newman says with a smile. "I actually didn't want to join. I never could have anticipated then just how dramatically different my life would become from that point on."

His mother, Mary Newman, has never regretted giving her son a helpful push toward 4-H activities.



Matt Newman helps Albanian children learn English, including those of his host family and their neighbors.

"It gave him confidence and an extended family," she says.

It didn't take long for Newman to become actively involved in his club. He enjoyed showing livestock and creating exhibits, and he even served a two-year term as president of his club. He found his real love was in the swine project, where he won reserve grand champion pig his first year showing — and spent the next 10 years trying to figure out how that happened. But it wasn't just the pigs that kept Newman in 4-H. Memories were formed every summer at the fair, and as the years went by, his club became more than just a club to him.

"My heart has always been with the swine project," Newman says. "But I found the experience of coming together with friends to achieve a common goal to be the real reward."

After his 4-H experience taught him to serve others with his "head, heart, hands and health," Newman found the Peace Corps was a natural transition.

"I joined because I wanted to take the skills and lessons learned from countless teachers over the last 25 years and use them to serve and contribute to something greater than myself," he says. "The only thing limiting one's enjoyment of both 4-H and the Peace Corps is ambition. Both programs are what one makes of them."

Newman realizes that the lessons he learned through 4-H apply to his everyday life, even in Albania.

"When I was younger, I thought I was going to the fair to win a pretty ribbon," Newman says. "I look back now and realize that I was learning about myself and others, gaining valuable knowledge on cooperation and friendship. I was forging relationships that will last a lifetime, and learning how I could serve my club, my community, my country and my world."

When he returns from Albania, Newman plans to return to his roots and become a 4-H leader. He encourages others to do the same.

"Whatever interests you may have, whatever skills, there is something for everyone," he says. "4-H makes people better because of its diversity, and conversely, 4-H is made better by the diversity of the people who join."

Jessica Dudenhofer is a 4-H alumnae from Montcalm County.



Breast-feeding:

a natural act that sometimes needs some outside help

Since the beginning, women have breast-fed their babies. But though the act of breast-feeding seems as natural as breathing, it doesn't always come easily to all moms and their babies.

Ana Benavides, an MSUE Family and Consumer Sciences program associate in Berrien County, says mothers who struggle to breast-feed often ask her, "What's wrong with me?"

"The answer is nothing. Absolutely nothing is wrong," she says. "Breast-feeding doesn't come naturally to every mother every time. Sometimes you have to work at it before everything works out perfectly."



As of November 2007, BFI already had some great numbers to show for the 2006-2007 fiscal year:

- 1,975 women — 90 percent of eligible participants — initiated breast-feeding.
- 77 percent of participants were still breast-feeding at two months, a marked improvement over 56 percent from the year before.
- 51 percent were still breast-feeding at six months, a substantial gain over the previous year's number of 34 percent.
- Participants averaged 29 weeks of breast-feeding, the previous year, the average was 20 weeks.

In her work with MSU Extension's Breast-feeding Initiative (BFI), Benavides has seen that mothers and babies often need a little help to get started. Through BFI, limited-income women receive mother-to-mother breast-feeding education and support to help them be successful at breast-feeding.

In one recent example, Ana was on her way to a scheduled home visit when she decided to take a few minutes to visit another new mom. When she arrived, the mom believed the 9-day-old boy was actively breast-feeding because he was latched on. But Ana noticed there was no clear sign of swallowing. He was discolored and seemed weak.

Ana walked through the typical protocol, but the more questions she asked,

the more concerned she became. The mother lacked reliable transportation and didn't have another scheduled doctor's appointment for five days. Ana helped her make an appointment with her local hospital's lactation consultant for the next day and, at the mother's request, met her at the hospital.

They found that the baby had lost 19 percent of his birth weight. Had the mother waited for her scheduled appointment, the baby would have been at great risk. Instead, he was quickly helped and gained back 21 percent of his body weight by the time he was 3 weeks old.

Ana's client was a first-time mom, but even an experienced mother — one who had already successfully breast-fed

five babies — ran into trouble with her new baby boy. The baby was very hungry and couldn't seem to get the hang of latching on. Multiple attempts left the mother sore and feeling that a bottle was the only option — that promptly led to more difficulty getting him to latch on.

Frustrated, worried and sore, this six-time mother called the Women, Infants and Children (WIC) program at the Janes Street Academic Health Center in Saginaw. WIC staff members hooked her up with the BFI program. Armed with a breast pump from the clinic and regular conversations with a peer counselor, the mother was able to maintain her milk supply and successfully initiate breast-feeding within a few weeks.

"We are doing great now," said the mother. "I was determined not to stop trying. The peer counselor came to my home and helped me give the most precious thing a woman can give her baby, other than life."

For the BFI program, mothers with breast-feeding experience are recruited and hired from the community by the local Extension office and WIC agency to serve as peer counselors. Peer counselors are trained to provide WIC-eligible women with breast-feeding information, encouragement and support. They are available to see mothers in person or by telephone in the home, the hospital or the WIC clinic.

The BFI program promotes breast-feeding among low-income women; emphasizes nutrition related to pregnancy, breast-feeding and infant feeding; provides breast-feeding peer support; and offers general nutrition education for the entire family.



MSU is tops in breast-feeding research

by Leslie Warner

Beth Olson, nutrition specialist and assistant professor of food science and human nutrition, believes a healthy lifestyle begins at day one. Her research focuses on improving the health of children by encouraging mothers to breast-feed.

Peer counseling programs such as the MSUE Family and Consumers Sciences Breastfeeding Initiative (BFI) are a popular form of support for breast-feeding mothers. To better understand and potentially improve these programs, Olson conducted the first qualitative evaluation of a peer counseling program from the perspectives of both counselors and mothers. As another indicator of the program's success, she is currently calculating how many healthcare dollars the peer counseling program saves the state Medicaid program.

Olson is also studying how the workplace environment supports or hinders breast-feeding. Recently, the USDA National Research Institute awarded her a \$498,000 Human Obesity Grant, calling her research into breast-feeding in the workplace "unique." By focusing the implications of her research on the business world, Olson hopes to make a working mom's decision to breast-feed a little easier.



Another area of continuing research is how breast-feeding helps children make healthy food choices later in life. The transition from breast- or formula feeding to solid

foods is a critical time in which parents develop healthy feeding practices and infants learn self-regulation.

"With nutrition, it's important to start at birth. It does matter from the very beginning," Olson says. "Children are born knowing how to regulate their food intake, and we override that."

Through a project funded by Medicaid, Olson and her colleagues are researching how low-income mothers shift their children to solid food. This research has led to the development of a nutrition education curriculum for feeding infants called The Infant Feeding Series. The curriculum is available on CD and at <http://nursing.msu.edu/tifs>.

Nutrition is an important component in the health of children. The multifaceted work of Olson and her colleagues provides mothers, employers and educators new information on why breast-feeding is important and how to encourage healthy habits at the very beginning of a baby's life.



What's in a Name?

Though its official name is the Northwest Michigan Horticultural Research Station, the 100-acre property just outside of downtown Traverse City focuses on meeting the needs of cherry and other fruit growers, no matter what those needs may be.

"We have a seamless integration of research and Extension here at the Northwest Station," said Patrick Cudney, North Region Extension director. "Our growers don't see the separation between researchers and Extension educators, and that is a major strength of this station. It's something of which we're really proud. Technically, we're an experiment station, but in reality we are a research and Extension station."

The team approach to serving growers, processors and others connected to the fruit industry is apparent in every aspect of the station.

"We don't draw a line between 'experiment station' or 'Extension,'" said Bill Klein, who has served as farm manager at the station for 25 years. "If someone calls with a question, I answer it. It's what we do. It's always been that way. The person on the other end of the line doesn't care if I wear an Extension hat or a research hat. He or she wants the question answered."

And because of the magnitude of the research done at this station, the calls keep coming.

"We are working on the cutting edge of the industry, testing new and innovative technology and working with great growers," Klein said. "Everyone we work with is very progressive and trying to push the envelope to make their crops and their operations better."

Created in 1979 after a successful fund-raising campaign by the Northwest Michigan Horticultural Research Foundation, the station remains owned by this group of growers and is leased by MSU.

"The Northwest Station is nationally the most recognized cherry research station," Cudney added. "Growers own the station and are directly involved in directing the kinds of work we do here."

The Northwest Station is one of a network of 14 field stations located throughout the state. Research and Extension projects at the field stations range from forestry, field crops and fruit to beef and dairy cattle, potatoes, soil health and forages. Each station focuses its research on the agricultural, natural resources and rural community needs of its particular location. The stations are officially part of the Michigan Agricultural Experiment Station (MAES), but Extension is a valued partner and has a visible presence at almost all of the stations.

Fruit growers attended the annual Northwest Horticultural Research Station Field Day in August.



Is it research? Is it Extension?

Ultimately, it doesn't matter as long as clients get what they need at outlying field stations

Alfred North Whitehead, British philosopher and mathematician, noted that unapplied knowledge is knowledge shorn of its meaning. In other words, no matter how beneficial the results of a research project, if the results aren't used, they might as well not exist. Extension's role in communicating field station research results to Michigan agricultural and natural resources professionals is critical to fulfilling the mission of the field stations.

"The Michigan Agricultural Experiment Station and MSU Extension have a symbiotic relationship," said

Steve Pueppke, MAES director, who also serves as director of the MSU Office of Biobased Technologies. "Neither organization could do what it does without the other, and each organization is stronger because of the input of the other. Justin Morrill, William Hatch, Hoke Smith and Asbury Lever [the authors of the Morrill Act, the Hatch Act and the Smith-Lever Act] had tremendous vision and foresight when they created the land-grant system of experiment stations and Extension services. The model continues to admirably serve Michigan citizens today."

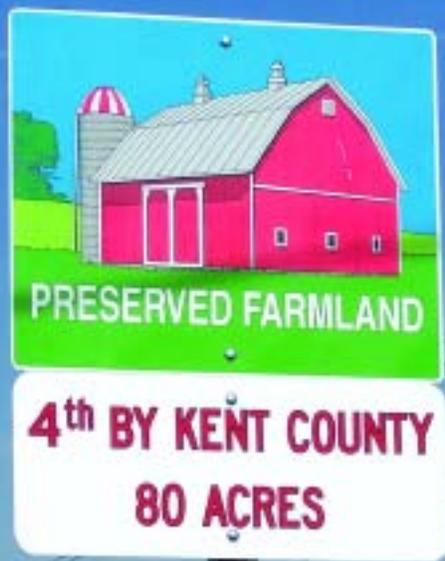


Mira Danilovich, lead MSU Extension educator in plums, helps a local grower interpret the results of variety trials conducted at the Northwest Horticultural Research Station during an August 2007 field day. Danilovich is testing more than 20 varieties of plums at the station.



Research focus of MAES field stations:

- Clarksville Horticultural Experiment Station, Clarksville. Focuses on small fruit, tree fruit, wheat scab and weed control.
- Dunbar Forest Experiment Station, Sault Ste. Marie. Focuses on forestry.
- W.K. Kellogg Biological Station, Hickory Corners. Focuses on natural and managed ecosystems and conservation of natural resources.
- W.K. Kellogg Experimental Forest, Augusta. Focuses on forestry.
- Lake City Experiment Station, Lake City. Focuses on beef cattle, potatoes and forages.
- Montcalm Research Farm, Lakeview. Focuses on potatoes and dry beans.
- Muck Soils Research Farm, Laingsburg. Focuses on muck vegetables (carrots, celery, onions, radishes, lettuce), sweet corn and potatoes.
- Northwest Michigan Horticultural Research Station, Traverse City. Focuses on cherries, apples, plums, wine grapes, peaches, pears, apricots, chestnuts and hazelnuts.
- Fred Russ Forest Experiment Station, Decatur. Focuses on forestry.
- Saginaw Valley Bean and Beet Research Farm, Saginaw. Focuses on dry beans and sugar beets.
- Southwest Michigan Research and Extension Center, Benton Harbor. Focuses on grapes, blueberries, cranberries, cherries, peaches, pears, plums, apples, tomatoes, strawberries and vegetables.
- Trevor Nichols Research Complex, Fennville. Focuses on fruit pest management.
- Upper Peninsula Experiment Station, Chatham. Focuses on beef and dairy cattle, forages and carbon sequestration.
- Upper Peninsula Tree Improvement Center, Escanaba. Focuses on forestry.
- East Lansing Field Research Facilities, East Lansing. Focus on forestry, entomology, botany, plant pathology, animal science, crop and soil sciences, veterinary medicine, horticulture and engineering.



Extension and Kent County residents: united for growth

When challenges in land use management first came to light, many saw them as related to the need for either urban redevelopment or agricultural preservation, not as interconnected issues.

“Terms such as ‘land use planning,’ ‘urban redevelopment’ and ‘agricultural preservation’ were often mutually exclusive phrases in 1998,” says Kendra Wills, MSU Extension land use educator in Kent County. “At that time, there was lots of buzz in Grand Rapids on land use and urban sprawl, and the Frey Foundation had been bringing in speakers from around the country. Now everyone is doing that, but it’s cool that we were there early on.”

Things began coming together when MSU Extension regional director Maggie Bethel, Kent County Extension director Dave Guikema and MSU Center for Urban Affairs director Carol Townsend sat down with Kim Krasevac, a program officer at the Frey Foundation, to talk about fundable initiatives.

The idea of a land use planning project aimed at addressing issues of both rural and urban residents was new to everyone involved, and it took some time to build consensus around it.

“It was a radical concept at the time,” Townsend remembers. “Yes, there are differences, but there’s a lot of common ground, too. We wanted a project that could identify that common ground between urban and rural interests and build on it.”

With a three-year grant from the Frey Foundation, the MSU Extension team set out to establish the base for an initiative that would enable residents to voice their concerns, learn about land use issues and then address those issues while building local capacity.

“Kent County was a perfect location because it’s the fifth largest farm gate income county in Michigan and it has 600,000 people, so it has tons of pressure from those who want to move to the country and buy 10-acre parcels for a house and lawn,” Guikema says.

Thanks to United Growth for Kent County, residents better understand the importance of agricultural preservation and have supported the preservation of 700 acres of prime local farmland.

Townsend became an MSU Extension educator for urban community development and began working with urban neighborhood associations to identify needs and work to address them. At the same time, Guikema went to Kent County’s agricultural community and conducted a survey of its members’ knowledge of available agricultural land preservation tools. Both created committees comprising individuals from the audiences they served. Then they began bringing those committees together to create a coalition that became United Growth for Kent County.

“We did a number of joint activities and then brought people together to form the coalition,” Townsend says. “People liked coming to coalition meetings because they could meet people from different places. That was part of the success of the coalition and why so many wanted to put time into building an organization.”

In addition to Townsend and Guikema, Wills was brought in in 1999 to provide overall coordination of the project, write proposals and assist in activities such as offering mini grants and sponsoring a “Tour de Sprawl” bus tour that highlighted Kent County’s urban and rural sprawl issues.

Flash forward eight years. United Growth has brought together people around topics of concern and made a difference across Kent County. The names may have changed — Bethel became the director of MSU Extension and Guikema was named the regional director — and United Growth has become an independent nonprofit organization, but the effort to educate residents about land use planning and management options and build their capacity to put them to use continues.

“We are seeing the value of citizens being organized to talk about these particular issues,” says Paul Haan, president of United Growth. “Without any organization, we’re going to get what comes from prevailing forces. United Growth gives us a forum to talk about the future without accepting the given.”

Today, Townsend and Wills support United Growth’s educational initiatives. One of those is a purchase of development rights (PDR) program for farmers. Through a PDR, farmers are paid with locally raised, private grant funds, some township funds, and state and federal grant funds to keep their land in agricultural use. The Kent County PDR program began in 2003, with much support from the urban sector, Wills notes. To date, 700 acres have been preserved, and the program is Michigan’s third largest.

“United Growth has come to realize that we need to educate people on all the ways to do land use preservation, and that the PDR is just one,” Wills says.

Its new Land Preservation Education Committee has secured grant funding to reach 100 property owners in four Kent County townships to talk about all of the various preservation options they have.

“We think we can make a bigger impact by getting the word out about federal and state programs that people don’t know about or how to use,” Wills says. “We’re going to be doing that project to the end of 2009 and hope to expand it beyond those townships after that — and to other counties, too.”

Urban residents working as part of United Growth’s Revitalizing Neighborhoods Committee have been very involved in efforts to complete Grand Rapids’ new zoning code and master plan. The code was passed in late October, and Grand Rapids planning director Suzanne Schultz has agreed to partner with the committee on an effort to educate city residents about its contents, identify any changes that might need to be made and explore any aspects that are unclear.

“The committee will work with the city’s planning department to draft brochures,” Townsend says. “Based on the brochures, together they will develop a PowerPoint presentation and take it to neighborhood associations, explaining the new code and distributing the brochures.”

Independence was in the plan for United Growth since its inception, but Townsend marvels at how large and engaged an organization it has become since taking root in 1998.

“My biggest surprise is how it grew so large as an organization,” she says. “I thought it would survive, but I didn’t think it would be this big and would sustain itself. I thought that Kendra and I would run out of ideas, but actually, we have to limit our time together because we always come up with more projects that we could do under the United Growth umbrella.”



Midland 4-H'er makes unique contribution

“I’ve never been much for sewing,” said 17-year-old Alexandra Hermans, a 4-H'er from Midland County. “Others made blankets; I looked for another way to contribute.”

Her contribution? A petting zoo, carnival games (including wheelbarrow races), free family photos — an entire surprise event for the members of the 1460th National Guard unit and their families. When a few early roadblocks slowed her down, Hermans ended up with just nine days to pull the entire event together. Hours on the phone netted her more than 20 volunteers, including members of

Hermans’ Sundance 4-H Club and a professional photographer, who donated his time and free family portraits.

“It was a great way for me to give back to those who have given so much to me,” Hermans said. “I had all the resources; it was just a matter of pulling it all together.”



Livestock camp introduces youth to more than just livestock



Girls show off their veggie animal creation during livestock camp. "It isn't all work," explains Connie Lange. "We let the kids have some fun, too."

Warning of an impending tornado came across the television just before the electricity went dead. Windows shook as thunder rumbled and lightning lit the sky. Kyle Miller admits he was scared.

"When the electricity went out, I really got nervous," says the 16-year-old Niles teenager. "And when the room started shaking, I thought, 'Oh man, this almost feels real!'"

"Almost" is the operative word. Lucky for Miller, the tornado was part of a demonstration conducted in the safety of the Branch County Fire Prevention and Life Safety Trailer. Bill James, chief of the Lakeland Fire Department, smiles when he hears about Miller's reaction.

"They'll never forget the tornado package," he says. "It's scary, but so are tornadoes and fires."

The trailer, which also includes demonstrations about accident prevention in the kitchen and escaping from a house fire, was a big hit during Michigan 4-H Livestock Camp last summer in Coldwater.

Wait ... fire prevention during livestock camp? That's right, explains Connie Lange, 4-H youth educator in Branch County.

"Our livestock camp is about a lot more than fitting and grooming animals for the fair," she says. "That's important, too, but we want kids to leave with a more well-rounded education — everything from animal health and nutrition to fire safety and prevention."

The camp, which has been going strong since 1998, attracts more than 200 4-H'ers from across Michigan. Even U.P. 4-H'ers have been known to make the long trip for this valuable experience. 4-H'ers interested in nearly any type of animal — beef, sheep, swine, horses, goats, poultry, rabbits, dogs, feeder

calves and dairy — can participate. The three-day overnight camp helps students understand all the responsibilities associated with raising animals — whether as pets or for profit — and gives them a taste of other farm and household responsibilities, too.

"We often bring in veterinarians, feed specialists and others who can talk about the full scope of responsibilities," Lange says. "Our financial resources staff members help youth understand the economic aspects of raising animals and conduct other activities that will help them as they reach adulthood. We hope that camp provides youth with insight into many career opportunities in agriculture that they wouldn't have known about otherwise."

But Lange realizes that kids are still kids and camp shouldn't be all business.

"In the evenings, we do fun activities that let campers in all species areas get to know one another," she says. "A lot of long-lasting friendships got their start at this camp."



A fire marshal explains the fire dangers that lurk in kitchens to a group of 4-H'ers. "Put a lid on it!" he advises students faced with the prospect of a fire in the oven or on the stovetop.



Farmers Day celebrates 40 years

On a cold day last February, the classrooms at the Branch Area Career Center (BACC) in Coldwater were overflowing with eager students brimming with questions and thirsting for knowledge.

At first glance, casual visitors might assume this is just another day at the BACC. Until they realized that most of the “students” were way too old for high school, and rather than trendy Ambercrombie and Fitch clothing, most wore flannel shirts and work boots. It was all part of the Branch County Farmers Day, a 40-year tradition that more than 600 local producers and 4-H members flock to annually.

The event, a joint project between MSU Extension, the Branch County Agribusiness Council and the BACC, is the culmination of a year’s work by numerous volunteers led by 14 committee chairs, most of whom are area farmers.

“People really want to be a part of this, both for the education and the community camaraderie,” says Roberta Osborne, Branch County MSU Extension director. It’s the communal aspects that keep people coming back year after year.”

In 2007, the program boasted 14 educational programs on topics ranging from food safety and animal identification to grain market updates and on-farm storage. In addition, more than 70 local businesses and ag-related organizations lined the hallways to talk about their wares and update farmers on local and statewide issues that affect their businesses.

“I’ve been coming here for years,” says Don Tift, a crop producer from Reading. He says the certified crop advisor (CCA) credits that are awarded for attending sessions are useful, but that’s not the main draw. “I like coming to meet farmers from all over. That’s a big plus.”



REACT

FOR A GOOD CAUSE

by Emily Ries

As a child growing up in Detroit, Lydia Vanderbilt saw more concrete than trees.

“I knew more about sidewalks and expressways than forests,” she says.

Vanderbilt’s perspective changed during her freshman year at Lewis Cass Technical High School when she became involved with Reaching Environmental Awareness and Action in Communities Together (REACT), a 4-H program designed to introduce Michigan’s youth to the environment through education.

With a passion to learn more about the environment around her, Lydia transformed her involvement within the REACT program into a profound career pathway.

Since the program’s launch in 2003, 40 students from Post Middle School and Lewis Cass Technical High School have participated in a multitude of activities that heightened their awareness about the environment. Students conducted environmental water pollution research and participated in a variety of field trips. Students visited the Detroit office of the Environmental Protection Agency, the Detroit Sewer Plant and the National Oceanic and Atmospheric Administration on Grosse Isle — all of which gave them a historical perspective on Detroit’s waterways and helped them discover the influence that the bodies of water have had on south-

eastern Michigan and the rest of the state.

Vanderbilt, now a freshman at Michigan State University majoring in forestry, attributes her desire to become a forester to her involvement in REACT.

“REACT changed my career choice and the direction that I wanted to take in life,” she says. “It has made me strive towards a goal where I can make a difference in my life as well as those around me.”

Gary Williams, Wayne County 4-H educator, says Vanderbilt is a true role model and a leader among young people.

“She is one of my success stories,” he says. “Lydia has developed into a very mature young lady who is determined to take care of the planet.”

Convinced that REACT influences the attitude, behavior and responsibility of each of the youth involved, Williams believes it is one of the most impactful environmental programs to come out of MSU Extension.

“Each activity that students participate in challenges them to become stewards of the planet,” he explains. “The fact that some of our youth are parlaying that into careers is definitely an added bonus.”

Emily Ries is an MSU sophomore studying agriculture and natural resources communications. A native of Sand Creek, Mich., Emily enjoys working on her family’s farm and youth leadership projects.



OsteoCHAMPS

helps budding doctors reach their goals

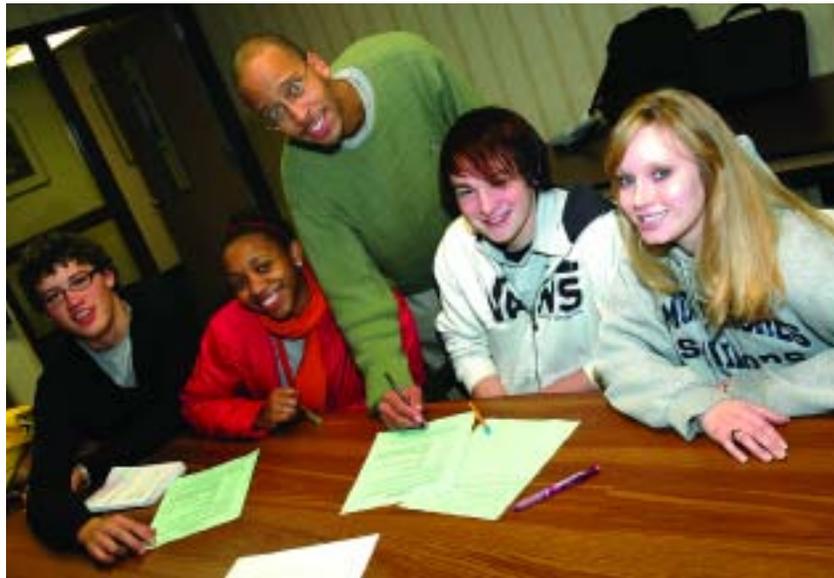
Lauren Kohler rolls her eyes and smirks when she sees classmates squirm at the prospect of dissecting a fetal pig in biology class.

“That’s nothing,” says the Mona Shores High School junior. “I worked on a human cadaver last summer. I’m sure I can handle a pig!”

Kohler is one of 18 Michigan teenagers enrolled in Osteopathic Careers in Health and Medicine Program Services (OsteoCHAMPS), a two-year enrichment program that readies high school students for medical school and other health-related careers. The program, a collaboration between MSU Extension and the MSU College of Osteopathic Medicine (COM), includes a two-week stint at Michigan State University, where students learn about human anatomy, physiology, biology and career development, and prep for the ACT.

In addition, they are charged with completing a research project in the labs. Real labs. Where they’re standing next to real medical students and real physicians as they work on real human bodies.

Andrew Raffaele, a senior at Holton High School, says jumping into the college experience with both feet gave him a better understanding of what would be expected of him after he leaves his small, 360-person high school in western Michigan.



“We got an awesome understanding of what it’s really like to be in college,” he says. “It’s going to be hard work. But I think it’s going to be worth it.”

Preparation for life

Dr. Margaret Aguwa, associate dean of community outreach and clinical research at the MSU College of Osteopathic Medicine, founded OsteoCHAMPS in 2000. Since then, more than 70 students throughout Michigan have completed the program. Many are now in undergraduate programs; a few have already entered the work force. Three are currently enrolled in the College of Osteopathic Medicine at MSU. She says the main goal of the program is to ensure that students are prepared for what lies ahead.

“We get them involved so they begin thinking like doctors and health care professionals to realize that it is hard work, and that they are very capable of doing it,” she says.

David Hotwagner, a first-year med student in the COM, joined OsteoCHAMPS as a Whitehall High School sophomore.

“I was going to med school one way or another,” he says. “I had the drive and the determination, but I didn’t have the connections. OsteoCHAMPS helped introduce me to the right people so I could ask intelligent questions.”

Those intelligent questions, Hotwagner says, led to a greater understanding of the process he’d need to go through to become a doctor.

“If you need someone to hold your hand, you’re not going to make it through med school anyway,” he says. “OsteoCHAMPS doesn’t do that. They tell you what the possibilities are and help you make your own decisions. That’s why the program was valuable to me.”

Intense training

In addition to the two-week college experience, students attend monthly meetings where they do everything from learn about networking with future colleagues to shadow professional mentors. Frank Cox, the 4-H educator in Muskegon County and lead trainer for west Michigan OsteoCHAMPS, also arranges meetings with financial aid and scholarship counselors who can help turn students’ dreams of college and careers in the medical field into reality.

"I worked on a human cadaver last summer. I'm sure I can handle this!"

Lauren Kohler

"In the early days of the program, some students had questions about financing their college education," he explains. "That opened the door to entire sessions on financial aid and college scholarships. We also help them prepare for college by getting academic help if they need to up their test scores so they have the maximum opportunity for success."

Determination

Just getting into the program can be a challenge for some.

"The Osteopathic Foundation of West Michigan (OFWM) sponsors the students from the Muskegon County area," Cox says. "Their funding determines how many students can enroll in the program. This year there were more applicants than open spots so the selection committee had to take a close look at academic merit, essays, letters of reference, you name it. It was a tough process, but it gives you an idea of how focused and determined these kids are."

Aguwa believes that the support that students receive from MSU faculty

members and MSU Extension is as valuable as the education itself.

"By bringing them to campus and then working with them on a regular basis, we let them know that they have a legacy to fulfill, and we can give them the support they need to fulfill it," she says. "We let them know that there are people out there who care for them and are interested in their welfare. We help guide them along their path through life. By doing this, we hope they will see the opportunities in front of them. And maybe even help someone else along the way, too."



Keeping Democracy, Building Citizenship Through 4-H

by Adam Voight

The cover story of a recent issue of *Time* magazine called for young Americans to make a commitment to national service. It stated that most Americans today see their civic responsibilities as simply paying taxes and voting. Many young people do neither, either by choice or by law. That leaves them with virtually no opportunity to engage in the responsibilities of citizenship as they are commonly understood. It's no wonder that youth show apathy toward government and politics. In a recent study by the Center for Information and Research on Civic Learning and Engagement, only 40 percent of young people agreed that "people like me have a say" in public decision making.

Despite — or because of — this trend, youth are volunteering at a remarkably high rate. More than 80 percent of high school seniors are engaged

in volunteer work, as youth have created a sort of parallel sphere for involvement in civic life.

Michigan 4-H has been ahead of the curve in recognizing the need for a redefinition of citizenship. One of its seven Guiding Principles of Positive Youth Development is "Youth grow and contribute as active citizens through service and leadership," and part of this includes an awareness and understanding of social issues and engagement in decision making surrounding them. Understanding that citizen responsibilities include community service as well as involvement in public issues and decision making, Michigan 4-H offers a definition of citizenship that includes civic character, knowledge of government, community service learning, public policy influence, and awareness and understanding of issues.

Michigan 4-H has a variety of programs and resources that address citizenship, leadership and service. Annual

events such as Capitol Experience and the 4-H Teen Citizenship, Leadership and Service Conference, and county Citizenship Academies give young people the guidance and the opportunity to learn how to be engaged. One youth participant in the Genesee County Citizenship Academy said of his experience, "I now know how our community and government works so I can make better decisions on how to help my community." Another participant in the statewide Civic Engagement Youth Advisory Committee said, "I've enjoyed learning about how we can make change. Others just look at us as teens, but we really can make a change. I think that is pretty neat." Many young people have already benefited from the resources that Michigan 4-H has provided, and many others are seeing why citizenship is an important learning area.

Adam Voight is a 4-H program graduate assistant.



Energy audit program helps farmers find money in the milkhouse

As fuel and electricity costs continue to skyrocket, homeowners aren't the only ones looking for ways to save money. Farmers, too, are looking for ways to cut back on their energy bills. MSU Extension, the Michigan departments of Agriculture and Environmental Quality, the Natural Resources Conservation Service, Consumers Energy, the Michigan Milk Producers Association and the USDA Rural Development program are working together to offer a farm energy audit program that can save considerable money for Michigan's dairy producers.

The Michigan Agriculture Energy Program partners used grant funds that the Michigan Department of Environmental Quality received from the U.S. Environmental Protection Agency to develop an on-farm audit that can be used to identify and address each operation's energy use challenges. As part of the audit, MSU Extension, under the guidance of an advisory team made up of representatives of milk cooperatives, rural power cooperatives and the USDA, developed a technical guide that focuses on the major energy use categories found on Michigan dairy farms, as well as tools to calculate usage.

The guide was the basis for a train-the-trainer program during summer 2007 for an engineer from the Michigan Energy Office, dairy cooperative staff members and MSU Extension educators.

The audit program analyzes energy use for a specific agricultural enterprise and identifies areas where efficiency improvements can be made with projections of amounts of energy saved, along with costs of implementing the changes and pay-back projections. One of the participants was Mike Erdman, Menominee County MSU Extension director and agriculture and natural resources educator.

"I wanted the training so I could take this to producers across the U.P.," Erdman says. "It focused on dairies because they are the most energy-intensive, but this could work in any operation."

The results of the audit can include improvements in productivity, safety and operator comfort that are likely to occur in numerous situations as one implements a strategy of reducing energy use through efficient and effective upgrades, modifications and practices.

"The producers were pretty astute about what needed to be done," Erdman says. "This will help them see the cost savings and maybe provide greater impetus for implementing changes."

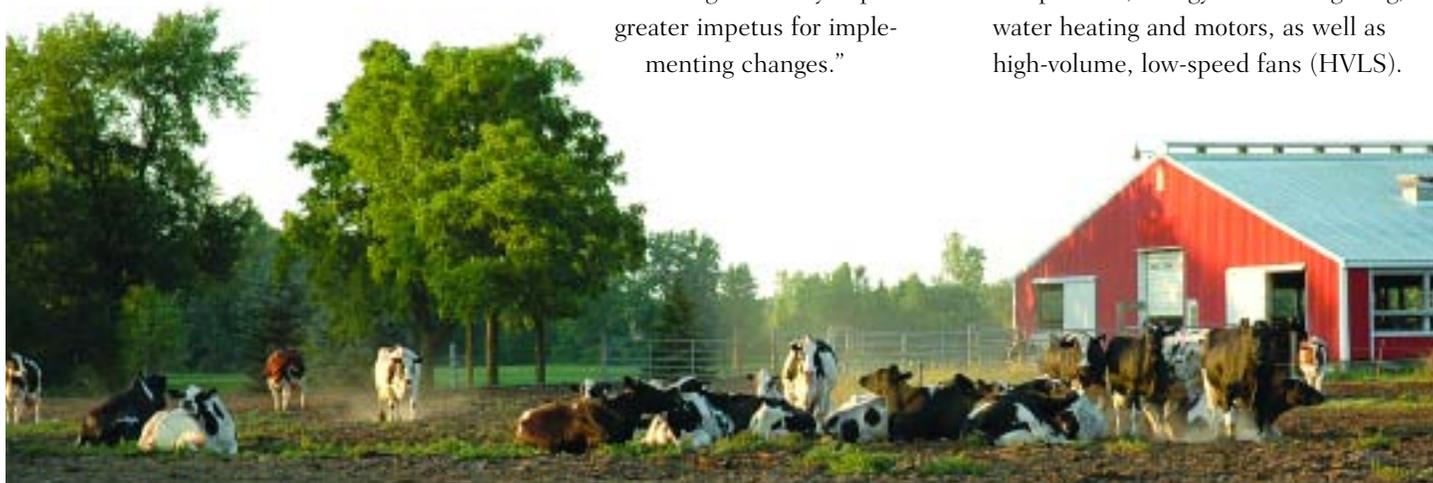
Erdman conducted one audit at Marsicek Farms, L.L.C., near Wilson. Raymond Marsicek appreciated the help in making sure that a new barn he was constructing maximized its energy efficiency.

"We heard different stories about how much lighting we needed," Marsicek says. "I went to Mike and he came out and checked on it all. We went into the old barn to see the lighting we had and he told us what we could improve. We got energy-saving fixtures in our new barn — it's bright and it's nice."

The audit training was conducted by Truman Surbrook and Eric Wittenberg, both MSU Extension specialists in biosystems and agricultural engineering and agricultural economics. The team also evaluated cost savings for a pilot group of farms where the audit was conducted.

While they are waiting for the final analysis of the program, Wittenberg notes there were common savings to be found on most operations related to milking parlor compressor motors and lighting.

The main energy-saving technologies for dairy operations include refrigeration heat recovery, heat exchangers that use well water to cool milk, variable frequency vacuum pumps, refrigeration compressors, energy-efficient lighting, water heating and motors, as well as high-volume, low-speed fans (HVLS).



MSU Receives Grant to Explore Cellulosic Biomass Extension Education Needs

In a milking parlor, vacuum pumps can be equipped with variable-speed suction so that they work when attached to an udder but power down between cows, saving a considerable amount of money. Surbrook also noted that cooling systems can be modified so that milk leaving the cow passes through plates that transfer heat to water needed for use in the parlor. This means that less energy needs to be used to cool the milk once it reaches a bulk tank, and water is warmed with less need for additional energy for heating.

Steve Harsh, MSU Extension specialist and professor of agricultural economics, added that some farmers found savings without making changes in their facilities.

“Some of them saved money after they found they were being charged for electricity at the homeowner rate rather than farm rates and made that change,” he notes.

Two additional train-the-trainer programs are planned to help other professionals who work with dairy producers understand how to conduct the audit so it can be offered on more farms across Michigan. Harsh says that the Michigan Agriculture Energy Program’s next target for exploring cost savings is the greenhouse industry.

He received a grant from Project GREEN (Generating Research and Extension to Meet Economic and Environmental Needs), the plant industry initiative at MSU, to develop a similar audit program for managers in this \$193 billion per year industry.

“They are major energy users,” Harsh says. “In 2008, we’ll look at how we can capture solar heat in the summer and use it in the winter.

“We haven’t yet found a farm where there couldn’t be a major cost saving and, environmentally, a smaller carbon footprint made,” Harsh continues. “It’s a win/win for the environment and for farmers.”



There’s a growing urgency to develop new technologies for producing alternatives to petro-

leum-based fuels using renewable resources. Public and private organizations are engaged in research to harness the biomass produced in forests and fields, but how will that research be disseminated to entrepreneurs, forest managers, farmers, landowners and emerging industry managers?

To find the gaps that exist between research and education, the U.S. Department of Agriculture Cooperative State Research and Extension Education System (CSREES) has awarded a one-year \$55,000 grant to MSU Extension and the MSU Department of Forestry to develop priorities for funding, developing and delivering Extension educational programs related to cellulosic and woody biomass biofuel development.

Cellulosic ethanol is produced from plants such as grasses, shrubs and trees. Considerable research is under way in both the public and private sectors to develop processes that efficiently convert these products into ethanol and other renewable fuels. Alongside that work stands a need for education for those engaged in producing raw material for that industry, especially forest managers and landowners who want to market their timber and grasses.

“As the markets develop and the price of corn goes up because of its use

for ethanol, cellulosic ethanol will become economically competitive. This seems to be the consensus nationwide,” says Karen Potter-Witter, MSU professor of forestry. “We will identify Extension education needs nationwide related to cellulosic biomass.”

Just as the producers of corn and soybeans have done for generations, grassland and forest managers will be looking to state land-grant colleges and universities and the Extension system for help in managing their crops to enhance their viability and marketability for woody biomass production. On the production side, facility managers and engineers are facing issues related to handling and processing new fuel inputs and products.

The MSU project will be led by Potter-Witter and MSU forestry specialist Georgia Peterson. They will begin by convening a team to examine current Extension programs related to biomass production and evaluate them against a set of criteria. These criteria include adaptability across regions and states, potential for integration into existing programs as well as stand alone as a new activity, and scalability among communities of varying sizes. They’ll also look at the programs’ outcomes and outputs and whether they point to a need to develop Extension experts for their delivery.

They will use the information gleaned from that work to form a multi-disciplinary panel of Cooperative Extension natural resource educators from across the United States to look at what exists and what is needed, and to develop a gap analysis.





Bullying in the bull's-eye

4-H takes aim at bullying behaviors

Once upon a time, small groups of grown-ups sat playing with children's toys. But this wasn't a fairy tale, and these adults weren't really playing — they were studying the toys. Bratz dolls and Transformers, pink makeup kits and black monster trucks, play kitchen utensils and wrestling action figures — each group studied a different toy as intently as if defusing a bomb.

But maybe the toys *are* bombs of a sort, set to detonate when children start exploring the boundaries of gender roles and expectations. This "Toys 'R' Teachers" exercise shows how society often uses toys to teach girls and boys how to fit inside the "gender boxes" we've created.

According to Janet Olsen, MSU Extension 4-H program leader and co-creator of the workshop Mean Girls and

Real Boys (MGRB): Exploring Bullying through the Lens of Gender and Other Differences, taking a close look at toys and children's advertising is useful for examining expectations and stereotypes based on gender, race, sexual orientation and other differences that fuel the growing problem of bullying. Before participating in the "Toys 'R' Teachers" exercise, participants at the MGRB training watched several advertisements for "gendered-toys" — those specifically targeted to one gender. The differences are striking — ads aimed at girls featured pastel colors, gentle music and images of girls engaged in activities that centered on their looks, marriage potential and ability to nurture. Ads aimed at boys were often dark and loud, with images of boys engaged in violent or competitive behavior focused on domination and power.

"We've all seen these ads on Saturday mornings, but how often do we consciously and critically examine the content?" Olsen asks. "When ads are viewed side by side, the differences are startling and disturbing, and we can often use them to make connections to gender-related bullying behaviors."

In fact, much of what is brought to light during MGRB sessions is disturbing. For instance, during "The Gender Box," participants explore examples of gender expectations for girls and women and boys and men — and what happens when people step outside the box. The "real boy" gender box can demand that boys be dominant, buff, racist, violent, sexist, hypersexual, silent and emotionally distant. Boys who step out of the box may be ostracized, called demeaning names and left out of group activities.

The “good girl” gender box often places girls and women in an impossible dichotomy, such as being sexy but not sexual, and smart but not too smart. Other expectations include being polite, passive, pretty, emotional, and ever willing to serve others and to please men and boys. The penalty for stepping outside the box can be harsh, with girls risking being labeled with obscene names and being subjects of cruel actions.

Olsen developed MGRB with Karen Pace, 4-H program leader, and Dionardo Pizaña, MSUE diversity and personnel specialist, in response to a trend that scapegoats girls through books, articles and movies such as “Mean Girls,” “Odd Girl Out” and “Queen Bees and Wannabes.”

They interviewed youth, listening to see how gender- and difference-based messages get played out in youth settings. They got an earful.

Boys shared their concerns about what happens if they step outside the “real boy” box. Some commented on the pressure to remain tough and strong — “I’m not supposed to show some extremely sensitive emotion unless I was like at a funeral or something.” Others shared their fears of being targeted with the labels that come with stepping outside the box. One boy said, “If you don’t fit the real boy box, girls won’t want to go out with you ‘cuz there will be a stereotype going around.”

One 10th-grade girl said she thought school was supposed to be a place of refuge for kids, but instead “it’s like a place of torture.” She shared a story about her best friend, saying she “is very boyish and gets talked about. They call her a he-she. She came home crying one day and I was like, ‘What’s wrong?’ and she said, ‘Somebody pulled my pants down today to see if I was a boy or not.’”

According to the 2005 Centers for Disease Control *Youth Risk Behavior Surveillance* survey, 7 percent of Michigan students in grades 9-12 indicated that they did not go to school on one or more of the 30 days preceding the survey because they felt unsafe at school or on their way to or from school. That means that nearly 38,000 students missed school or skipped school out of fear.

Shocking? Probably not to adults who regularly work with youth and see bullying behaviors all the time, and certainly not to youth. But seeing bullying and doing something about it are two different things. According to research, young people regularly report that adults don’t do enough to stop bullying. One boy reported seeing teachers actually laugh along with the “teasing” instead of stopping it. Others said adults sometimes step in to stop an incident but rarely go on to address the underlying causes of the bullying.

Many adults don’t feel equipped to deal with bullying — and some even deny the extent of it. One of the main goals of *Mean Girls and Real Boys* workshops is to heighten the awareness of adults about bullying and give them — and youth — some tools for addressing the issue. Workshop participants explore ways to engage youth and adults in activities and conversations, to build their critical consciousness about cultural messages and their impacts, to develop media literacy skills and to work in partnerships with youth for positive community change.

Though it’s too soon to tell what effect MGRB sessions are having on bullying behaviors — the program began in September of 2007 — it’s clear there is a tremendous need for such training. More than 340 teachers, social workers, guidance counselors and juvenile justice system employees have attended eight MSU Extension-hosted workshops across the state. Several of the sessions had waiting lists, and some counties plan to offer the training a second time to accommodate all who want to attend.

When asked why 4-H is the right place for *Mean Girls and Real Boys*, Olsen says, “One of the guiding principles in Michigan 4-H is to provide positive experiences where young people are physically and emotionally safe. With this work, we’re focusing on helping young people and adults work in partnership to create safe, caring and just communities.

These workshops provide a step toward helping all of us build critical consciousness around these issues and to find ways to create positive change in the lives of young people.”



Clean marinas lead to clean waterways

Situated on the deepest natural harbor on the Great Lakes, Walstrom Marine's headquarters at Harbor Springs on Lake Michigan provides slips for 150 boats. Its Cheboygan facility on Lake Huron has dockage for 30 more. CEO Ward Walstrom is proud of his company's facilities and services, and he's equally proud to be a leader in Michigan's Clean Marinas program.

The program's purpose is to assist marina and boatyard operators in managing profitable businesses while protecting and enhancing the quality of Michigan's waterways by using best management practices to reduce non-point source pollution.

The public-private partnership between the Michigan Boating Industries Association (MBIA), the Michigan Sea Grant College Program and the Michigan Department of Environmental Quality (DEQ) has produced training materials, presented workshops and conducted on-site inspections of facilities seeking designation. To date, more than 50 marinas in 20 coastal counties and two inland

counties have pledged to become designated as Clean Marinas.

"The water is really clear here, and it's a resource we want to protect," Walstrom says. "We're doing business by using the resource, so it's appropriate and necessary that we take care of it."

That's why Walstrom and 14 other Michigan marinas, including one municipal and five state-owned facilities, have gone through the 10-step Clean Marinas process. Designation requires compliance with 16 mandatory and 10 optional pollution prevention actions, including using non-toxic antifreeze, practicing fuel and oil spill prevention techniques, adopting non-polluting waste disposal practices and storm water controls, and obtaining required permits.

"We were already using about 80 percent of the best management practices when we took the pledge, and we've definitely improved," Walstrom says. "One thing we didn't have was an emergency plan, and we're really glad we developed one. Now we're planning to have a drill to simulate what we would do in case of an oil spill into the water. Changing from oil-based to aqueous

parts cleansers has helped us reduce our pollution potential."

In addition, more than half of Walstrom's slip customers have signed Clean Boater pledges.

"We've publicized the Clean Marinas program in our newsletter, Docklines, and we've conducted seminars for boaters and provided tip sheets on recycling, waste disposal and fueling practices to minimize pollution from their individual activities," Walstrom explains. "We've also led tours of our facilities for other marina owners/operators who are considering taking the pledge."

Many of Michigan's marinas are located in southeastern Michigan, where the Clean Marinas program piloted a plastic shrink-wrap recycling project in 2007. Instead of being discarded into area landfills, 150,000 pounds of reusable plastic were recycled.

Sea Grant Extension's state program coordinator Chuck Pistis, MBIA president Van Snider and DEQ representative Jeff Spencer see benefits in the program for boaters, the marinas and boating industry, and the environment.

- Boaters benefit by having cleaner waters to cruise, swim and fish in.
- Marinas benefit by having a safer, cleaner environment for their employees, by enhancing their public image through promoting environmentally sound practices, and by saving money by adopting cost-effective best management practices, thereby increasing their property values and attracting more boaters and business.
- The environment benefits from less pollution, improved water quality, and better fish and wildlife habitat.



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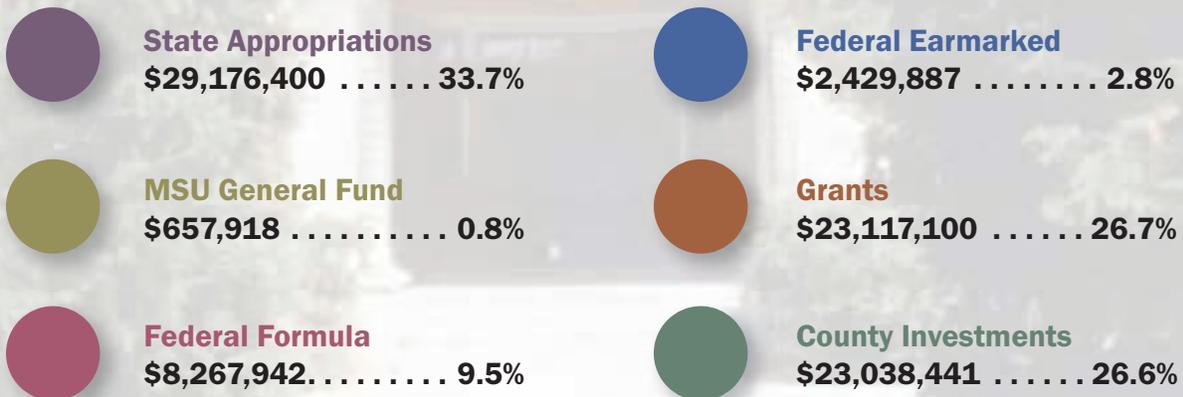
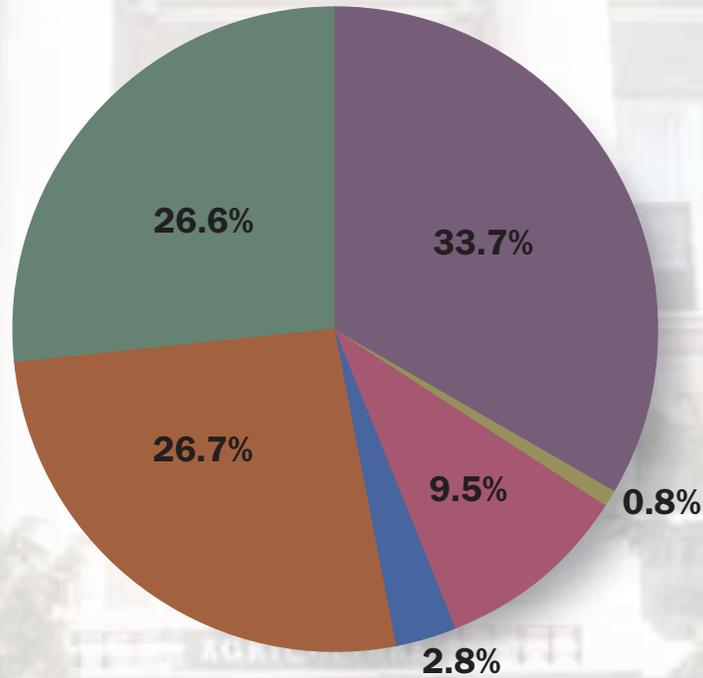
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