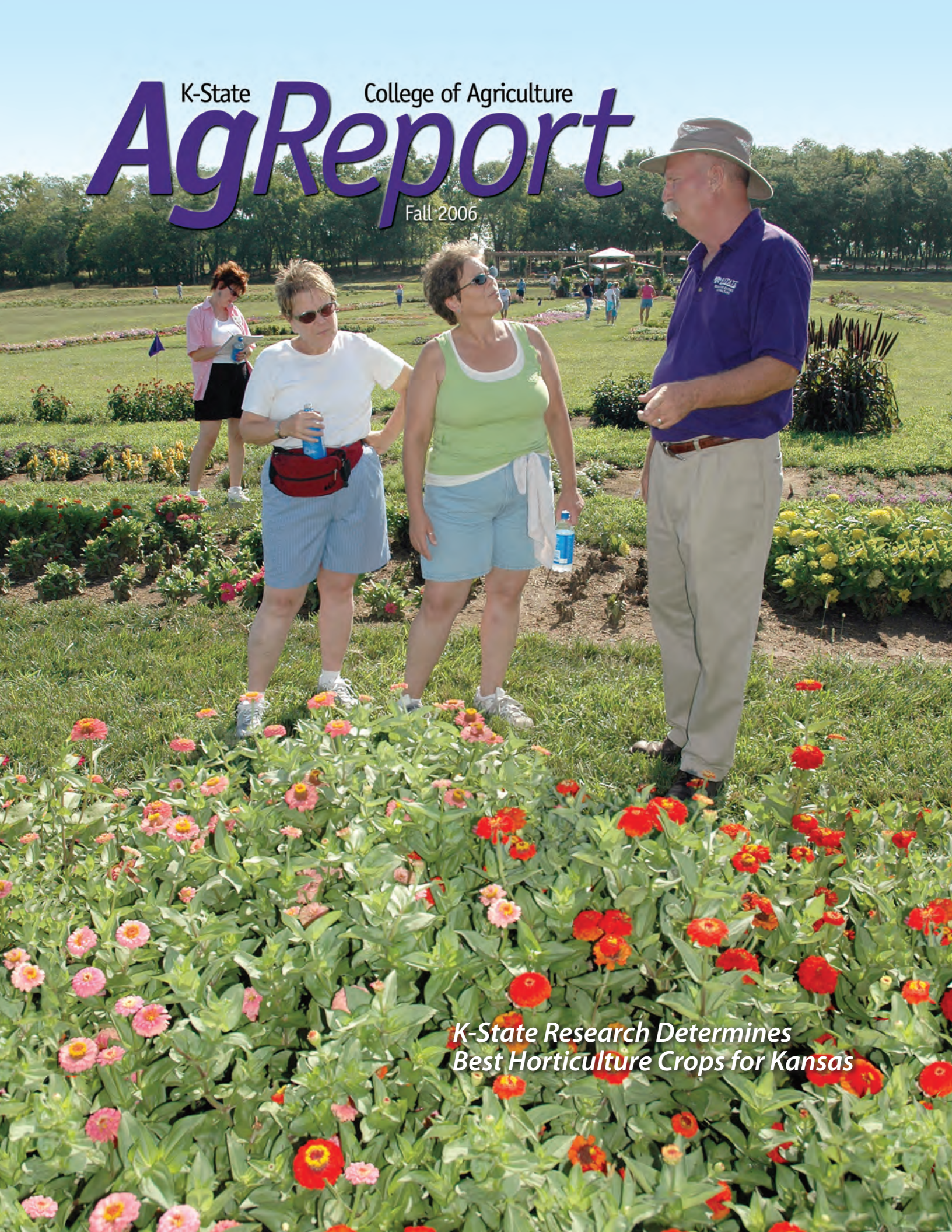


K-State College of Agriculture
AgReport
Fall 2006



*K-State Research Determines
Best Horticulture Crops for Kansas*



I hope you were pleasantly surprised when you pulled this issue of the Ag Report from your mailbox. The KSU Ag Report has been published since the early '80s – first as a black-and-white magazine, then as a two-color tabloid. We felt now was the time for a change to a color magazine. It is important that we share with our faculty, students' families, and stakeholders.

This issue highlights some of the international study tours that our students participated in last summer, new scholarships, and innovative programs and research projects that benefit our students and clientele. Many of our efforts partner with other K-State colleges, universities around the world, and state agencies.

Many of you have heard me talk about engagement. In higher education, engagement means more than participation. It means deep involvement and commitment – to be totally immersed in the process of learning and the actual material that is being studied. K-State Research and Extension and the College of Agriculture are very fortunate to have alumni, students, and faculty who are engaged in our pursuit of excellence.

The College of Agriculture has a strong base of alumni and friends. Nearly all K-State Research and Extension offices, centers, and departments have advisory councils that donate time and expertise to our programs. Their input is invaluable as we plan for the future. Many individuals make campus visits. Our students benefit greatly hearing

directly from those working in ag-related businesses.

The Ag Alumni Association provides opportunities for College of Ag alumni and friends to get together to share memories from their college years. These events also provide valuable networking opportunities for recent and not-so-recent graduates.

As I talk with employers, I feel that we are moving in the right direction. They want to hire graduates who not only understand the subject matter but also have problem-solving skills and can work as part of a team. We promote experiential learning, not just teaching.

K-State Research and Extension is engaged in addressing issues that face Kansas and beyond. Some key elements are: youth programs; safety of our plants and animals; conserving our natural resources; and supporting strong, healthy families and communities.

Engagement is a process, not an end. It takes continuous effort, time, and commitment. In my view, we must set a shared agenda, and that requires two-way communication. Please feel free to share your thoughts and ideas with me.

I look forward to visiting with many of you at future events, such as the Agronomy Department Centennial on Sept. 28-29 and the Tailgate Party sponsored by the Ag Alumni Association on Oct. 28.

Fred A. Cholick
Dean and Director

K-State College of Agriculture AgReport

Fall 2006

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and the
Kansas State University
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and Cooperative Extension Service.

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Flower enthusiasts ask Alan Stevens, coordinator of the K-State Research and Extension Center – Olathe, what plants will survive Kansas weather conditions. Read more beginning on page 4.



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Make Your Career in Modern Agriculture page 14

Faculty Fare Well with Targeted Excellence Grants

K-State Research and Extension faculty are involved with four of the six projects funded through K-State's Targeted Excellence program announced by M. Duane Nellis, K-State provost.

The four projects and principal investigators are:

- **Africa in the Global Context: The Political Economy of Agriculture, the Environment and Human Health**, \$253,726, with E. Wayne Nafziger, Emizet F. Kisangani, and David Hartnett.
- **Center for Genomic Studies on Arthropods Affecting Human, Animal and Plant Health**, \$2,000,000, with Susan J. Brown.
- **A Functional Genomics Consortium: Building Research Productivity through Education, Interaction and Full Utilization of the Functional Genomics Laboratories at K-State**, \$1,998,944, with Ruth Welti, Michael Kanost, John Tomich, Om Prakash, Susan Brown, Jyoti Shah, Gary Conrad, and Eric Maatta.
- **Molecular Infrastructure to Assess Flow of Genetic Elements in Food Production Systems**, \$100,000, with Sanjeev Narayanan, T.G. Nagaraja, Charles Rice, and Jim Drouillard.

Prepping for Avian Flu

A team of agents, specialists, and communications staff has been actively involved in state and federal preparations for a possible outbreak of avian flu in the United States.

"The team's purpose is to communicate about risk, which means we are providing information ahead of any potential crisis," said Pat Melgares, Department of Communications marketing coordinator and the project's manager. "We're communicating now, so that people's concerns don't elevate into unnecessary panic, regardless if avian flu reaches the United States."

The team also developed partnerships with experts in animal and human health, including the Kansas Animal Health Department, Kansas Department of Health and Environment, Kansas Wildlife Services, KU Medical Center, K-State's Lafene Student Health Center, and others.

Melgares noted that the team does not expect to have a primary role in a crisis situation, but will support state and federal agencies.

For more information, contact him at melgares@ksu.edu, or 785-532-1160. K-State's avian flu Web site is at www.avianflu.ksu.edu.

K-State Researchers Developing Lab-on-a-Chip for Wheat Testing

K-State researchers are developing a way to identify wheat characteristics within seconds on the spot – whether that spot is in the field, on the truck, at the elevator, or at the port.



George Lookhart (right), Chris Culbertson, and Amanda Meyer, discuss components of the Lab-on-a-Chip technology they are developing.

"The whole idea is to miniaturize the chemical analysis," said George Lookhart, professor of grain science. "This way, the lab goes to the sample, rather than the sample going to the lab."

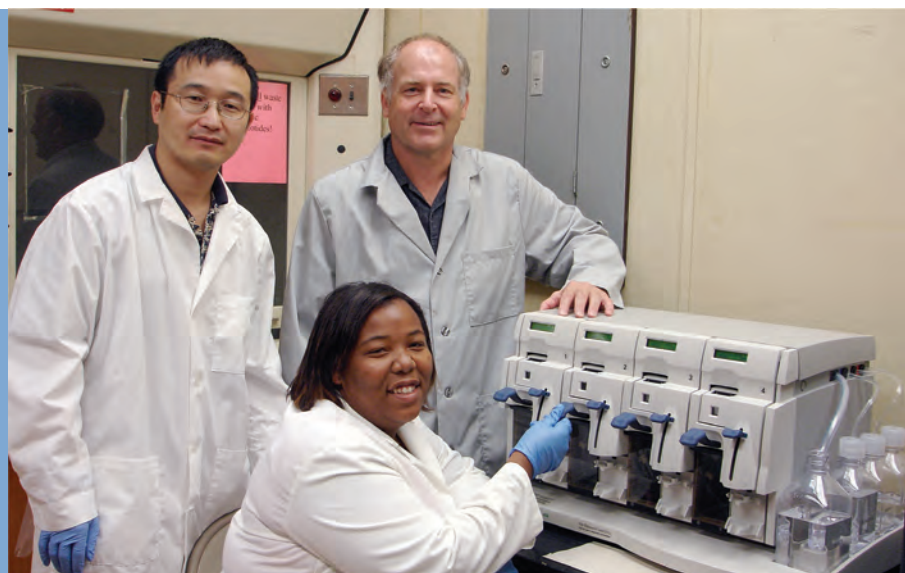
Lookhart is working with Chris Culbertson, K-State assistant professor of chemistry, and chemistry graduate student Amanda Meyer to develop the hand-held device, which they've termed "Lab-on-a-Chip."

The device will allow the user to identify wheat's variety, protein and moisture levels, and quality traits.

"Farmers will be able to check their crop during harvesting and segregate it for protein or moisture or quality to improve the consistency and the price they get," Lookhart said. "To get a quality measurement now takes two or three days."

The technology is probably three to five years from being available to the industry, Culbertson said.

The research was made possible through funding from the Kansas Wheat Commission.



Shedra Rakestraw (seated), agribusiness major from Alabama A&M University, participated in the 2006 Summer Research Program. Frank White (right), professor of plant pathology, and Bing Yang, research assistant professor, served as her mentors.

Communities Roll Out Red Carpet

Twenty of the 60 Kansas communities participating in the PRIDE program requested a visit by a team of community development professionals.

Each of the communities was eager to share their success with community improvement, said Dan Kahl, extension PRIDE coordinator who co-administers the community development effort with Jeanne Stinson of the Kansas Department of Commerce.

Evaluation teams visited those communities in June.

“The on-site evaluations allow the communities to show off the many ways they are involving the community in meaningful community improvement projects and to describe how they are building quality, sustainable communities,” Kahl said.

The site visits also make participating communities eligible to receive a 2006 PRIDE Community of Excellence Award that includes cash for future projects.

Site visits were conducted in: Almena, Alton, Beattie, Burns, Clearwater, Cunningham, Gaylord, Goff, Greeley, Grinnell, Highland, Lakin, Lenora, Lucas, Melvern, Mount Hope, Olsburg, Potwin, Rossville, and Stockton.

More information on the PRIDE Program is available at www.kansasprideprogram.ksu.edu or by calling 785-532-5840.

What to Say During a Crisis

When faced with a crisis or a risky situation, one of the first things people want to know is “will it affect me or not,” said Kris Boone, professor and head of the Department of Communications.

Her research looks at how to communicate about risks associated with food and the best way to communicate with farmers, ranchers, and rural leaders. She works with the National Center for Food Protection and Defense, which is financed by the Department of Homeland Security.

Communicating about food-borne risks differs from communicating about a terrorist attack, natural disaster, or other crisis, Boone said. Because food often is distributed across the country, people may feel more vulnerable to food contamination than a location-specific crisis, such as a terrorist attack on the East Coast or a hurricane in the Gulf of Mexico.

Strong connections between communicators and the sources the public trusts must be in place before a crisis or risk strikes, Boone said.

Boone recently organized and hosted a two-day conference, “Crisis Response Project: Ready, Set, Plan,” in Kansas City, Mo. The conference attracted 79 participants from 21 states.



Kauffman Scholars Program

About 50 middle- and high-school students visited the K-State campus in July. They were part of the Kauffman Scholars program, a comprehensive, multi-year program designed to help promising, low-income urban students in Kansas City prepare for and complete a college education. The program provides support to students from seventh grade through college.

As part of the visit, the students got a taste of life at K-State. They experienced how food scientists conduct taste tests between generic and name brand foods. They toured the KSU gardens, then took a nature walk to learn about park management conservation and forestry.

Grain scientists led the scholars through a series of hands-on projects with dough. They were able to hand grind flour then tour the mill facility. The baking lab was an opportunity to mix dough and taste the cookies they made.

A tour of the dairy facility and dairy farm included a taste of Call Hall ice cream. Agricultural economists guided the students through a computer farm management game that showed them how to make choices on when to sell their products to make a profit.

In addition to the summer college campus programs, Kauffman scholars receive:

Academic enrichment, tutoring, counseling, career planning, job shadowing, and internship experiences; life coaching to provide individualized attention to develop life skills; scholarship support for college or other post-secondary education; and programs for parents of the scholars.

The Kauffman Foundation launched the Kauffman Scholars program in fall 2003. About 200 seventh graders are invited into the program each year. At least 2,300 Kansas City area urban students are projected to participate in the program.

Horticulture state leader's passion ...

Making Kansas

Kansas summers can be hot and dry, but homeowners want beautiful flowers and shrubs, lush grass, and plentiful vegetables in spite of the Kansas weather.

How can you have a great looking yard without being a slave to your property? Grow plants that thrive in Kansas' prairie climate.

Faculty at the K-State Research and Extension Center – Olathe are testing flowers, vegetables, and turf to see what will withstand the transitional hot, windy climate Kansas is famous for.

"We want to know what plants have the genetic substance to withstand prairie climate," said Alan Stevens, center coordinator. The research originally involved 1,500 annuals each year to develop a baseline of 10,000 varieties. The focus has now narrowed to 600 varieties.

The research produces a list of Prairie Star annual flowers, which must perform at the highest level for a minimum of two years in the bedding

"We want to know what plants have the genetic substance to withstand prairie climate."

plant field research trials. They receive a deep watering of 1 to 1 ½ inches every 10 days. The Prairie Bloom

collection is the perennial counterpart. Annuals must be replanted each year, perennials come back each year.

"The Prairie Star flowers are the biggest draw when we have an open house event," said Stevens.

After the plants have been pre-screened for the prairie climate, some are moved to research facilities at the Northwest Research-Extension Center near Colby and the Agricultural Research Center-Hays.

"My passion is to make Kansas more colorful," said Stevens.

In addition to his work with the flower research trials and coordinating the center, Stevens took over as horticulture state leader when Chuck Marr retired in June 2006.

He also is an adjunct professor at Johnson County Community College and serves on the advisory board



Master Gardeners (left to right) Linda Burgess, Mary Lou Carson, and Terry Vaughn visit with Alan Stevens, center coordinator, during the Olathe center open house.

More Colorful

for JCCC's horticulture curriculum development.

"Many of the students have industry experience but are seeking the professional knowledge and skills to get their certification," said Stevens.

The Olathe center recently became an All-America Selection flower and vegetable seed test site. For more than 70 years, the All-America Selections were chosen by how they performed in coastal states. There were no test sites in Kansas or Missouri.

Ted Carey, vegetable specialist, conducts research at the center. He supervises the hoop houses or high tunnels – unheated greenhouses that are becoming a vital part of horticultural enterprises. The season can be extended and climate controlled in spring and fall to protect tender crops from frost, hail, and high winds.

"Carey is one of the leading national experts on high tunnels," said Stevens. "He is in charge of an \$800,000 USDA grant for research on high tunnels in Kansas, Missouri, and Nebraska and is a sought-after speaker on the subject."

Carey's research also includes organic fruits and vegetables – determining the chemical analysis for nutritional value as well as the costs involved. He coordinates the Growing Growers training program, which offers future farmers the chance to learn about sustainable and organic market gardening by doing it – as well as studying it – from planting to sales.

Growing Growers' ultimate goal is

to improve the quantity and quality of produce grown locally in the Kansas City area, said Carey. It is a cooperative effort of K-State, the University of

bluegrass. He helps train Extension Master Gardeners, lawn care companies, golf course grounds keepers, athletic field staff, and sod producers.



Rodney St. John, turfgrass specialist, grows turf test plots to determine the best grasses for Kansas.

Missouri-Columbia, the Kansas Rural Center, and the Kansas City Food Circle (a community organization).

Rodney St. John, turfgrass specialist, joined the K-State faculty in January 2006. His specialty is turf weed control.

"Rodney may be one of the few people who actually plants crabgrass to see how he can kill it," said Stevens.

St. John has plots of zoysia, Bermuda, fescue, buffalograss, and Kentucky

In addition to his work at Olathe, St. John has test plots at the John C. Pair Horticulture Center near Wichita and at the Rocky Ford Turfgrass Center in Manhattan. The plots are part of the National Turfgrass Evaluation Program. Universities across the United States test about 50 different turf cultivars.

"My job is to determine what grasses grow best in Kansas," said St. John.



Volunteers are Vital

Even with all the wonderful staff at the Olathe center, it couldn't function without the help of the Extension Master Gardeners.

This dedicated group puts in countless hours, weeding, picking produce, conducting classes, and promoting the center. More than 40 Master Gardeners were on hand at the center open house, which is held each year on the last Saturday of July. They organized the event, helped park cars, handled registration, answered questions, served as tour guides – whatever was needed.

Their efforts are appreciated by the center staff, the general public, and the many producers who come to the center to learn what's new in horticulture research.

Many of the open house participants come equipped with cameras and notepads.

"It's a great place for the public and for growers," said Kathy Kierl from Enright Gardens. She also is a Master Gardener in Miami County and a member of the Kansas Greenhouse Growers Association. "I'm able to compare how plants grow from seed or vegetative (starter plants). I come and make notes on what to grow next year."

Kierl noted that she was excited that the center would be adding an iris



Hoop houses (unheated greenhouses) shelter plants from frost, hail, and high winds.

garden next year. "It will be a stop on the American Iris Society meeting tour in 2009."

In addition to the open house, the Olathe center hosted a bedding plant field day for industry and a vegetable research field day, all within the same week.

For more information about the center and other horticulture programs, go to www.hfrr.ksu.edu.

A list of the Prairie Star flowers is at www.prairiestarflowers.com.

– Gloria Holcombe

History of the Olathe Center

The Olathe facility is built on the buffer zone around what was the Sunflower Ammunition Plant. Before the plant was built, the area included a town named Prairie Center. Many of the homeowners had purchased their land in 1917 for \$75. The U.S. government paid them \$50 in 1937 and gave them 30 days to evacuate. One of those homes belonged to silent film stars Buddy Rogers and Mary Pickford. Some of their original flower beds are still in the forested regions.

In 1993, Chuck Marr, horticulture state leader, and Tom Warner, head of the Department of Horticulture, Forestry and Recreation Resources, visited the ammunition plant to identify the property that would become the permanent center for horticulture research.

The 342-acre site encompasses an undeveloped forest and a unique blend of soil types enabling scientists to conduct research for a variety of horticultural needs from the deep soils common to commercial plant production to the thin, rocky clay-type soils typical of many residential home landscapes. K-State received the deed to most of the acreage in 2005. The facility continues to evolve and add more research relevant to the growing horticulture industry.



Master Gardeners Mark LaBarge (left) and Larry Justice show off a sweet orange bell pepper grown in the All-America Selection seed plots.



Left to right: LuAnn Dixon, Bruce Chladny, Douglas County horticulture agent; Paul Waters; Kathy Wilson; Mary Ann Saul; Gary White; Madelyn Moss; and Curt Maschger.

Photos by Marsha K. Landis

Lawrence Rain Gardens Put New Twist on Old Idea

With rain gardens, function is leading to fashion.

“If constructed correctly, they catch rainwater and slowly allow it to filter into the ground,” said Bruce Chladny, Douglas County horticulture agent. “They ensure rain recharges the soil’s water supply.

“Planted with native wetland and prairie grasses and wildflowers, however, rain gardens also can provide a beautiful, season-long array of colors, textures, and style. They also can attract birds, butterflies and dragonflies, too.”

The K-State Research and Extension office in Douglas County had a problem with runoff from the county fairgrounds’ parking lots. With grant funds from the Kansas Department of Health and Environment, the local Master Gardeners created two rain gardens, to re-purpose the parking lots’ wasted water.

“Rain gardens are quickly becoming one of the most popular perennial

garden designs,” said Chladny. “The gardens help control flooding, as well as minimize surface runoff and soil erosion. In turn, that helps keep our creeks, streams, and lakes clean and pure.”

Rain gardens are a new twist on an old concept, the horticulturist said. A functioning rain garden fills up when it rains, drains for two to three days, and then remains dry until the next rain.

“Building one is easy. But it does require careful planning,” he said.

For answers to questions about rain garden construction, planting or



maintenance, call the K-State Research and Extension Douglas County office at 785-843-7058.

– Kathleen Ward



John Haas' grandfather broke sod on the family farm in the early 1900s. He is the third generation to farm the land near Larned and hopes his son will be able to follow in his footsteps.

Kansan Sees Canola as *a Golden Opportunity*

“What’s that yellow stuff growing in your field?”

“Canola.”

“Granola?”

“No, that’s a cereal. Canola, like the oil.”

John Haas, who farms near Larned, has had many such conversations with his neighbors since he started growing canola. But Haas (BS '63, agronomy) hasn't let the questions quell his enthusiasm for growing canola.

In fact, he enjoyed promoting the new Kansas crop so much that he got involved with the U.S. Canola Association (USCA). He is the Great Plains region board member and current president of the organization. The USCA's mission is to increase U.S. canola production to meet the growing public demand for healthy products.

“The USCA brings all the players to the table – producers, industry, crop protection, processors, seed companies, and end users,” said Haas.

In early 2006, Haas attended a Canola Council of Canada meeting in New York where several chefs talked about the advantages of cooking with canola.

“Canola is the healthiest of all food oils,” said Haas. “It has no trans fats and doesn't hydrogenate. Now, we import 70 percent of our canola from Canada.”

“Canola also is the best oil for biodiesel,” said Haas. “It has a low cloud point, which is the temperature that biodiesel coagulates.”

As a producer, he likes that canola works well as a rotation crop with wheat, and it can be grown with existing tools. There are just over 1 million acres planted to canola in the United States, with North Dakota as the major area of canola production.

His operation has been strictly no-till since 1980. He grows wheat, alfalfa, corn, sorghum, soybeans,

sunflower – basically everything but cotton. Canola can be planted no-till in milo stubble, and wheat plants easily in canola stubble. Haas noted an 8 to 12 percent yield boost in wheat planted after canola.

was hired jointly by K-State and Oklahoma State University in 2005 as a canola breeder. He is stationed at the Manhattan campus. In July, Stamm helped with presentations in Dodge City, Kan., and Enid and Altus,

Mike Stamm, canola breeder, prepares to sow canola in a field near the Manhattan campus.



Haas sees canola as a viable crop for the Great Plains of Kansas, Oklahoma, and Texas. And starting in fall 2006, crop insurance is available for canola growers.

“In the Great Plains, we grew about 60,000 acres in 2006 compared to about 20,000 acres in 2005 and 3,000 acres in 2004,” said Haas. “We project around 100,000 acres planted in 2006 for harvest in 2007.”

“European canola varieties didn't adapt to the Kansas climate. K-State has done a super job in developing winter canola that can be grown in Kansas. Mike Stamm will take it to the next level.”

Stamm (BS '01, MS '03, agronomy)

Okla., on winter canola production and utilization.

“John Haas has worked unbelievably hard to help obtain grant funding for canola research,” said Dave Mengel, professor and former head of the K-State Department of Agronomy. “He serves on the advisory committee for the joint KSU/OSU program.”

Haas had test plots for some of the early canola varieties and has hosted tours for legislative aides to promote canola.

For more information, The Great Plains Canola Production Guide (MF-2734), is available from your local K-State Research and Extension office or order online at www.oznet.ksu.edu/library/orders/orderform.htm.

– Gloria Holcombe



Harvesting Innovation

Cheryl Zumbrunn wanted to produce and market products made from wheat grown on her family's farm. She turned to K-State experts for help, and she's glad she did.

The Zumbrunn family farm north of Chapman in Dickinson County is an intriguing mix of old and new.

A new building with a sparkling stainless steel kitchen and state-of-the-art packaging equipment is a few hundred feet from the 1911 third-generation family farm house.

And fields with some of the newest K-State wheat varieties are adjacent to fields of Turkey Red wheat, brought to Kansas by immigrants in the mid-1870s.

Dennis and Cheryl Zumbrunn are preserving the best of their rural heritage by using Kansas-grown products to make

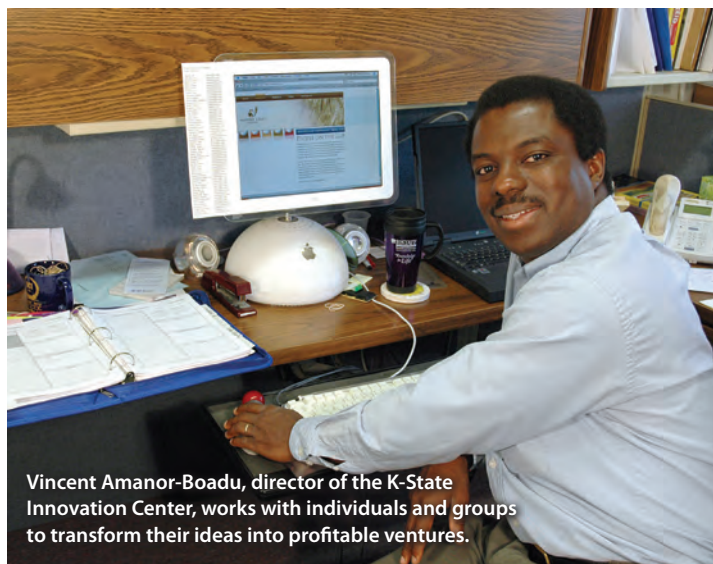
healthy food bars. They are currently producing four flavors of Harvest Lark cereal bars in their rural community, and K-State Research and Extension is

helping them.

Cheryl Zumbrunn attended a seminar on opportunity scoping presented in February 2004 by Vincent

Amanor-Boadu, assistant professor in the Department of Agricultural Economics and director of the K-State Innovation Center. After the session, Zumbrunn approached Amanor-Boadu for help with her fledgling business.

The work with the Zumbrunns started with identifying the opportunity through careful research and analysis, then market testing it. The center provided the technical and business development resources to help transform



Vincent Amanor-Boadu, director of the K-State Innovation Center, works with individuals and groups to transform their ideas into profitable ventures.

the ideas from the research and analysis into products that could be marketed competitively.

The Innovation Center insists on developing a complete understanding of the business and its environment before investing any hard resources. Therefore, they helped develop the business plan for Harvest Lark's cereal bar business, recruited service providers, and looked for financing for the Zumbrunns.

"We try to surround our clients with all the resources they need to succeed – knowledge and connections –

"I think of the Innovation Center as a coach I don't know why more people don't take advantage of all the resources K-State offers."

organizational, physical, and financial. We know that many entrepreneurs fail not for lack of resources but for lack of knowledge about how to access the available resources," noted Amanor-Boadu.

"I think of the Innovation Center as a coach," said Zumbrunn. "They helped us follow through and were always available to coach us. I don't know why more people don't take advantage of all the resources K-State offers."

The Zumbrunns also worked with the K-State Food Product Development Services Lab run by Fadi Aramouni.

"We provide support for value-added activities," said Aramouni, professor in the Department of Animal Sciences and Industry. "We test and help develop the products, and then provide educational

programs and technical support. We developed nutrition labels and the ingredient statement for the Harvest Lark products." Aramouni's lab also helped fine-tune the products during their development.

"The packaging is very important," said Zumbrunn. "We must meet FDA requirements."

Because the Harvest Lark bars are all-natural with no preservatives, Aramouni tested the texture, taste, and chemical and biological properties of

the products to predict shelf life.

One of Aroumani's students, Paige Stump, senior in food science from Andale, worked as a summer intern at Harvest Lark.

"Paige had a wonderful attitude," said Zumbrunn. "She assisted with all aspects of the business to learn as much as she could. She also helped with nutritional analysis and packaging for a possible new product, Lark Trail Mix, that uses the product trimmed from the cereal bars."



Cheryl Zumbrunn (right) and Julie Potter inspect a tray of freshly baked Harvest Lark bars.

Mary Meck Higgins, human nutrition specialist with K-State Research and Extension, worked with Zumbrunn on the nutritional analysis and to determine the correct bar size.

“From a health viewpoint, the size of a single serving is an important aspect to food product development,” said Higgins. “By having an appropriate portion size for the bars, consumers will be able to more easily follow current nutrition recommendations while they also satisfy their hunger. I am excited that Harvest Lark bars offer the public another chance to purchase a locally grown food.”

Because of the unique nature of Harvest Lark’s products, there was no off-the-shelf equipment for some of its operations. The Innovation Center solicited help from the Advanced Manufacturing Institute to develop and modify equipment.

The Kansas Wheat Commission sent 20,000 of the nutritious Harvest



Nutrition specialist Mary Meck Higgins, left, discusses the nutrition information on the Harvest Lark bars with Fadi Aroumani, food scientist, and Paige Stump, food science student.

Lark bars to evacuees and relief workers in areas affected by the hurricanes in Mississippi, Texas, and Louisiana. They also ordered 25,000 bars to distribute as healthy snacks for harvest crews and

producers at 300 grain elevators during the 2006 harvest.

For more information about Harvest Lark bars, go to www.harvestlark.com.

– Gloria Holcombe

Dennis and Cheryl Zumbrunn cut and bind Turkey Red wheat near their Chapman home. The tall, golden wheat works well for Cheryl’s wheat weavings.



K-State agronomist, Vernon Schaffer, helped the Zumbrunns with another of their endeavors. Cheryl is a wheat weaver, and wheat weavers value the long, golden shafts of wheat varieties like the Turkey Red. Schaffer was able to find a small quantity of Turkey Red seed wheat, which is the parent seed for many of K-State’s hard red wheat varieties.

The Zumbrunns now have 11 acres of Turkey Red. Some is harvested before it is fully ripe and air dried in a barn built by Cheryl’s great-grandfather. The wheat is later made into beautiful creations by Cheryl and other U.S. and Canadian wheat weavers. The rest of the Turkey Red is harvested the traditional way and used in the Harvest Lark bars.

They also grow some of the newer K-State wheat varieties, grain sorghum, and soybeans and raise cattle.



Wheat weaving made by Cheryl Zumbrunn using Turkey Red wheat.

Past water usage helps predict future water reserves

Scientists Study the Ogallala Aquifer

Looking into a crystal ball isn't the only way to predict the future. That's why researchers from K-State, the Texas Agricultural Experiment Station, the USDA Agricultural Research Service, Texas Cooperative Extension, Texas Tech University, and West Texas A&M University have been studying the Ogallala Aquifer for the past several years.



Jeff Peterson

They hope their research will help predict how the Ogallala Aquifer is declining, and possibly disappearing if no changes are made. The next step is to find out how different policies would affect the decline rate and the economy of the region.

Jeffery Peterson, K-State agricultural economist, has been studying economic effects of the Ogallala Aquifer for the past three years.

"Our studies show that if all the groundwater is used up, more land would have to be farmed as dry land instead of irrigated," said Peterson. "We believe that farmers would continue to irrigate the same amount, just in smaller areas. This would cause a shift in land usage and less income for the farmers."

Next, Peterson reviews current government policies to predict what the policies might do in the future.

"We want to pass the information that we have on to the producers and policy makers," said Peterson.

The quickest way for producers to access information is from the Web site <http://ogallala.tamu.edu/index.php>, which has links to information from the six organizations. K-State Research and Extension hosts field days for anyone who wants to learn about the research that's being done.

The study doesn't just cover economics. K-State's engineers are designing better irrigation systems, and agronomists are working on more efficient crops and other practices to save water.

Scott Staggenborg, K-State agronomist, is looking for ways to improve water usage in the Ogallala Aquifer. He and several graduate students are in the second year of studying the aquifer. Staggenborg has several test plots near Pratt.

"We are working to decide which crops to grow," said Staggenborg. "Right now it's easy – we have the water. And it's been proven that corn is the most cost efficient and productive crop there. Look ahead 20 years where there is

limited to no water, will corn still be the best option?"

"On some fields we are looking at simply using only half the water normally used to irrigate," said Staggenborg. "We are putting corn in areas that are more heavily irrigated, and then trying some grain sorghum or cotton on the other half that doesn't get as much water. We're still testing different possibilities to find the best results."

Other K-State researchers are involved in the study: Steve Welch and Loyd Stone, Agronomy; Danny Rogers, Biological and Agricultural Engineering; Freddie Lamm and Rob Aiken, Northwest Research-Extension Center; Pat Coyne, Ag Research Center-Hays, Norman Klocke, Southwest Research-Extension Center; Mike Brouk, Animal Sciences and Industry; Bill Hargrove, KCARE; and David Steward, Civil Engineering.

With continued studies, producers will be able to benefit from the knowledge that researchers are providing. They will not have to look into a crystal ball to know what to do in the future.

– Mathew Elliott



Danny Rogers, irrigation engineer, and Carmen Stauth, Kiowa County ag agent, position Irrigages in an irrigation field to determine the uniformity of water application.

Traveling Wildcats

College of Agriculture students participated in international study tours during the summer break. Michael Boland, professor of agricultural economics, led a study tour to Brazil, Chile, Argentina, and Uruguay. It gave students an overview of agribusiness issues focusing on trade, marketing, ag policy, and traceability. John Unruh, professor of animal sciences and industry, took students to Sonora, Mexico, for an intensive food science course on food processing, technology, and safety. Twig Marston, associate professor of animal sciences and industry, accompanied students on a tour of Australia's animal agriculture as well as its field crops and horticulture. Houchang Khatamian, associate professor of horticulture, took students to the Netherlands to see the Keukenhof Flower Park, the world's largest flower market and other gardens. Naiqian Zhang, professor of biological and agricultural engineering, led a study tour to China.







The Galles reminisce over their 4-H record books at their home in Manhattan.

Giving Back

Nelson and Marilyn Galle believe in giving back to their community and state. Their commitment to service was honed in their formative years in part, the couple said, through their involvement in Kansas 4-H.

Nelson Galle (BS '58, agricultural education, MS '64, adult and occupational education) currently serves as chair of the Kansas Board of Regents. The board has responsibilities for seven four-year universities, 19 two-year community colleges, and 10 technical colleges and schools in Kansas.

“Education is important to Kansans,” he said.

Nelson said learning Robert’s Rules of Order and how to lead a meeting as a 4-H member have proven assets throughout his varied career.

He interrupted his college education to travel to Turkey with the International 4-H Youth Exchange (IFYE) program. The experience expanded his vision of a larger world and the need for international cooperation.

When he returned to K-State, he worked in the state 4-H office to find host homes for IFYE participants coming to Kansas and was active with Collegiate 4-H. While helping with state 4-H Round-up, he met his future wife: Marilyn Pence, a Shawnee County 4-H member.

Marilyn, who had been selected as a delegate to the National 4-H Conference, was attending Round-up and planned to attend K-State in the fall.

Marilyn (BS '57, elementary education) considered studying agriculture, but said: "At the time, women were not encouraged to enter a man's field."

Still, Marilyn, who had earned the high individual score at the National 4-H Poultry Judging Contest, landed a spot on K-State's award-winning poultry judging team. She was the only female on the team and the only female competitor at the national contest in Chicago.

Marilyn said she believes that judging skills learned in Kansas 4-H have strengthened her decision-making skills throughout her life.

"4-H offered opportunities in leadership that we didn't have in school," Marilyn said. "Meeting people from elsewhere in the state – and other states – also expanded our knowledge and understanding of a larger world."

Marilyn's teaching career spanned 30 years. Nelson taught vocational agriculture for five years before moving into agribusiness. He rose to the position of vice president of administration for Kansas-based Hesston Corporation. His career included an assignment that took the family to live in Belgium.

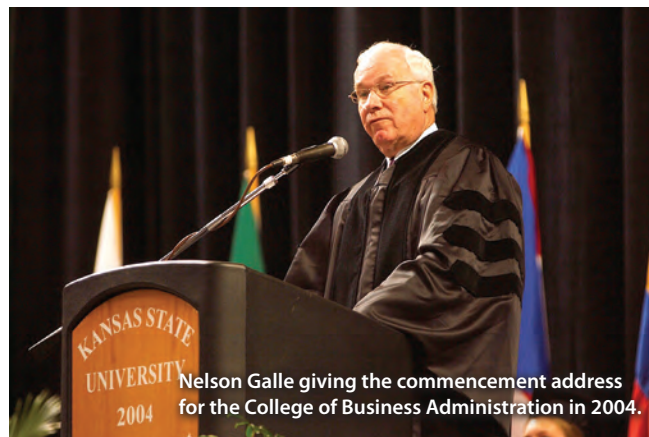
A downturn in farm equipment sales could have ended Nelson's career – he is not shy about admitting that he was "laid off at age 50."

The couple called on their farm and educational backgrounds and their expertise in poultry judging. Working together, they developed a thriving business in the turkey industry.

Within 10 years, their Central Kansas Hatchery, located in Moundridge, employed 50 people and reached \$4 million in sales.

When the couple sold the hatchery, they decided "to retire" to Manhattan.

In addition to his position on the board of regents, Nelson has served as president of the K-State Alumni Association and chairman of the KSU Foundation Executive Committee.



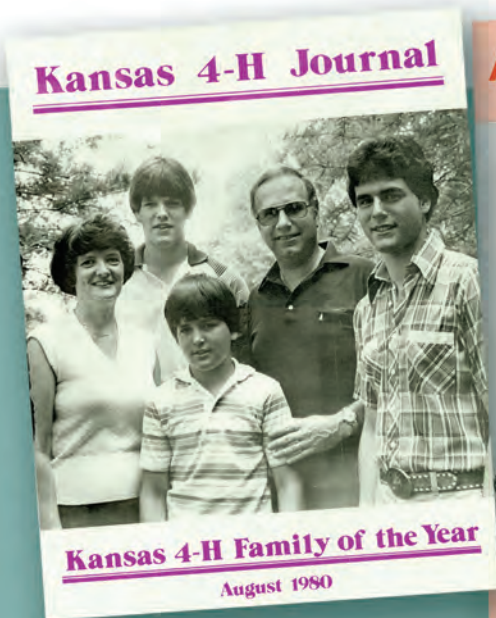
Nelson Galle giving the commencement address for the College of Business Administration in 2004.

Marilyn, a 4-H community leader for about 20 years, said that she likely would be most remembered for leading a tree-planting campaign in Moundridge, part of local efforts with the statewide PRIDE Program. She is a member of the Kansas 4-H Foundation Board and has served as its chairperson for four years.

"Giving back is what it's all about," Marilyn said. "We have grown through our experiences, and want to do our part to ensure that others, through a variety of educational opportunities, can do the same."

To read more 4-H profiles, go to www.kansas4-h.org and click on Centennial Profiles.

– Nancy Peterson



Nelson and Marilyn Galle and their three sons – Randy, Ron, and Russ – graced the cover of the Kansas 4-H Journal as the 1980 Kansas 4-H Family of the Year.

K-State students Marilyn and Nelson Galle were featured on the October 1957 issue of the Ag Student magazine.

Equestrian Team Finishes Strong



Gentry Horigan with Zen

The K-State women's equestrian team wrapped up the 2005-2006 season at the Intercollegiate Horse Show Association national championship.

Heather Culwell (animal science, St. Francis) was the reserve national champion and finished in second place in the beginner western horsemanship team event. Sarah Coomes finished in first place and is the national champion in the intermediate western horsemanship team event. Sara Weller (animal science, Garden City) took

home the national championship in the open reining horsemanship team category.

On the English side, the K-State team finished tenth in the nation. In Western, K-State finished in second place just behind The Ohio State University, which has won the championship eight times.

In the English team category, K-State had three top-ten finishers, with Gentry Horigan (pre-veterinary medicine, Manhattan) finishing sixth in intermediate equitation over fences.

In the Western team classes, the 'Cats had five top-ten finishers, including Heather Culwell, second in beginner western horsemanship, and Sara Weller, first in open reining horsemanship.

Individually the Wildcats took three top-ten positions: Gina Remus (bakery science major from Hays) fourth in beginner western horsemanship; and Sara Weller who took fifth in open reining horsemanship and eighth in open western horsemanship.

"We ended up placing as the second best western team in the nation. We are very happy with what we did," said Teresa (Douthit) Slough (BS '99, MS '01, animal science), head coach.



This photo of Jason Schneider, doctoral student in animal science, appeared on the cover of the August issue of National Hog Farmer magazine. The magazine featured his research on how feeding efficiency and producer profits can be affected when feed lines become bent or skewed.

Rake Scholarship Announced

Karina Fabrizzi, doctoral student in agronomy, has been awarded the 2005 Rake Memorial Scholarship. This scholarship is presented annually to a graduate student in the College of Agriculture who demonstrates leadership in sustainable agriculture research that encourages good stewardship of the earth and protects the environment.



Powercat Tractors Design Team Takes First

The K-State Powercat Tractors Design Team finished first out of 28 teams from the United States and Canada in the American Society of Agricultural and Biological Engineers International Quarter-Scale Tractor Student Design Competition.

K-State is the only school that has placed in the competition's top three, including five firsts, continuously since 1999. The competition began in 1998.

All teams were required to use unmodified, 16-horsepower Briggs and Stratton engines and Bridgestone/Firestone tires. The rest of the design was up to each individual team.

The K-State X-Team, made up of first-year team members, won the performance portion of their competition, and placed third overall out of 17 teams.

Team advisers are Mark Schrock and Pat Murphy, professors of biological and agricultural engineering; and Darrell Oard and Lou Ann Claassen, staff assistants.

Front row (left to right): Brent Wehmeier, agricultural technology management (ATM), Paola; Eric Bussen, biological and agricultural engineering (BAE), Wallace; Cole Tepe, BAE, Spearville; Jesse Koch, ATM, Centralia; Zane Unrau, ATM, Moundridge; Benjamin Ross, BAE, Topeka; Matthew Grollmes, BAE, Circleville; Jared Selland, mechanical and nuclear engineering, Everest.

Back row (left to right): Kyle Riebel, BAE, Humboldt; Cory Friedli, BAE, Hope; Bradley Stewart, BAE, Hoxie; Justin Weseloh, ATM, Yates Center; Brandon Winter, ATM, Mount Hope; Kevin Swenson, ATM; Jeff Wessel, ATM, Dresden; Phillip Lange, ATM, Conway Springs.

Seated on the tractor: Jace Chipperfield, team president, BAE, Goodland.

K-State Wins NAMA Competition

K-State's National Agri-Marketing Association (NAMA) student team placed first out of 27 teams in the 2006 national competition.

For the competition, the students chose a product and developed a plan to successfully bring the product to the marketplace. The K-State team chose to market a fruit juice fortified with skim milk.

"NAMA is by far one of the best clubs on campus to get involved with," said team member Vincent Hofer. "All of the research, writing, and oral presentation of the actual marketing plan really give us students a taste of the business world. Above all, we gain an opportunity to network with numerous professionals from a variety of agribusinesses to learn about different careers and available jobs."



NAMA team members (left to right): Sarah Coover, agribusiness; Vincent Hofer, agricultural economics; Amanda Ahrens, marketing; David Widmar, agricultural economics; Samantha Tracy, agribusiness; Brett Stoll, agribusiness; Annie Whitehill, agricultural communications and journalism; and David Lehman, NAMA adviser.

Students Earn PKP Grants

Mary Geiger, ag communications and journalism, Troy, and Tricia Dicke, animal sciences and industry, Creston, Neb., were awarded grants for international study from the Phi Kappa Phi honorary society. They studied in Argentina, Brazil, Chile, and Uruguay.

Geiger and Dicke have been involved with various college and campus organizations. Geiger was a 2003 K-State Kassebaum Scholar. Dicke received semester academic honors from K-State and undergraduate academic recognition from the American Society of Animal Science.

K-State Students on Grounds Crew at U.S. Senior Open



The grounds crew prepared the course in the early morning and evening. From left: Nolan Pauly (BS '05, horticulture), Conway Springs; Jarod Clayton, Augusta; Dylan Senn, Augusta; Jeff Cameron, Hoxie; Nathan Ratzlaff, Hutchinson. All are horticulture majors with a specialization in golf course management.

Hand-watering greens and fairways on a golf course may not seem like the ideal job to some people, but to K-State golf course management students, it was a golden opportunity.

The students put their classroom lessons to work as members of the grounds crew for the 27th U.S. Senior Open Championship, July 6-9, at Prairie Dunes Golf Course in Hutchinson.

The Senior Open, which attracted many of the world's best 50-and-older players, was a nationally televised event.

While the hours were long and the days hot, the networking opportunities were priceless, especially with 40 professional golf course superintendents and assistants volunteering their expertise.

"It looks good on a resume to work a big tournament like that," said Nathan Ratzlaff, a senior in golf course management from Hutchinson. "It was good experience. It may help me get a job when I get out of school, or some of the contacts may help me down the line."

Jack Fry, a K-State professor of horticulture, forestry and recreation resources, agreed.



Michael Liebe, Goddard, watering a green before the U.S. Senior Open.

"Having an opportunity to work a U.S. Golf Association championship is a tremendous career-building opportunity for students," Fry said. "The average golf enthusiast has no idea what is involved in preparing a golf course for an event like that. The students were in the middle of the mix and saw firsthand what teamwork can accomplish in preparing for such an event."

Agricultural Economics

Michael Boland, professor, has been elected vice president of the Western Agricultural Economics Association.

Agronomy

Kassim Al-Khatib (PhD '84, agronomy), professor, won the Outstanding Research Award from Gamma Sigma Delta.

J. Anita Dille, associate professor, of weed ecology and **Gerry Posler**, professor and crops team coach, were named College of Agriculture Faculty of the Semester for spring 2006.

Chuck Rice, professor of soil microbiology, was named chair and **Mary Beth Kirkham**, professor of crop physiology, vice-chair of the Soils, Food Security and Human Health Commission for 2006-2010.

Animal Sciences and Industry

Daniel Y.C. Fung, professor of food microbiology, received the 2006 Carl R. Fellers Award from the Institute of Food Technologists.

Kelly Getty (BS '88, PhD '99 food science) assistant professor of food science, received the Early Career Award from Gamma Sigma Delta.

Biological and Agricultural Engineering

G. Morgan Powell, professor of water quality, has been selected as the 2006 recipient of the Larry E. and Laurel Erickson Public Service Award from the K-State College of Engineering.

Awards received at the international meeting of the American Society of Agricultural and Biological Engineers:

The student branch won the first-place Student Engineering Branch Award, and the K-State Agricultural Technology Management Club received first runner-up honors for the Student Mechanization Branch Award.

Gary Clark, professor and department head, was named the Outstanding Reviewer for 2005.

The 2006 American Society of Agricultural and Biological Engineers Superior Paper Award went to **Ronaldo Maghirang**, professor of biological and

agricultural engineering; **Mark Casada** and **Dan Brabec**, both of the U.S. Grain Marketing Production Research Center; and **Ekramul Haque**, professor of grain science and industry.

Communications

Nancy Peterson, communications specialist, earned a distinguished service award from Kansas 4-H.

Awards received at the Association for Communication Excellence International Meeting in Quebec City: Gold Award in the special reports category and an Outstanding Professional Skill Award for best publication – **Gloria Holcombe**, **Bob Holcombe**, **Pat Melgares**, **Linda Sleichter**, **Donna Sheffield**, and **Kira Everhart-Valentin**. Silver Award, Web site – **Linda Sleichter**, **Gamage Dissanayake**, **Neal Wollenberg**, **Roger Terry**, **Bob Holcombe**, **Pat Melgares**, and **Jackie McClaskey**. Silver Award, media relations program – **Nancy Peterson**, **Bob Holcombe**, **Linda Sleichter**, **Larry Jackson**, **Kathleen Ward**, **Leah Bond**, **Steve Ballou**, and **Ron Frank**. Silver Award, educational project, non-credit category – **Deb Pryor**, **Kathy Walsten**, **Steve Ballou**, **Mary Lou Peter-Blecha**, and **Pat Melgares**.

Diversity Programs Office

Zelia Wiley was honored by the Fort Worth/Tarrant County Minority Leaders and Citizens Council during their Women's History Month celebration in March. She also was elected president-elect of the National Society of Minorities in Agriculture, Natural Resources and Related Sciences (MANRRS).

Horticulture, Forestry and Recreation Resources

Charles W. "Chuck" Marr, professor and extension state horticulture leader, earned a distinguished service award from Kansas 4-H.

Plant Pathology

Doug Jardine, professor, is the recipient of the 2006 Distinguished Service Award from the North Central Division of the American Phytopathological Society. His expertise is in the identification and management of disease pests of field row crops.

Ag Research Center–Hays

John Brethour (BS '55, animal science), emeritus beef cattle scientist, received a commendation from the Kansas House of Representatives. **Dan Johnson**, chairman of the Kansas House Agriculture Committee, made the presentation at Roundup 2006.

K-State Research and Extension

Mike Bradshaw received the Faculty Extension Excellence Award from the College of Human Ecology. **Bradshaw**, an extension health specialist, received the award for his support and coordination of the Walk Kansas program.

Sharolyn Flaming Jackson is the 2006 recipient of the Jeanna M. Priester Award for her work with Walk Kansas in Riley County. In June 2006, **Jackson** became northeast area family and consumer sciences specialist.

The Kansas Department of Health and Environment recognized **Mary Sullivan**, Grant County family and consumer sciences agent, for her collaborative efforts with the local school district as part of a Healthy Kansas, Healthy Schools Award.

Buhler Inc. Establishes Faculty Chair in Grain Science

Buhler Inc., Minneapolis, Minn., has made a commitment of \$500,000 to establish the Buhler Industrial Milling Instructor Chair to support a faculty member with industrial milling experience in the Department of Grain Science and Industry.

Kendall McFall (BS '84, milling science and management), instructor in grain science, was named to the position. His responsibilities include the coordination of new continuing education programming to provide short courses and training modules for millers in the international and North American grain-processing industries.

In Memorium

Randall “Randy” A. Higgins, 51, Manhattan, died on May 12, 2006. He joined the K-State Department of Entomology in 1982. He was a teacher, researcher, and specialist. He also served two years as interim associate director of extension and was serving his third term as a faculty senator. He guided 16 students to graduate degree completion, and authored and delivered hundreds of public and professional education publications and presentations. He was a governing board member of the Entomological Society of America and received numerous awards for his professional service.

Orville W. Bidwell, 88, Manhattan, died June 5, 2006. He joined the K-State Department of Agronomy in 1950. He taught courses in development and classification of soils and soil interpretations. He coached the soils team from 1958 until his retirement in 1984 as professor emeritus. He successfully lobbied the Kansas Legislature to establish Harney silt loam as the state soil. He also served as a board member for the Land Institute and a consultant to the Kansas Rural Center. A memorial has been established with the KSU Foundation for the soils team fund.

Robert “Bob” McEllhiney, 78, died April 28, 2006. He was professor emeritus, Department of Grain Science and Industry, having served in the department from 1979 to 1993. Before coming to K-State, he was general production manager for Albers Milling Co. and director of production, engineering, quality control and vehicle administration for ConAgra, Inc. He was a charter member of the American Feed Industry Association (AFIA). In 1992, he received AFIA's Distinguished Service Award and in 1997 was elected to the AFIA/KSU Feed Manufacturing Hall of Fame. The Robert R. McEllhiney Scholarship Fund has been established with the KSU Foundation.



Retirees Log Incredible 653 Years of Service

K-State Research and Extension had 22 retirees with a combined total of 653 years of service, averaging nearly 30 years each. Those who attended the Provost's reception in their honor are shown above with their titles, unit, and years of service.

Back row: **David Darling**, professor of community economic development, Agricultural Economics, 21 years; **Paul Seib**, professor of biochemistry, Grain Science and Industry, 36 years;

Middle row: **Everett Everson** (BS '73, MS '74, ag economics), extension ag economist, Kansas Farm Management Association, 32 years; **W.D. “Dale” Eustace** (BS '59, feed science; MS '62, PhD '67, milling science) professor of milling management, Grain Science and Industry, 33 years; **Mark Spire**, professor of food safety, Diagnostic Medicine and Pathobiology, 29 years; **Harvey Kiser**, senior ag economist, International Grains Program, 26 years;

Front row: **Don Kropf**, professor of meat science, Animal Sciences and Industry, 44 years; **Charles “Chuck” Walker**, professor of baking science, Grain Science and Industry, 17 years; **Charles “Chuck” Marr**, professor and extension state leader, Horticulture, Forestry and Recreation Resources, 36 years; **Dallas Johnson**, consulting statistician, Statistics, 31 years.

Retirees not pictured: **John Brethour** (BS '55, animal science), professor of beef cattle nutrition, Ag Research Center – Hays, 45 years; **Larry Claffin** (PhD '72 crop protection), professor of bacteriology, Plant Pathology, 31 years; **Brendan Donnelly**, professor and department head, Grain Science and Industry, 9 years; **Jerry Freeze**, extension ag economist, Kansas Farm Management Association, 26 years; **Gary Gold**, ag and natural resources agent, Stevens County, 32 years; **George Liang**, professor of genetics, Agronomy, 41 years; **Vicky Overley**, family and consumer sciences agent, Phillips-Rooks District, 27 years; **John Shirley**, professor of dairy cattle nutrition, Animal Sciences and Industry, 20 years; **Carol Strahm**, program assistant, Northeast Area Extension Office, 26 years; **Richard Wahl** (BS '72, ag economics), extension ag economist, Kansas Farm Management Association, 20 years; **Steve Westfahl** (BS '70 animal science), ag and natural resources agent, Sedgwick County, 35 years; **Merle Witt** (BS '67, MS '69, agronomy), associate professor of crop science, Southwest Research-Extension Center, 36 years.



John Leslie in Throckmorton Hall lab.

Leslie Chosen to Head Department of Plant Pathology

John Leslie has been appointed head of K-State's Department of Plant Pathology.

"John brings a national and international reputation to the position, and I believe he will continue developing a great department," said Fred Cholick, dean of the College of Agriculture and director of K-State Research and Extension.

Leslie's appointment became effective on May 21.

Leslie, who has been with K-State's plant pathology department since 1984, received a bachelor's degree in biology from the University of Dallas. He earned master's and doctoral degrees in genetics from the University of Wisconsin, Madison.

Leslie's specialty is biochemical, molecular and population genetics of model and plant pathogenic fungi. At K-State, he has been an assistant professor (1984-1990), associate professor (1990-1996), and professor (1996 to present). He is best known for his work with fungi in the genus *Fusarium*, which causes serious disease and mycotoxin problems for corn, wheat, and sorghum in Kansas.

He has co-authored six books and published more than 120 journal articles.

Noting that K-State's Department of Plant Pathology has been recognized as one of the best in the nation, Leslie said his goals include maintaining that status. "My goal is to keep our department at the top," he said.

The department employs 19 full-time and 13 adjunct faculty, including off-campus staff, nearly 50 graduate and post-doctoral students, and several visiting scientists.

Training Future Judging Team Members

Scott Schaake (third from left), Livestock Judging Team coach, hosted four, three-day livestock judging camps for 4-H and FFA members (ages 14-18) who are seriously interested in enhancing their livestock judging and oral communication skills. This is the 12th summer that K-State has hosted these camps. "We don't really advertise; it's mostly word of mouth," said Schaake. "When kids go to state contests, they talk about what a great camp K-State has. It's an excellent recruiting tool." This year's 112 participants came from 12 states.



Meat Scientists Honored by Professional Associations

Two meat scientists in the Department of Animal Sciences and Industry – Michael Dikeman and Melvin Hunt – recently added awards from professional societies to their many accomplishments.

Dikeman (BS '66, animal science, PhD '70, food science) was the recipient of the Distinguished Research Award from the American Meat Science Association. Hunt (BS '65, MS '70, animal science) garnered two awards – the Meat Research Award from the American Society of Animal Science and the Harry L. Rudnick Educator of the Year award from the North American Meat Processors Association.

Dikeman joined the K-State faculty in 1970. His research has had a great impact on genetic improvement of carcass and meat characteristics of cattle and choices of breeds and mating systems of slaughter cattle produced in the United States.

In addition to his research, he teaches Animal Sciences and Industry Lab, Livestock and Meat Evaluation, Advanced Meat Science, History and Attitudes of Animal Use, and Livestock Production and Management.

Hunt joined K-State's faculty in 1975 after completing his PhD in meat science at the University of Missouri.

He teaches Introductory Meat Science. In 1988, he launched a distance education version to make it possible for students from other colleges and universities and food company employees to enroll. He also coordinates the undergraduate program for the Food Science Institute.

One of his many research projects was a study on cooking ground beef that prompted a change in a decades-old recommendation for cooking. The study supported using a meat thermometer to test doneness because browning alone should not be considered a measure of doneness when cooking ground beef.

Dikeman and Hunt have significantly impacted the livestock and meat industries, and many of their students hold prominent positions in academia, industry, and government.



Melvin Hunt (seated) and Michael Dikeman



A group of kindergarten students listen carefully as David Margolies, professor of insect ecology in the Department of Entomology, talks to them about insects during a tour of the Insect Zoo. The zoo is located in the Glenn Beck Dairy Barn in the K-State Gardens on College Avenue in Manhattan. It hosts 8,000-9,000 visitors each year. Most visitors are pre- and elementary-school children, but adults also enjoy the hands-on educational opportunities. For information about scheduling a tour, call 785-532-5891.

1952

Robert “Bud” Langford (BS horticulture) continues to work for Lenders Title Co. in Arkansas. “I plan on retiring in 2008 at about 80 years of age if all goes well,” said Lanford. “KSU is still a part of me, and I am a proud alum.”

1967

Jerry Fickel (BS animal husbandry), Miami, Fla., has been appointed by the U. S. Secretary of Agriculture as the U.S. trade representative to the Agricultural Technical Advisory Committee for Trade in Animals and Animal Products.

Robert Miller (BS agricultural economics), Wellington, was reelected Kansas chairman of the National Cotton Council’s American Cotton Producers.

Bill Scott (BS horticulture) was appointed by the Kansas Secretary of Agriculture to manage the department’s plant protection and weed control program.

1979

Jeff Gwartz (BS milling science and management; MS ’92, PhD ’98 grain science) rejoined the K-State grain science faculty as an associate professor. Since August 2003, he has been CEO of JAG Services Inc. – a consulting company. “My time as an independent consultant has given me added insight as to what industry wants and needs from its newest employees,” Gwartz said.

1980

Deryl Waldren (BS agronomy, BS ’77 radio and TV) is the new extension 4-H Youth Development specialist in northwest Kansas. He provides leadership and support for youth, extension staff, and volunteer leaders at the area and state level in 4-H Youth Development programming.

1990

Roger “Scott” Eckert (BS agricultural education, BS ’94 horticulture) and his wife, Jaclyn, announced the birth of their daughter, Jady Annemarie, on July 24, 2006. Scott is the Harvey County horticultural agent.

1994

Todd D. Johnson (BS agricultural economics), Topeka, was recently named to the K-State Alumni Association board of directors. He is executive director of the Kansas Beef Council.

1996

Mara (Barngrover) Phelps (BS animal science) is a quality assurance manager for Tyson Foods in Goodlettsville, Tenn. She and her husband, John, announced the birth of their son, Lane Curtis, on Feb. 20, 2006.

1997

George Dawson (BS ’97, MS ’99 animal sciences) received a PhD in 2005 from the University of Arizona. He is the equine specialist for Cargill Animal Nutrition’s Pacific Northwest District. He married Ehrin Annen on Oct. 22, 2005. She also works for Cargill as a dairy management consultant. They reside in Prosser, Wash.

1998

Jason Ellis (BS agricultural journalism/ animal sciences and industry) recently joined the faculty at the University of Nebraska, Lincoln, as an assistant professor of agricultural journalism.

Kari (Brown) West (BS ’98, agricultural journalism) of Girard, Kan., recently

joined the staff of Horses of Hope Therapeutic Riding Center in Baxter Springs, Kan., and Buffalo, Mo. as the organization’s new director of marketing and promotions.

2000

Andrew Steinert (BS agronomy) works for the USDA-Natural Resources Conservation Service. He was recently promoted to the soil scientist project leader for the Morgan County Soil Survey project. He lives in Fort Morgan, Colo.

Mary Anne Titterington (BS agricultural economics/milling science and management) married J.D. Fair (BS ’01 management information systems) on Aug. 5, 2006. She is a business unit manager for General Mills.

2002

Jennifer (Carson) Bebb (BS animal sciences and industry), Altamont, and her husband, Justin, announced the birth of their daughter, Riley June, on March 3, 2006. Their first daughter, Jacie Ray, was stillborn on Nov. 23, 2004. Jennifer is a stay-at-home mom.

2003

Ryan Breiner (BS animal sciences and industry) married **Sharon Glaenzer** (BS ’05, agricultural communications



Kevin Fateley (BS ’86 horticulture), right, and Matt Miller (BS ’94 horticulture) were among the many K-State students and alumni that volunteered as grounds crew for the U.S. Senior Open at Prairie Dunes Golf Course in Hutchinson in early July. Fateley is owner and superintendent of Wildcat Creek Golf & Fitness in Manhattan. Miller is the golf course superintendent at Carey Park Golf Course in Hutchinson.

and journalism/animal sciences) on May 27. Both are pursuing master's degrees in animal science, and he is manager of the Purebred Beef Unit.

2004

Zach Tillinghast (BS milling science and management) is a production assistant for Cereal Food Processors in Great Falls, Mont.

In Memorium

Dale H. Edelblute (BS '34 agronomy) died March 13, 2006. He was a county agricultural agent in Crawford and Harvey counties, area extension agriculturalist in Garden City, and extension specialist at Manhattan. He returned to Garden City as area extension specialist, crops and soils, until his retirement on April 23, 1980.



Stacey Campbell, center, talks with Dean of Agriculture Fred Cholick, left, and Associate Director of Research Forrest Chumley in the Bramlage tunnel before spring commencement. Campbell (BS '88, agricultural journalism) was the commencement speaker. He is a lawyer in Denver, Colo.

"I can't thank you enough for your generous support of the College of Agriculture," said Fred Cholick, dean of the College of Agriculture and director of K-State Research and Extension.

Last year, Telefund generated 2,971 pledges worth \$222,429 with more than \$25,000 via corporate matching gifts

Ag's Telefund pledge total increase of \$22,000 helped set an overall record of more than \$1.4 million.

Telefund gifts are divided 50 percent to scholarships, 10 percent to student projects, 15 percent to alumni/recruitment, 10 percent to faculty development, and 15 percent to educational materials.

Nearly 250 ag student callers helped maintain Telefund's standing as the world's largest all-volunteer telephone campaign for higher education.

Telefund 2007 for agriculture begins on January 28.

You Caught Us

College of Agriculture alumni keep us on our toes. Howard L. Carnahan (BS '43 agronomy) of Chico, Calif., sent this note after receiving the spring 2006 Ag Report.

"I really enjoyed the recent K-State Ag Report. I am quite confident that the A.E. Myers you mention under the 1940-1950 heading is actually Dr. Harold Myers. I was a student there during this period and took a course in soil fertility from him. He was an excellent teacher."

Mr. Carnahan was correct. Harold E. Myers was head of agronomy from 1946 to 1952.



Ag Alumni Class Notes

Fill out this form and return it to:

Gloria Holcombe
 Department of Communications
 315 Umberger Hall
 Manhattan, KS 66506-3402
 or e-mail to: gloria@ksu.edu

Name _____

Spouse's Name _____

City _____ State _____ ZIP _____

Home Phone _____ E-mail _____

Graduation Date(s) _____ Degree(s) _____

Employer _____ Title _____

Feel free to attach more information.

Sobba Leads Ag Alumni Association



President Loretta Sobba (left) presents a plaque to her predecessor Jerilyn (Johnson) Houghton.

Growing up on a diversified crop and livestock farm near Garnett, Loretta Sobba knew she wanted to earn a degree in agriculture and then work in some facet of the ag industry.

Sobba (BS '85, agricultural economics) is director of crop-hail for National Crop Insurance Services, an international not-for-profit organization that represents the interests of more than 60 crop insurance companies. She also is the current president of the Ag Alumni Association.

Sobba said she had more than a little encouragement to come to

“They were definitely good ambassadors for K-State and the College of Agriculture,” said Loretta Sobba.

After graduating from K-State, Sobba occasionally attended the Fall Roundup, now the Tailgate Party.

“I enjoyed seeing and visiting with graduates and their families and talking with faculty members about what was happening in the College of Ag,” said Sobba. “When the opportunity arose to serve on the ag alumni board, I thought it would be a great way to give

K-State from her siblings – Alan (BS '80, agronomy), Carol (BS '82, agricultural journalism), Anita (BS '84, horticulture), and Mary (BS '88, agricultural economics; MS '93, business administration).

something back to the college that gave so much to me as a student.”

One of her goals for the organization is to increase alumni awareness of the fall Tailgate Party and the spring Wild4Ag Weekend.

“I hope new and recent graduates realize the value of remaining in contact with other alumni at these events,” said Sobba. “Every College of Ag alumni is automatically a member of the College of Agriculture Alumni Association, which is quite different from many other universities where alumni must pay dues to belong to their ag college alumni association.”

The alumni board also sponsors several awards – Distinguished Alumnus, Outstanding Young Alumnus, and David J. Mugler Teaching awards.

“I encourage alumni to seriously consider nominating deserving individuals for those awards,” said Sobba.

See you at the Tailgate Party on Oct. 28!

WILD 4 AG Weekend

Loren Kruse (BS '70, agricultural economics/journalism and mass communication) prepares to high five Willie before the start of the K-State Ag Alumni Class '06 tournament at Colbert Hills.



Bill Snyder and Dean Fred Cholick congratulate graduating senior Michael Burns, Jetmore. Burns and Whitney Lynn Coen, Ottawa, earned the Kansas State University Outstanding Graduating Senior awards presented each spring to graduating seniors who have made a significant contribution to student life at K-State. Both majored in agricultural economics. The Ag Alumni Association hosted a luncheon for graduating seniors at the Snyder Family Stadium as part of the 2006 Wild4Ag Weekend.

Agricultural Alumni Association Presents Annual Awards



Alumni award winners: (from left) Dave Nichols, George Yapp, and Andrew Murphy.

At the Wild4Ag Weekend, May 5-6, 2006, the College of Agriculture Alumni Association presented awards to three outstanding individuals – George Yapp, Dave Nichols, and Andrew Murphy.

George Yapp (BS '56, milling science and management), Barrington, Ill., is the 2006 Distinguished Alumnus.

"He is the model of a successful graduate," said Richard Hahn, former head of the Department of Grain Science and Industry. "He demonstrates a high degree of technical competence, which led to a successful business career, while being a well-rounded individual who provides service to his profession, local community, charitable groups, and his alma mater."

Yapp had a 35-year career with the Quaker Oats Co., with the last 20 years in senior management positions, including corporate officer, president of the Quaker Pet Food business, and CEO of Quaker Oats Ltd. in London. In 1969, he completed the Program for Management Development at Harvard University.

He has served on the boards of many business and trade organizations, local and national philanthropic groups, and the K-State Foundation Board of Trustees. In 2000, he established the George J. Yapp and Charlene B. Yapp Scholarship for students in the College of Agriculture.

Yapp has influenced many students through the Executive in the Classroom program and as a lecturer at the Krannert School of Business, Purdue University.

"There are many alumni who have accomplished so much through their careers and in their communities and are very deserving of special recognition,"

Loretta Sobba, Ag Alumni Association president.

Dave Nichols, professor and teaching coordinator for the Department of Animal Sciences and Industry (ASI), was the 2006 recipient of the David J. Mugler Outstanding Teacher Award.

"Nichols has served as ASI teaching coordinator for the last seven years and is the first face ASI freshman students encounter in the classroom," said Janice Swanson, interim head of the Department of Animal Sciences and Industry.

Nichols (PhD '81, animal science) has been a K-State faculty member for 25 years. He maintains an open-door policy with the more than 100 students he advises. He teaches the large introductory animal science class on campus and through distance education. Nichols receives consistently high evaluations for his teaching and advising.

"The real beneficiaries of Dave's work are the students," said Swanson. "As student demographics have changed, he has adjusted his class to reflect the diversity of issues and student interests."

The award is named for David Mugler, former associate dean of academic programs.

"In my opinion, Dave Nichols embodies and employs the same principles and enthusiasm that Dave Mugler modeled for teaching and advising," said Swanson.

Andrew Murphy said he was honored and almost speechless when he learned that he had been named the 2006 Outstanding Young Alumnus.

Murphy (BS '93, animal sciences and industry) is president of Great Bend Feeding Inc., a family-owned cattle-feeding operation. Recently, he assumed the role of chief operations officer of Innovative Livestock Services, a commercial cattle feeding operation with a capacity of 110,000 head.

"As a businessman, Andrew has achieved a level of success that is uncharacteristic of people his age," said Dee Likes, executive vice president of the Kansas Livestock Association. "These rare accomplishments are the direct result of his passion for professional innovation and his dedication, both to personal improvement and to high standards for the beef industry."

Murphy has served many leadership roles in the beef industry. In addition, he finds time to give back to his alma mater as president of the Central Kansas Catbackers and as a member of President's Club, KSU Foundation Board of Directors, and the Dean and Director's Advisory Council.

Ag Alumni and Friends Support Success of the Changing Lives Campaign



With gifts totaling more than \$90 million, alumni, friends, and corporate partners gave more to K-State during the 2005-2006 academic year than any other time in the university's history! As part of KSU Foundation's Changing Lives Campaign, this past year's giving has put the total raised to

more than \$400 million toward the \$500 million campus goal. The efforts of the College of Agriculture and support for its students and faculty have played a major role in the campaign's success. The College of Agriculture has raised more than \$75 million of the campaign total.

The effect of the campaign can already be seen within the College of Agriculture and across K-State. The best and brightest students are being recruited and retained at K-State through increased scholarship funding. Faculty and administration have discretionary funds available to improve course offerings, student programs, and research and outreach efforts. With support from the state of Kansas continuing to decline, gifts from our alumni, friends, and corporate partners become increasingly important to maintain the level of excellence to which K-State's have become accustomed.

As you visit campus in the coming months, you will see the most visible examples of this private support in the form of new and renovated facilities. October will mark completion of the Hal Ross Flour Mill within the grain science complex, funded with donations totaling almost \$10 million. Phase Two construction of the KSU Gardens will commence this fall, and we invite you to stop by the newly renovated dairy bar for some famous Call Hall ice cream. We greatly appreciate the private support that has made all of this and more possible.

Changing

LIVES

The Campaign for KANSAS STATE UNIVERSITY

Salina Vortex Corporation donates flour milling equipment

Salina Vortex Corporation, Salina, has made an in-kind gift of Vortex valves valued at \$85,000 for the Hal Ross Flour Mill in K-State's Grain Science and Industry Complex.

Salina Vortex Corp. manufactures slide gates, diverter valves, and iris and butterfly valves for handling dry bulk material. Vortex valves are used to regulate or divert the flow of dry material in gravity flow or pneumatic conveying systems and are standard equipment throughout the world.

New Scholarships Announced

George and Evelyne Lawrence, Corcoran, Calif., have made a commitment of \$55,120 to establish the **George and Evelyne Lawrence Milling Scholarship** to provide financial assistance to a student majoring in milling science and management.

George Lawrence (BS '51 milling science and management) is retired from J.G. Boswell Co. of Los Angeles. Evelyne Froebe Lawrence received an associate's degree in business from Coffeyville Junior College.

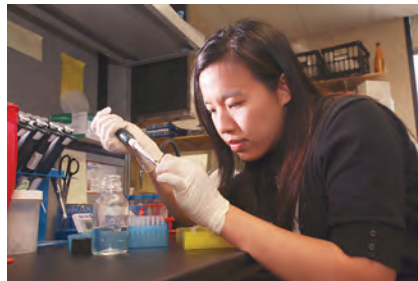
"Life has been very good to me," George Lawrence said. "I had a wonderful career in the grain business, due in large part to the degree I received at K-State. I know this degree opened many doors for me along the way, and we just felt that this gift was a way to give something back."

The estate of Katherine C. Jones, Garden City, has made a gift of \$66,365 to establish the **Taylor L. and Katherine C. Jones LMIC Scholarship**.

The recipient will be a student enrolled in the Department of Animal Sciences and Industry whose area of study is significantly related to the beef industry.

Katherine Jones received a bachelor's degree from Ottawa University in 1930. She died in 2005. Taylor Jones (BS '35, animal science) was a member of the Phi Delta Theta fraternity. He died in 1983.

"Our parents valued education, and this way they provide it for others as they did for us," said Robert Jones, son of Taylor and Katherine.



Sarachek Winner Studying Virus Gene in Insects

Chanitchote Detvisitsakun (MS '01, genetics), PhD student in biology from Thailand, is the recipient of the \$15,000 Sarachek Predoctoral Honors Fellowship. She is studying how virus fibroblast growth factors play important roles in spreading infection within an infected insect. Her research may one day benefit farmers and food processors around the world. The Sarachek Fellowship is named for and endowed by Alvin (PhD '58, biology) and RosaLee Sarachek.

Looking Back



This photo shows an Ag Fair float in spring 1930. This and many other photos are included in the Department of Agronomy history publication, "A Century Remembered." K-State's Department of Agronomy is celebrating its centennial September 29-30. More information about the celebration plans and program offerings is available on the department's Web site www.agronomy.ksu.edu or from Dana Minihan at 785-532-7258 or prlpwr@ksu.edu.

Alumni Awards Nomination. Nominate someone or several for:

Distinguished Alumnus Award Outstanding Young Alumnus Award David J. Mugler Teaching Award

"I wish to nominate for the award checked above."

Nominee's name _____
address _____
city _____ state _____ zip _____
phone _____

Your name _____
address _____
city _____ state _____ zip _____
phone _____
e-mail _____

Nominations must be received by Wednesday, November 15.

Send to Don Boggs, Kansas State University, Agriculture Academic Programs,
117 Waters Hall, Manhattan, KS 66506-4015 or e-mail to: dboggs@ksu.edu

Criteria:

1. Recipients must be living at the time of selection.
2. Recipients for Distinguished Alumnus must have graduated from the College of Agriculture and must be 45 years of age or older.
3. Recipients for Outstanding Young Alumnus must have graduated from the College of Agriculture and must be less than 45 years of age.
6. The recipient of the David J. Mugler Teaching Award will be a person known for excellence in teaching and advising.
7. Outstanding career accomplishment is based on career of nominee rather than any single activity or achievement.
8. Contributions made to community, state, and/or nation.
9. Humanitarian service to society rather than material success alone.
10. Service to university, in particular the College of Agriculture, should receive consideration but is not mandatory.

Complete nomination materials are on the College of Ag Web site.
Go to www.ag.k-state.edu, click on Alumni & Friends, then Ag Alumni Awards.

K-State Ag Alumni

Tailgate Party in Cat Town



Saturday, October 4

Starts two hours before kickoff
of the K-State vs Texas Tech game.

***Football with free food,
fun, and fellowship.***

Kansas State University
College of Agriculture
Waters Hall
Manhattan, Kansas 66506-4015

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