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John C. Owens

NU Vice President and Harlan Vice Chancellor, IANR

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Perspectives

Oct. 16 the University of Nebraska Foundation began the public portion of "Campaign for Nebraska: Unlimited Possibilities."

What a great campaign theme.

Here in the Institute of Agriculture and Natural Resources, where we are at work for Nebraska, we see the needs and concerns of Nebraska and Nebraskans. We applaud the unlimited possibilities we see in our state and the people we work with — and for — every single day.

We see the tremendous possibilities in those students who come to study with us. We understand the need for the possibilities we and our colleagues across the entire University of Nebraska system bring our state.

We highly value those possibilities. They allow us to grow both people and scientific knowledge, to meet Nebraska's needs and enhance Nebraska's economy and quality of life.

The goal for Campaign for Nebraska is to raise \$1.2 billion by 2014. Since plans for the campaign quietly began in 2005, more than \$600 million has been committed toward that goal.

We in IANR are honored to have Tom Hoegemeyer serving as campaign chair for the Institute.

This is the university's third comprehensive campaign. Between 1993 and 2000, Campaign Nebraska: One University, One Nebraska (the last such campaign) raised \$727 million. It far surpassed its original goal of \$250 million.

Why are such campaigns so important? I have long said, and firmly believe, that the difference between a good public university and a great public university lies in the support of that university's alumni, stakeholders, and friends.

With state investment in the university shrinking as other programs vie for scarce

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John C. Owens
NU Vice President and
Harlan Vice Chancellor, IANR

The Leading

*The Morrill Act of 1862
established a Land Grant University
in each state where
The Leading Object
would be instruction
in agriculture and related fields.*

Object



October 2009

IANR faculty helps develop forensic science in Lagos

IANR faculty members are helping develop a forensic science program in Lagos, Nigeria.

Four faculty members recently traveled to Lagos to work with John Obafunwa, the only forensic pathologist in Nigeria and also provost of Lagos State University. Obafunwa developed a master's forensic science program at Lagos State and now is seeking UNL faculty expertise to further develop it, said Karl Reinhard, forensic science professor in the School of Natural Resources at UNL.

In July, Reinhard taught the Lagos students about forensic palynology, in which pollen and spores are used for forensic purposes. Entomology professor Leon Higley taught forensic entomology.

Assistant forensic science professor David Carter and Larry Barksdale, adjunct associate professor of practice in forensic science, spent a week in Lagos this fall to continue the teaching.

"They're so excited about the possible career paths," Reinhard said of the Nigerian students. "What we want to do in the



Faculty members from Lagos State University in Nigeria met with IANR faculty members this summer and fall to discuss development of a forensic science program at Lagos State. Pictured with the Nigerian faculty are Leon Higley, third from left, and Karl Reinhard, third from right.

long term is to help establish expertise in Nigeria."

IANR signed a memorandum of agreement with Lagos State's College of Medicine, which is a school attended by doctors and lawyers to learn more about forensic science, Reinhard said. Under the agreement, eight Nigerian students are scheduled to study at UNL beginning March 2010.

The Nigerian forensic science program is increasing its expertise in using the sciences of entomology, anthropology, and botany in forensics and crime scene investigations, Reinhard said.

Obafunwa wrote in a memo that crime

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Perspectives *(continued from page 1)*

state budget dollars, it is private support such as this that makes the key difference in what we are able to do for our state, our students, and our university.

Certainly students are a priority for the campaign.

In IANR, where about 49 percent of our College of Agricultural Sciences and Natural Resources students receive scholarship support, we are keenly aware of the importance of scholarships in helping students attend college.

Faculty recruitment and retention, as well as research and academic program support, also are priorities of the campaign, which seeks to increase professorships to both retain the great teachers and researchers already with us, and to attract others.

Whenever the opportunity arises, I

report that our students study with world-class scientists. When students work with outstanding faculty committed to academic instruction, advising, and mentoring, as well as to their science, it provides students a tremendous education that prepares them to be tomorrow's scientists, professionals, and leaders. That is an invaluable benefit to our students, our state, and its communities.

Another campaign focus is on expanding research in areas in which the university already is distinguished, and on making a difference in Nebraska, something IANR is dedicated to every day.

And of course, when you look at areas where the university already is distinguished, research and education in agriculture and life sciences and in water are prominent. So is early childhood educa-

tion, a strength of our colleagues in the College of Education and Human Sciences.

We in the Institute currently have five priority categories – sustainable animal production systems; resource stewardship for a secure future; crops for the future; functional foods and healthier humans; leaders for the next generation. We welcome all opportunities to strengthen our teaching, research, and extension education programs in support of our state.

You'll be hearing more about Campaign for Nebraska in the coming months and years. We appreciate everyone who supports this great land-grant university.



IANR faculty aims to help develop forensic science in Lagos

(continued from page 1)

investigation in Nigeria is in very early stages and lacks science-based evidence in the criminal justice system.

Advancing forensic science in Nigeria is of such importance that the Lagos state government and the king of Lagos support the development of a forensic laboratory at the university, which is owned by the state government.

"There's a movement to train people in forensic science and develop a lab to work

with west African countries," Reinhard said.

In addition to addressing Lagos students, Carter and Barksdale were the primary guest speakers for a forensic workshop sponsored by the Lagos State Ministry of Justice and The Office of the Chief Medical Examiner.

"Ultimately the aim of the trip is not to tell people how to manage their crime scenes," Carter said. "The aim is to show how crime scenes are managed in the Lincoln area, learn how crime scenes are managed in the Lagos area, and grow together."

"There is no one way to manage a crime scene," Barksdale said. "We are simply showing them our way."

The goal under the agreement is that the teaching by IANR faculty will continue and eventually a distance education program in forensic sciences will be started, Reinhard said.

– Lori McGinnis

Agronomy professor emeritus dies

David McGill, a retired plant genetics professor and Bronze Star recipient, has died at age 90.

McGill, a longtime resident of Davey, died Oct. 5. During his 33-year career with the University, McGill taught more than 8,000 students in the Department of Agronomy. He served as interim department head in 1983-84 while continuing his teaching and student advising.

He received many distinguished teaching awards from the University, Gamma Sigma Delta, and the American Society of Agronomy. He was elected as a Fellow of the society, selected as the Lawrence K. Crowe outstanding student adviser, and as NU Agriculture Alumnus of the Year.

When he retired in 1989, McGill prepared an annual newsletter for 1,600 alumni of the department.

McGill was awarded the Bronze Star for his U.S. Army service in World War II.

Need to meet with the

Vice President/Vice Chancellor?
Drop-ins each Friday from 3-5 p.m.*
John C. Owens

NU Vice President for
Agriculture and Natural Resources
and Harlan Vice Chancellor of IANR

202 Ag Hall • (402) 472-2871

*Occasionally Dr. Owens will be called away on University business.

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Mazour works to produce food to feed world's population

Chandler Mazour doesn't just look for answers; he looks for questions.

The manager of the Monsanto Water Utilization Learning Center at Gothenburg says one answer should generate 10 more questions.

One question is how the world will feed an estimated 9 billion people — most from developing countries — in the next four decades.

Between now and 2050 Mazour said there will need to be as much food produced as occurred in the last 10,000 years. He's convinced a melding of biotechnology and genetics into agronomic systems can do it.

The Lawrence, Neb., native grew up on a dryland farm and has an MBA from the online Capella University. He is a 1993 College of Agricultural Sciences and Natural Resources agronomy graduate, and in 1996 earned his master's from UNL in plant breeding and genetics.

His father, David Mazour, a former manager of the Little Blue Natural Resources District, earned his degree in natural resources, also from UNL.

Chandler Mazour said his graduate adviser George Graef encouraged him to reach out and become familiar with other aspects of the University such as the Foundation Seed Division. Mazour credits his graduate multicultural experiences with helping prepare him for about two dozen work-related trips overseas.

Mazour has held positions with American Seeds, Inc., BASF, Garst Seed Co., and American Cyanamid before joining Monsanto in 2006.

The Gothenburg center collaborates education and research with Kansas State University, Colorado State University, and the Institute of Agriculture and Natural Resources at UNL.

One company goal is to double yields in corn, soybeans, and cotton by 2030 compared to the base year of 2000, while reducing by one-third inputs such as water, land, and energy.

Developing drought-tolerant crop technologies is one potential tool to ensure greater sustainability and production, Mazour said, adding the Gothenburg location was selected because it is in the dryland-irrigated transition zone of the Western High Plains.

Since it opened in June 2009 the center has attracted more than 3,000 people including visitors from Japan and Spain. Learning center staff strive to create a tailored experience for each audience, he said, and also learn something from their visitors.

The \$6 million center features four conference rooms and 17 big screen monitors that can show virtual tours. Outside the building are 80 demonstration plots.

Mazour recommends students network and get to know as many people as they can because "it will serve you the rest of your life;" to acquire a broad knowledge base; and to be a good team member and leader.

He keeps handy several quotes to help expand his thinking, such as "The only sustainable competitive advantage is an organization's ability to learn faster than the competition," by Peter Senge; and "Map out your future but do it in pencil," by Jon Bon Jovi.

"Explore this country and this world," Mazour said. "Do what makes you feel alive."

— Cheryl Alberts



Chandler Mazour

Food ingredient with soybeans, tallow shown to lower cholesterol

Institute of Agriculture and Natural Resources scientists are seeking a patent on a food ingredient made from beef tallow and soybeans that lowers cholesterol.

Tim Carr, nutrition scientist, developed the food ingredient that has shown in a human clinical study to lower the LDL or "bad" cholesterol of study participants 11 percent to 14 percent.

Research has shown that the ingredient works as well as the cholesterol-lowering statin prescription drugs taken by consumers to prevent heart disease and strokes.

The ingredient contains soybeans, which have sterols that reduce cholesterol. Tallow is a good source of stearate, a saturated fat

that also reduces cholesterol. Putting the two together increases its ability to lower cholesterol, Carr said.

"Because you are lowering cholesterol through a natural product, there doesn't seem to be any downside from a consumer perspective," Carr said.

The ingredient blocks cholesterol absorption in the small intestine. The intestinal tract can absorb up to 60 percent of cholesterol. Once excess cholesterol enters the bloodstream it can contribute to heart disease. Carr's ingredient passes through the gastrointestinal tract, carrying cholesterol with it.

Four years ago UNL filed a provisional patent — a process still ongoing. In the

meantime, Carr and his research team continue to attempt to refine technology that will increase the cholesterol-lowering aspect of the ingredient even more.

Beef Products Inc., the world's leading manufacturer of boneless beef products, helped fund the human trial of the ingredient. Pharmaceutical and food companies have shown interest in it as well.

The ingredient is a tasteless, odorless powder that can be added to a wide variety of food products. The next step is to find companies that can get the product to consumers, Carr said.

Baenziger receives 2009 Omtvedt Innovation Award

An IANR wheat breeder whose work has helped feed millions more people is a recipient of a 2009 Omtvedt Innovation Award.

P. Stephen Baenziger received the award Oct. 19 from John Owens, NU Vice President and Harlan Vice Chancellor, IANR.

Baenziger, who joined IANR in 1986, heads the nationally recognized wheat genetic improvement program at the University of Nebraska–Lincoln. In the last five years he has released six new wheat cultivars, one triticale variety, and one barley cultivar. His cultivars account for more than 60 percent of Nebraska's 1.63 million wheat acres.

An innovative teacher and mentor, Baenziger also is a leader in graduate-level distance education, and is nationally recognized for his breeding and genetics modules.

Earlier this year, Baenziger was inducted into the Nebraska Hall of Agricultural Achievement; and beginning in 2010 will serve as a member of the International Rice Research Institute Board of Trustees.

The Omtvedt Innovation Awards are provided by Leone and the late Neal Harlan, who honored Irv Omtvedt on his retirement with funding to provide the awards. The awards recognize areas of strength and promise within the Institute, as well as innovative research and programming by IANR faculty, staff, and students.



P. Stephen Baenziger, center, is recognized for his work in small grains breeding with an Omtvedt Innovation Award. NU Vice President and IANR Harlan Vice Chancellor John Owens on Oct. 19 presented the award, which honors Irv Omtvedt (right), and recognizes innovative research and programming within IANR.

Cunningham steps down as ARD dean and director

Gary Cunningham has spent decades working in the land-grant university system, and now he's retiring to a place where most of those years were spent.

Gary Cunningham came to the University of Nebraska–Lincoln from Washington, D.C., where he was the associate administrator for USDA's Cooperative State Research Education and Extension Service. While at CSREES he worked with personnel from many land-grant universities to help them strengthen their research, education, and extension programs, just as he has done at UNL.

Cunningham, dean and director of IANR's Agricultural Research Division, stepped down from his position Sept. 30 to retire to New Mexico. He is moving to a small community called Placitas, just north of Albuquerque.

"It's a beautiful spot on the side of the mountain overlooking the Rio Grande Valley," he said.

New Mexico is a state familiar to Cunningham. He lived there for 33 years while working at New Mexico State University in a variety of capacities. He served as professor of biology, chairman of the biology department, experiment station director, and the vice president for research.

Cunningham was attracted to Nebraska because "it has extremely strong programs in agricultural research, extension, and teaching, and because agriculture is so important to the people of the state" he said.

In an e-mail to IANR staff, Cunningham wrote that he has greatly enjoyed his time with ARD, and that he will miss the people, the challenges, and the opportunities.

After a 41-year career, he said he now desires to pursue personal rather than public interests. NU Vice President and IANR Harlan Vice Chancellor John Owens, who also worked with Cunningham at NMSU, thanked him for his service and wished him well in his retirement.

Susan Fritz, associate vice chancellor for IANR, is filling the dean and director position on an interim basis but has indicated she will not seek the position permanently. A national search will be launched, Owens said.

Z B Mayo, who served as interim ARD dean before Cunningham arrived, agreed to come out of his recent retirement to serve as interim assistant vice chancellor for research.

Of retirement, Cunningham said he is looking forward to "interesting and creative activities." He said he will always consider UNL "one of the very best land-grant institutions."



Gary Cunningham

Agribusiness club gives awards

A retired IANR faculty member will receive a public service to agriculture award at the Nebraska Agribusiness Club's 43rd annual awards banquet Nov. 5 in Lincoln. Another will be honored posthumously.

Honored will be Ivan Rush of Scottsbluff, who served 35 years as a beef cattle specialist and scientist at the Panhandle Research and Extension Center in Scottsbluff.

Charles Adams, who taught and advised more than 10,000 University of Nebraska–Lincoln animal science students, will be honored posthumously.

Also receiving the award is Dayle Williamson of Lincoln, a University agriculture graduate and former assistant extension agent in southeast Nebraska. Williamson went on to become director of the Nebraska Department of Natural Resources.