Economic Impacts of Drought-Tolerant Corn in Africa Could Have Wide-Reaching Implications

It’s not unusual for researchers to try to determine the best crops to plant in a particular climate, but a K-State University agricultural economist will go a step further.

Tim Dalton, international development specialist, is working to calculate the potential economic impacts of drought-tolerant corn, also referred to as maize, in target African countries and will estimate the distribution of those benefits between poor farmers, poor consumers and the rest of society.

“The data and statistics we collect on the economic impacts of drought-tolerant maize will help policy makers and other stakeholders make informed decisions about the appropriate levels of investment and support needed to help the distribution of these varieties and hybrids,” Dalton said.

Corn is an incredibly important food source in many African countries,” he said, adding that about 50 percent of the calories consumed in some African countries come from corn-based products. In addition, about 40 percent of the area planted to maize is produced in dry land areas prone to drought without irrigation.

“With global climate change expected to increase temperatures by at least two degrees and shorten the length of the rainy season by 2030 in Southern Africa, we could see nearly a 30 percent reduction in corn production within the southern Africa region without new crop technologies. That’s not very far off. It could be devastating to African farmers,” he said.

The two-year research effort is funded by a $498,000 grant from the Bill and Melinda Gates Foundation. Under this grant, Dalton’s research will calculate the potential impact on producers and consumers of maize developed through the Water Efficient Maize for Africa (WEMA) project led by the African Agricultural Technology Foundation in Nairobi. The research will include Kenya, Uganda, Tanzania, Mozambique and South Africa and evaluate several economic, climatic, social, technological and regulatory scenarios.

Dalton is collaborating with Rutgers University in New Jersey, scientists at the University of California-Berkeley, Wellesley College and the University of Pretoria in addition to agricultural research organizations in the five countries. He is already gathering information from small farmers he refers to as “smallholders,” producing less than 12 acres of maize. Much of their production goes toward feeding their families, he said.
In Kansas and across the Midwest, when most people think of a cooperative, they picture cooperative grain elevators – those tall, white “castles of the plains.” Today, agricultural cooperatives are usually much more than the grain companies they began life as more than 100 years ago. Farmer co-ops have evolved, along with the farmer-members who own and govern them, and who accrue benefits based on their patronization of co-ops.

Farmer co-ops are now typically large, diversified agribusinesses. As such, most of them not only market their members’ grain, but also provide them with fertilizer, fuel, feed and other farm inputs. Many farmer co-ops also provide agronomic services to members. It is not uncommon for these co-ops to have sales in the hundreds of millions of dollars and to employ more than 100 people.

Large or small, these co-ops are a vital part of the rural agricultural economy. Agricultural cooperatives, and co-ops in general, use a unique form of business that also has unique educational needs. For example, the principles of governance, finance and strategy must be adjusted and integrated to fit the principles underlying the cooperative business model.

The Arthur Capper Cooperative Center (ACCC, or “Center”) at Kansas State University (K-State) recently celebrated 25 years of providing education and research-based information to students and to the leaders, employees and farmer-members of agricultural cooperatives and to stakeholders in other types of cooperatives.

During the past 25 years, ACCC’s education programs have also evolved to help meet the needs of these modern and successful cooperative agribusinesses.

**Successful public-private partnership: Bridging the gap**

“The Center was established in 1984, at the request of the cooperative business community, as a public-private partnership between K-State and the Kansas Cooperative Council – the agent for all types of cooperatives in Kansas,” says Dr. David Barton, professor of agricultural economics and ACCC director.

In the early 1980s, cooperative leaders felt there was a strong need for more co-op education and they wanted K-State to significantly enhance its co-op educational programs. The Council or K-State? offered to raise a $1 million endowment and to provide in-kind advice and support. The Center began operations in 1985 once the minimum start-up goal of $250,000 had been raised.

Kansas cooperative leaders had the foresight to act before Kansas joined the ranks of other states which lost their co-
operative education programs due to faculty retirements, budget cuts and changing priorities at universities. The public-private partnership agreement creating the ACCC was signed on June 11, 1984, and was witnessed by 14 founders, including cooperative leaders and university faculty.

ACCC marked its 25th anniversary in late 2009 at the annual Symposium and Leadership Roundtable for cooperative leaders. The silver anniversary was used as a time to celebrate and honor the spirit of the Kansas cooperative community’s effort to enhance co-op education through the establishment of ACCC. Six of the original founders of the Center attended the gathering, which included current co-op leaders, university faculty and students.

**Name and work honor co-op giant**

The Center bears the name of Arthur Capper, a prominent figure in the history of agricultural cooperatives and Kansas, says Barton, who helped found ACCC and has served as its director since 1984. Capper was a five-term U.S. senator and leader of the farm bloc in the Senate.

Capper co-sponsored the 1922 federal Capper-Volstead Act, which clarified the antitrust status of agricultural marketing cooperatives. The law provides a limited antitrust exemption allowing farmers to join together to market their products without violating antitrust laws. Capper was also a two-term governor of Kansas, newspaper publisher (“Topeka Daily Capital,” among others) and a philanthropist (Capper Foundation for Crippled Children).

“The Center’s primary goal is to help people understand the nature and role of cooperatives in our society,” Barton says. “We focus first on educating students at K-State and leaders of Kansas cooperatives, but we also work with students and cooperative leaders in many other states and in some other countries. We are proactive in learning about issues faced by a wide range of leaders and organizations, searching for and constructing research-based educational programs to address those issues, and sharing that knowledge with a very wide audience,” Barton continues. “In doing so, we promote understanding of the unique cooperative business form, including its advantages and disadvantages, and then helping cooperatives be successful.

“It is clear to me that if we didn’t have co-ops, we would need to invent them.”

**Positioned for the future**

An advisory council – comprised of cooperative leaders and university faculty – meets annually to discuss past accomplishments and set future goals for the program. This is done with an eye on the Center’s mission and vision: to serve as a premier center of excellence in cooperative education and to be the first choice of those interested in cooperative education.

These expectations, in combination with the guidance and accountability built into the organizational culture, have helped the ACCC become recognized as a leading center of excellence in cooperative education. The Center’s programs are now in high demand in Kansas and many other states.

“For the last 10 years, finance, strategy and governance have been the most significant issues [being focused on by the Center],” Barton says. “Now, risk management and human resource management have risen in importance for both cooperatives and their members. We share our knowledge on these critical issues with cooperative leaders in many states, at the request of educational and industry organizations in those states, through our curriculum-oriented educational programs and special assistance projects.”

Dr. Michael Boland, professor of agricultural economics and associate director of the center, leads the student-related educational activities, conducts research and participates in many of the outreach programs.

“Cooperatives are a major employer in rural Kansas communities,” Boland says. “In my class, I integrate case studies to help educate students about cooperatives. I also prepare case studies, conduct research projects and participate as an organizer and instructor in the extension oriented leadership education programs.”

**Three-dimensional program**

ACCC’s portfolio of educational programs span all three dimensions of land-grant universities – teaching, research and extension, or outreach – and focus primarily on two audiences: students and cooperative leaders.

Programs for students include scholarships, internships, cooperative-study tours, development of case studies, development of a textbook on cooperatives, integration of cooperative knowledge into university courses, and supervision of graduate student’s writing theses on cooperative topics. Programs for co-op leaders include a symposium, CEO roundtable and cooperative marketing leader roundtable, all of which are held annually. It also facilitates board retreats, financial planning projects, one-day seminars on governance, finance and strategic thinking, and other special projects addressing current issues.

An on-going challenge will be the retention and recruitment of faculty to lead, develop and deliver cutting-edge programs. The current director, David Barton, is approaching normal retirement age and says he expects to hand over the leadership reins to a successor in the near future. Boland, professor in agricultural economics and the associate director, is expected to be his successor.

The hope is that additional faculty can be hired to participate in the educational programs of the center as current faculty retire or leave, even though budget pressures will make this a challenge. A development campaign is currently underway to enhance the endowment fund and to create distinguished faculty positions in an effort to recruit and retain faculty.

**Sources of success**

The ACCC’s 25th anniversary celebration event provided information about why, and how, the Center was organized, who was involved and what it has accomplished.

At the event, Barton said there are five key sources of the Center’s past and future success:

• First, people make the difference. Money was, and is, important, but much more important is the advice and involvement of leaders in the cooperative community.

• Second, the vision of the founders and their passion to see it achieved are critical.

• Third, partnerships and trusting relationships are essential. The written memorandum of understanding laid the foundation by promising service from the Center to the cooperative community, assuring autonomy to be creative and independent, and establishing a system of accountability.

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KFMA Improves Management Decisions

When I sat down next to Daryl Roney prior to a recent board meeting of the North Central Kansas Farm Management Association, he seemed to appreciate my interest in his involvement with the KFMA. On the contrary, as he sipped his coffee and greeted fellow board members, he readily shared his thoughts on the benefits the KFMA program creates.

“As an ag banker who works with KFMA members, I can share how appreciative I am of the KFMA,” Roney said. “Our customers, who choose to be members, are able to receive timely information on many aspects of their businesses, which helps them make better decisions as managers.”

The KFMA, one of the largest farm management programs in the U.S., works cooperatively with farm families to provide members with production and financial management information for use in decision making. For twenty five years Roney, President of UMB Bank in Abilene, Kansas, has served on the North Central KFMA board, most of those years holding the position of board treasurer.

When a client first comes into the bank, Roney is able to identify KFMA members quickly, “They come in and can show their businesses are well-managed and budgeted. Their operations tend to run more smoothly because there’s research behind their decisions and they plan thoroughly for the future.”

KFMA members work with individual economists through on-farm visits to complete whole-farm analysis, enterprise analysis, and other educational programs. Association Economists assist producers in developing sound farm accounting systems, comparing performance with similar farms, marketing and asset investment strategies and tax planning and preparation.

Roney most appreciates the relationships that build over time between producers and the field economists. “Over time KFMA members operate more efficiently. Typically you see two producers with similar enterprises and one could have a much lower cost per acre because he has a field economist who analyz-
es his numbers and helps identify business strengths and weaknesses, as compared to the other who wouldn’t understand where his operation sits financially.”

The KFMA program helps create better managers on the farm, and better the farmer, the healthier the customer.

It’s not only bankers who appreciate the KFMA program, nearly 3000 producers across the state share in the benefits available through KFMA membership.

Larry Karl has been a KFMA member since the late 70s and partners with his brother in a diversified crop and livestock operation.

“My membership in the KFMA means I’m able to compare my farm to other similar farms in the area, which gives me a better understanding of our operation, and a complete financial analysis allows us to make good business decisions,” Karl said.

Working with Dave Rempe, his KFMA field economist, Karl says the required year-end inventory is an activity which yields his farm great benefits.

“Farming is an opportunity that a lot of people don’t understand completely. It’s about expanding or diversifying, making the most of your business and with the analytical point of view the KFMA program provides, you’re able to have foresight to see the opportunities that come to light. That’s part of the reason we’re involved with KFMA,” Karl said.

Looking back over the years as a KFMA member Karl likens the relationships to the one he shares with his brother as business partners.

“We both have different skills to a certain degree, but the openness to accept other ideas than our own has been our greatest asset over the years,” Karl explained. “That’s part of where the KFMA fits into our operation as well, they give you information that expands your thinking and provides other points of view.”

For more information on the Kansas Farm Management Association visit www.agmanager.info/kfma

**Alumnus, Lee Borck, Receives Feeding Operation Award**

The 2009 Beef Industry Vision Award, sponsored by Micro Beef Technologies, Amarillo, T.X., recognizes individuals, businesses and organizations in the cattle industry that have incorporated innovation into their operation in an effort to enhance not only their business, but also the industry as a whole. The award honors winners in all segments of the beef industry: cow/calf operation, feeding operation, livestock market, packer/processor and retail. Nominees were evaluated on the basis of effective use of technology, impact on production costs, ingenuity of implementation, innovative marketing, impact on the industry and optimum resource management. Lee Borck is president of Innovative Livestock Services and chairman of the board of the Beef Marketing Group cooperative, which represents one of the most significant and unique feeding groups in the U.S.

Borck conceived the business model, encompassing 15 independent feed yards located in Kansas and Nebraska. He has developed an approach to meeting customer needs through alignment between the producer and the meat case. He is an active member of the Kansas Livestock Association and served as president in 1992. He has served on the NCBA board, the CBB and was president of Cattle-Fax in 1994. Lee also has provided leadership for his alma mater, Kansas State University, and in December 2007 received the KSU Medal of Excellence, the university’s highest honor. Borck is forward-thinking in all aspects of life and has been quoted as saying, “There is a reason the rear-view mirror is so small and the windshield is so big.”
Mary Winnie Honored as a K-State Classified Employee of the Year

Mary Winnie, administrative specialist, has been named a 2009 K-State Classified Employee of the Year. The award honors her dedicated service during 2009, but any member of the faculty will agree it’s an award she could have received during any time throughout her tenure in the department.

“Mary is a wonderful team player and committed to the mission of the Department and the university,” Dr. Kevin Dhuyvetter said. “Her attention to detail has contributed significantly to enhancing the quality of my own professional activities here at K-State, as I believe has for my colleagues in extension and teaching. She is extremely deserving of this award and I’m very proud of her.”

A one year guarantee was the request Barry Flinchbaugh, professor emeritus, made when he hired Mary Winnie to work as an administrative assistant in the Department of Agricultural Economics.

“Twenty three years later, we still laugh at how slowly that year is passing,” Winnie shared. In those 23 years, business practices have certainly transformed.

“The biggest change I’ve experienced in my day-to-day assignments has dealt with computer technology. Long gone are the days of typing memos and carbon copies. Now many of the professors do their own work, instead of depending on a secretary,” she said.

As administrative specialist, Winnie is assigned to several faculty members while overseeing office staff and student workers. It’s this interaction with people that has made her job rewarding.

“I always come back to working for the faculty and students of the department. The relationships built after so many years become very meaningful,” Winnie shared.

Western Agricultural Economics Association Names Kay Albright Outstanding Senior

Each year the Western Agricultural Economics Association selects undergraduate seniors from across the nation who have achieved excellence in their academic achievements and of whom much is expected of their future contributions to agricultural, resource, and/or environmental economics.

This year the department is pleased to announce that Kay Albright, from Delia, Kansas, is the recipient of this national honor. Kay already displays great promise by maintaining a high GPA and being actively involved in College and Department activities. Kay is also pursuing her master’s degree while finishing her bachelor’s degree through the Four Plus One program.
Craig Smith Wins Research Poster Competition

Craig Smith, Ph.D. student, was one of two K-State students awarded a $500.00 scholarship for his poster at the Capitol Graduate Research Summit on March 25 in Topeka.

Craig’s poster, entitled “Using Watershed Manager to Cost-Effectively Target Cropland Best Management Practices,” was one of ten posters from K-State at the summit. The ten participants were selected earlier this semester from approximately 70 entrants at the K-State research forum.

Craig’s co-authors were his major professor, Dr. Jeff Williams, Josh Roe, and Dr. John Leatherman.

Extension Livestock Specialist Returns to Join Faculty at Alma Mater

Glynn Tonsor, assistant professor and extension livestock specialist, who arrived on the K-State campus at the beginning of April, is already making a positive impact on department research and Extension activities.

“I just wrapped up my second radio interview with Eric Atkinson on Agriculture Today. I’ve joined discussions with several faculty members on some developing grant project proposals, and I continue to transition the active projects and articles I began in Michigan to Kansas,” Tonsor said.

As he settles in to the department, Tonsor’s goal remains to conduct applied research throughout the livestock marketing system.

“I want to get my research results to relevant policymakers and industry members nationally and regionally, especially in the areas of food safety, animal welfare and well being, and meat and livestock price analysis,” he said.

Tonsor arrived ready to jump into work and agreed to offer two presentations at the department’s Risk and Profit Conference in August.

“I’m on the slate for the livestock outlook talk and will give another about the economics of animal welfare,” he said. “Mostly, I’m looking forward to meeting industry professionals and connecting them to meaningful information for their businesses.”

In addition to conferences, Tonsor plans on using resources like www.agmanager.info and radio interviews to help him reach as many Kansans as possible on a regular basis.

Tonsor returns to Manhattan after several years on the faculty of Michigan State.

Since completing his doctoral work at K-State, Tonsor said the new downtown development and housing expansion along Scenic Drive are the biggest changes in Manhattan, but effects of budget cuts and retirements are also a noticeable transformation within the department.

“While Manhattan has grown, the department has had a reduction in resources in particular compared to when I started my Ph.D. work. There are half a dozen less faculty on campus that would have interplayed in my position,” he said.

However, Coming to Kansas from Michigan, especially with its economically, hard-hit areas like Detroit, makes establishing a new home at K-State advantageous.

“Riley County has fared better than many of others in the U.S., plus it’s hard to beat working at your alma mater. K-State has a very positive future and I’m happy to be apart of it,” he added.
Jeff Bechard was the first ACCC co-op student intern in 19??.
He completed his internship at Farmway Co-op in Beloit, Kan., and is now president of AgMark LLC, a grain marketing company in Beloit owned by several co-ops, including Farmway Co-op.

“While at K-State, I worked for Dr. Barton and took his class on ag cooperatives,” Bechard says. “I learned a lot about cooperatives thanks to him. I appreciate being able to attend the center’s high-quality educational programs, such as the CEO Roundtable for Cooperative Managers. Also, the generous scholarships provided to college students are another terrific benefit.” The ACCC has awarded $314,700 in scholarships on behalf of the cooperative community since 1985.

Ashley Guenther, a senior majoring in ag communications and journalism and ag economics, is one of the students benefiting from ACCC scholarships and a co-op internship. She received a CHS Foundation University Scholarship in 2008 and the Otis and Mary Lee Molz Cooperative Scholarship in 2009.

“The Molzes are well-known, respected leaders in the state, national and international co-op community,” Barton said. “Now, they’re encouraging the next generation to plan a future with cooperatives. They established their annual scholarship in 2005 and actively participate in the scholarship interview and selection process.”

“Having Mr. and Mrs. Molz involved in the interview process made receiving this scholarship more valuable to me,” Guenther says. “I was able to openly share my career passions and lifetime goals and visit with two amazing stewards of the cooperative education community. My hope is to work with agriculturalists in third-world countries, as the Molzes have done. I was very impressed by their care and concern for me as a student and as a future leader in agriculture.”

Last summer, Guenther interned at CHS Inc., a Fortune 500 company and the largest regional agricultural cooperative in the country, owned by U.S. local agricultural cooperatives and agricultural producers. “During my summer at CHS Inc. in Minnesota, I split my time between the marketing communications group and the CHS Foundation,” Guenther says.

As part of her duties, she helped with the filming of a tribute to the Arthur Capper Cooperative Center and the educational partnership with CHS, shown at CHS’s annual meeting.

Terry Kohler, general manager of Farmers Cooperative Elevator in Cheney, Kan., became directly involved with the ACCC while serving on the Kansas Cooperative Council (KCC) board. When he became board chairman of KCC, he also became chairman of the 15-member ACCC Advisory Council. After leaving the KCC board, he continued as a member of the advisory council and also became chair of the KCC’s Development Campaign to increase the financial resources in the endowment supporting the ACCC.

Kohler is a strong supporter of education for cooperative leaders, noting that the KCC, with assistance from the ACCC, offers the Director Development Program, a four-course leadership education program. The board of directors at his cooperative requires all new directors to complete the courses during their first three-year terms on the board.

“The Center has been very important in the education of cooperative leaders in dealing with timely issues and subjects,” Kohler said. “I have especially appreciated the annual Symposium on Cooperative Issues targeted at Kansas co-op leaders, and the special assistance projects the center offers to individual co-ops to improve their financial planning, such as income distribution and equity management strategies.”

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Arthur Capper Cooperative Center Celebrates 25 Years of Service to Cooperatives continued:

• Fourth, to achieve a challenging vision and mission requires more than people, vision and partnerships. It also requires resources. The original endowment goal of $1 million was achieved in 2002 and the current endowment stands at $1.7 million. An ambitious development campaign is currently under way. In addition, monetary and non-monetary resources have been and will need to be provided by numerous partners.

• Fifth, all parties have expressed gratitude for what has been accomplished and agree the Center has been, and continues to be, good for K-State and for the cooperative community.”

For more information about the Arthur Capper Cooperative Center, go to www.accc.ksu.edu

PROMOTIONS

Dr. Vincent Amanor-Boadu has been promoted to Assistant Professor

Dr. John Crespi has been promoted to Professor

SABATTICAL

Dr. Jeff Peterson and Dr. Hikaru Hanawa-Peterson have accepted sabattical positions for the 2010-2011 academic year at the Department of Agricultural and Resource Economics, Oregon State University.