Note from the Department Head

Dr. Crawford steps down as department on July 1, 2015. Dr. Lillywhite takes over as department head.

Research in the Department

Dr. Hurd continues water research exploring water systems in Northern New Mexico.

Dr. Torell researches the economics of Criollo cattle production and the impacts of broom snakeweed on stocking rate decisions.

Dr. Ward, Dr. Gutierrez and Dr. Heerema (Extension Plant Science), work on a USDA-funded study with help from University of Texas at El Paso, the University of New Mexico, and the Autonomous University of Ciudad Juarez, Mexico.
Faculty and Staff

John Townsend joins the AEAB faculty this semester and is excited to help give back to the college that gave so much to him.

Josh Smith, a former NMSU Aggie, is teaching his first course as well as bringing back the Agriculture Law class.

AEAB Department travels throughout the world to present research and attend conferences.

NMSU Extension teams with State Corrections Department for prison vocational training.

Faculty and Staff of the AEAB Department receive awards at the College of ACES Award Ceremony for 2015.

Students

The department congratulates nine students graduating in December, 2015.

Graduate student spotlight.

IFAMA Conference to be held in Denmark in June 2016.

Agricultural Economics Club has been busy competing and participating in professional activities.

National Agri-Marketing Team (NAMA) has a busy semester behind them and a busy semester ahead of them.
Welcome to New Mexico State University’s Department of Agricultural Economics and Agricultural Business. We hope that you’ll enjoy the Department’s new newsletter format and learning more about departmental activities. Thank you to Emily Russell for putting this edition of the newsletter together. We hope to publish the newsletter each semester so please look for future editions this fall.

After serving in the department for more than ten years Dr. Terry Crawford retired from serving as department head in 2015. Dr. Crawford joined the Department in 2005, after completing a career with the USDA’s Economic Research Service. While we’ll miss having Dr. Crawford in the department on a daily basis we’ll still have opportunities to work with him in his emeritus role. He joins a number of other retired faculty with emeritus status including: Bill Gorman, Connie Falk, John Fowler, and Rhonda Skaggs.

We thank you again for your interest in the department. We look forward to building our network of alumni and former faculty and staff. As you read the newsletter and recognize areas where we might add information of interest please let us know. If you know of opportunities for current students or alumni please let us know and we’ll pass the information onto the appropriate group of individuals.

Best wishes.

Jay M. Lillywhite
Department Head
Professor Hurd’s expertise and research includes water resource use, policy, and watershed modeling, particularly shedding light on the effects of climate change on the nexus of water, food, and energy systems. For example, as part of a team of NSF-funded researchers from across New Mexico studying and simulating the changes underway in the small-community irrigation systems (acequias) of Northern New Mexico, Professor Hurd recently concluded a study with student Laura Mayagoitia on the acequias hydro-social economy. In their work they found that improvements in local-scale adaptation and long-run capacity building is needed to better prepare these vulnerable communities for enduring current and anticipated stresses from demographic changes and projections of increased water scarcity and drought. Key findings suggest that land ownership and acequias’ attachment to water and community have helped these communities cope with recent environmental and community-based stresses – though opinions are divided as to the degree of “perceived preparedness” and “perceived vulnerability” to further disturbances.

In the soon-to-be released *Handbook of Water Economics* (2016, eds. Dinar and Scwabe) Professor Hurd contributes a chapter entitled “Concepts and methods for assessing economic impacts from climate change on water resources” in which he presents a comprehensive synthesis and description of concepts and economic foundations for water resource valuation, methods of watershed modeling, and integrated assessments of climate, water and socio-economic systems.
Economics of Criollo Cattle Production

Sustainable beef production is a challenge in harsh desert environments. Working with the USDA Jornada Experimental Range (JER), Dr. Allen Torell is working with graduate student Joy Enyinnaya to evaluate the economics of raising Rarmuri Criollo cattle as an alternative to the larger European breeds typically found on Southwest New Mexico ranches. This small, athletic breed of cattle travels farther from water and forages in areas that are seldom grazed by traditional crossbred animals. They are thought to impose a lighter environmental footprint compared to their mainstream British crossbred counterparts. These small-frame animals are well adapted to harsh environments and maintain productivity with minimal inputs. Enterprise budgets are being developed which incorporate differences in production, foraging behavior, and economic returns as compared to production of Hereford x Angus cattle typically found on Chihuahuan Desert ranches. Marketing opportunities for Criollo cattle in the U.S. will be explored as an important part of the study. Preliminary economic research indicates these desert friendly cattle may be a viable economic alternative for livestock producers interested in the health food market and improving the rangeland with sustainable grazing methods.

A conference about Criollo cattle production was held with 40-50 producers from Mexico and the U. S. on February 8-9, 2016. Graduate student José Mayen translated posters, handouts, and PowerPoint presentations to Spanish for use at the conference. José presented economic information in Spanish at the conference.
Stocking Rate Decisions and the Invasion of Broom Snakeweed

Broom snakeweed is a short-lived invasive weed that periodically creates problems on New Mexico rangelands. Using 35-years of rangeland monitoring data Dr. Allen Torell and graduate student José Mayen are developing stochastic simulation models to evaluate how stocking rate decisions influence the invasion of broom snakeweed and the resulting changes in ranch economics. The models can also be used to evaluate the effects of climate change on ranch profitability and the optimal adjustments in stocking rates required to maximize profits.

The research shows the trade-off between ranch profitability and rangeland sustainability. Higher stocking rates would increase economic returns but cause a faster rate of broom snakeweed invasion and rangeland deterioration. Economic returns are also much more variable at higher stocking rates, implying a higher level of risk. The project is funded by the climate hub at the Jornada Experimental Range (JER) and by the New Mexico State University Agricultural Experiment Station.

Infestation of Broom Snakeweed in Socorro County [Left] and the same general area after high mortality by root bores [Right].
Dr. Frank Ward is working with NMSU’s Dr. Paul Gutierrez and Dr. Richard Heerema on a USDA-funded study titled “Sustainable Water Resources for Irrigated Agriculture in a Desert River Basin Facing Climate Change and Competing Demands: From Characterization to Solutions.” Cooperating institutions include the University of Texas at El Paso, the University of New Mexico, and the Autonomous University of Ciudad Juarez, Mexico. He is also collaborating with AEAB former Department Head, Dr. Terry Crawford. That collaboration has been under contract with the New Mexico Interstate Stream Commission to investigate the economic benefits of water use in the Gila Basin for future crop irrigation in the region associated with additional reservoir storage if developed.

The USDA study focuses on water supplied by the Rio Grande Project area below Elephant Butte, which is the primary source of water for irrigated agriculture in the region. Due to increasingly frequent and severe periods of drought and growing demand, the river alone no longer meets regional water needs, leading to increased groundwater extraction and dropping water tables. The project is an integrated research, extension, and education project with objectives that include: 1) model medium to long-term climate change; 2) improve and integrate existing hydrology models, to include snowmelt inputs, surface-subsurface interactions, and water quality dynamics; 3) recruit a robust set of stakeholders, representing the range of interests in the basin, and obtain their effective participation in modeling activities and reflection/synthesis meetings; 4) develop a spatially explicit, dynamic systems model with a front interface of variables and outputs that can be used in participatory stakeholder meetings; 5) with stakeholders, identify and formulate technologies and policies that can potentially augment water supplies available to agriculture;
6) disseminate selected agricultural technologies through traditional extension methods and outreach campaigns; and 7) strengthen capacity to train water resource professionals for the 21st century.

The project included nine water stakeholder meetings in fall 2015. As part of these meetings, Dr. Ward and his team investigated a range of concerns, issues, questions, scenarios, and desired outcomes from our project from these water stakeholders/users. Sarah Sayles, a graduate student in the Water Science and Management program is surveying agricultural stakeholders to gain a better understanding of their planned on farm contingency planning for drought as well as preferred public policy measures to adapt to future severe and sustained drought. Margie Vela, another graduate student in the Water Science and Management program, has been working on water education and social justice issues related to water use in the colonias of southern New Mexico and West Texas.
Department Welcomes New Professors

This semester the NMSU Ag Econ/Ag Business Department welcomed two new professors to the family. John Townsend and Joshua Smith have joined our team to help teach several classes. Please make sure and extend a warm welcome if you see them on campus!

John Townsend is originally from the Socorro and Edgewood area. He graduated from NMSU with his Bachelor’s Degree in Agricultural and Extension Education (AXED) and obtained his Master’s of Science in Agriculture. Professor Townsend is excited to be back at “home”, where he wishes to see the department keep growing and expanding and to continue to be a great provider of agribusiness and economist professionals. This semester he is teaching Ag E 236, 250, 340, and 456. Townsend is glad to be back at NMSU, a place that gave so much to him and got him to where he is and wants to be today.

“This is where I’ve wanted to be. These are the students I want to teach.”
Josh Smith grew up on a ranch south of Hachita, New Mexico. He then moved to Deming where he graduated from Deming high school. In 2003 he went on to obtain his bachelor’s degree in Agriculture Business and Agriculture Economics. He continued on to law school at Texas Tech where he graduated in 2007. Since his graduation he has worked at several law firms and is now practicing law at Watson Smith.

Josh looks forward to teaching his first class, Agriculture Law, this semester. He was a former NMSU NAMA member who is excited to give back to the university where he went for his undergrad degree.

“I want to give students going into agriculture a practical approach of what they’re getting into, legal-wise.”
Frank Ward travelled to Zaragoza, Spain to attend the defense of a Ph.D. dissertation of Taher Kahil. Taher had worked for Ward at NMSU in Spring 2015.

Frank Ward made two trips to Saudi Arabia in March and May of 2015. He was a World Bank consultant for which their mission was to gain a better understanding of the costs of water. The Saudis wanted better information on the financial and economic cost per unit of water supplied to several cities by the most important water supply sources.


Dr. Don Blayney travelled to San Francisco, California to the joint annual meeting of the AAEA and the Western Agricultural Economics Association (WAEA) in July to participate in several sessions dealing with Farm and Retail Prices and U.S. Dairy Exports and Dairy Demand.

Chaddy Robinson went to Atlanta, Georgia to attend the Produce Marketing Association as a consultant in October 2015.
NMSU Extension Teams with State Corrections Department for Prison Vocational Training

Story by: Jane Moorman for NMSU News

SANTA FE – Thirteen men dressed in orange prison uniforms work under the hot September sun, building four economical greenhouse structures at the Penitentiary of New Mexico in Santa Fe. They are the inaugural team in the Corrections Industries program’s latest project, in which state inmates will grow vegetables to supplement the prisons’ cafeteria menu.

New Mexico State University and the New Mexico Corrections Department, which runs the Corrections Industries program, are collaborating in the project to provide horticultural vocational training to the inmates.

The College of Agricultural, Consumer and Environmental Sciences’ Cooperative Extension Service is providing technical advice and guidance in building the hoop houses.

The men were selected from 80 applicants to participate in the Roots of Success program. The Level II inmates have completed an environmental literacy course as part of the program.

“The corrections department approached NMSU in August to provide training to the inmates on construction of the hoop houses on the state penitentiary grounds in Santa Fe,” said Del Jimenez, Extension agricultural agent with NMSU’s Rural Agricultural Improvement and Public Affairs Project, who is conducting the training for the project that has the potential to spread to all of the state’s correctional facilities.

After receiving instruction while building of the first 32-foot-by-14-foot structure, the inmates were divided into groups to construct the three remaining hoop houses.

Once the structures were completed, nine 4-foot-by-10-foot raised planting beds were constructed for each house.

Then the dirty work began, as the inmates filled the planters with wheelbarrows full of dirt and organic material, installed a drip irrigation system in each house, and planted winter greens seeds.

“The first harvest was in early November and has continued weekly,” Jimenez said. “The fresh greens are supplementing the Level II unit’s cafeteria menu.”
“It’s a privilege to participate in this pilot program,” inmate Waylon Robinson said, echoing the sentiments of the other men in the program. “It gives us a chance to learn new things and to perfect some things that some of us knew already. It’s giving us a sense of pride.”

Inmate David Maez, who has been assigned to teach the environmental literacy curriculum, said he has seen “the men become a cohesive group with an enthusiastic positive attitude.”

Many of the men envision using the skills they are learning once they are released from prison. “The hoop house extends the growing season that allows a grower to have fresh produce earlier and later in the season,” said inmate Charles Martinez. “My family has a ranch in the Mount Taylor area, where the growing season is short. I am hoping to build a greenhouse there once I am released in 20 months.”

Learning the vocational skill is just one aspect of the program. Secretary of Corrections Gregg Marcantel said the program is designed to also provide life skills training and a sense of accomplishing a task that is bigger than just the selfish behavior that brought most of these men to prison.

“We want to teach our inmates to become entrepreneurs who can provide for themselves and their families upon release,” Marcantel said. “It’s not enough to just teach someone a new skill; we have to change hearts, to make them feel part of a bigger purpose in life.

“These hoop houses do just that; these inmates have had to nurture these plants to provide food to feed other inmates. This program has really showed them that if you work hard, focus on your goals, and pay attention to detail, you can harvest meaningful and plentiful bounties.”

“What really attracted me to this program was the educational part,” said inmate Ronny Garcia. “I’m learning how to be productive with my life, instead of keep coming back to prison. This is teaching me a lot that I will be able to take home with me.”
At the 2015 Awards Day for the College Agricultural, Consumer, and Environmental Sciences in April, the AEAB Department brought home two service awards. We are proud to honor the following individuals for their service to our department.

**15 Years of Service**
Roseann Colorbio

**30 Years of Service**
Allan Torell
The department congratulated nine students on their graduation this past December. Six undergraduate students and two graduate students graduated for the fall semester.

Mabelle Roybal, Savannah Salopek, Lisa (Michelle) Shivers, Shawnee Suazo, Whit Weingart, and August Woods all graduated with degrees in Agricultural Business and Economics.

Mabelle Roybal was awarded the Dean’s Award of Leadership Excellence, Savannah Salopek was awarded the Dean’s Award of Excellence for Undergraduate Student, Lisa Shivers was named the Outstanding AEAB Student, and Marissa Bartmann was awarded the Dean’s Award of Excellence for Graduate Student.

Marissa Bartmann graduated with a Master’s of Agriculture and Erly Keuain graduated with a Master’s of Science in Agriculture. Remington Hurt graduated with his MBA with Agribusiness concentration.
Graduate Student Spotlight

Joy Enyinnaya is a graduate student from Nigeria. She is currently studying to get her Master’s Degree in Agricultural Economics and Agricultural Business with a minor in Applied Statistics. Currently, her goal is to get a Ph. D. and focus on agricultural. She hopes to recommend sustainable policies in her country, Nigeria, in the future.

Julie Wilbanks was born and raised on a small horse farm in Stanley, NM. As an undergraduate she served on the ambassador team for the College of ACES and also travelled to Costa Rica to volunteer for two weeks in the summer. She recently graduated with honors from NMSU with her a Bachelor of Science in Agriculture focusing on Agricultural Economics and Agricultural Business while earning a minor in Finance. Her plans after graduation include finding a career within the agribusiness sector, possibly with Farm Credit or the USDA.
Jose Mayen Solorzano is from Guatemala City, Guatemala. He has his Bachelor’s Degree in Electrical Engineering and a Masters in Applied Economics and Business Administration. He is currently working on his second Masters Degree in Agribusiness with a minor in Applied Statistics. His background experience from working at a sugarmill and for Shell will be vital when he goes back to Guatemala where he plans to work as an advisor in the agriculture sector. He eventually plans to start a business associated with the research he is conducting on Criollo cattle with Dr. Torell.

International Food and Agribusiness Management Association

Three students and three faculty members plan to attend the Annual World Conference this June in Aarhus, Denmark. Two undergraduate students, Shayna Gallacher and Emily Russell, and one graduate student, Julie Wilbanks, will present papers and compete in the case study competition. Dr. William Gorman, Dr. Jay Lillywhite, and Dr. Ram Acharya will accompany the students to Denmark where the conference and competition will be held. The conference allows the students to network professionally on a global level as well as sharpen their management skills in the case study competition and showcase their public speaking and research skills when presenting papers. All three students are excited to broaden their horizons on a global level and to see agriculture practices and policy outside of the United States.
The Agricultural Economics Club at New Mexico State University (NMSU) has been an excellent learning ground for students for generations. Its establishment dates back to the early years of the College of Agriculture. Most past club members are highly successful and respected members of society and are representing our institution in various ways. Moreover, the past members, who joined NMSU as professionals are now prominent members of the university administration or teaching faculty. Like many other organizations, the club has had its growing pains throughout the years. However, with the strong leadership from past members and from our current adviser the club is now on the path to growth and success.

Some of the recent club activities include i) quiz bowl competition, ii) invited lectures, iii) summer internships, iv) research and presentation in professional meetings, and v) pecan project. Last semester, some AEC club members participated in a pecan production workshop and invited lecture series. Those students then used what they learned from the workshop and integrated it into the ‘pecan project’ which provided an opportunity for our members to gain a real world agribusiness management experience. In this ongoing project, the club will be fully responsible for harvesting, processing, and marketing pecans from trees that are growing around NMSU, Las Cruces Campus. The AEC club also aims to inspire students to get involved and be active in summer internships programs and with the guidance of our adviser, five club members have received opportunities to participate in various internship programs with the USDA and other local institutions.

Other activities the AEC club is currently pursuing include competitive events where club members compete against other agricultural economics organizations in events such as quiz bowl, Microsoft Excel, and research related events. In February 2015, four club members competed in one of these competitions and were given the opportunity to present their research papers at the annual meeting of the Southern Agricultural Economics Association in Atlanta, Georgia. The agricultural economics club is also serving the Las Cruces community by participating in community service events throughout the year. As a club, we also want to connect with the past AEC members to gain knowledge and obtain valuable history about the club. We are also in the works of organizing public relations and recruitment activities to get more students aware and involved in the AEC.
The Agricultural Economics Club provides a great learning experience for any student. It offers an excellent opportunity to relate what you learn in the classroom to real life situations. The club also provides opportunities to connect with other students that are studying in the same field. Along with our monthly meetings and other competitive events club members will get a chance to listen and learn from students from other institutions who are at the same stage of their professional career. The club members will also get an opportunity to learn from guest speakers throughout the semester. The invited lecture series provides another excellent opportunity for students to meet and interact with the experts, which may open up new career opportunities.

The AEC club is not only for agricultural economics majors but also for any other student who wants to get involved in educational and professional development activities. The AEC club provides each member the opportunity to acquire the skills and develop leadership qualities that are essential to succeed in the real world today. In our agricultural economics club, we want students to stand up, step out, and get involved. That is our mission!

The current AEC club officers are Jonas Moya (President), Shannon Nigh (Secretary), Karlynn DeForest (VP of External Affairs), and Manzamasso Hodjo and Befekadu Habteyes (VP’s of Research and Development). If you have any questions about the club or would like to get involved in club activities, please feel free to contact any of these club members or our faculty advisor Dr. Ram Acharya.
This past semester was a whirlwind of activities for New Mexico State University (NMSU) NAMA chapter. The semester started off with some team and chapter bonding in the form of our third annual Mud Volleyball Tournament. We had 12 teams show up with an impressive 60+ people in attendance. It was a fun and relaxing way for new and old members to get to know each other. NMSU NAMA had the opportunity to once again help the Cowboys for Cancer Research in their annual golf tournament and dinner/dance/silent auction. It is a great cause that NMSU NAMA is proud to support and lend a helping hand to. NMSU NAMA also lent a helping hand within our own Agricultural Business/Agricultural Economics department with a Carnival night, Street Dance, and Coffee 40 to bring the college together for some fun and dancing.

Besides the Annual Mud Volleyball Tournament, NMSU NAMA put on several other socials including zorbing (which was more entertaining when professors joined in on the fun) and poker night. On our professional development side we had numerous members attend the career fair as well as our own workshops on elevator speeches with a prominent local farmer and a resume building workshop with four local business professionals. We try to give our members real world advice to help make them more marketable in the job market of today. We ended the semester with a Christmas Party filled with food, fun, and laughs to send off our members for a much needed break from school. This past semester was a busy but rewarding one and we look forward to the next semester where all our hard work and research from the fall semester will come together for the competition in Kansas City.
This upcoming semester will involve lots of long hours outside of the classroom to prepare for the 17th Annual Scholarship Golf Tournament as well as preparing for National Competition in April. This year NMSU NAMA plans to market a transplanting service to produce farmers in the southwest utilizing a state-of-the-art machine. This year’s national competition will be held during April in Kansas City, Missouri where NMSU will compete against approximately 32 other teams from across the country and Canada. There is still a lot of work to do on the marketing plan and presentation but the NAMA chapter will work their hardest to showcase their best work and proudly represent NMSU.

NMSU NAMA puts on a golf tournament every year to fundraise for scholarship funds as well as funds to get the large team of 15 members to the national competition. The team is in charge of coordinating all aspects of the golf tournament and raising funds in the form of golf teams, sponsorships, and donations for the silent auction. Our success depends upon the continued generosity of the community and alumni of the university. The golf tournament is to be held on March 5, 2016. If you are interested or have questions about the golf tournament please contact Emily Russell at erussell@nmsu.edu or at 575-635-3810.