

# *poultry* **science** *our passport to the* **world**

*extension  
research  
teaching  
service*

**UofA**  
UNIVERSITY OF ARKANSAS  
DIVISION OF AGRICULTURE

  
UNIVERSITY OF ARKANSAS  
1871  
DALE  
BUMPERS COLLEGE  
of AGRICULTURAL, FOOD AND LIFE SCIENCES







THE CENTER OF EXCELLENCE FOR POULTRY SCIENCE, 1260 W. MAPLE, FAYETTEVILLE, AR 72701 • 479-575-4952 • [poultryscience.uark.edu](http://poultryscience.uark.edu)



PASSPORT



United States  
of America





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# Mission *and* Goals

## Mission Statement:

The Center of Excellence for Poultry Science shall provide comprehensive programs in research, teaching and extension dedicated to improving the lives of Arkansans associated with all components of the poultry industry by generating knowledge through research and putting that knowledge to use through education.

## Broad Objectives:

The Center of Excellence for Poultry Science shall develop the knowledge and intellectual capacity to meet the specific needs of poultry production-processing-marketing firms to help them remain competitive in a global economy. The CEPS shall meet the needs of society regarding issues such as food safety and security, human nutrition, animal health and well-being, and environmental stewardship.



# *our passport to the world*

*director's MESSAGE*



The cover of this year's annual report, "poultry science, our passport to the world," again reflects the dedication and capabilities of all of the faculty, staff and students, as well as, our world class facilities that have helped position the Center of Excellence for Poultry Science as the leading poultry science program in research, teaching and extension.

Throughout the years we have had numerous international graduate students conduct research and eventually contribute to the global arena in the area of poultry science. We are proud to serve as a compass for learning and help point the direction as these individuals proceed in their endeavors.

Our students and faculty continued their winning tradition during several international meetings held in 2006-07 and their accomplishments are highlighted in this report. We are proud of their accomplishments and look forward to continuing this "winning" tradition in the future.

This year we have made major strides in the detection and prevention of Avian Flu, which continues to be of global concern (see pages 6-8).

We will continue our leadership in research and teaching and will continue our role as a global resource for all things avian. Thank you for your support and interest in our program and we look forward to an even better 2007-08!

Dr. Walter Bottje, Director  
Center of Excellence for  
Poultry Science



AVIAN FLU - Secretary of Agriculture Mike Johanns, left, listens as Dr. Billy Hargis describes how the portable biosensor prototype can detect avian flu in the field.



## The U.S. Secretary of Agriculture tours UA Poultry Center

FAYETTEVILLE, Ark. -- During a visit to the University of Arkansas, Secretary of Agriculture Mike Johanns supported plans to “boost our research communities” included in the proposed 2007 farm bill. He called the bill currently under consideration by Congress “a package of market-oriented reforms to current agricultural policies.”

Johanns made his remarks April 12, 2007, during a series of stops on the Fayetteville campus viewing the research activity carried out by UA Division of Agriculture scientists and U.S. Department of Agriculture Agricultural Research Service scientists who work on campus.

He started his tour at the John W. Tyson Building of the Center of Excellence for Poultry Science. “What is happening there is cutting edge and has the potential to change the world,” he said in a speech later in the day.

UA research faculty met with Johanns to discuss a few of their current projects. Billy Hargis, who holds the Sustainable Poultry Health Chair in poultry science, explained his work developing a poultry influenza vaccine. Hargis also demonstrated a biosensor for rapid detection of poultry viruses being developed by Yanbin Li, a poultry science professor who was unable to attend the meeting.

Johanns spoke to about 200 people at the UA School of Law in an address hosted by the National Agricultural Law Center based at the law school, where he reported on development of the farm bill.

“Our top priority at the department has been on a comprehensive set of proposals for this year’s farm bill,” he said. USDA started the process by hosting forums across the nation listening to farmers and ranchers voice their concerns on energy, conservation, trade and other issues.

Johanns called for the expansion of agricultural exports’ access to foreign markets. He explained that the middle class is growing in several developing nations and that those people are future customers for U.S. agricultural products.

He said the proposed USDA budget would commit \$1.6 million to renewable energy so that the nation can move closer to “buying energy by the bushel from the heartland rather than by the barrel from the Middle East.”

After his campus appearance, Johanns visited a farm near Bentonville where he participated in a round table discussion with ambassadors from Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and the Dominican Republic. Johanns and the ambassadors discussed the Dominican Republic-Central American Free Trade Agreement’s provisions and its provisions for reduced tariffs. Johanns voiced his support for the pact. Guatemalan Ambassador Jose Guillermo Castillo said the agreement offered great opportunities for Tyson Foods and Wal-Mart Stores, both with headquarters in Northwest Arkansas.

**RARE OPPORTUNITY** - The U.S. Secretary of Agriculture poses with the most of the U.S.D.A.’s Agricultural Research Service group Poultry Production and Product Safety Research Unit, which is housed on the third floor of the Center of Excellence for Poultry Science.



Photo by Fred Miller



## Yanbin Li named Tyson Biosensor Chair

FAYETTEVILLE, Ark. -- Dean Greg Weidemann of the Dale Bumpers College of Agricultural, Food and Life Sciences at the University of Arkansas announced that UA professor Yanbin Li has been named the Tyson Endowed Chair in Biosensing Engineering.

Li is one of the world's leading scientists in the development of biosensing technology for food safety and quality applications, Weidemann said in an announcement in the atrium of the Agricultural, Food and Life Sciences Building. He has developed a prototype portable biosensor system that can detect the H5N1 avian influenza virus in poultry samples in less than one hour at an estimated cost of less than \$10 per sample. H5N1 is the "bird flu" virus that has been transmitted from poultry to humans in more than 300 cases in Asia, Africa and Europe.

A \$1.5 million endowment for the new chair was provided by the Tyson Foods Foundation from a gift announced in May 2005 and the UA Matching Gift Program previously endowed by the Walton Family Charitable Trust, Weidemann said. Investment earnings from the endowment will help support Li's research in the department of biological and agricultural engineering and the Center of Excellence for Poultry Science, which is a unit of the University of Arkansas System's statewide Division of Agriculture.

Li is principal investigator on a recent grant of \$375,000 from the U.S. Department of Agriculture's National Research Initiative to refine and test the H5N1 biosensor system. Co-investigators are Billy Hargis, Steve Tung and Ronghui Wang at University of Arkansas and Luc Burghman at Texas A&M University.

Mark Cochran, associate vice president for research in the Division of Agriculture, said the patent-pending H5N1 biosensor system would be much faster, more reliable, easier and cheaper than currently available tests, which are either poor in specificity, low in sensitivity, time consuming, expensive, or require a laboratory and a highly trained technician.

In other research, Li has been the lead scientist in developing systems using nanoparticles and biosensors for rapid detection of pathogenic bacteria in food products. He also has developed risk-assessment models for pathogens in food processing and methods of killing bacteria during poultry processing.

Li joined the university faculty in 1994. Among his several awards are the Arkansas Alumni Association Distinguished Faculty Achievement in Research and Service Award in 2003, the John Imhoff Research Award in the College of Engineering in 2006, and the Gamma Sigma Delta Outstanding Researcher Award and Outstanding Agricultural Engineer Award from the Arkansas Section of the American Society of Agricultural Engineers in 2002.

Li is editor of the journal, Biological Engineering, associate editor for Transactions of the ASABE, and an editorial board member for the Journal of Food Protection and the Journal of Sensing & Instrumentation for Food Safety and Quality. He is also adjunct professor of Zhejiang University and China Agricultural University.



Photo by Fred Miller

**NEWLY ENDOWED CHAIR** - Yanbin Li with a prototype of a portable biosensor system for field use to rapidly detect the H5N1 bird flu virus.



## Tyson Endows Chairs/Professorships



GISELA ERF



BILLY HARGIS



J.F. MEULLENET

FAYETTEVILLE, Ark. -- Greg Weidemann, dean of Dale Bumpers College of Agricultural, Food and Life Sciences at the University of Arkansas, announced that Tyson has endowed a new faculty chair and two new professorships.

Weidemann said current faculty members who are nationally recognized in their fields were named to the positions. They are Billy Hargis, holder of the Tyson Chair in Sustainable Poultry Health; Gisela Erf, holder of the Tyson Professorship in Avian Immunology, and Jean-François Meullenet, holder of the Tyson Food Sensory Science Professorship.

Investment returns from the endowments of \$1.5 million for the chair and \$500,000 for each professorship will be used for the teaching and research programs of each faculty member. The endowments were from a gift announced in June 2005 by Tyson Foods to the university's Campaign for the Twenty-First Century. A total of \$1.25 million from the Tyson gift has been designated for the endowed positions, and that amount was matched by the university's matching fund program.

"We are pleased to be able to support the work of these three outstanding scientists. Their work is important to our industry, and will bring benefits to everyone involved in the poultry industry for years to come," said John Tyson, chairman of the board of Tyson Foods.

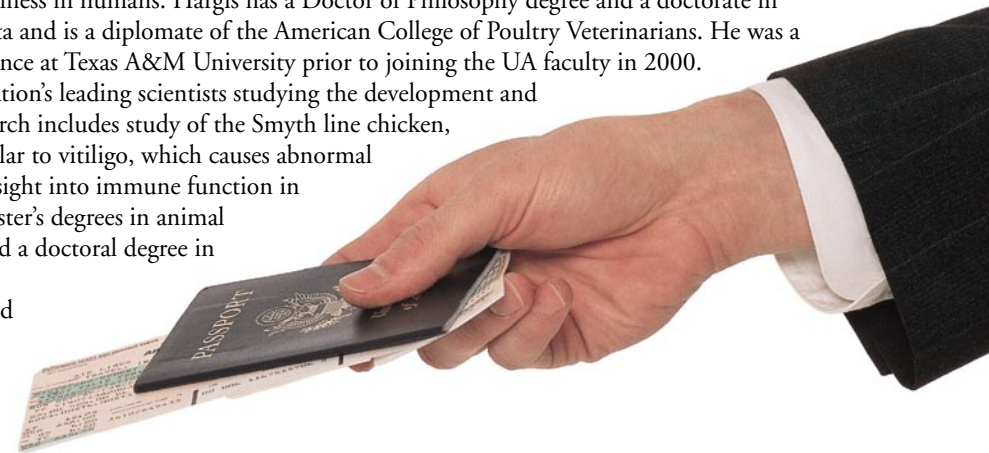
Walter Bottje, Department of Poultry Science head said, "We are very thankful for the support from the Tyson endowment. Tyson's generosity will strengthen the programs for these faculty members in addition to the programs of the Center of Excellence for Poultry Science as a whole."

Weidemann said Hargis, Erf and Meullenet are also outstanding teachers and mentors to both undergraduate and graduate students. "They provide our students with the opportunity to study with scientists who are among the best anywhere in their disciplines," he said.

Hargis is a professor of poultry science and director of the J.K. Skeeles Poultry Health Laboratory. His research focus is sustainable poultry health systems, including the use of probiotics and bacteriophage therapy as alternatives to chemicals for control of bacteria that can cause disease in poultry and foodborne illness in humans. Hargis has a Doctor of Philosophy degree and a doctorate in veterinary medicine from the University of Minnesota and is a diplomate of the American College of Poultry Veterinarians. He was a professor of veterinary pathobiology and poultry science at Texas A&M University prior to joining the UA faculty in 2000.

Erf, professor of poultry science, is one of the nation's leading scientists studying the development and function of the immune system in poultry. Her research includes study of the Smyth line chicken, which exhibits a genetic autoimmune condition similar to vitiligo, which causes abnormal skin pigmentation in humans. Her work provides insight into immune function in poultry as well as humans. Erf has bachelor's and master's degrees in animal science from the University of Guelph in Ontario and a doctoral degree in immunology from Cornell University, Ithaca, N.Y.

Meullenet, associate professor of food science and adjunct professor of poultry science, coordinates the Sensory Service Center for product testing provided by the food science department. His research focuses on sensory testing methods and the relationship between consumer acceptance and sensory properties of food. Meullenet has a master's degree in food engineering from the National Superior School of Agronomy and Food Sciences in Nancy, France, and a doctoral degree in food science and technology from the University of Georgia.



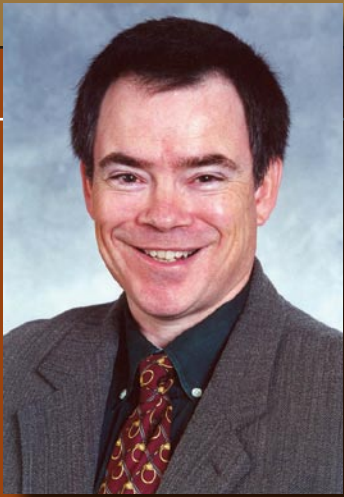


Photo by Fred Miller

STEVEN RICKE



Photo by Mark Budden/FASS

ANNIE DONOGHUE

## Faculty and Graduate Students receive Awards at International Meeting

FAYETTEVILLE, Ark. – Two University of Arkansas faculty members, three graduate students and one undergraduate student took top honors at the Poultry Science Association’s (PSA) annual meeting at Edmonton, Canada. The awards are for research sponsored by the Center of Excellence for Poultry Science in the University of Arkansas Systems’ statewide Division of Agriculture.

Annie Donoghue received the Helene Cecil Leadership Award. This award is given to a female PSA member for scientific contributions in the field of poultry science or for significant leadership in the promotion or development opportunities for women in poultry science. Donoghue’s research is in the area of improving the reproductive efficiency of poultry. She is the Research Leader for the USDA Poultry Production and Product Safety Research Unit (PPPSRU), part of the USDA Agricultural Research Service.

Steven Ricke, a microbiologist and holder of the Donald “Buddy” Wray Chair in Food Safety, was presented with the American Egg Board Research Award. The award is given to increase interest in research pertaining to egg science technology or marketing. His main research focus has been on virulence and pathogenic characteristics of foodborne salmonellae. Ricke is also the Director of the Center for Food Safety in the Institute of Food Science and Engineering at the U of A.

Poultry science graduate students winning awards at PSA were Olivia Bowen, Fausto de los Santos and Jianwei “David” Lu. An undergraduate poultry science student, Valerie Brewer, also won an award competing with graduate students in the area of poultry nutrition. In order to win in their section, students were asked to give oral presentations and then field questions from a professional audience regarding their research.

Bowen is a master’s student from Fayetteville and her major professor is Dr. Gisela Erf. She won in the area of immunology.

De los Santos is a Ph.D. candidate from the Dominican Republic and his major professor is Dr. Dan Donoghue. De los Santos won in the area of physiology, endocrinology and reproduction.

Lu is a Ph.D. candidate from China and his major professor is Dr. Craig Coon. Lu won a research award in the area of metabolism and nutrition.

Brewer is a senior from Prairie Grove and her major professor is Dr. Jason Emmert.



Photo by Mark Budden/FASS

OLIVIA BOWEN  
Master’s student from Fayetteville



Photo by Mark Budden/FASS

FAUSTO de los SANTOS  
Ph.D. student from Dominican Republic



Photo by Mark Budden/FASS

VALERIE BREWER  
Senior from Prairie Grove



Photo by Mark Budden/FASS

JIANWEI “DAVID” LU  
Ph.D. student from P.R. China





WILLIAM "BILL" HUFF

## Huff named Fellow of the Poultry Science Association

EDMONTON, Canada -- William Huff, a microbiologist with the USDA Poultry Production and Product Safety Research Unit (PPPSRU), and an adjunct member of the UA faculty, was given the prestigious "Fellow" title by the Poultry Science Association (PSA) at its annual meeting in Edmonton, Canada, on July 19, 2006.

The title of Fellow is granted for professional distinction and contributions to the field of poultry science without concern to longevity. A unanimous vote by the Board of Directors of PSA is required to elect any nominee as Fellow.

"I am humbled to be recognized by my colleagues, knowing that so many people in my profession are just, or more deserving of recognition than I am," Huff said. "Any success that I enjoy has only been possible through the great people I have had the honor and privilege to work with. I am indeed indebted to all these wonderful people for their encouragement and criticism, the Poultry Science Association for providing a professional home, the incredible poultry industry that I try to serve, and the USDA, Agricultural Research Service, for giving me the opportunity to make contributions through my research."

After serving as the research leader of a mycotoxicology research unit at Texas A&M University in College Station, Huff moved to Fayetteville to establish the PPPSRU in 1992. This USDA unit is housed on the third floor of the Center of Excellence for Poultry Science on the U of A campus. Huff continues to serve the unit as a research scientist and his area of focus involves therapeutic utilization of bacteriophages to reduce pathogens in poultry.

Huff received his undergraduate degree from the University of Central Florida and his graduate degrees from North Carolina State University.

## Huff serves as president at the International Poultry Scientific Forum

HE'S IN CHARGE - Bill Huff, shown right, takes a break from handing out abstracts to participants during the International Poultry Scientific Forum held in Atlanta in January 2007. Huff served as the president of this year's meeting.

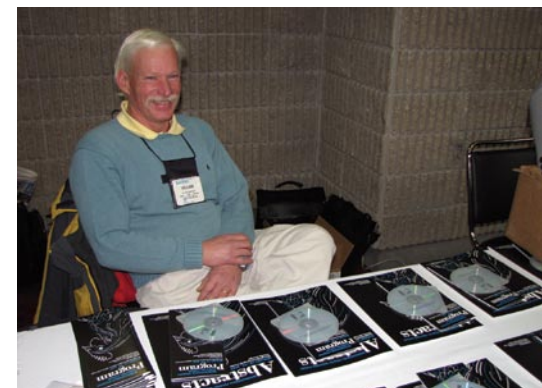


Photo by Karen Estew

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Photo by Karen Eskew

HALL OF FAMER - From left, (Above) Shirley Denton and Dr. James Denton celebrate in Atlanta after James was inducted into the Poultry Hall of Fame by the American Poultry Historical Society. To the right is a photo of the screen from the induction ceremony.

## Denton inducted into Poultry Hall of Fame

ATLANTA, Ga. - The American Poultry Historical Society (APHS) honored five outstanding individuals by inducting them into the American Poultry Hall of Fame on Jan. 24, 2007, in Atlanta.

The APHS bestows this honor on a maximum of five individuals at three-year intervals. A bronze plaque bearing the image of each inductee will be on permanent display in the National Agricultural Library in Beltsville, MD.

James H. Denton, former director of the Center of Excellence for Poultry Science and professor emeritus at the University of Arkansas, worked in poultry and food safety for 36 years. He has served four terms on the USDA National Advisory Committee for Meat and Poultry Inspection, serves as the Secretariat for the National Alliance for Food Safety and Security, is a fellow of the Poultry Science Association, is the chairman of the PSA Foundation board of trustees, and is on the board of directors of the International HACCP Alliance.

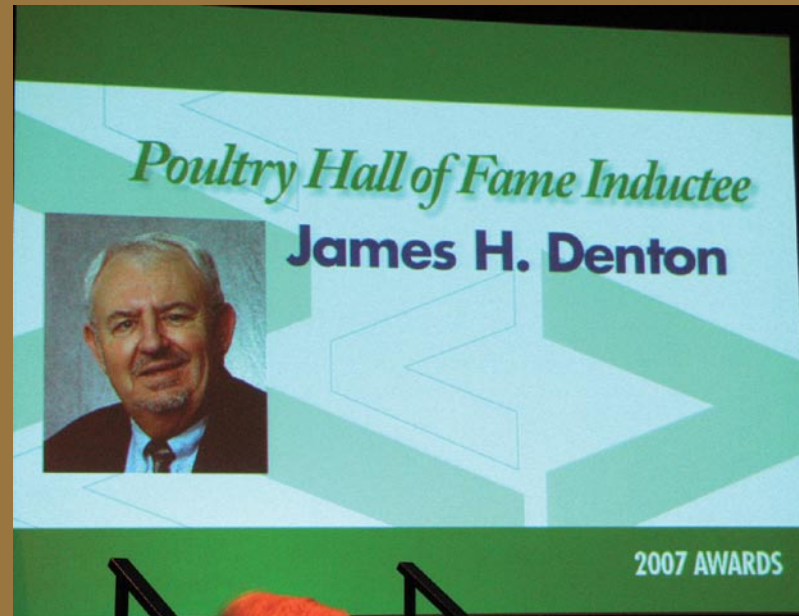


Photo by Karen Eskew



## UA poultry students win during presentation competition at international scientific forum



**BIG WINNERS IN ATLANTA** (left to right top picture) Ashley Swaffar, undergraduate student of Keith Bramwell's; Stacy Higgins and Sheri Layton, both doctoral students of Billy Hargis. These students won top awards in their respective areas during the International Poultry Scientific Forum. Krishna Hamal, (right) doctoral student of Gisela Erf, received the Alltech Student Manuscript Award during the same meeting.



FAYETTEVILLE, Ark. -- Three University of Arkansas poultry science graduate students competed and won awards for presentation of their research in January of 2007.

Krishna Hamal, doctoral student of Gisela Erf from Nepal, received the Alltech Student Manuscript Award for his paper on maternal antibody transfer to offspring in broilers during the International Poultry Scientific Forum (IPSF) held in Atlanta in January. This is the third year in a row a University of Arkansas graduate student has received this award.

Stacy Higgins, doctoral student of Billy Hargis, received one of the top awards given for her poster "effect of probiotic treatment of chicks on phagocytosis of Salmonella by isolate macrophages" during the poster competition at the IPSF annual meeting.

Sheri Layton, doctoral student of Billy Hargis, received the top award in her category of avian diseases SCAD II for her presentation on an avian influenza vaccine during the presentation competition also held at the IPSF in Atlanta.

One undergraduate student, Ashley Swaffar of Farmington won the first ever undergraduate presentation award from IPSF for her presentation on external physical characteristics of commercial broiler breeder males and testes weights and volumes in the environment and management section.

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## Poultry Faculty member and student take top honors for research during awards luncheon

FAYETTEVILLE, Ark. -- A faculty member and student were recognized for their outstanding research during the Division of Agriculture/Bumpers College of Agricultural, Food & Life Sciences annual Awards Luncheon in April 2007.

Dr. Dan Donoghue, associate professor, received the John W. White Outstanding Research Award for his research on drug, chemical and pathogen contamination of poultry. Donoghue served on a multi-agency group to develop and implement programs to reduce residues in the human food supply. Other awards he has received include the U.S. Food and Drug Administration's Center for Veterinary Medicine Scientist of the Year Award.

Carol Ojano-Dirain, former Ph.D. student of Dr. Walter Bottje, was named the Bumpers Distinguished Scholar, Ph.D. category by Bumpers College for her research in cell and molecular biology.

Ojano-Dirain was also named the Aubrey Harvey (Sigma Xi) Research Award winner for the University of Arkansas. This award is given to the most outstanding graduate student doing pertinent research on the U of A campus.

"Our continued success in winning awards for research further emphasize the outstanding work being done by the faculty and students in the Department of Poultry Science," said Bottje. "I am so pleased with these two individuals in particular and the work they have accomplished."

OUTSTANDING FACULTY AND STUDENT (left to right) Dr. Walter Bottje, department head of Poultry Science stands proudly next to Dr. Dan Donoghue, winner of the John W. White Outstanding Research Award, and Carol Ojano-Dirain, Bottje's Ph.D. student and Distinguished Bumpers Scholar.





*“I came to the Department of Poultry Science for graduate school and research because it’s one of the premiere programs in the world. My professor, Dr. Gisela Erf, is extremely well-regarded in the field of immunology and I wanted the best for my graduate school experience.”*

**KRISHNA HAMAL**  
*Ph.D. student from NEPAL*

*“Dr. Park Waldroup, poultry nutritionist at the Center of Excellence for Poultry Science, and my major professor, is famous throughout the world. I was accepted at several schools, but after visiting the University of Arkansas, I definitely chose to come here and work with Dr. Waldroup, and that has been a good decision.”*

**FENGLAN “FRANCES” YAN**  
*Ph.D. student from P.R. CHINA*

*“I came to the Department of Poultry Science because I heard of the excellence of the program while studying at another university in Montreal. I had read Dr. Wideman’s papers and had even cited them in my master’s dissertation. I am happy that I was able to come and study with Dr. Wideman for my doctorate.”*

**ALBERTO GINO LORENZONI CALVO**  
*Ph.D. student from CHILE*



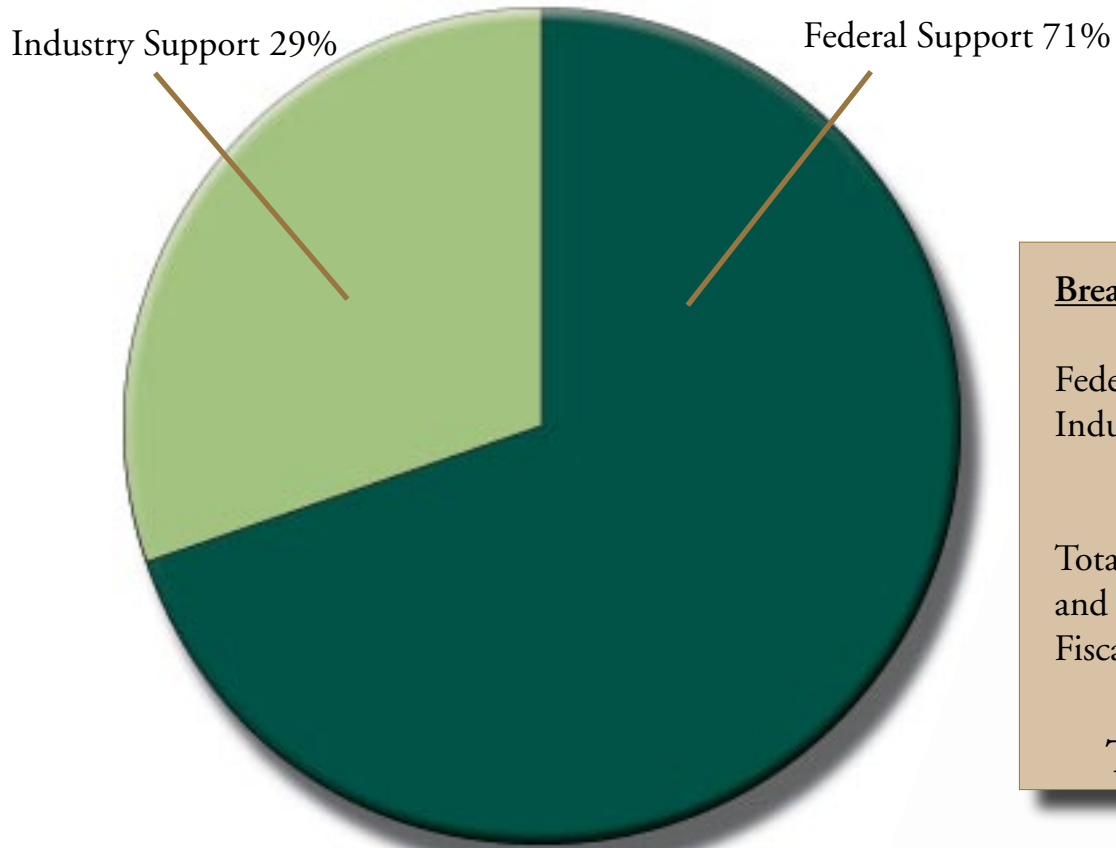




## **UA poultry group named 2007 Winner of the Federal Laboratory Consortium National Award for Excellence in Technology Transfer**

On January 23, 2007, the Federal Laboratory Consortium (FLC) announced the 2007 winners of the FLC National Awards for Excellence in Technology Transfer. The following University of Arkansas Division of Agriculture scientists in the poultry center were recognized for novel technology to reduce human foodborne pathogens in poultry. They included faculty members Ann Donoghue, Dan Donoghue, Billy Hargis and Guermillo Tellez. They received their award on May 17th at a presentation awards banquet.





### Breakdown of Support Dollars:

Federal Money .....\$ 867,994.00  
Industry Money .....\$ 351,350.00

Total dollars for research  
and sponsored support for  
Fiscal Year 2006-2007: ....\$ 1,219,344.00

**TOTAL: \$1,219,344.00\***

We thank the industry for their continued support of research at the Center of Excellence for Poultry Science. This year, more new opportunities presented themselves with the generous contribution by industry partner Tyson Foods and the establishment of the four endowed professorships during this past fiscal year. If your company is interested in knowing more about endowing a professorship, please contact Chuck Culver (cculver@uark.edu) or Kellie Knight (knight@uark.edu) and they will be happy to explain the details. It's an incredible way to make a lasting contribution in the field of research for poultry science. (Endowed professorships and donations are not listed in above totals.)

\* This is the full amount in the Division of Agriculture that was awarded to Poultry faculty for research. Some faculty members have dual appointments and therefore credit for the amount was given to other departments.

## Gisela Erf wins Distinguished Faculty Achievement Award from Alumni Association



Photo by Karen Eskew

**DISTINGUISHED FACULTY MEMBER** -- Dr. Gisela Erf (front row, second from left) is shown with some of her very first students in her agricultural rotations laboratory class. These students did research and gave scientific presentations as part of their curriculum for this unique preparatory classes. The goal of the class was to encourage undergraduate research and hopefully encourage students to pursue higher degrees in their field of study. Erf was presented with the Distinguished Faculty Achievement Award from the Arkansas Alumni Association in October 2006.

FAYETTEVILLE, Ark. - Dr. Gisela Erf, immunologist in the Department of Poultry Science, was one of three faculty members presented with the Distinguished Faculty Achievement Award from the Arkansas Alumni Association on Oct. 13, 2006.

The Distinguished Faculty Achievement Award is based on the following criteria:

- 1) For teaching: To recognize, reward, and encourage the superior classroom teachers, the faculty members whose ability, personality, and methods are responsible for the highest success in teaching and the inspiration of their students.
- 2) For research: To recognize, reward, and encourage the faculty members who are basically teachers but whose research or creative efforts are particularly successful and outstanding.
- 3) For service: To recognize, reward, and encourage the faculty members who are basically teachers but whose professional service activities are particularly successful and outstanding. This award was designed to reward distinguished service to the state, region, or nation through the faculty member's professional expertise.

Erf conducts research in avian immunology with emphasis on aspects of innate immunity, cell-mediated immunity, autoimmunity and mucosal immunity. She has won numerous awards and is a member of the U of A Teaching Academy.



## Undergraduate and Graduate Students Receiving Degrees at Commencement 2007



### UNDERGRADUATES:

May 2007

Christopher Luke Adams  
Valerie Belle Brewer  
Jonathan Patrick Briggs  
Will Sawyer Deakins  
Brian Barton Harvey  
Karen Elizabeth Nash  
Amanda Maureen Rowland  
Ashley Denise Swaffar  
Joshua Lee Whitlow

### GRADUATES:

December 2006

Lisa Renee Bielke (Ph.D.)  
Xiaofang Liu (Ph.D.)  
Hilary Odette Pavlidis (Ph.D.)

May 2007

Marc DeBeer (Ph.D.)  
Anne Christine Fanatico (Ph.D.)



Photo by Maritza Laughlin

SOME OF THE UA RECRUITMENT "TEAM:" (left to right) Gary Davis, undergraduate recruiter; Donna Tinsley, secretary II and undergraduate student helper; Dr. Jason Emmert, undergraduate curriculum coordinator, advisor and associate professor; Monty Henderson, President/COO of George's Inc., and secretary of the U.S. Poultry & Egg Harold E. Ford Foundation who is presenting a \$19,037 check to Dr. Walter Bottje, department head for the Department of Poultry Science at the University of Arkansas; Dr. Casey Owens, undergraduate advisor; Ken Primm, president of the Poultry Federation; and Karen Eskew, creator of recruitment publications.

## Harold E. Ford Foundation makes large donation to UA poultry recruitment

FAYETTEVILLE, Ark. -- Monty Henderson, president/COO of George's Inc., and secretary of the U.S. Poultry & Egg Harold E. Ford Foundation, presented a check of \$19,037 to the University of Arkansas Department of Poultry Science on Nov. 20, 2006.

The check from the foundation is to be used by the department for recruiting efforts and programs over the 2006-07 year.

In the past, funds from the Harold E. Ford Foundation have been used to produce recruitment materials, publications, and an interactive CD. The money is also used to help support the Poultry Science Youth Conference, a major recruitment event each summer.

"The Department is fortunate to receive the support of the Harold E. Ford Foundation. It enables us to inform teachers, parents and students about the vast opportunities in Poultry Science careers. It also provides the means to communicate our story with quality publications, electronic media and activities," said Gary Davis, undergraduate recruiter for the department.

## Record number of Poultry Science students enroll at UA

FAYETTEVILLE, Ark. — The University of Arkansas Department of Poultry Science enrolled a record number of students in the fall 2006. According to 11th day numbers, the department now boasts a total of 74 students majoring in poultry science. Of these 74 students, 44 are totally new to the department.

"We have some students double-majoring and some minoring in poultry science, but we actually have 39 freshmen and five transfer students in the recruitment class of fall 2006, making it the largest group we have ever had," said Dr. Jason Emmert, associate professor. The department also has 13 additional students that are minoring in poultry science.



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GETTING TO KNOW YOU -- Dr. Jason Emmert's class participates in team-building exercises on the front lawn of the Center of Excellence for Poultry Science. Almost all of the 44 students enrolled in the class are new to the University of Arkansas Department of Poultry Science.



Photo by Karen Eskew





Photo by Karen Eskew

**HANDS-ON PRACTICE** -- Megan Norton, a sophomore at the University of Arkansas, practices her poultry judging skills prior to the 41st National Poultry Judging Contest held at the U of A Nov. 6 & 7, 2006. The U of A team took fourth place overall.



Photo by Karen Eskew

**MEMBERS OF THE UA TEAM** --  
(Back row from left) Coach Jason Emmert, Asst. Coach Dennis Mason;  
(Front row) Jada Thompson, Megan Norton, Ashley Reeves and Sawyer Hale.

## UA places fourth in National Collegiate Poultry Judging Contest

FAYETTEVILLE, Ark. -- The home team placed fourth at the 41st Annual National Poultry Judging Contest Nov. 6 - 7, 2006, hosted by the department of poultry science at the University of Arkansas.

The Texas A&M University team won first place, followed by Pennsylvania State University, Kansas State University, Arkansas and Louisiana State University. Twelve teams competed.

Members of the UA team were Sawyer Hale, Megan Norton, Ashley Reeves and Jada Thompson, all graduates of Lincoln High School. Thompson had the second highest individual score for the contest. The UA team placed third in the category of egg production and quality and fourth in breed selection and carcass quality.

Coach for the UA team was Jason Emmert, associate professor of poultry science. Assistant coach was Dennis Mason, visiting instructor of agricultural and extension education.

"I want to congratulate the team," said Emmert. "It was a tough competition and these students really worked hard and prepared themselves for the event. These four students had judged together at Lincoln High School and won national recognition. It was exciting to reunite them and have them judge together in college."

Other teams in the contest were from Mississippi State, North Carolina State, Stephen F. Austin, Minnesota, Wisconsin-River Falls, Virginia Tech and West Virginia.

Sponsors were the Center of Excellence for Poultry Science, Butterball Turkey, Cargill, Inc., George's Inc., Tyson Foods, Inc., and the Poultry Federation.



United States  
of America

## Poultry Science Club collects and distributes food for shelter

FAYETTEVILLE, Ark. -- The University of Arkansas Poultry Science Club collected food prior to the Thanksgiving holiday in 2006 in order to donate it to the "Peace at Home" battered women's shelter in Fayetteville.

Three poultry classes competed to gather the most food (based on weight) to donate to the worthy cause. The classes competing were Egg & Meat Technology, Poultry Disease and Introduction to Poultry Science and Careers.

The weight was computed and then divided by the number of students in each class. The most weight gathered per student was computed and the Poultry Diseases class won. A total of 324 pounds of food was donated during the drive.

Once the food was weighed and sorted, representatives from the shelter came and loaded up the items. The non-perishable food collected was intended to be used for the Thanksgiving holiday dinner and to help re-stock the kitchen at the shelter.

"The Poultry Science Club is a service organization and we can't think of anything better than helping feed those in need, especially at Thanksgiving when we have the opportunity to pause and be thankful for all that we have," said Neda Tilley, Poultry Science Club president.



Photo by Karen Eskew

**FOR A GOOD CAUSE** -- Members of the Poultry Science Club pause for a moment from sorting food out of one of the collection boxes prior to Thanksgiving. The poultry science classes had a "friendly" competition to determine who could collect the most food to donate to the "Peace at Home" battered women's shelter in Fayetteville.





# jamaica

*“My family owns and operates a poultry company in Pakistan. My uncle works in the industry in Northwest Arkansas and he told me how great the program was at the University of Arkansas. I wanted to do my undergraduate work here, because it’s the very best.”*

ARSLAN SABIR

Freshman from PAKISTAN

*“I was at LSU and had met my current professor, Dr. Jason Emmert, during an international scientific forum in Atlanta. I knew I wanted to join his team and do my final research at the University of Arkansas. I love the Ozark mountains, they remind me of home, and the family atmosphere in poultry science was something I really needed while living so far from home.*

TANIKA O’CONNOR-DENNIE  
Ph.D. student from  
JAMAICA





Photo by Karen Eskew

## Poultry Science Golf Tournament raises \$20K for Scholarships

FARMINGTON, Ark. --- Twenty-eight teams raised just over \$20,000 for scholarships during the Seventh Annual University of Arkansas' Poultry Science Scholarship Golf Tournament Oct. 3, 2006, at the Valley View Golf and Country Club in Farmington.

Format for the tournament was a four-person scramble with a shotgun start. An awards presentation was held in the clubhouse immediately following conclusion of play for each flight.

First place winners in the morning flight were Don Lewis, Russell Mayo and Ron Stafford with a score of 58. Second place winners in flight one were Vic Smith, Mark Sullivan, Syd Tatum and Ben Thompson with a score of 61. Vic Smith took home a prize for closest to the pin on hole 16, Russell Mayo won an award for having the longest drive on hole 9 and Tim Garber won the putting contest with a hole-in-one.

First place winners in the afternoon flight were Jerry Birch, Alex Neal, Terry Neal and Wendell Stevens with a score of 55. Second place winners were Larry Butler, Zach Butler, Kevin Stanton and Steven Stanton with a score of 58. Closest to the pin winner was Ronnie Barnes, longest drive winner was Zach Butler and the afternoon putting contest winner was emeritus faculty member Tal Nelson.

The major sponsor for the tournament was Cobb-Vantress, Inc., and FPEC (Food Processing Equipment Company) provided additional funding through a hole sponsorship. Arkansas Farm Bureau donated balls, towels and tees for each participant.

The following companies participated in the tournament: Aerotech, Al-pharma, Aviagen, Barnhill Poultry, Biomune, Cobb-Vantress, CTB (Chore-Time), Degussa, FPEC, Farm Bureau, Farm Credit of Western Arkansas, Hubbard Farms, Intervet, International Paper Co., Multi-Craft Contractors, and Roxell, Inc.

ENJOYING LUNCH DURING THE TOURNEY -- Golfers who participated in the 7th Annual Poultry Science Scholarship Golf Tournament afternoon flight, take a moment to enjoy some barbecue before learning who would take home the prizes.

Flight sponsor for this scholarship fundraiser was Cobb-Vantress, Inc., which is headquartered in Siloam Springs. The tournament took place at Valley View Golf & Country Club in Farmington.

## Allied Industry donates \$18,000



Photo by Karen Eskew

FOR A GOOD CAUSE -- Bob Ickes (left) signs the bid he won while Bob Rochelle looks on during the scholarship auction held at the Poultry Festival. This year the Allied Industries made a donation of over \$18,000 for student scholarships to the UA Department of Poultry Science. Thank you to the Allied Industry for your support!





*Thank you to our scholarship contributors. We could not offer this level of support without you. You are ensuring a bright future in the poultry industry with your generous investment into the lives of our future employees. You are the key to our success.*

## ***2006-2007 Scholarship Breakdown***

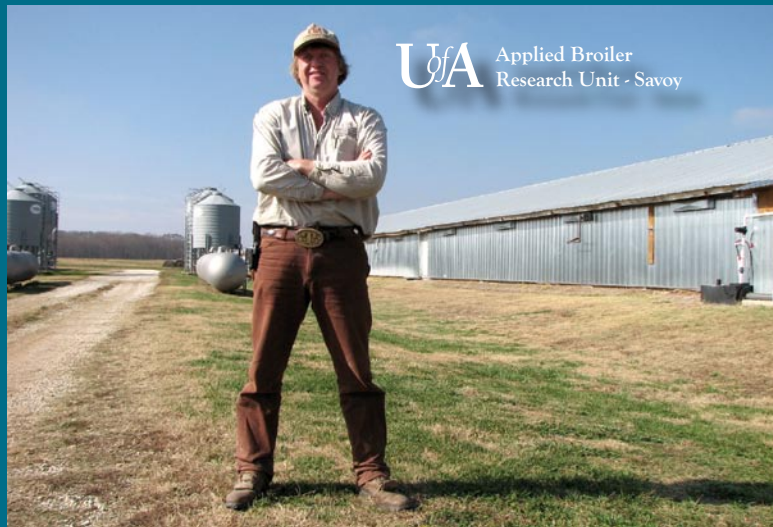
### Scholarship Top Contributors

Randal Tyson Memorial Fund  
Poultry Science Matching Fund  
Allied Industries Fund  
Feed Manufacturer's Fund and  
Poultry Science Scholarship Golf Tourney

**Fall 2006:** 65 students received \$92,200 in scholarship money from our department and

**Spring 2007:** 60 students received \$84,300 in scholarship money from our department for a total of:

**\$176,500.00**



U of A Applied Broiler  
Research Unit - Savoy

Photo by Karen Eskew

MANAGING A MAKEOVER - (Above) Dr. G. Tom Tabler, manager of the Applied Broiler Research Unit in Savoy, stands in front of one of the four houses that were recently remodeled to include tunnel ventilation, cool cells and solid sidewalls. The photo at the very top of the page shows a close-up of the new fan systems.

## Extreme “House” Makeover

SAVOY, Ark. -- “We waited until the last possible second to do the remodel, but we finally had no choice,” said Dr. G. Tom Tabler, manager of the University of Arkansas’ Division of Agriculture Applied Broiler Research Farm (ABRF) near Savoy. “We’re under contract with a local intergrator and it was a company-wide mandate for all of their growers.”

The mandate was made for a very good reason said Tabler, “The company had the proof, the growers who had already undergone a similar renovation were consistently sitting at the top of list when it came to rankings. It’s not that we didn’t want to make the change, we just had to go through a lengthy bid process and eventually pull together enough funding to make it happen.”

Although the unit had not been through a winter yet, Tabler believes that the dividends in gas savings will pay off.

“After the remodel, we did use more electricity this summer to cool, but those rates (approximately 6.5 cents per KWH) have not gone up since we opened the unit in November of 1990. Gas rates are another story, those rates have tripled, so the

savings we make in gas should more than offset the extra expense in electricity when it’s all said and done,” Tabler said.

The unit is home to four broiler houses that measure 40 feet wide by 400 feet long. Before the remodel, the houses were operated as conventional curtain-sided houses with foggers for evaporative cooling.

In order to modernize the unit, all four houses were converted to solid sidewalls using lumber, R-11 insulation and oriented strand board. They then put in tunnel ventilation using cool cells and fans and drop ceilings. The outside wasn’t the only thing that was upgraded, new equipment was installed inside, which included feeders, waterers, fans and brooder stoves.

The ABRF is used to conduct various types of applied research targeting environmental and energy issues. Additionally, it will be used as a site for hands-on training for students and industry personnel.

“Until we upgraded the equipment and houses, it was difficult to provide much in the way of hands-on training. Now that we have the appropriate facilities, we will be doing a lot more workshops for industry, which is one of the purposes of our being here,” Tabler said.

Even though tunnel ventilation with cool cells are considered the “gold” standard for housing, it’s not a magic bullet for raising birds.

“Each house is its own unique little environment,” Tabler said. “I’ve worked with it for a long time so I know how to tweak the mechanical ventilation system in order to make each house function as uniformly as possible. What I’m hoping to do is use our facilities to train those new to the system, and hopefully save them some heartache down the road.”

Speaking of training, Tabler recently completed one of his life-long goals by earning his Ph.D. through the University of Arkansas.

“I originally came to work at the farm in November of 1990, when it first opened,” said Tabler. “I had my bachelor’s degree, and realized that university employees can go to graduate school for \$5/hour. I took advantage of that opportunity and received my master’s degree three years later.”

Tabler went on to say that he had a choice to do a non-thesis master’s program, but went ahead and did a thesis in case he wanted to pursue a doctoral degree later.

“You are only allowed seven years from start to finish in order to get your doctorate, and I took every bit of those seven years to complete my training,” said Tabler. “Mainly because managing a broiler farm is not just a full-time job, it’s 24/7.”

Apparently the houses weren’t the only things on this farm who experienced an upgrade.





TOP GUN IN THE POULTRY INDUSTRY -- Above Susan Watkins is shown next to a mock-up of the cover of the Watt Publishing magazine's November issue where she was named one of 27 top guns in the poultry industry. Watkins is an extension faculty member in the University of Arkansas poultry science department.

### Special thank you to industry and friends for support of Watkins' family when son was injured in Iraq

On May 21st, Adam Watkins, son of Susan Watkins, extension faculty member in the University of Arkansas Department of Poultry Science, was injured severely by an IED while on duty in Iraq. On August 4th, friends, coworkers and families of military personnel joined together to host a benefit concert for Adam. The Department of Poultry Science would once again like to say thank you to all in the industry and university that cooperated in the success of this event. Your outpouring of love and generosity was incredible.

### Susan Watkins named one of the TOP GUNS in poultry industry

FAYETTEVILLE, Ark. -- In November 2006, Susan Watkins, extension faculty member in the University of Arkansas Department of Poultry Science was named one of the top 27 problem-solvers in the entire poultry industry by Watt Publishing in their *Poultry USA* magazine.

According to article writers Gary Thornton and Terrence O'Keefe, consultants (and extension specialists such as Watkins) "are an integral part of the poultry business and often are involved in the most crucial decisions at companies."

After the authors contacted personnel at U.S. broiler and turkey companies involved at all levels and phases of operations, they asked the employees to name their most-trusted and respected consultants. The consultants profiled in the article represent a sampling of the high quality of consulting talents available in the industry.

Watkins name was among those that came up again and again, therefore placing her in this prestigious listing.

Out of the 27 consultants profiled in the article, Watkins was one of only three women included.

Watkins is a graduate of the University of Arkansas (undergraduate, master's and doctoral degrees) and joined the Cooperative Extension Service in the Division of Agriculture in 1996.

"When I became an extension specialist, I had to fill the shoes of Dr. Lionel Barton, who was a leading expert in drinking water quality. Many of our clientele assumed I also knew about water quality and came to me with questions. As a greenhorn specialist, it quickly became apparent that expertise in this area was very limited, so I started digging into water quality issues and have found it to be one of the most dynamic challenges this industry faces," said Watkins.



## Culinary School held at U of A continues to train industry



COOKING -- From left, Chef Todd Seyfarth leads Bill Clift, both of Tyson Foods, Inc., to perfect his recipe and technique during the Culinary School at the Center of Excellence for Poultry Science. The culinary experience continues to be a great success, with more classes scheduled in 2008.

FAYETTEVILLE, ARK. -- The poultry science department at the University of Arkansas continues to conduct a series of five-day basic culinary arts classes for professional food scientists.

The Culinary Experience for Product Developers short course will satisfy 40 hours of the 120 hours of hands-on culinary training required to become a Certified Culinary Scientist (CCS). The course was organized by Dr. John Marcy, a food scientist and extension specialist in the poultry science department, and is sponsored by the Cooperative Extension Service, U of A Division of Agriculture.

“For a land-grant university to be doing this is a pretty good thing,” said Marcy. The only other places offering CCS classes are culinary schools in California, New York, Rhode Island and Chicago.

Marcy said most basic cooking methods are taught during the five-day class by recognized chefs. The five mother sauces are emphasized in this class: hollandaise sauce, espagnole (brown) sauce, velouté, tomato sauce, and béchamel. Many other sauces can be derived from these five mother sauces.

The class includes meat cooking methods of stewing, braising, roasting, grilling, sautéing, pan-frying and baking, Marcy said, plus garnish and plate presentation.

“All cooking methods relate to the quality of the dining experience,” said Marcy.

The food industry is moving to a more culinary driven field, said Marcy. Processors employ culinary artists to design products. It is important that product developers have a culinary arts background as well as a food science background, he said.



## Poultry youth programs going strong in the state

FAYETTEVILLE --- Extension specialist Jerry Wooley received his 30-year service award from the Cooperative Extension Service toward the end of the summer in 2006.

Wooley has been instrumental in youth poultry programs around Arkansas throughout his 30 years of service. In addition to helping organize the youth pullet chain for the Arkansas State Fair Broiler Show each year, Wooley is also instrumental in the 4-H State Barbecue Contest, which takes place during The Poultry Festival each summer.

Students from around the state compete in local and regional contests, with the final state competition taking place in June.

This past summer, the state contest was held by the Riverwalk in Little Rock. Next summer, the Poultry Festival is moving to Northwest Arkansas and will be headquartered around the Embassy Suites in Rogers.

Wooley, and his co-chairman Danny Williams of WYNCO, are responsible for soliciting donations of product and grills for all of the competitors. They also line up judges and assist contestants with tickets and logistics during the three-day festival.

Youth programs familiarizing students with poultry and poultry products continue to remain a critical form of outreach for Extension specialists in the state. Their role helps participants learn more about poultry and the poultry industry, which continues to be one of the major industries in Arkansas.



Jerry Wooley (right), checks on a contestant during the 4-H State Barbecue Contest, which he helps organize each year.



Photo by Karen Eskley



Photo by Fred Miller

**RESEARCH AND DEVELOPMENT** -- Dr. Jason Emmert (far right) leads high school students in an interactive discussion about breeding and battering chicken products. High school students attending the Poultry Science Youth Conference developed their own poultry products to market after learning the different processes involved in rolling out a product.

## Poultry Science Youth Conference continues to help recruitment

FAYETTEVILLE –Thirty-four high school students from around the state experienced college life first-hand at the University of Arkansas while attending the tenth annual Poultry Science Youth Conference sponsored by the Center of Excellence for Poultry Science at the University of Arkansas July 17-20.

The conference is designed to foster interest in the poultry industry, the University of Arkansas and the UA poultry science department through hands-on experiences, tours, and industry presentations.

Conference participants were organized into groups, and each group developed a new product using poultry as one of the ingredients.

Recreational activities during the week included a cookout at Devil's Den State Park, dinner provided by ClearView Enterprises, a trip to Lokomotion Family Fun Park and a movie night at the Center.

Student groups gave their final product presentations before faculty members and parents during a closing ceremony in the Leland Tollett Auditorium in the Poultry Science Building.

Sponsors of the conference were the Farm Bureau, Harold E. Ford Foundation and the Center of Excellence for Poultry Science.

Next year's conference will again be held in July. For information, e-mail Gary Davis, poultry science undergraduate recruiter, at [gddavis@uark.edu](mailto:gddavis@uark.edu). All students completing the 10th and 11th grades are invited to attend. Space is limited.

**THE WINNERS** -- "Big Poppers" was the winning product during the Poultry Science Youth Conference. The product was made from thinly sliced poultry breasts, stuffed with jalapenos and cheese, which were breaded and fried. They were delicious!!



Photo by Karen Eskew





Photo by Frank Jones

SEEING HOW IT'S DONE -- Marvin Childers, president of The Poultry Federation, checks on watering lines and feed pans in a poultry house on the University of Arkansas campus. Childers was one of the participants in the International Short Course on Modern Poultry Production held at the U of A.

## POULTRY 101 and SHORT COURSE bring international and domestic participants to the University of Arkansas

FAYETTEVILLE, Ark. -- Participants from around the world attended the University of Arkansas Division of Agriculture's International Short Course on Modern Poultry Production at the Center of Excellence for Poultry Science. The week-long program of concentrated study, hands-on exercises and tours of poultry companies in the area was held on the University of Arkansas campus.

"The Division of Agriculture began the short course in 2000 to help provide a wider audience with a 'big picture' overview of the commercial poultry industry," said Frank Jones, Cooperative Extension Poultry Section Leader. "This course provides participants with the 'mental framework' necessary to understand both where information fits within the industry and how the various parts of the industry are connected."

Most participants in the short course are allied industry technical representatives, poultry industry representatives, who want to gain a broader knowledge of poultry production methods, and international poultry producers.

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FAYETTEVILLE, Ark. -- University of Arkansas Department of Poultry Science faculty member Casey Owens-Hanning along with Shelly McKee of Auburn University and Christine Alvarado of Texas Tech University held another Poultry 101 course at the University of Arkansas campus in May.

The poultry course is designed to give participants an overview of the poultry industry and its various market segments.

To take advantage of their various resources, Owens-Hanning, McKee and Alvarado felt it would be best to offer the class three times per year and rotate the host location of the course to take place at each of their universities.

Topics included in the class were the history of the poultry industry, market segments, growout and nutrition fundamentals, processing, quality issues, further processing, food safety, emerging issues and international issues.



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<i>Books</i>	<i>2</i>
<i>Book Chapters</i>	<i>4</i>
<i>Refereed Publications and Proceedings</i>	<i>78</i>
<i>Unrefereed Publications and Proceedings</i>	<i>188</i>
<i>Invited Lectures</i>	<i>33</i>
<i>Other Lectures, Papers and Oral Presentations</i>	<i>39</i>
<i>Other Creative Endeavors - Workshops</i>	<i>10</i>

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