

CONTINUE 1 SISSUE 3

NEWS FROM THE COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES



MARK YOUR CALENDARS:

Fallfest - October 6

Beginning in 2012, Reunion and Homecoming Weekend will combine into one campuswide celebration welcoming alumni home. Join the festivities all weekend, Oct. 5–7!

Alumni Awards Nominations — Due October 1

The college has tens of thousands of alumni and supporters.
Who will you nominate for the 2013 Alumni Awards?
Don't delay! The nomination deadline is approaching.



Helping Communities Get Energized— By Wind Power

Ohio State University Extension is not in the business of making wind turbines. But it is helping communities to capitalize on a growing industry that is bringing much-needed investment and jobs to the state.

In Van Wert and Paulding counties, Ohio's first utility-scale wind energy farms (Horizon Wind Energy's Timber Road II and Iberdrola Renewables' Blue Creek) were completed in 2011. Nancy Bowen-Ellzey, an OSU Extension community economics field specialist, worked with county commissioners, township trustees, and landowners to assist with the educational and fact-finding processes that allowed these projects to come to fruition.

"The research, expertise, and resources available through OSU Extension have been very advantageous to us, especially in a sector so new as wind energy," said Van Wert County Commissioner Clair Dudgeon. "Nancy also came with me to the Statehouse

to testify on behalf of SB 232, whose approval allowed us to create an alternative energy zone in the county; without it, I don't think we could have enticed these energy folks."

The Timber Road II and Blue Creek wind energy farms consist of 207 turbines producing up to 450 MW of electricity, enough to power 107,000 Ohio homes. The two

continued on page 2

OSU Extension's Nancy Bowen-Ellzey and Van Wert County Commissioner Clair Dudgeon partnered to help make the Blue Creek Wind Farm a reality.



"The research, expertise, and resources available through OSU Extension have been very advantageous to us, especially in a sector so new as wind energy."

- CLAIR DUDGEON

WIND POWER continued from page 1

projects created 495 construction jobs and will generate 30 permanent new jobs. They also spent \$21.3 million on local contracts, will pay \$2.6 million annually to landowners in lease payments, and will generate \$3.6 million a year in local taxes.

"OSU Extension was really helpful for us to make connections locally, giving us some local credibility, and to educate community members and decision makers about the benefits to them from this project, and now we are proving it," said Dan Litchfield, project developer for the Blue Creek Wind Farm, who has been working with Bowen-Ellzey since 2009.

Bowen-Ellzey and OSU Extension energy development field specialist Eric Romich — who helped Wyandot County land what's currently the state's largest solar farm — now provide training to communities throughout Ohio on how to prepare for and attract potential renewable energy developments.

More information at http://go.osu.edu/wind. ■ MAURICIO ESPINOZA









OSU Extension's Adventure Central

AN AFTER-SCHOOL PROGRAM WITH DISTINCTION

Strong after-school programs have a big impact. Not only do the kids involved show stronger academic performance and a brighter future in the workforce, but they face less chance of substance abuse, teen pregnancy, gang involvement, and other risky behaviors.

Adventure Central is a model for such programs, and it has the street cred to prove it. The Daytonarea program, a partnership between Ohio State University Extension 4-H Youth Development and Five Rivers MetroParks, has been named a Program of Distinction by 4-H National Headquarters.

"This recognition requires more than having a good program and telling people about it," said Nate Arnett, director of the program and 4-H educator for OSU Extension. "You need to do the research and evaluation, evaluate your program against

a set of criteria, and demonstrate how it can be replicated."

Adventure Central wouldn't be nearly as strong without the support of OSU Extension specialist Theresa Ferrari, who has helped support evaluation efforts for Adventure Central, and also Five Rivers MetroParks, which is both "a significant fiscal partner, and where we live," Arnett said.

One of the hallmarks of Adventure Central

is that kids keep coming back. Average participation in the program, which primarily serves African-American children and teens from low-income families, is "well over three years, and some stay in the program for 10 years, the full program life." Adventure Central after-school kids participate four days a week - 130 days over the course of the year - and typically stay for about 3 hours a day.

"When you talk about

after-school programs, you talk about duration, frequency, and intensity, and we're strong in all three," Arnett said.

Plus, there's a good mix of youth-selected activities and leader-directed activities, often based on 4-H's research-based curricula related to nature, healthy lifestyles, and science, as well as strong parent/family communication.

Ohio has two other National Programs of Distinction: Adventure Central's Job Experience and Training Program, and the Ohio 4-H Cloverbud Program for children ages 5 to 8.

■ MARTHA FILIPIC

Focus on Water Quality

Extension Works with State Agriculture Professionals to Devise New Recommendations

Ohio crop growers can find ways to continue to help reduce excess agricultural nutrients from affecting or entering the western basin of Lake Erie using best management practices recommended by Ohio State University Extension experts.

Members of the OSU Extension Agronomic Crops Team have posted several resources for farmers to guide them in ways to help mitigate agricultural nutrient runoff, said Greg LaBarge, Extension field specialist and one of the leaders of the Agronomic Crops Team.

Reducing excess agricultural nutrients has been the focus for two years of a working group of industry professionals including OSU Extension experts, the Ohio Department of Natural Resources, the Ohio Department of Agriculture, and the Ohio Environmental Protection Agency.

The group released a report recently on how agriculture could have helped improve water quality across the state. The report also encourages farmers to adopt production guidelines known as "4R Nutrient Management," which is: using the right fertilizer source, at the right rate, at the right time, with the right placement.

LaBarge said using the 4Rs is a good place for farmers to start.

"Ohio State's involvement was advisory and helps bring research and information to the group to understand the things we can do immediately to lessen nutrients going into Ohio waters," he said. "Ohio State, from both an Extension and research standpoint, will continue to study this issue and provide best practices to recommend to the agriculture community to minimize the loss of nutrients."

A group of 17 OSU Extension experts were part of the group who worked over six months to come up with the recommendations.

"Ohio farmers who read the C.O.R.N. newsletter reported increased yields and were applying phosphorus at crop removal rates, thus protecting the environment and improving water quality," said Keith Smith, associate vice president, agricultural administration and director of OSU Extension.

The report can be found at http://dnr.ohio.gov/portals/12/docs/waterqualityreport.pdf.

■ TRACY TURNER

Healthy, Wealthy, and Wise

Extension's Worksite Wellness Programs a Smart Choice

The greatest wealth is health.

-VIRGIL (CIRCA 70-19 B.C.)

It's hardly innovative to equate good health with good fortune. But as healthcare costs continue to rise, the importance of wellness programs takes a new urgency. • Giving those efforts a much-needed shot in the arm are worksite wellness programs offered by Ohio State University Extension's Family

and Consumer Sciences (FCS) educators. • "We can invite people to our educational programs, but it often works better if we go to them," said Lisa Barlage, FCS educator in Ross County. • A prime example is the Chillicothe and Ross County Public Library, where Barlage works with librarian Leslie Hartley to keep its wellness program strong. • The result? Healthier snacks at meetings. Fitness breaks at in-services. Library-sponsored skin cancer screenings, glucose testing, and flu shots. • "Now when we have potlucks, we don't even have to ask people to bring something healthy," Hartley said. "It just happens." • The library's program has been noticed, winning Healthy Ohio's Healthy Worksite Wellness award three years in a row. • "Our program wouldn't be as successful if it weren't for Extension," Hartley said. • Barlage works with about a dozen OSU Extension educators who share ideas and curriculum for worksite programs. They also contribute to a blog, Live Healthy Live Well (http://livehealthyosu. com), and offer periodic e-mail health and fitness challenges —

810 people participated in three such challenges in

2011. ■ MARTHA FILIPIC

Extension's worksite wellness programs help motivate Leslie Hartley, left, and other staff members of the Chillicothe and Ross County Public Library. (Photo courtesy of Leslie Hartley)



In other efforts:

- © Commissioners approached Polly Loy, FCS educator in Belmont County, to offer a wellness program for county employees. The first offering: an 11-week walking challenge, thanks to a \$2,500 grant from a local American Cancer Society Virginia Gasaway Community Investment Grant. Quickly, 250 employees signed up: "We were just blown away," said Loy, who is also offering 20-minute Nutrition Flash Sessions at many county worksites every two weeks.
- ♦ Carol Chandler, FCS educator in Union County, is helping with plans for 28 counties that participate in the County Employee Benefits Consortium of Ohio, which has made a grant available for employee wellness programs. "Half of those counties have FCS Extension educators, and half don't," Chandler said. "We're determining how we can support their efforts. The online challenges we offer, for example, are a great way employees can participate in programming even if there's not an educator on site."

\$1.4M Grant to Give Ash Trees a Future

The native North American ash tree's future rests in the ability of researchers to create a new variety with the right genetic traits to withstand its greatest nemesis: the emerald ash borer (EAB), an invasive insect that's been killing them by the millions in the Midwest and the eastern United States.

Late last year, the U.S. Department of Agriculture gave OARDC scientists a three-year, \$1.4 million grant to continue their groundbreaking work toward the development of a new ash tree that can be used for preservation of this genus in natural and urban forests. Project partners include Wright State University, Michigan State University, and the U.S. Forest Service.

So far, the team has discovered that Asian ash tree species are naturally resistant to EAB because of their evolutionary history with the insect, and that this resistance trait is shared by saplings propagated from parent trees. Scientists identified certain compounds (secondary metabolites and defense proteins) in the phloem tissue of resistant Asian trees that may be responsible for such resilience.

Another discovery involves genes in EAB larvae that potentially allow them to detoxify, or get rid of, defenses or stressors generated by ash trees in response to EAB attacks. Researchers plan to develop a gene knockout strategy that will allow them to decipher the genes' specific functions, and how they may be used to fend off the pest.

Another success story has been the development of genetic markers to screen small ash trees for resistance traits, which will help speed up the hybridization process. "With these tools, we don't have to wait until the trees are big enough to be attacked by EAB (which takes several years) to know if they are resistant or not," said OARDC and OSU Extension entomologist Dan Herms, the project leader. "Right away we can decide which trees to keep for our selection process and which ones to discard."

Plant pathologist Enrico Bonello and entomologist Omprakash Mittapalli are the other two OARDC researchers working on this project.

More information at http://go.osu.edu/G65.

MAURICIO ESPINOZA

Researcher Enrico Bonello (bottom), along with grad student Justin Whitehill, collect ash tree tissue for genetic tests.

Meet the people behind the project:



Dan Herms, OARDC and **OSU Extension** entomologist



Enrico Bonello, OARDC plant pathologist







Lake Erie, shown here in a satellite image, saw record algae blooms last summer.

A Way for Farmers to **Help Fight Lake Erie Algae?**

Coal Plant Waste May Make Waters Less Green - and Crops Even Greener

THE ANSWER TO ONE ENVIRONMENTAL problem may give us the answer to another one. Synthetic gypsum, which is a byproduct of scrubbing the air emissions from coal-fired power plants to prevent acid rain, could help stop toxic algae blooms — including, for example, in Lake Erie. • Warren Dick, a professor in the School of Environment and Natural Resources, is part of a multi-partner national project that is testing the material as a fertilizer—its benefits, risks, and recommendations.

When spread onto crop fields, the gypsum binds with the soil's phosphorus; this keeps it from washing away. The reason this is important: A major cause of the algae blooms is phosphorus runoff from farms. • The binding makes calcium phosphate, which is a form of phosphorus that is much less soluble and thus less able to run off in water. Other studies using gypsum "are showing anywhere from a 40 to 70 percent reduction in soluble phosphorus, which is a big reduction," Dick said. Wide use in northwest Ohio's heavily farmed Maumee River watershed, which is the largest watershed draining into Lake Erie and the site of some of the research, "could significantly cut phosphate loading into the lake," he said. • All this plus gypsum is good for the soil and for crops. Mined natural gypsum has a long history as a fertilizer before the development of urea- and ammonia-based fertilizers. It provides sulfur (crops have become increasingly low in the nutrient, according to several studies), which increases yields (a 2003 study by Dick showed a 6 percent yield increase in corn), and improves the quality of the soil. "You get better water infiltration, aeration, and nutrient use efficiency," Dick said. • Add in the fact that synthetic gypsum is cost-effective and readily available — power plants produce millions of tons of it — and there's growing interest in its use, Dick said, both to benefit farms and the environment. ■ KURT KNEBUSCH

Grant Turns up Heat on Ohmic Processing

Study examines effect on enzymatic activity

Sudhir Sastry has studied ohmic heating for decades, but the process continually sparks his curiosity.

"We've been finding some things that are really interesting," Sastry said.

Apparently, others agree. Sastry's team recently won a \$492,000 U.S. Department of Agriculture grant on using the process to control enzymatic activity in tomatoes.

Ohmic heating uses electricity to heat and process food in an unconventional way: The food is subjected directly to electric fields to be heated, much like an electric range's coiled element.

"You know how the element gets red hot? Well, food that's ohmically heated does something similar," Sastry said. The process provides a rapid, uniform heat source that inactivates microorganisms and keeps products tasting fresh.

The process works on multiple levels: The jolt of electricity has an added impact over and above the effect of the heat produced.

"If you compare a sample heated conventionally and a sample heated ohmically at the exact same temperatures and time, your ohmically heated sample will have more inactivation of bacteria and bacterial spores," said Sastry, professor of food, agricultural and biological engineering, a researcher with the Ohio Agri-



ing. "The electricity itself is doing something more."

In the

current USDA project, Sastry's team is examining ohmic heating's effect on enzymes.

"One of my postdocs found that under certain frequencies, enzymes became more active. At other frequencies, they were a little less active. And at really high

> frequencies, there was no effect at all," Sastry said. The ability to control enzymatic activity --- turning some enzymes

value of the fruits and vegetables they process. For the current project, which runs through August

on and others off at will

-would allow companies

to enhance the color, tex-

ture, flavor, and nutritional

2014, the team will examine the effect different frequencies have on different enzymes important in tomato processing.

"With ohmic heating, we're getting better at it and we're understanding more and more what it can do," Sastry said. "And the applications are pretty broad, so we may have a pretty broadbased industrial impact." ■ MARTHA FILIPIC

A \$492,000 USDA grant is allowing Sudhir Sastry's team to study ohmic heating's effects on tomato enzymes.

Boosting Dairy Cattle Fertility: New Technologies, Outreach Go Hand in Hand

Increasing the reproductive efficiency of dairy cattle — getting the highest possible number of cows pregnant in the same period of time - has always been a challenge for this industry. In fact, the national pregnancy rate is only 15 percent, while the benchmark rate set by experts is 10 points higher. Lower fertility rates mean reduced herd growth and potential loss of profits. • "Dairy cows work hard every day," said Mike Day, an OARDC animal scientist. "That makes it more difficult for farmers to increase reproduction rates." • One way dairy farms can boost their reproduction efforts is the use of artificial insemination (AI) and estrus (heat) synchronization techniques. Working with industry partners, Day and his research team have pioneered a new fixed-time AI protocol - known as "5-day CO-Synch + CIDR" - that better synchronizes a cow's estrus cycle so that AI can be administered when cows are more fertile. Now a recommended practice within the beef cattle industry nationwide, this protocol has been successfully tested on beef cows, resulting in 60 to 70 percent of the animals getting pregnant within one day - a 17.5 percent increase compared to industry standards. Now, Day said, this protocol is being studied in dairy heifers and cows by researchers at various locations across the country with the hope that this approach will increase fertility in dairy cattle compared to current protocols. • While technology is an important factor in boosting reproductive efficiency of dairy cattle, it is not a solution by itself, said Gustavo Schuenemann, OSU Extension's state dairy veterinarian. "We teach producers that proper management during the transition period (a few weeks before and after calving) is key to reproductive success," Schuenemann said. "Also, the choice of reproduction protocol needs to match the particular conditions of each farm, its resources, its objectives, and the skill of its workers."



Researcher's Goal:

'Even Better Strategies' for Sustainable Food Systems

Is eating local more sustainable
... always? Jeff Sharp wants us
to think about it. An associate
professor in the School of
Environment and Natural
Resources, Sharp is studying
the social dimensions of
growing, buying, and selling
local food. Why do people

do it? What do they want from it, especially in terms of sustainable food systems? And what, despite their good intentions, might some of their biases be?

Case in point: Some people think local food is inherently more sustainable because it has fewer "food miles" to travel.

"The problem is that this may or may not be true," Sharp said. "There may be some food items that can be shipped great distances with only modest energy costs, while small lots of local produce may need relatively substantial energy investments by both farmers delivering their product to urban markets and by urban consumers traveling to specialty retail outlets."

Sharp said identifying assumptions and gaining empirical evidence are necessary to better understand how food systems function and to objectively work toward making them sustainable.

His research in this field, which he describes as "the intersection of society and food systems," has grown steadily in the past 10 years, he said. He initially focused on food-system activities linking consumers with farmers and farmers with restaurants; more recently has looked at the attitudes and values of craft and artisan food producers and at the opportunities for increasing local food production through small- and medium-scale food distributors; and continues such efforts through the recurring Ohio Survey of Food, Agriculture, and Environmental Issues.

The point of his work isn't to discount the potential positives of local food, he said, but simply "to challenge people to think critically about their assumptions." The hope is that with better information and a deeper understanding, producers, consumers, and decision-makers "can develop even better strategies for improving the availability and quality of food and the overall sustainability of the food system."

KURT KNEBUSCH





21st CENTURY PLAN

Revamped CFAES Library to Have 'Dynamic, Meaningful Learning Spaces'

The CFAES Library is being revitalized. Located in the south wing of the Agricultural Administration Building in Columbus and first opened back in 1956, the new facility — to be renamed the CFAES Library and Student Success Center — will be renovated "to meet important goals to transform it into a multi-functional, competitive, 21st-century" facility, planners say.

Included will be computer stations; new "collaboration rooms" so student teams can work together; a new elevator to enhance student access; improved lighting, including allowing more natural light in; such amenities as a coffee café, an outdoor courtyard and roof garden, and new, flexible, more comfortable furnishings; zones for both quiet and "loud" kinds of learning; an open, identifiable, inviting entrance; and, for the first time, compliance with the Americans with Disabilities Act. The aim is to create "dynamic and meaningful learning spaces for students," said Linda Martin, a leader of the project and associate dean of the college.

"Right now there isn't a really good place for students to work collaboratively, to have access to computers and printers, to have coffee on the Agricultural Administration (east) side of Woody Hayes Drive," Martin said. "We're trying to create an environment that brings students and faculty together and also provides opportunities for collaboration and group work."

The ADA compliance is "huge," she added. "Right now students who are wheelchair-

bound don't have full access to the library in our college."

The project is a partnership of CFAES and the OSU Libraries. Acock Associates Architects of Columbus released a feasibility study this spring based on extensive input from students both in focus groups and on the planning committee. The project should start this summer with the search for and selection of an architect and engineer. The design phase should take 10–12 months with about 12 months of construction to follow.

Stay current on the project at http://go.osu.edu/KUa.

KURT KNEBUSCH

"We're trying to create an environment that brings students and faculty together and also provides opportunities for collaboration and group work."

-LINDA MARTIN

Environmental and Natural Resources Master's Degree Program Proves to be Popular with Students

In the three years that The Ohio State University has offered its Master in Environmental and Natural Resources degree, the program has proved to be so popular among recent graduates and working professionals in the industry that enrollment in the non-thesis

Requirements

Credits: 55 minimum graduate quarter credits

Core Courses: 17-19 quarter credits (4 courses)

Field of Study: 30 quarter credits selected to satisfy the student's goals

Project: 8 quarter credits for an independent project related to the student's career goals

Final Exam: Administered by the student's advisory committee

master's degree granting program has more than tripled the projected number the program's organizers first envisioned when creating the degree, according to Ron Hendrick, director of the School of Environment and Natural Resources.

In fact, the program, which is designed for practicing professionals in natural resources or other fields that have an interest in the environment, has broad appeal to managers and technical specialists within local, state, and federal agencies, environmental scientists and resource managers in the public and private sectors, parks and recreation, teachers and natural resource communicators, Hendrick said.

"Clearly there is a large demand," he said. "There is a growing demand for professionals with expertise in natural resources and the environment.

"There is a large population of people working in the field that have the need for additional training or want

an advanced degree to meet the changing work environment or advance themselves professionally."

The program, which provides students with skill sets and a

strong knowledge base, is now building partnerships with other colleges within Ohio State, Hendrick said.

Some of those partnerships include: the Fisher College of Business and the John Glenn School of Public Policy, to offer dual degree programs; the College of Veterinary Medicine, to offer a specialization for veterinary medicine students interested in the environment; and the Michael E. Moritz College of Law, for those law students who want to include a focus on the environment, he said.

The program, which is designed to accommodate working professionals, offers part-time students the ability to complete the program in two to three years, while full-time students can complete the program in one and a half years, excluding summers, Hendrick said.

TRACY TURNER









New Master's Degree Offers Students Expertise to Feed Growing Global Food Demands

The Ohio State University is offering a new Professional Master in Plant Health Management degree program that gives students interested in learning how to feed an increasingly complex and growing global population, a hands-on approach to learning that will enable them to be successful in the growing field of plant health management that is fueling another "green revolution," an OSU Extension expert said.

The new degree program, which was offered for the first time at Ohio State in spring 2012, is the only one of its kind statewide, said Anne Dorrance, a plant pathologist with joint appointments with OSU Extension and Ohio Agricultural Research and Development Center.

Dorrance, who is also a soybean expert, said industry workforce demand was one of the key driving forces for the new degree program.

"What has become apparent is there is a huge change in demand for students and people trained in plant health management because there is a growing demand for global food production," she said. "By 2040, there will be 9 billion people on the planet that we're going to have to feed,



The Professional
Master in Plant Health
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program in one and
a half years.

which means we're going to have to double and triple the amount of food production on the same number of acres.

"We're going to need all the tools in the tool box and the people skilled in the plant management industry to meet this demand without ruining the planet in the process."

The program was created to meet growing job demands that require an employee workforce that can work collaboratively, Dorrance said. That includes extension educators, agriculture educators, crop advisers, and turf/landscape managers, as well as professionals in business and law who wish to specialize in regulatory, environmental, or intellectual property aspects, she said.

The program is interdisciplinary in nature with courses in plant pathology, entomology, horticulture and crop science, ag education, communication and leadership as well as economics. This program was designed to accommodate working professionals, which offers part-time students the ability to complete the program in two to three years, while

full-time students can complete the program in one and a half years, Dorrance said. ■ TRACY TURNER

Almost There

CFAES SUCCESSFULLY APPROACHES TRANSITION TO SEMESTERS

The long and winding road of Ohio State University's quarter-to-semester conversion is finally reaching its destination this summer — and the

College of Food, Agricultural, and Environmental Sciences is ready to fully implement the new system.

"We really had to start from scratch as we built the new semester schedule," Jill Pfister, assistant dean, Academic Affairs, said of the process that started in 2009. "But now the curriculum is all in place."

The transition means there will be three semesters (summer, autumn, and spring) and three graduations, instead of the four quarters and four graduations of the former system. Classes will be 55 minutes long, with

15 minutes in between them. Most classes will be held between 10 a.m. and 2 p.m. And Friday classes will now be offered to better accommodate the new schedules.

Additional programs have been created this year as a result of the transition, including a new major: environment, economic development and sustainability, which will be taught by both the School of Environment and Natural Resources and the Department of Agricultural, Environmental, and Development Economics. Professional master's degrees in plant health management and in animal sciences (approval pending) will be part of the college's future offerings as well. A list of previously announced curriculum changes is available at http://go.osu. edu/KAB (scroll down to the

"Savoring Success" article).

During the entire process,
Pfister said, CFAES has been an example of a proactive

college that took advantage of this transition to significantly evaluate its programs and make changes that are expected to

improve its academic offerings.

She added that students have been the real focus throughout this process. "We are constantly doing what's best for students," Pfister pointed out. "We have a pledge to current students that they will not be held back because of the semester conversion. We are trying to address

all potential issues early on, especially for those students planning to graduate next year."

Details about the conversion are available at http://cfaes.osu.edu/q2s/. ■ MAURICIO ESPINOZA

"There is a huge change in demand for students and people trained in plant health management because there is a growing demand for global food production."

-Anne Dorrance

curriculum is

all in place."

-Jill Pfister



ATI BREAKS GROUND FOR PREMIER BEEF CATTLE HANDLING FACILITY

ATI will take a position in the forefront of education in beef cattle handling with the building of a new working facility. ATI is working with Grandin Livestock Handling Systems, Inc., from Fort Collins, Colo., to construct a facility designed by renowned animal behaviorist Temple Grandin. The new facility will meet the needs of

both Ohio State ATI and beef producers around Ohio. This progressive design will include a corral, a dual chute system with a hydraulic squeeze chute and breeding box, and sorting pens. Construction began on April 17.

One of the distinctive features of Grandin's design is a system of curved chutes combined with a round crowd pen. The tendency

of cattle when herded is to move back in the direction they came from. The round pen moves the cattle through a 180° turn, thus working with rather than against their natural behavior. The curved chutes allow the cattle to see two or three animal lengths ahead, which is important because, according to Grandin, "Cattle will refuse to go somewhere if they can't see a place to go." The





curved design also conceals livestock handlers, whose presence might make cattle balk. These measures reduce the amount of stress cattle experience during handling.

Each year, approximately 45 students are welcomed into one of two beef cattle programs at Ohio State ATI (Associate of Applied Science in livestock

management and Associate of Science in livestock science). Students enrolled in these programs are preparing themselves for careers in beef production and its associated industries, with many of them striving to be progressive beef cattle managers.

Once this new facility is constructed, the Ohio State

Showing Animals, Growing Skills

Many young people who show animals get their start in 4-H clubs. That activity doesn't have to come to an end when they enter college - at least, not if they are students at ATI. This year, ATI students showed cattle at the Ohio Beef Expo and

swine at the National Swine Registries (NSR) Winter Type Conference in Georgia and the **NSR** Weanling Pig Extravaganza in Indiana.

From selecting which animals to show to fitting and finishing, showing provides valuable experience for students. "One of the most important things students learn is phenotypic evaluation," said Mike Amstutz,



ATI students worked hard to prepare ATI Carnation for the Ohio Beef Expo, and it paid off. She won Grand Champion Female Murray Grey. Left to right: ATI Beef Herd Manager Casey Meek and students Bre Haury, Kristen Martin, Kara Humphrey, Mike Wells, and Denver Thomas.

associate professor and coordinator of ATI's livestock programs. "This is a skill they will use in their careers when making decisions about selection and mating." Large state or national shows are a good way to connect with breeders who might be potential employers for internships or jobs after graduation and expose students to additional marketing opportunities for their animals.

Second-year beef production and management student Mike Wells was one of five ATI students who showed five Murray Greys at Ohio Beef Expo this year. Showing, said Wells, is "a good way to get involved and something to be proud of. I've been showing for about 10 years and I enjoy it a lot." ATI Carnation won Grand Champion Female, which illustrates another benefit of showing. "It's good PR for our programs," Amstutz said. ■ FRANCES WHITED

ATI beef programs will be able to teach students more about safe animal handling and the benefits of designing livestock handling facilities based on animal behavior rather than human convenience. "Efficiency, humane handling, and animal welfare are essential components of any beef operation," said ATI Director of Farm Operations Mark Schleppi,

"and this design will facilitate each of these." In addition to teaching the next generation of beef producers with this new working facility, ATI also hopes to welcome current beef industry members to learn more about beef cattle handling through training that will be offered to industry through ATI's Business Training & Educational Services. ■ FRANCES WHITED



Betty and Earl Hawkins

New ATI Scholarship Helps Bridge the Gap

IN 2007, EARL AND BETTY Hawkins made the largest gift in the Agricultural Technical Institute's (ATI) history with a donation of the \$4.8 million Hawk's Nest Golf Club, which is ranked among North America's best 201 public access courses. As Bobby Moser, dean and vice president for agricultural administration at Ohio State said during the ceremony in honor of their generous donation, "the gift has continued and will continue to serve as a hands-on laboratory for ATI students for years to come." • Recently, Mr. Hawkins expanded that legacy of helping ATI students through his support of a newly endowed scholarship. • The Earl and Betty Hawkins Endowed Scholarship, which was endowed

with a \$150,000 gift, will create opportunities that directly benefit students who are the first in their families to attend college. This scholarship will provide ATI students access to a quality education that will enrich their lives as well as their families' lives. Tuition and fees at ATI and Ohio State's other regional campuses is \$6,525 annually. Most students are eligible for up to \$5,500 in grants, loans, and other aid. The Earl and Betty Hawkins Endowed Scholarship fund will enable ATI to award at least six students funding to help cover this \$1,000 gap. Mr. Hawkins believes that providing assistance for deserving students — also a top university priority — is truly the single most meaningful way to make a direct difference in the lives of students. • It is with great respect that we thank Mr. Hawkins and his late wife, Betty, for this gift.

Save the Date for the 2012 Celebration of Youth

Commemorating the Accomplishments of 4-H Youth Development in Ohio and Building Resources for the Future

> For details, contact: The Ohio 4-H Foundation 2201 Fred Taylor Drive Columbus, OH 43210

> > Phone: 614-292-6943 Fax: 614-292-5937

4hfoundation@cfaes.osu.edu www.ohio4h.org/foundation





Dreams to Reality ... Living the Dream

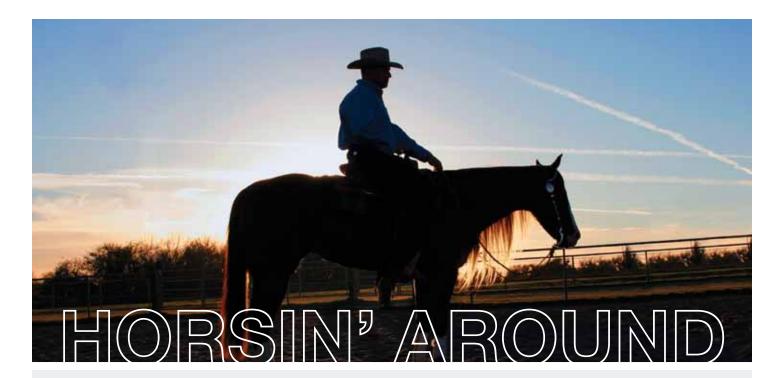
Honoring: Dr. Clarence & Jane Cunningham Jim & Marlene Helt Bob & Joan McCoy Osteopathic Heritage Foundations

Saturday, October 13, 2012

4 p.m. Silent Auction and Reception 5:30 p.m. Dinner, Program, and Live Auction

Nationwide & Ohio Farm Bureau 4-H Center 2201 Fred Taylor Drive, Columbus

The Celebration of Youth is the major fundraising event of the Ohio 4-H Foundation. Proceeds benefit Ohio 4-H Endowment Fund (Fund #605354) with a portion benefiting the Nationwide and Ohio Farm Bureau 4-H Center Endowment Fund (Fund #605125). The Ohio 4-H Endowment Fund is the critical resource for enhancing the quality and quantity of the diverse 4-H programs that help promising young people reach their fullest potential. Programming occurs at the county, regional, and state levels.



In 2009, Scott Hartle, owner of the iconic Rod's Western Palace, established the Rod's Western Palace and Hartle Family Fund for the 4-H Equine Program endowment to benefit students. "We have always been really interested in supporting kids through horses and giving back to the community," Hartle said. "Working through CFAES and 4-H to achieve this goal has been the perfect partnership."

Part of the funds from the Rod's Western Palace and Hartle Family Fund pay for students' entry fees and partial travel costs for the Ohio 4-H Horse Judging Team Eastern Nationals, and the All American Quarter Horse Congress judging contest.

With the support of Rod's Western Palace and Hartle Family Fund, 170 youth have been positively impacted to date, with many more to benefit in the future.

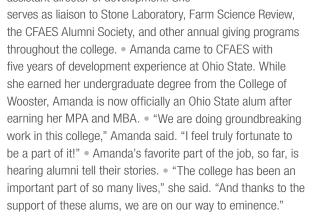
"I was not a member of 4-H, but did work on cattle farms and a dairy farm in high school," Hartle said. "We really like giving back to our customers and the community and helping the horse people have opportunities to do what they like to do. I got involved with riding through Rod's when I was an assistant manager in college. Rod's and riding have both been a big part of my life and this fund is a way to share that."

Rod's Western Palace, founded by Dan Evans in 1976, was sold to Scott and his father in 1988. In a pioneering move for the time, in 1990 Scott started the catalog and Internet side of the business, and things really took off. Rod's can now claim customers from all over the world, and this year opened a new building that doubles the space of the store. Through innovation and savvy, Rod's has become one of the leading Western apparel and tack stores in the country.

The support of the Hartle family makes a difference in the lives of many students, providing them with an opportunity to learn and achieve. "We are really looking forward to seeing great things from the students supported by the fund," Hartle said. "It's very rewarding to provide support and open doors to students."

SPOTLIGHT ON **Amanda Smith**

Amanda Smith joined the College of Food, Agricultural, and Environmental Sciences development team in March 2011 as assistant director of development. She



Reunion + Homecoming = 2012 Fallfest

Beginning in 2012, Reunion and Homecoming Weekend will combine into one campus-wide celebration welcoming alumni home. Reunion-Homecoming Weekend is scheduled for Oct. 5-7, 2012. • Special focus is placed on alumni celebrating the 10-, 25-, and 50-year anniversary of their graduation. • Come join the Ag and SENR Fallfest as the Buckeyes host the Nebraska Cornhuskers on Saturday, Oct. 6, 2012, in the 'Shoe. CFAES Fallfest, with all of its great friendship, sharing, food, and silent auction for scholarships, will begin at 4:00 p.m. at the Nationwide and Ohio Farm Bureau 4-H Center, 2201 Fred Taylor Drive. This will be University Reunion Weekend as well, so make it a big family experience and join the festivities all weekend, Oct. 5-7.

Fallfest Registration Information - New Procedure for 2012

We expect the demand for this game to exceed our supply and tickets will only be available to those alumni who are graduates of the College of Food, Agricultural, and Environmental Sciences including Natural Resources and ATI, and are dues-paying members of The Ohio State University Alumni Association, Inc. Priority will be given to graduates of the 1962, 1987, and 2002 classes. Please note that registration will be online this year: See http://cfaes.osu.edu/alumni. Tickets must be purchased



You are limited to two tickets per household, not per membership. It is our desire to maximize the number of alumni who can attend the Homecoming and Reunion Weekend.

The person purchasing the tickets must be the person who uses the tickets. Anyone caught reselling their tickets may lose



future rights to purchase football tickets through the Alumni Association and our society. Alumni (and/or their spouses) who receive season tickets via any source (President's Club, Buckeye Club, faculty/staff/ student, Varsity O, long-time season ticket purchase holders) or alumni (and/or their spouses) who are successful in the Association's lottery for the Nebraska game or alumni (and/or spouse) who obtain tickets from another alumni society WILL NOT be eligible to receive game tickets through Fallfest registration, but we hope you will join us for the Fallfest tailgate.

All applications will be doublechecked with university databases to ensure compliance to this policy. If you have any questions, please write to PWhittington@ osu.edu or pasternak.6@osu. edu. Thank you and we look forward to seeing you in October!

If you'd like the opportunity to purchase game tickets from the college for the Nebraska game, please make sure your **OSU Alumni Association** membership is up-to-date. You can join or renew online at http://ohiostatealumni.org/ membership or with a phone

call to 1-800-762-JOIN (5646) or 614-292-2281.

Silent Auction

As always, the society will be conducting our annual silent auction to benefit the CFAES Alumni Society Undergraduate Scholarship Endowment Fund, which supports three to five students each year with financial assistance. If you have an item to donate, please contact Amber Pasternak at pasternak.6@ osu.edu or 614-247-2745, and our auction committee will be in touch with you for details. Unique Buckeye items seem to draw the best activity on auction day. If you cannot attend this year but want to support the scholarship fund, you can contribute an item to the silent auction, or the society will gladly accept any size cash tax-deductible donation you might want to make to the scholarship endowment fund. Checks should be made payable to The Ohio State University for any cash donation to the scholarship fund.

Again, join us for Reunion Weekend Oct. 5-7 for tours of campus, Saturday's Fallfest, and the brunch (by invitation only) on Sunday. It will be a great time!

FRIDAY, OCT. 5, 2012 **Campus Tours and Educational Sessions** Ohio Union

Open to all alumni. Homecoming Parade and Rally High Street and Ohio Union For complete Reunion-Homecoming Weekend activities go to http://go.osu. edu/reunion

SATURDAY, OCT. 6, 2012 CFAES Fallfest

Ohio State vs. Nebraska Tickets for the Ohio State vs. Nebraska game will be available to CFAES Alumni who are current OSU Alumni Association members with priority given to alumni celebrating the 10-, 25-, and 50-year anniversary of their graduation. Please note that registration will be online this year. For more information visit our website at http://cfaes.osu. edu/alumni

SUNDAY, OCT. 7, 2012 Class of 1962 Alumni Event **Hosted by President Gee**

Ohio Union, Archie Griffin Ballroom

Invitations will be mailed in summer 2012. RSVPs will not be accepted prior to invitation being mailed.





CFAES Young Alumni Tailgate

Saturday, September 15, 2012 • Ag Admin Auditorium

Fifty tickets for the Ohio State vs. California game will be available for alumni who are celebrating five or fewer years from their graduation (classes of 2007–2012). There will not be a lottery. To be eligible for game tickets you must be a member of the OSU Alumni Association. If you have questions about your membership status please call 1-800-762-JOIN (5646) or 614-292-2281.

Registration deadline: August 1, 2012
OSU Alumni Association ID
Name
Address
E-mail
Daytime phone number
tickets to game and tailgate x \$75 each = \$ (limit 2 per household)
tickets to tailgate only x \$10 = \$

Please make checks payable to The Ohio State University.

Mail registration forms to: Amber Pasternak, 100 Ag Admin, 2120 Fyffe Road, Columbus, OH 43210

Wanted: CFAES Alumni Nominees for 2013 Awards

THE CFAES ALUMNI SOCIETY IS preparing for the 2013 College Alumni Awards luncheon scheduled for March 2, 2013, at the Fawcett Center on The Ohio State University campus. Nominations must be in for consideration by Monday, October 1, 2012. All nominees must be living at the time of selection for the 2013 awards. • The Society Board asks that a broad spectrum of alumni from every department and the School of Environment and Natural Resources be nominated by faculty, family, friends, business, or industry groups. Career fields can encompass areas in business, research, education, production, natural resources, community service, government, engineering, academia, and more. • We are seeking nominees in four categories: Meritorious Service, Distinguished Alumni, International Alumni, and Young Professional Achievement. The descriptions of the categories and criteria are listed on the alumni website, http://cfaes.osu.edu/alumni-and-donors/ alumni/alumni-awards-program/. You will also find a listing of prior winners in each category. With over 36,000 living alumni of CFAES, we certainly should be able to identify a strong pool of candidates for each award category. • Jim Leonard, president of the CFAES Alumni Society, said, "We have many exceptional men and women graduates of the college who are doing great things in their careers and communities. The Alumni Society needs your assistance to nominate an outstanding group of candidates for the awards committee to review and select from for 2013." • Adds Vice President and Dean Bobby Moser, "For many alumni, to be recognized by their college is a highlight in their career. We receive many compliments on the event and the recipients are thrilled with the recognition." • So take some time and nominate a worthy alumnus for this recognition opportunity. Again download the nomination form today from the website, http://cfaes.osu.edu/alumni-and-donors/alumni/alumni-awards-program/, or contact Amber Pasternak at 614-247-2745 or pasternak.6@osu.edu. Make someone's day. Nominate today!



Volume 4 ► Issue 3

The Ohio State University Alumni Association, Inc.
College of Food, Agricultural, and Environmental Sciences
Alumni Society
100 Agricultural Administration Building
2120 Fyffe Road
Columbus, OH 43210-1010

ADDRESS SERVICE REQUESTED

Dean's Corner



"Upon the subject of education ... I can only say that I view it as the most important subject which we as a people can be engaged in."

— Abraham Lincoln

On July second, 150 years ago, Abraham Lincoln signed the Morrill Act, creating colleges for the agricultural and mechanical arts and opening higher education to the industrial classes. Following the Morrill Act came the Hatch Act of 1887 and the Smith-Lever Act of 1914, establishing ag experiment stations and cooperative extension services, respectively.

Thanks to the Morrill Act and land-grant colleges of agriculture, we see job creation, economic growth, and resolution to the state's, the nation's, and the world's most pressing problems. Graduates of our college leave the university ready to tackle issues in agriculture, food science, and the environment.

We are discovering new, renewable, and local sources of energy, plastics, and fibers. We're learning how to control invasive and pervasive pests, from Asian carp to bed bugs, and we're developing foods that prevent cancer, and processing techniques that prevent foodborne illness.

So, if you love 4-H, are passionate about where you earned your degree, or see agricultural research as the solution to feeding the growing world population, you have extra reason to celebrate this year.

Bolly D. Mosen

Continuum is produced by the College of Food, Agricultural, and Environmental Sciences at The Ohio State University. View Continuum online at http://cfaes.osu.edu/alumni-and-donors/alumni/college-news/.

Section of Communications and Technology

 2021 Coffey Road
 203 Research Services Building

 Columbus, OH 43210
 Wooster, OH 44691

 614-292-2011
 330-263-3780

Managing Editor: Martha Filipic Content Editor: Suzanne Steel Editor: Kim Wintringham

Contributing Writers: Mauricio Espinoza, Martha Filipic, Kurt Knebusch, Ray Miller, Suzanne Steel, Tracy Turner,

Frances Whited, Pat Whittington **Graphic Design:** Kim Brown **Photographer:** Ken Chamberlain

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The College of Food, Agricultural, and Environmental Sciences and its academic and research departments including, Ohio Agricultural Research and Development Center (OARDC), Agricultural Technical Institute (ATI) and Ohio State University Extension embraces human diversity and is committed to ensuring that all research and related educational programs are available to clientele on a nondiscriminatory basis without regard to age, ancestry, color, disability, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, race, religion, sex, sexual orientation, or veteran status. This statement is in accordance with United States Civil Rights Laws and the USDA.

Bobby Moser, Ph.D., Vice President for Agricultural Administration & Dean

For Deaf and Hard of Hearing, please contact the College of Food, Agricultural, and Environmental Sciences using your preferred communication (e-mail, relay services, or video relay services). Phone 1-800-750-0750 between 8 a.m. and 5 p.m. EST Monday through Friday. Inform the operator to dial 614-292-6891.