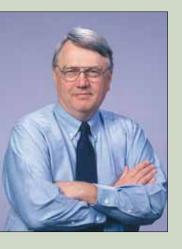


from the dean



AS RELEVANT TODAY

This year marks the 150th anniversary of the Morrill Act, signed by President Abraham Lincoln in 1862. Our great American land-grant university system was created by this Civil War-era legislation. Historians often rank this among the most positive and long-lasting of American inventions.

The Morrill Act created in every state at least one public university with a mission that included increasing public access to higher education and blending practical agricultural and mechanical studies with the liberal arts and basic sciences. Legislation that followed over the next five decades added research and extension to that mission; thus these universities became powerful drivers

for the application of research discoveries to benefit all Americans. Throughout the 20th century, the land-grant system grew through strong partnerships among the national and state governments and local communities.

Initially, the land-grant universities were charged with focusing on agriculture and mechanical arts, but like the University of Kentucky, most have now evolved to become comprehensive institutions. The nation has changed dramatically, and most appropriately, the land-grant mission has changed with it. Even our own College of Agriculture continues to expand the scope and diversity of both our stakeholders and the programs we offer, now touching almost any issue or opportunity linked to agriculture, food, and the human environment.

But now, 15 decades after the Morrill Act, is the mission still as relevant and important as it was in the 19th century? Is the land-grant system still important to the nation?

Some observers wonder if our land-grant values are being eroded. Access to higher education is threatened by rising student costs. Public support of research and education must compete with other needs in a difficult economy. Some emerging nations are making greater investments in science and education than is America.

Certainly, the needs remain as relevant today as they were in 1862: a highly educated citizenry, leadership, wise and beneficial applications of science and technology, secure food and energy supplies, and strong and stable community economies. Since the beginning, the goal of land-grant institutions has been to address these challenges, and nothing has altered that in the present day.

Upon signing the Morrill Act, President Lincoln stated, "The land-grant university system is being built on behalf of the people, who have invested in these public universities their hopes, their support, and their confidence."

That confidence of the people for their land-grant universities has been sustained for 150 years. If land-grant universities adapt to change, continue to be responsive, and always keep in mind that we were "built on behalf of the people," we can continue to earn their support for another 150 years.

M. Scott Smith

Dean, College of Agriculture

magazine

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Paul Hornback and Rod Kuegel were young men trying to raise families and get their farming operations off the ground 27 years ago. But they took on an additional challenge, and it's still paying off.

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Flexible Classroom, **Engaged Students**

THIS SPRING, STUDENTS in one agricultural economics class will take the same exams at the same times in the same location, but how they learn the material may be very different. **Agricultural Economics Professor Roger Brown** and graduate student Sara Williamson embarked on a creative approach to teaching Agricultural Economics 305 as a hybridstyle class. When students enroll in "Principles of Agricultural Marketing," where they analyze the market's role in agricultural and

Brown's help. direction." model of nnovation

food systems, they choose to take the class in a traditional classroom setting or online via their home computer.

"We wanted to appeal to students' different learning styles. Some students need a more structured experience, while others do better with more flexibility," Brown said.

Students in the traditional class must participate in weekly class discussions and peer-assisted writing exercises. The online students must write a 20-page term paper on a market they choose with

campus, 15 minutes away. I give it one morning a week. "It's a different ap-Anything else I need to do, proach," Brown said. "By such as writing grant proposals, is in the evening hours. letting students choose I've deliberately restricted the delivery method, we my work there, because I hope they will be more enhave to protect my primary gaged. The more options responsibility, which is to the students have to learn the University. material the better. This is iust another step in that What has been most

> A I'm proud that we've been able to provide good iobs for five full-time employees. And I've been introduced to the community of small businesses, often funded by venture capitalists. I love being around people who are so positive, who are looking

gratifying about the business?

for ways to go forward. Business has to make money of course, but it's also about

Part of the job is reviewing patent activity. I want to demystify the patent application process, so faculty can recognize when something has commercial potential. The other part of the job is mentoring, taking the lead in the College's entrepreneurial activity. There's some thought in academia that commercialization is selling out. It's not that clear-cut, in my opinion. Taking part in economic development is another way of accepting responsibility. It's not for everyone, but it's im-



BRUCE WEBB

In 2004, Bruce Webb, UK professor of entomology, cofounded ParaTechs, a Lexington-based business that offers several scientific products, including patented technology to speed up protein production for medicines and biological pesticides that will help both human health and the environment.

How do you keep the business separate from your **University work?** doing societal good. Easily. ParaTechs is off-

You serve as the College's commercialization executive. What do you hope to accomplish in that job?

portant that some of us do it.

Ka-Pow! Take That Bullies!

impson County 4-H'er Allyson Wilkerson saw national news reports of teen suicides because of bullying and knew something had to be done. Once a victim of bullying herself, she bravely stood up at a meeting of the 2010 4-H Teen Council and suggested the group target the issue. The nearly 60 other teen council members agreed.

The teen council members collected and received training on existing 4-H bullying resources with the goal of educating others in their county.

Wilkerson started an I Resist Bullies program with two other Simpson County teens, who were also victims and working on bullying awareness. Through I Resist Bullies, they took their personal stories to seventh-graders at Franklin Simpson Middle School. After their program, 15 students received follow-up counseling for bullying-related issues.

"In middle school, we start seeing the long-term effects of kids who have been bullied since kindergarten. They're depressed, suicidal, and even homicidal," said Todd Hazel, the school's social worker. "The teens contacted us about their program, and we welcome anyone that can assist us with bullying education."

The teens also have taught the program outside of Simpson County, reaching a total of 700 young people. They began training a new group of Simpson County 4-H'ers to teach bullying education in fall 2011.

"Our goal was not to change lives or minds, but to let them see what we're seeing," said Wilkerson, who's now a theater major at UK. "It's surreal that

SPRING 2012

our program has helped change people's lives."

Bullying has been a problem among young people for years. The issue has risen to the forefront in the past five years as cyberbullying has skyrocketed.

In Muhlenberg County, Tommy Harrison, 4-H youth development extension agent, said bullying caused young people in the county to be home schooled, and families have left the county so their children could escape bullies.

It was no surprise to him that community leaders identified bullying as the top pressing issue they'd like to see six teens and an adult leader Negative Decisions received from elementary principals.

To do this, they created and transformed into super heroes, each combating a different type of bullying. The super heroes were unveiled during an assembly for all the fourth- and fifth-graders in the county and cardboard cutouts of the students were placed in each of the county's elementary schools. They also went into all fourth- and fifth-grade classrooms to discuss the is-

For some of the teens, it was a chance to share their personal story.

Dylan Simmons thought he

feelings, would you stop?" he said. "After that, I stopped."

IS A SIGN OF WEAKNESS

While the 4-H'ers may not be able to stop all cases of bullying, they are raising awareness of the issue with young people across the state, with the goal of making young people think twice before they say, post, or act with the intent to hurt others.



The Ag Magazine

NEWS in brief

HE'S ALL ABOUT PEOPLE

BUILDING RELATIONSHIPS is what Larry Grabau is about. You can see it in his smile as he interacts with students. You can hear it in his voice when he describes working with department chairs. And it's even more obvious when he asserts, "I have really enjoyed working with the people in the Office of Academic Programs."

Grabau was named associate dean for instruction in August after his predecessor, Larry Jones, retired. He brings to the office years of experience as a teacher, researcher, and former director of the University's Teaching and Learning Center.

"Mostly this job is about interactions with people, about relating to faculty and to students and staff," he said.

Grabau joined the College in 1984 in what was then the Agronomy Department. His assign-

ment leaned more toward research, but it wasn't very long before he'd convinced the powersthat-be to give him more classes to teach.

It makes sense that now the man who loves teaching oversees instruction in the College. Among other tasks, Grabau works closely with department chairs to manage curricula, and he and Dean Scott Smith are working

to achieve an academic enrichment experience for every College of Agriculture student, whether that would be study abroad, an internship, or a research project.

As for growth? Grabau cited the rapidly growing human nutrition and equine science and management majors as success stories, as well as the social sciences in general. However, in keeping with someone who has held a role in the development of the natural resources degree program, Grabau would like to see other areas of the College expand.

"Forestry, natural resources, landscape architecture, sustainable agriculture, biosystems and ag. engineering— those programs are growing," he said. "I'd like to see more growth in [these] environmental areas, and I think we have that space."





Mark Coyne and Yvonne Giles are "leaving the world a little better" by helping restore African Cemetery No. 2 in Lexington.

Leave the World a Little Better

Yvonne Giles '67, '77g started coming to Lexington's African Cemetery No. 2 as a way to find her roots. Now, more than 10 years later, she can easily recite a little nugget of information about nearly each of the 1,132 visible markers at the cemetery—46 of which mark the graves of her family members.

Established in 1869 by members of the Union Benevolent Society No. 2, the cemetery is believed to be the final resting place of more than 5,000 individuals, some of whom were prominent figures in the state's early horse racing history.

"If we didn't have cemeteries, we wouldn't have a history, particularly African-Americans, because not a lot of our history is written down," said Giles, a member of the cemetery's board of directors and a former Cooperative Extension agent for home economics in Oldham County.

Aware of her knowledge of the cemetery's history, fellow board member and University of Kentucky College of Agriculture soil scientist Mark Coyne approached Giles about helping UK students conduct genealogical research on notable individuals interred at the cemetery. The Young Equine Scholars Initiative was part of a UK Commonwealth Collaborative in 2010 and 2011. Former UK President Lee T. Todd, Jr. started the collaborative to draw

on UK's resources to address issues that were keeping the state from making cultural and economic progress. Coyne, fellow UK employee Allan Hetzel, and Anne Butler from Kentucky State University were the initiative's primary investigators.

Since 1995, Coyne has worked to improve the cemetery's grounds, which through the years have seen periods of neglect.

"I have always been interested in the look and feel of cemeteries as places out-of-step with the pace of modern life," he said. "I started at the cemetery through a work day sponsored by the Bluegrass Chapter of the Soil and Water Conservation Society. Continuing to be involved in its restoration was a way of actively promoting the goals of that society."

In fall 2011, Coyne received a grant from the UK Ag and HES Alumni Association to make additional cemetery improvements. With this funding, he involved UK students, who volunteered a day of community service through UK FUSION to help weed and mulch the grounds. He also partnered with UK's Forestry Club to remove two dead trees.

"I think it is important as individuals that we leave the world a little better than the way we found it," Coyne said. "Restoring the cemetery is my contribution to that effort."

SHORT ROWS

tick watch

Ah, the dreaded tick, no doubt luxuriating in humid spring weather and the increased activity of humans and animals as warming temperatures draw us into woods and fields. Want to send them scurrying? Keep those pastures trimmed and brush cut back, said UK entomologist Lee Townsend. "Direct sunlight and low humidity are their enemies."

1/4
starchy foods
1/2
vegetables
1/4
meat
Plate
Ab
ONE
glue
the
stre
oth
dial
your
nutritie

Plate It
Abate It

ONE WAY to decrease blood glucose levels, reduce the risk of heart disease, stroke, eye disease, and other complications from diabetes is by "thinking your plate," according to UK nutrition and food scientist Ingrid Adams. It's all in food choices and portion size.

A Fungus Among us gourmets

Small-scale producers looking for marketable products

might want to consider shiitake or oyster mushrooms. The market is growing like fungus on a damp log, said Deborah Hill, forestry

extension professor emeritus.

Restaurants, organic and whole food markets are the main outlets for the log-grown mushrooms, but other options include smaller local food stores and pizza parlors.

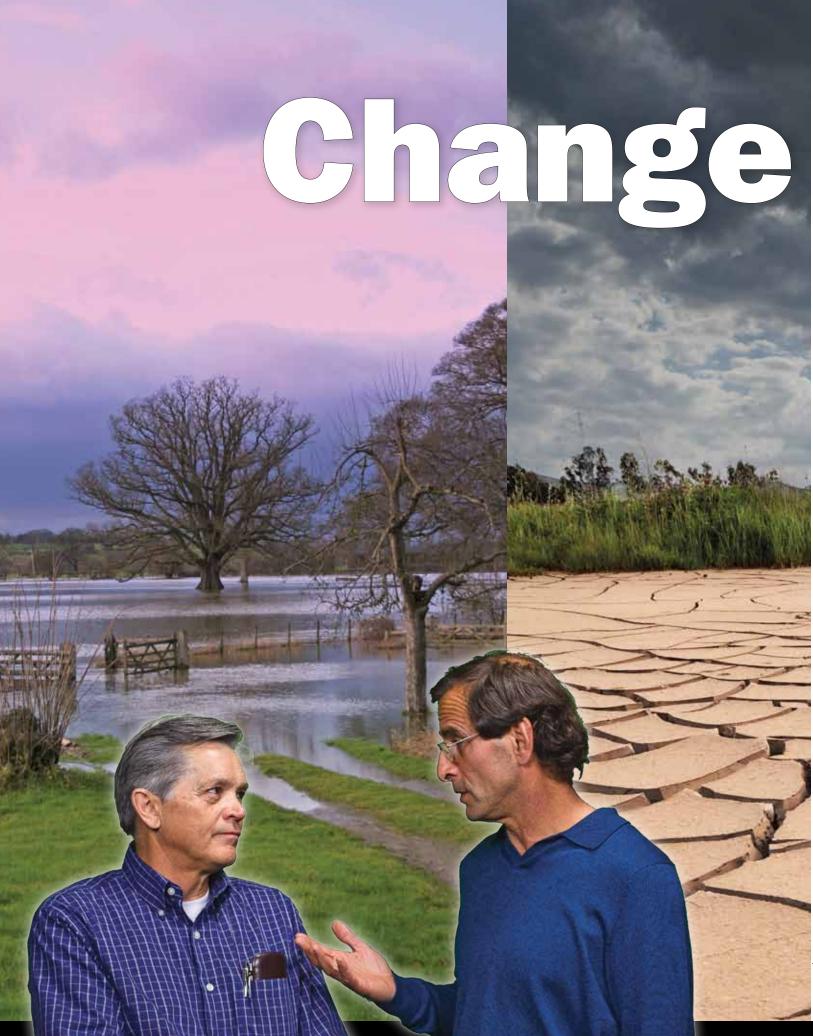
Bigger Not Always Better

Ray Smith, UK forage extension specialist, is a proponent of rotational grazing. He recommends using portable fencing to divide large pastures so the farmer, not the animal, decides when, where, and what plants get consumed. What difference does it make? Smith said rotational grazing, also known as intensve grazing, has the potential to increase profit margins by increasing the yield of animal products per acre and cutting costs in a number of other areas

Herald of Spring

It's spring, and nothing announces that fact better than the sunny-faced daffodil. Sharon Bale, UK extension floriculture specialist, recommends these yellow, pink, or white perennials for any landscape or home décor. They're easy to grow and exceptionally long-lived. Blooms on ancient plantings often mark the existence of old homesteads and the people who tended them, long after they and their buildings are dust.

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Change by Degrees

Don Halcomb doesn't want to be the proverbial frog in a pot.

He looks across his fields and tries to picture what his Logan County farm will look like in the future. He wants to have a good plan in place, but he needs some help to do it.

Halcomb grew up on this land. He remembers a time when he was 5 or 6 years old when his family grew corn to be fed to their cattle and pigs, which were then sold at the stockyards. The only crop they sold off the farm in any great volume was wheat.

"In my lifetime," the 58-year-old farmer said, "the crop rotation has changed unbelievably. We don't have any livestock. All the grains we grow are sold to someone else, and we're growing half our acres in soybeans that we didn't even grow when I was a child. That whole crop rotation has changed in my lifetime, and I think it could change again."

You see, Halcomb is concerned about the effects of climate change.

"The things I've read, it seems to me it's pretty well fact that the global average temperatures are increasing," he said. "I don't really need to hear the argument about why it's happening, as much as the documentation that it is happening, and therefore, I need to learn how to adapt to the change."

Which brings him back to that frog in a pot.

"You know the old story about how to boil a frog? You start him out in cold water, and you let it simmer. He never realizes he's boiled until it's too late," he said. "I think that's where we are with a lot of issues, because the annual change is very small, but I think the impact over time could be large."

Trained to Doubt

GEORGE WAGNER AND PAUL VINCELLI are skeptics. As scientists in the College of Agriculture, their profession demands that they question and dig deep to find answers. When it comes to the question of

whether the earth's climate is changing, they doubt no more. What's convinced them? The scientific evidence and the consensus of nearly 98 percent of the world's most expert climate scientists.

"There are more than 10,000 refereed papers on the subject. I know what it means when climate scientists publish paper after paper after paper in refereed journals about the topic. I know that each one of those is a monumental task to get it through a review process by experts," said Vincelli, who as an extension professor in Plant Pathology has 35 published papers in peer-reviewed research journals to his credit.

"But it doesn't stop there," said Wagner, who is a professor in Plant and Soil Sciences. "Science never stops questioning the original hypothesis, so it keeps getting polished even after it's published. And that's why it's so significant to me that 97 to 98 percent of expert scientists agree that climate change is real. That's an incredible consensus."

Despite that consensus, the subject of climate change can raise some hackles. College of Agriculture Dean Scott Smith acknowledges the sensitivity of the issue, but also recognizes the importance of additional discussion and research.

"Our role is not to take sides on all the related policy issues, but we owe it to our stakeholders to conduct the research that will keep them competitive in ever-changing world markets, and always variable weather," he said.

To that end, Vincelli pulled together a team of specialists representing all areas of the College to create a Cooperative Extension publication titled "Climate Change—A Brief Summary for Kentucky Extension Agents." The publication and accompanying training sessions for agents are promoting discussion in the Extension Service about climaterelated changes that could affect Kentucky and how producers can prepare.

"I don't really
need to hear the
argument about
why it's happening,
as much as the
documentation
that it is
happening, and
therefore, I need to
learn how to adapt
to the change."

-Don Halcomb



George Wagner (left) and Paul Vincelli are skeptics.

As scientists, they question and dig deep to find answers.





Paul Vincelli (top) holds climate change workshops for extension agents, while George Wagner has incorporated the topic into several of the courses he teaches.

"We owe it to our stakeholders to conduct the research that will keep them competitive in ever-changing world markets."

—SCOTT SMITH

Dean, College of Agriculture

Shattering Records

IN A REPORT ISSUED at the end of last year, the National Oceanic Atmospheric Administration stated that 2011, with its 12 weather-related billion-dollar disasters, broke the old record set only four years ago, when there were nine such disasters.

Very few will argue that the weather pendulum seems to have swung to the extremes. Speculation on the effects of atmospheric warming by the world's scientists covers everything from rising sea level, to drought, flooding, and wildfires. The Intergovernmental Panel on Climate Change is the leading international scientific body on the subject. In their latest report they stated that multiple stressors such as limited water resources, loss of biodiversity, forest fires, insect outbreaks, and air pollution are reducing resilience in the agricultural sectors. What will all this mean to Kentucky agriculture—the biggest driver of the commonwealth's economy?

Rebecca McCulley and David Van Sanford, both professors in Plant and Soil Sciences, are heading up the College's new Climate Change Working Group. The group includes Wagner and Vincelli and specialists in the diverse fields of animal and plant sciences, entomology, soil, forestry, sociology, economics, and geography, as well as climatologists from Western Kentucky University. Their goals are to identify the most pressing research and outreach issues related to climate change and agricultural production, to set priorities for action, and to generate ideas for enabling Kentucky producers to deal with changing environmental conditions.

Three Degrees of Separation

MCCULLEY, WHOSE AREA OF EXPERTISE is forages, has already seen some of the impact of environmental changes through research funded by the U.S. Department of Energy's National Institute for Climate Change Research. At the College's Spindletop Farm, McCulley uses infrared radiant heaters and a plusprecipitation treatment to study the effects an increase in air temperature of three degrees Celsius and/or a 30 percent increase in rainfall will have on forages.

"We saw pretty dramatic changes in the plant community composition faster than I would have guessed we'd see," she said. "We've seen substantial increases in annual C4 (warm season) grasses, which are typically considered weeds here in Kentucky. Crabgrass is a big one."

Four years ago, as she was beginning this project, McCulley would have predicted a reduction in forage yield from hotter temperatures. But now that she's seen these so-called "weeds" turn on under her heat lamps, she's beginning to think pastures will just look different, but the overall quantity of forage production may not go down.

"And we haven't seen major change in the quality of that material either," she said. "My colleagues here in the forage group tell me (crabgrass) is actually a pretty high quality material and cattle will eat it. So far, you never see crabgrass advertised as forage. There is no seed industry for it or breeding focused on it, but I think my research suggests maybe there should be something done on crabgrass in the future. It could fill a useful niche."

Our Own Backyard

THE MEMBERS OF THE WORKING GROUP believe that atmospheric warming will affect Kentucky agriculture over the next two or three decades. Some of those effects are good, some not so good.

"A 2008 report by Purdue University forecasts wetter springs and drier summers, as climate change progresses," Vincelli said. "So it will be harder maybe to plant, but more importantly, droughts are expected to increase in the region. At a time when you need the water most, we're less likely to get it."

Looking down the road, Halcomb considers the idea that he may have to replace corn with another crop that uses less water in the middle of the summer during extended hot weather.

"We ought to be researching crops that are more tolerant of heat and use water more efficiently," he said

Halcomb is in a position to encourage that type of work. He is the chair of the Kentucky Small Grain Growers' Association's Promotion Council, and he convinced the association to request proposals for climate change research. The association granted \$5,000 to McCulley, Van Sanford, and graduate student Katie Russell for a study examining the impact of climate change on wheat production in Kentucky. Van Sanford, a wheat breeder, explained that the study will include a literature search and assessment of the likely impact of climate change on wheat production and yields in Kentucky. Additionally, the group will host a workshop featuring key climate change scientists. That event will take place February 20 and 21.

"We intend to invite several preeminent scientists in the field, so they can help us decide what the level of our activities should be, given the resources that we have," he said.

Van Sanford is also among more than 50 principal investigators from U.S. universities working on a \$25 million Agriculture and Food Research Initiative project, "Breeding Barley and Wheat for Changing Environments." He and his UK team are looking at nitrogen use efficiency in wheat.

"I think we need to be cognizant of climate change and be prepared for variability. This research also dovetails well with the situation in Kentucky and with a lot of the wheat growing regions of the U.S., where farmers have to be very concerned about how they manage their nutrients, not only for their own economic reasons, but for environmental reasons," he said.

Capacity for Change

LOOKING INTO A CLIMATE CRYSTAL BALL is iffy at best. No one can definitively say what the climate will be like in the future. But current data does point toward possible scenarios. There is a potential for increased yields for soybeans and reduced corn yields. Cool-season forages might diminish, but warm-season grasses could flourish. Planting times and growing seasons could change, affecting crop selection and rotation. An increased incidence of crop failure and more variability in crop performance from year to year is possible, which would require more emphasis on risk management. Farmers could face increased pressure from diseases, pests, and weeds. And livestock production during the summer months would likely decrease because of the possibility for extreme heat.

The UK Ag team believes the potential is there to adapt to change and even turn things around. Van Sanford has been encouraged by the conversations he's had with growers.

"They can get excited if they think about other crop opportunities or planting date flexibility, things like that," he said. "Farmers are all very forward thinking individuals. Successful farmers pretty much have to be."

"My overall thought is it's time," Halcomb said. "It's certainly time for Kentucky to have the discussion, and we ought to be able to do some research to see how to adapt."

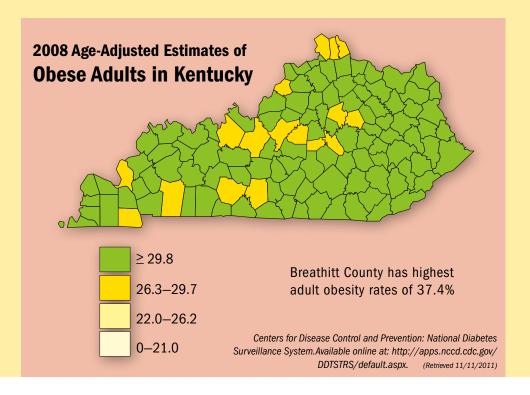
Katie Russell and David Van Sanford are examining the impact of climate change on wheat production in Kentucky. Rebecca McCulley uses infrared heat lamps to raise the ambient air temperature over her forage research plots by three degrees. The result so far? More crabgrass, which might not be a bad thing.





TO YOUR HEALTH, KENTUCKY

It's no secret that Kentucky ranks near the top or leads the nation in some health statistics that it would rather not. A high prevalence of **obesity**, a high rate of **cancer deaths**, and a high number of **poor mental** and **physical health** days each month are just some of the reasons the state ranked 44th in the nation in the 2010 America's Health Rankings.



by Katie Pratt

FOR YEARS, University of Kentucky Cooperative Extension Service agents have been implementing grassroots efforts to target these unflattering health statistics, and they are making a difference in the lives of many.

"Family and consumer sciences extension agents are trusted and respected members of their communities," said Ann Vail, UK assistant director of Family and Consumer Sciences Extension.
"When they promote certain health behaviors, they have a great deal of credibility, so people tend to listen."

lives saved

A fellow Crittenden County Extension Homemaker urged Micki Crider and other club members to go to a free UK HealthCare ovarian cancer screening in 2004. Her screening showed stage 1 ovarian cancer, and within a short time, she had surgery to remove it.

"I don't think I would have known I had the disease had it not been for the screening," she said. "Ovarian cancer is such a silent disease, often with no symptoms. Because of this, many times the cancer is too far advanced by the time it is found."

According to UK HealthCare, ovarian cancer accounts for 3 percent of all cancer diagnoses in women and 6 percent of cancer-related deaths in women.

Now, Crider is tested annually for ovarian cancer; she remains cancer free.

Even before she was diagnosed, Crider, like many Kentucky Extension Homemakers, donated to the Kentucky Ovarian Cancer Research Fund. Homemakers



started contributing to the fund in 1977 at the request of the late Virginia McCandless, who was State Health Chair of the Kentucky Extension Homemaker's Association and battling ovarian cancer. The original goal was for Homemakers to donate \$1 per member. Fundraising efforts have continued since then with total donations reaching \$1.1 million in 2011.

In addition to research, the Extension Homemaker donations help fund UK's free ovarian screening program. UK began offering screenings in 1987 and since has detected 80 cases of ovarian cancer, 70 percent of which were like Crider's—in the early stages and treatable.

support helps

Around the same time she was diagnosed with ovarian cancer, Crider discovered she had Type 2 diabetes. As a Kentuckian, she isn't alone. Statistics from the Centers for Disease Control and Prevention show that the percentage of Kentucky adults diagnosed with diabetes has steadily increased each year since 1994. All but 25 Kentucky counties have an age-adjusted estimate of more than 10 percent of the adult population being diabetic.

To help people come to terms with and control their diabetes, Ingrid Adams, assistant extension professor for nutrition and weight management, developed the Taking Control of Your Diabetes curriculum that focuses on many issues related to diabetes including how to eat and manage blood glucose levels.

"We are really concerned

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Norma Jean Yankey
(I) and Kay Kennedy
display the bike
Yankey won at the
completion of Weigh
Down Washington
County. "I finally
realized I had to
make a year-round
lifestyle change,"
Yankey said.

with Type 2 diabetes because a greater percentage of people have Type 2, and it is directly related to obesity," Adams said. "What's really alarming is we're starting to see a lot of children develop Type 2 diabetes."

When Nancy Hunt, Crittenden County family and consumer sciences extension agent, partnered with the local health department to offer Taking Control of Your Diabetes, Crider knew she wanted to attend.

As a result of the classes, Hunt and interested participants formed a diabetes support group that meets each month. Crider regularly attends these meetings.

"At each meeting, I learn some little point or tip about controlling diabetes that I never knew before," she said. "I like the group setting too, because you get to hear someone else's experiences, receive feedback, and ideas."

The impacts of the class have extended beyond the extension

office; Extension has formed the Crittenden County Diabetes Coalition in partnership with the local health department.

weight loss that clicks

Positive healthy changes don't happen overnight though just ask Norma Jean Yankey of Springfield.

Prompted by seeing a vacation photo of herself, Yankey first enrolled in Washington County Cooperative Extension Service's

Weigh Down Washington County five years ago. Like many people, she found herself on a weight rollercoaster for the next four years. Most years, she reached her "Weigh Down" goal of losing 7 percent of her body fat, but by the time the annual program rolled around again, she had regained most of it.

"I finally realized I had to make a year-round lifestyle change and not just a 2 1/2 month lifestyle change," she said. "The one program that really had a lasting effect on me was the one that encouraged me to keep a food diary. It made me aware of all the unnecessary calories I was eating."

Yankey said she's lost about 30 pounds total in the five years she's participated in "Weigh Down." In addition to keeping a food diary, she has switched from 2 percent to 1 percent milk, increased her intake of whole grains, fresh fruits and vegetables, and cut back on processed foods and sweets.

Kay Kennedy, family and consumer sciences extension agent, started Weigh Down Washington County nearly a decade ago to help reduce Washington Countians' expanding waist lines. During the 10-week program, Kennedy partners with representatives of local health-related organizations and uses Extension's Weight: The Reality Series curriculum to help participants learn how to eat healthier and increase their physical activity.

"Issues with overweight and obesity affect all ages. It's not just the elderly, and it's not just the young," Kennedy said. "I've had three generations participate in the program before. A lot of wives drag their husbands in, and sometimes men are our biggest losers."

Yankey's story isn't unique to the program. Kennedy estimated about 25 percent of "Weigh Down" participants each year have attended before, which is one of the reasons she continues to host it every January through March.

"Each year I tell the 'Weigh Down' participants that this program is no quick fix. It's a lifetime change that includes portion control, healthy eating, and physical activity," Kennedy said. "Norma Jean didn't give up. It was her persistence that paid off, and like she said, it finally clicked for her."

breaking down stigmas

According to the 2010 America's Health Rankings, Kentuckians reported more days of poor mental health per month than any other state population.

Individuals aren't as open to

discussing mental health issues compared to physical health problems, because there tends to be a stigma associated with poor mental health. Another barrier is the limited access to mental health professionals and services in many rural areas, said Martha Perkins, Bath County family and consumer sciences extension agent.

"To many people, poor mental health is seen as an embarrassment or a failing on their part," Perkins said. "We wanted to help get rid of that stigma."

A few years ago, Perkins was Rowan County's family and consumer sciences agent. The county's Extension Homemakers approached her to conduct a lesson about Alzheimer's. After that presentation, they began requesting more information about general mental healthiness and, the following year, chose the topic of mental health in aging for a lesson.

She approached Debbie
Murray with UK's Health
Education through Extension
Leadership about available mental
health resources. Through a
partnership with Faika Zanjani,
UK assistant professor in the
Graduate Center for Gerontology,
and funding from the U.S.
Department of Agriculture's Rural
Health and Safety Education
Program, the Mental Healthiness
in Aging Initiative was formed.

They piloted the initiative in 11 northeastern Kentucky counties during 2008. Agents recruited community members to participate in focus forums

about mental healthiness and taught Extension Homemakers and others ways to recognize mental healthiness and to provide assistance to those who may be mentally struggling.

The agents also used social marketing, newspaper columns, and calendars to reach a larger audience. An additional 29 Eastern and Central Kentucky counties received the initiative's television marketing campaign.

In February 2009, a UK random phone survey found that individuals in the 11 pilot counties were able to better assist those with mental health issues compared to other parts of the state.

Murray and Zanjani took the results from the initiative and developed a curriculum on mental healthiness. In 2010 and 2011, it was piloted in Bath and Floyd counties, two rural Eastern Kentucky counties that were not a part of the initial pilot.

Individuals were tested before and after receiving the curriculum and then again three and six months later.

"The findings were statistically significant and indicated enduring improvement in their awareness and knowledge about mental health and substance abuse issues and aging," Murray said.

The curriculum will be released statewide this spring.

Success stories like these keep piling up as extension agents continue to implement programs to help community members improve their health and quality of life. While it can take many years for a population to make healthy lifestyle changes, extension agents will keep working toward a healthier, happier Kentucky. •

Faika Zanjani (I) and Debbie Murray developed the curriculum for HEEL's Mental Healthiness in Aging Initiative.

Taking Care of Your Diabetes

958 Kentuckians have participated since the program began in June 2011

400+ saw their health professional as means of managing their diabetes, had their A1C checked and participated in physical activity for 30 or more minutes at least five days a week.

300+ checked their blood glucose levels at least once a day, utilized a meal and set and accomplished goals for themselves.

200+ said they've moved into action and maintenance stages.

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Why Shouldn't It Be You?

Twenty-seven years ago, Paul Hornback and Rod Kuegel were young men busily trying to raise families and get their farming operations firmly established. Yet when the chance came to be in the inaugural class of an intensive agricultural leadership program, they jumped on board. That meant, commitment and sacrifice for them and their families—days away from home and work. Kuegel and Hornback were part of the University of Kentucky College of Agriculture's Kentucky Agricultural Leadership Program, then known as the

Philip Morris Agricultural Leadership Development Program. It is an intensive 18-month program designed for young agricultural producers and agribusiness people who want to be on the forefront of decisions that affect agriculture, rural communities, and society.

"I think to me the class was equal to the four years I spent at UK in terms of networking and camaraderie," said Kuegel, a Daviess County cattle, grain, and tobacco farmer. "Of the 25 guys in the class, I've had business dealings with 17, and many, many of us are still very close. I was humbled to be a part of the class."

Hornback said he saw it as an opportunity to enhance and hone his skills.

"I was taking on some leadership roles and wanted to take on a bigger role, so I committed to it, and I credit it with helping me achieve the position I'm in today."

Hornback is the state senator representing Shelby, Bullitt, and Spencer counties in the Kentucky General Assembly. He has also served in several leadership roles in farm organizations and businesses at the state and local level.

"It gives you the skills and the desire to go forward," said the Shelby County tobacco, cattle, and grain farmer.

Sen. Paul Hornback credits the Kentucky Agricultural Leadership Program with helping him achieve his current role in state government.



Kuegel said the program taught him that good leaders

cannot represent just their own views but must work

for the greater good and not always take the easiest

path. It was also where he learned about the Burley

Tobacco Growers Cooperative, a group he would later

lead through stormy times that included the master

settlement agreement and the impending end to the

In addition to serving as co-op president for 6

1/2 years, Kuegel co-chaired President Bill Clinton's

commission on tobacco farmers and public health. In

2000, The Progressive Farmer magazine named him Man

federal tobacco program.

Rod Kuegel said the program taught him that good leaders cannot just represent their own views but must work for the greater good and not always take the easiest path.

KALP directors through the years: (I-r) Larry Jones, Randall Barnett, Will Snell and Steve Isaacs. Barnett founded the program in 1985 and led it for 10 year. Jones served as director for Classes V through VIII. Snell and Isaacs are currently co-directors.

The program started when Randall Barnett, who was then assistant director for UK Cooperative Extension

continues to serve on boards and committees.

INVESTING IN LEADERS

Service, learned of a similar program in North Carolina and approached college leadership to gain support and then Philip Morris to fund it. He served as the program's director for 10 years overseeing the first four classes.

"I saw it as a need, not something I necessarily wanted to do," he concedes. "It would be naïve to think that some of these people wouldn't have become leaders anyway, but they would have had to learn on the job, and that takes time. This program allows them to gain the knowledge and skills it takes to become productive leaders sooner."

The program consists of 10 three-day seminars devoted to timely issues affecting agriculture as well as improving participant's communication, leadership, and management skills. There are also study tours to Washington, D.C. and another state and a two-week international study tour.

While initially funded by Philip Morris, the program has always been a leadership program and not commodity specific, said Larry Jones, retired agricultural economics professor and former associate dean for instruction. Jones served as director for Classes V through VIII.

The funding model and the name changed in 2007. Today more than 100 financial supporters including farm organizations, agribusinesses, program alumni, and participant fees help fund the program. Thanks to a \$1 million matching grant from the Kentucky Agricultural Development Board, the program is well on the way to its goal of a \$2.5 million endowment to fund it in perpetuity.

Laura Knoth,
Class V alumna,
believes prepared
leaders equip
Kentucky to
handle changes
in agriculture.



"Through this program, the \$1 million investment will pay dividends for years to come," said Roger Thomas, executive director of the Governor's Office of Agricultural Policy, which administers the Agricultural Development Fund. "Developing and enhancing leadership skills of future leaders in our state is key to the continued success of agriculture."

Another significant contributor to the program is the Kentucky Corn Growers Association. Many of its members have been participants including Executive Director Laura Knoth.

"The organization has been supportive of KALP for many years because they want to invest in the future leaders of agriculture," said Knoth, an alumna

of Class V. "Kentucky faced changes to its agriculture structure following the elimination of the federal tobacco program, yet thanks to prepared leaders such as those from KALP, it was better equipped to deal with those changes. It is amazing when you look at the program alumni and see all the leaders in organizations, associations, and communities. I continue to be impressed with the candidates for each class; it makes you confident about the future of agriculture.

"Participating in the program made me realize that it was my responsibility to give back to agriculture for what it has provided me," she said. "To be involved and stay involved, helping the industry move forward. It gives you the foundation to know that you can and should do your best to assist the entire agriculture industry, not just your part of it."

Jones said the state's agriculture industry is seeing the benefits of the program, but he thinks larger benefits are yet to come as more program participants continue to move into leadership roles.

"The bottom line of the program is that it instills self confidence in the participants, and you can see that develop as the program progresses," he said. "It also shows them that they can make a difference. Frankly, for me serving as director, it was fantastic. In undergraduate education you generally have A, B, C students, but with this they are all top notch. As an educator it was like arriving at the pearly gates."



KALP "teaches you to be involved in all that you do," said Brennan Gilkison (I). He and his father, Eddie Gilkison (r), are both graduates of the program.

SOMEONE HAS TO BE INVOLVED

Of the 245 graduates, it has been a family affair for some. That is the case for Clark County's Eddie Gilkison, an alumnus of Class II, and his son, Brennan, Class VIII.

Eddie Gilkison, a farmer and insurance agent, said the program provides an awareness of community and public service.

"Someone needs to be, has to be, involved; why shouldn't it be you?" he said. "I was involved in the state Cooperative Extension council and had an appreciation for what Extension does, and then when I got involved in the leadership program, I thought it was a great outreach for UK.

"When Brennan got involved I could see how much more it was to him than even when I did it. The big deal is the communication between people interested in agriculture—networking. I think that it is a great tool to get people more in tune with other parts of the state. Ag needs more of an understanding of the rest of the state—it's a long way to Fulton from here."

Brennan Gilkison, a farmer and agribusiness professional, said the sessions on understanding yourself and how that can impact relationships were particularly helpful to him.

"The program gives people the opportunity who maybe never would have gone out and done something like this on their own—stepping out of your territory," he said. "It teaches you to be involved in all that you do—in agriculture and politics and in the community. I try to stay up on issues."

Though not initially part of the plan, networking has become an important component.

"We recognize that they learn a lot from each other after the formal training sessions when they are talking to one another, sharing ideas, arguing points, or making deals—that's where the networking happens after 5 p.m.," said Steve Isaacs, UK professor of agricultural economics.

Isaacs and Will Snell, also a UK agricultural economics professor, became co-directors of the program upon Jones' retirement.

"I don't think there's been anything I've ever done that's been more fulfilling," said Snell, who as a policy specialist has spoken to every KALP class since its inception. "When you see individuals that start the program very timid—not involved—and when you see them five to 10 years down the road, it is so rewarding. I've never worked as hard on anything but never believed in anything more or had as much fun doing anything than this program." •

INTERESTED?

The program is administered by the UK College of Agriculture, with guidance from an advisory board consisting of representatives from regional universities, the Governor's Office of Agricultural Policy, the Kentucky Agricultural Development Board and alumni. The classes include 20 Kentucky residents and two to four from Tennessee, funded by a Tennessee organization.

TO PARTICIPATE, a person must be nominated, fill out an application, have support forms from their spouses and employers, and three recommendations. A selection committee made up of members of the advisory committee interviews applicants and their spouses and makes the final decision.

THE PROGRAM IS INTENSE.

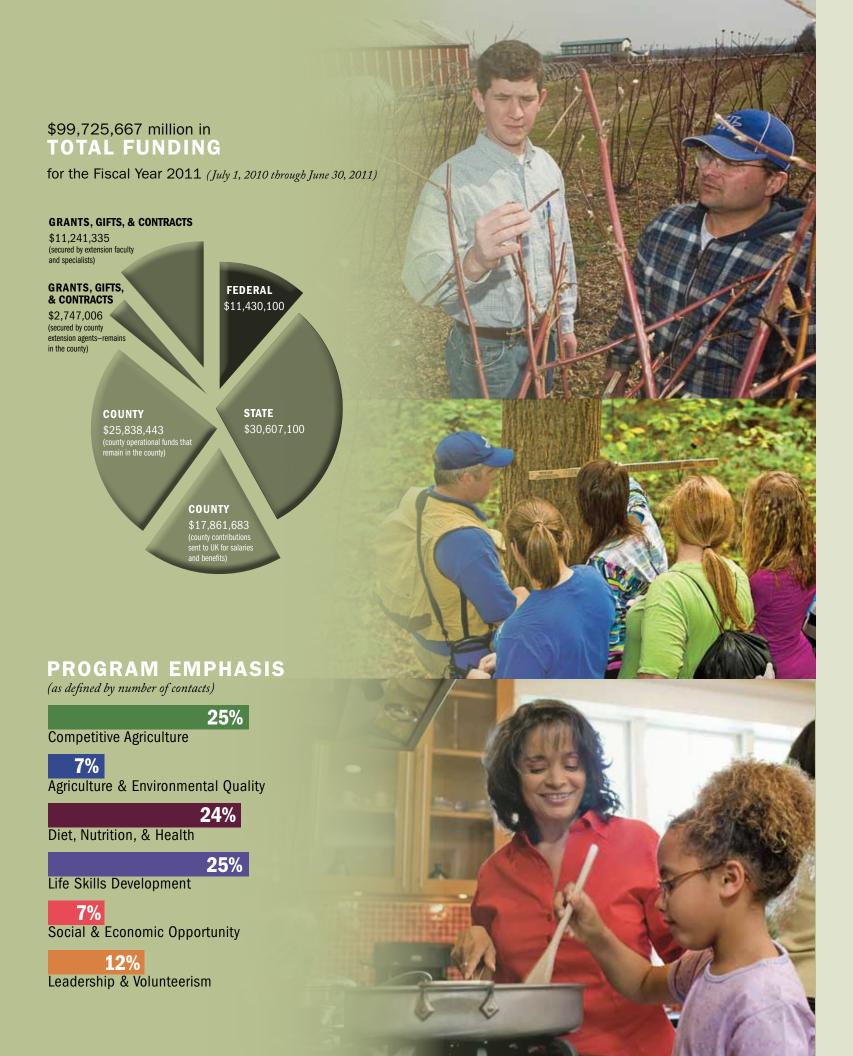
yet Class IX, which finished in late 2011, had more than 100 people nominated.

NOMINATIONS for Class X
will be taken this spring
with class sessions beginning in the late fall.

FOR MORE INFORMATION: http://www.uky.edu/ ag/kalp

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UK COOPERATIVE **EXTENSION**

2011 ANNUAL REPORT

Creating the Future

"PLANNING is bringing the future into the present so that you can do something about it now," according to Alan Lakein, well-known time management author. University of Kentucky Cooperative Extension is trying to do just that in two separate planning exercises currently under way. The first is a broad effort called Creating Our Future that will gather input from internal and external stakeholders on how Extension can be efficient, effective, and relevant in the coming decades. The second addresses the future of 4-H camps.

The economic landscape for everyone has changed since 2008, requiring adjustments, changes, and reflection on those things that are vital versus merely important. Believing that the time to plan for a crisis is before you are in one, UK Cooperative Extension embarked on a process of strategic discussions to chart a path to where we want to be in the future. The process, called Creating Our Future, is being led by Rick Maurer, professor in Community and Leadership Development, and a committee representing internal and external stakeholders of UK Extension.

The "Future" committee is tasked with determining how UK Cooperative Extension can be relevant, effective, and efficient. To accomplish this, they will be collecting broad input on how well people understand and are satisfied with Extension. In addition, they will determine the reactions and evaluations of our stakeholders to possible changes in staffing patterns at the local level.

Staffing discussions are seldom comfortable, and that is understandable. Our clientele value and respect our agents and don't want to do anything that would take away from the local resources at the county level. Be assured, the UK Cooperative Extension is a county-based system and will remain so, irrespective of future changes in staffing patterns. In an on-going

pilot project where we have one agent covering two counties, all parties involved had to agree the shared staffing arrangement benefited everyone, but especially the counties affected by the change.

The second planning process focuses on the 4-H camping program and has been under way for more than a year. The planning committee has analyzed other states' programs, our camp history, and past strategic plans for each camp. The committee was charged with looking past the immediate needs of camps to dream about where the camping program needs to be.

Someone has said that for planning to be successful, it must be followed with hard work. The camp planning process has identified five areas of work for the future success of the camping program. These areas are leadership, facilities, program, marketing, and fundraising.

The leadership goal of the Camp Strategic Plan is under way by revamping the Camp Improvement Committees, having job descriptions for volunteers, and clearer expectations for agents. These committees have long served the needs of the camps and the College but are being re-energized as they become the camp-by-camp implementation of the five-part State Strategic Camp Plan. Let's be clear that this is not just a job for our volunteer partners; the College is committed as well. Many improvements have been made at camps using new or re-allocated funds, including cabins, high ropes courses, renovated meeting buildings, paddleboats, and improved docks.

Let's continue to bring the future into the present so we can address it now.

JIMMY HENNING

Director, Cooperative Extension Service University of Kentucky S-107 Agricultural Science Center Lexington, Kentucky 40546-0091

E-mail: jimmy.henning@uky.edu



Never Too Young to Lead

THIS WAS THE DRILL: the LaRue County High School Band would finish practicing one of its numbers for football halftime. As part of the band's lead team, Zach Thurman would herd band members back into formation, relay instructions from the band director, and answer fellow musicians' questions, all the time lugging his tuba around the football field

And another scene: at Central Hardin High School, Kate Dennis led an FFA leader-ship workshop, armed with a bandanna and masking tape. She taped a maze on the ground and, as other teenagers stepped up in pairs, she told one to don a blindfold and instructed the other to lead the blindfolded partner through the maze. It was a lesson in how to communicate, how to listen, how to trust.

These scenarios occurred after both Zach and Kate "graduated" from the 4-H Teen

Leadership Academy. Similar 4-H programs are offered across the state, but this particular program is the only one in which five counties—Breckinridge, Grayson, Hardin, LaRue, and Meade—have brought teens together. The program, now in its fourth year, is modeled on county leadership programs for adults and meets monthly during the school year.

Both Zach and Kate give credit to the academy for minting their leadership skills. "I don't think I would have been able to lead that workshop before the academy," Kate said. Zach thinks the academy made him a stronger leader at 4-H camp as well as in band. "I was more active at camp this past summer," he said. "I led kids more to try to get them to do things."

Up to 25 teenagers in grades 8 through 11 are accepted annually for the academy. Its monthly sessions have included a field trip to Frankfort to learn about state government and a speech/demonstration day for honing communication skills. In one session this year, academy members learned about teamwork in a "ropes" day.

The academy has brought together a wide range of kids within its five-county net: everybody from the teenager who lives on a farm to the one who lives at Fort Knox.

That diversity, like the sessions themselves, has been eye opening for these teenagers.

"I never really thought that we'd become friends," Kate said, talking about meeting kids from other counties. "It's cool to see how people come together, bond," she said. "We've stayed in touch."

Extension 4-H agents have seen a marked turnaround in the number of teens who now feel comfortable speaking in public and an upsurge in teens who said they gained skills including citizenship, entrepreneurship, team building, and networking. Nearly three-quarters of academy participants have taken on new leadership positions in 4-H.

The Arts for Health

MARY, SEVERELY AUTISTIC, hadn't spoken a word in 25 years. Her family always brought her with them to Artists Collaborative Theatre (ACT) in Pikeville for her niece Emily's rehearsals for "The Miracle Worker." The play tells the story of Annie Sullivan, the teacher who brought Helen Keller out of the darkness imposed by her blindness and deafness.

On stage, Helen, played by Emily, learned the word for water in the play's most triumphant moment.

"Wa... wa...," said Helen.

"Wa... wa...," echoed Mary in a moment no less triumphant.

"As plain as you and I are talking right now," said Stephanie Richards, ACT founder, referring to Mary's first words. "From that point, she now communicates pretty openly. She can say hi. She can say bye. You can say, 'Mary, do you want to go get some popcorn?' and she'll get up and get popcorn."

It's a tale dramatic enough for its own play, and for Richards, just one of the many stories behind Pike County's burgeoning arts scene. Over and over again, in the seven years she's been the county's fine arts extension agent, she has seen theater, art, and music change people's lives.

"The arts are just a vehicle, so that the real accomplishments are the stories along the way," she said.

More and more studies are uncovering the relationship between the arts and health. According to the National Institutes of Health, scientists are measuring the body's response when a person is exposed to the arts, and researchers are exploring how the arts can help in the recovery process from disease, injury, or trauma.

The Healing Arts Project, a cooperative venture between UK Cooperative Extension's Pike Arts and Pikeville Medical Center, is an art contest open to grades 9-12. Winners have their artwork put on permanent display in the medical center's patient rehabilitation wing. Richards recounted the story of a man

who had been permanently brain-damaged in an automobile accident.

"They hadn't gotten any stimulation from him until they took him to see the art on the rehab floor," she said. "When he viewed that artwork, they saw a reaction."

Music, too, can aid in rehabilitation, which brings us to one more story, a story that involves "one of those lifetime career moments" for Richards.

Nearly 80 adult daycare participants traveled from Letcher County to attend ACT's production of the country music revue "Honky Tonk Angels." Because many in the audience were afflicted with dementia, Richards prepared the cast to be interrupted on occasion. But neither she nor they expected what

happened when three actresses began to sing "Amazing Grace."

"They hit the first couple of notes, and then you started to hear a couple people in the audience join in. And then the entire audience started singing and moving to 'Amazing Grace.' I got chills just now talking about it," Richards said. "It was one of those moments that you thank the universe and God that you got to be there."



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UK COOPERATIVE EXTENSION 2011 ANNUAL REPORT



A Lifelong Impact

IN THE PAST FIVE YEARS, Cindy Jolly has seen many students gain important leader-ship and citizenship skills through a project she oversees at Simmons Middle School in Fleming County. The program is part of a nationwide effort to reach at-risk youth and their families. It's called Children, Youth and Families at Risk, a Sustainable Communities Program supported through the U. S. Department of Agriculture's National Institute of Food and Agriculture. The Kentucky CYFAR program has two host sites: Fleming and Lawrence counties.

Each year, the Fleming County project involves approximately 400 students, faculty, and staff. Jolly, an extension program assistant, said the program has had a big

impact on the school and the community by promoting social skills, community projects, and fostering leadership skills.

"Our CYFAR members gain a sense of pride in their school, in their community, and in themselves," she said.

Projects have included community beautification, sewing, health and nutrition, table etiquette, self-esteem, safety, recycling, and a military Christmas card project. Jolly said it goes way beyond those programs.

"All our eighth-grade students learn to tie a tie and all about proper table etiquette," she said. "Then we ask them to put their skills to use in a formal lunch setting. They serve meals to their peers with help from community volunteers."

Jolly said students will have long-term benefit from the etiquette lessons as they get older and attend conferences, weddings, and job interviews. Eighth-grade math teacher Paige Planck agreed.

"Awesome. That is the best word I can think of to describe the etiquette program that my class participated in," Planck said. "This is a much needed life skill that isn't taught in our school system. For most students, this was the first formal (meal) they have had."

After a project where CYFAR students collected plastic bags for recycling, they wanted to create a permanent collection fixture at the school where students could bring in plastic bags for recycling year-round.

Jolly said the program stirs up ideas like that in many of the students, and they will take those responsible, sustainable ideas into their communities for the rest of their lives. She said through partnership between Fleming County's Cooperative Extension Service, the Fleming County School System, and the Youth Service Center, many of the CYFAR programs will continue even after the national grant ends in May.



Come 'n Get It!

ON A TYPICAL SUMMER Thursday evening in downtown London, you can stroll through the farmers market to pick up locally grown goodies and listen to live music at a concert series sponsored by a local bank. The Laurel County office of the Kentucky Cooperative Extension Service has a certified kitchen right in the heart of the market, so family and consumer sciences agent Judi O'Bryan decided to make some customers' wishes come true by offering a grab-n-go meal on those evenings. They called the eight-week program Dinner Bucket.

"People had been asking us to do something like this ever since we built the kitchen," she said. "We thought it would be a good way to promote Extension and local, fresh food by preparing a meal people could order and pick up—mostly with items from the market."

O'Bryan said she and her staff shopped the market each weekend and then formed a menu based on what's available. Local folks made reservations for the meal in advance and then extension staff prepared and packed up the weeks' offering for pick up on Thursday evenings.

The meals were far from fast-food fare. Typical menu items included lamb kabobs in pitas, cheddar quiche, carmelized green beans, summer squash, and chicken Alfredo. Desserts ranged from fried fruit pies and berry trifles to zucchini chocolate sensation.

"It was a lot of work," said O'Bryan, who admitted she could not have pulled it off without a great extension staff including Tina Bledsoe, Nicholas Horvath, Velma Mullins, Ashley Adkins, Lisa Roark,

and Melissa Boyd. "The best thing about it was the awareness we were able to build in our clientele about the programs we offer in the kitchen."

Hardly a week goes by without some type of instructional programming in the kitchen from making candy to canning and more. The staff also conducted a survey of Dinner Bucket participants after the 2011 program ended and found that most were more aware of kitchen programming and would probably shop at the market more.

O'Bryan said a planned farmers market cookbook will include all the recipes from the Dinner Bucket program.



 $^{\prime}$

the numbers

A total of 7,837,905 Extension Contacts were made in Fiscal Year 2011.

■ COMPETITIVE AGRICULTURE

A total of 18,921 producers throughout the state have reported adopting one or more practices learned from extension programs. These new practices have resulted in **increased profits**, reflecting an economic impact of \$25 million. 6,362 producers reported utilizing **new marketing opportunities** and **strategies** to accomplish these results.

DIET, NUTRITION, AND HEALTHY LIVING

According to the Kentucky Cabinet for Health and Family Services, 306,491 people in Kentucky receive supplemental **nutrition assistance**. The average family benefit is \$242.53 per month. Extension, through its SNAP Education program, **works with low-income families** in Kentucky to manage their resources better.

659,468 contacts were made to **teach nutrition** and **budgeting**.

57,262 made lifestyle changes for the purpose of improving their health.

■ LIFE SKILLS DEVELOPMENT

as a result of extension programming.

Youth who participate in 4-H are three times more likely to actively contribute to their community compared to those not in 4-H. Approximately one out of every three Kentucky youths in grades K-12, or 248,275 youth participated in 4-H during 2010. 89,000 reported acquiring one or more life skills as a result of participation.

19,853 individuals reported changes in knowledge, opinions, skill, or aspirations

related to parenting or personal relationships

AGRICULTURE AND ENVIRONMENTAL OUALITY

More than 40,000 Kentuckians adopted practices relating to conserving and protecting soil and water resources. This resulted in landowners using new or additional conservation practices on a total of 529,613 acres.

SOCIAL AND ECONOMIC OPPORTUNITY

In July of 2010, the unemployment rate in Kentucky was 10 percent. Extension is making a difference in communities across Kentucky. 42 **new tourism businesses** were formed with Extension's help. 2,565 individuals were involved in 248 **community coalitions**. 37,345 became involved in addressing issues of their community. 11,580 learned **new skills** in Entrepreneurial **Development**. 3,162 were enrolled in home-based business/processing workshops, and 871 **businesses** were reached with retention/expansion efforts.

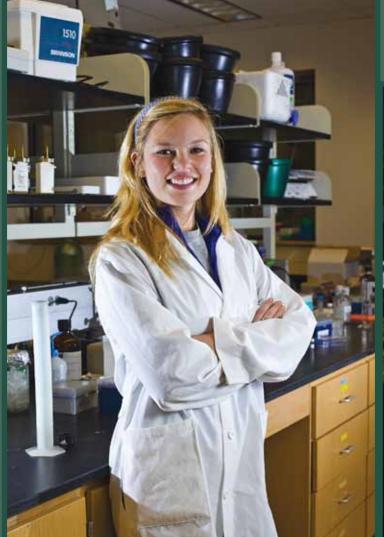
LEADERSHIP AND VOLUNTEERISM

The Independent Sector has estimated the value of **volunteer time** in 2010 at \$21.36 per hour. In Kentucky **38**, **19** 7 youth and adults volunteered through the 4-H program. Many of these volunteers have given **multiple hours of valuable time** to the youth of our state.

Critical **leadership skills** were developed through extension-related programming efforts by **48**, **350** residents. A total of **60**, **664 improved skills** in **communication**, problem solving, or group processes.

Nearly 25,000 Kentuckians increased their **knowledge** of the governmental process.

More than 20 percent became **more involved** in governmental processes as a result of addressing significant **community issues**.



GLEANINGS



Shooting out of the gates

when they enrolled at UK, Micah

Fielden '12 and Nikki Hurt '12 have run a thundering race ever since. Both chose the tough major of agricultural biotechnology, with courses such as genetics and microbiology, as well as independent research (Fielden's was on filters to remove arsenic from water; Hurt's was on the connection between UV radiation and melanoma). But these two wanted to do more than study—and have. Now, Fielden is president of the Student Government Association, and Hurt is vice-president. They'll stay on the fast track: Fielden plans to study law, medicine, or both and hopes to be involved in politics. Hurt is going to grad school in public health and wants to work in health policy management. How do they do it all? "You just don't sleep as much," said Fielden, who has a phone app that says he's averaging about five hours a night. Said Hurt: "I've mastered the art of the 20-minute nap."



The Ag Magazine

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