



U of A
UNIVERSITY OF ARKANSAS
DIVISION OF AGRICULTURE

Department of Biological and Agricultural Engineering Newsletter
Dale Bumpers College of Agricultural, Food and Life Sciences
and the College of Engineering

From the Head

Lalit R. Verma
Department Head



What an exciting way to kick off the New Year! The establishment of the **Arkansas Academy of Biological and Agricultural Engineering** with the installation of its 24 Charter Members took place on January 10, 2002. Please congratulate these distinguished alumni and friends of the department. The Annual Program Review was attended by some of the Charter Members of the Academy and our Advisory Board during January 10-11.



The department lost a true friend, professional and ex-faculty member when **Dr. Joel T. Walker** unexpectedly passed away on March 21 in Columbus, Ohio. Joel was a faculty member for 20 years and served as Interim Head during 1999-2000. His commitment to the department, profession, and his students was exceptional. A memorial scholarship has been established and we seek your support in building it to a level of endowment.



Good progress is being made on the new **lab rooms for research and teaching** in our lab facilities. Interior finishing is almost complete and we will soon start furnishing them.



The **summer retreat** was held on May 6-7 to complete some tasks for the ABET self-study report. Dr. Griffiths is coordinating this report with help from all faculty. The site visit is to be in October. The BAE Advisory Board and Academy members met on May 7.

(Continued on page 2)

We Need Your Help to Honor Two of Our Former Faculty by Endowing Scholarships in Their Names See page 7

Highlights, Presentations and Awards

BAEG faculty and students were honored at the Gamma Sigma Delta banquet on April 2, 2002. **Carl Griffiths** received the Teaching Award of Merit and **Yanbin Li** received the Research Award of Merit. **Amy Cotter** was initiated into the society, and **Liju Yang** received a third place award for the poster competition that had been sponsored by Gamma Sigma Delta.

Sreekala Bajwa was instrumental in organizing a chapter of Alpha Epsilon for our department. Three graduate students and four undergraduate students were inducted into the society. Those inducted were **Dylan Carpenter, Gabriel Chedister, Amy Cotter, Amber Gosnell, Johnny Mason, Debebrata Sahoo** and **Liju Yang**.

Students and faculty honored at the May Engineering Faculty Meeting were: **Amy Cotter**, Outstanding Graduate Student; **Johnny Mason**, Outstanding Senior; **Carl Griffiths**, Outstanding Teacher; **Yanbin Li**, Outstanding Researcher; and **Tom Costello**, Service to Students Award.

A federally funded project by scientists in Arkansas and Oklahoma has the goal of developing a **watershed nutrient management decision support system** for the Eucha Basin. The basin includes Spavinaw Creek in north-west Benton County and drains into Lake Eucha, which supplies water to the city of Tulsa. The project is funded by the U.S. Department Agriculture grant for \$686,000 with matching funds from the U of A System's Division of Agriculture and from Oklahoma State University. Six UA and OSU scientists will work as equal partners. The UA group includes **Marty Matlock**, department of biological and agricultural engineering and the principal investigator, **Indrajeet Chaubey**, department of biological and agricultural engineering, and **Brian Haggard** with the USDA Agricultural Research Service Poultry Production and Product Safety Research Unit. The OSU group includes Dan Storm and Mike Smolen in the biosystems and agricultural engineering department and political scientist Will Focht. This project is one of many on water quality and quantity issues statewide by U of A Division of Agriculture research and extension faculty in cooperation with other agencies.

A Division of Agriculture Environmental Task Force is coordinating the statewide, interdisciplinary program. Task force co-chairs are UA department heads Mark Cochran, agricultural economics and agribusiness, and **Lalit Verma**, biological and agricultural engineering.

Research Initiate Grants were awarded to **Sreekala Bajwa, Julie Carrier, Indrajeet Chaubey** and **Jin-Woo Kim** from the Dale Bumpers College of Agriculture Food and Life Sciences. **Julie Carrier** also received a \$2,500 Research Grant from Tom's of Maine.

Vijay Garg competed in the 2nd Annual Tech Summit Conference Research Symposium poster contest. Vijay's poster entitled "Effect of Calibrating Watershed Characteristics on Uncertainty of Runoff Volume Modeling" was awarded first Place.

From the Head — continued from page 1

It is great to have a wonderful faculty, staff, and students who have had several **awards and recognitions** in the first half of this year. We are looking forward to a strong freshman class in the Fall as a result of continued recruiting efforts.



It was a pleasure to assume the Section Leader responsibility on March 1 for the **Extension** Agricultural Engineering and Safety Section in Little Rock. At the request of the section faculty a name change was approved by the administration. The new name of the section is **Biological and Agricultural Engineering**, which also matches the department name in Fayetteville. The extension engineers will thus be better integrated in the department. This change enables us to more accurately project the functions, expertise, and responsibilities of the section. The vision and goals of the section are better reflected in this name. We are as always committed to serving the people of Arkansas.



Let me take this opportunity to address any possible perceptions that any of these changes will ignore the commitment to Agriculture and Agricultural Engineering in our academic, research or extension programs. As I stated in my first issue of this newsletter, the new Biological Engineering curriculum does not neglect Agricultural Engineering. **Biological Engineering includes Agricultural Engineering and expands the horizon of education and training provided to our graduates.** In this curriculum it is very possible to get the education to be a Soil and Water Engineer under the Bioenvironmental Engineering concentration; or Agricultural Processing Engineer under the Food and Bioprocess Engineering concentration; or Power and/or Machinery Engineer under the Biomechanical Engineering concentration. There are at least four elective (two engineering design and two technical) courses available to all students to pick the specialization of interest. A close look at the program of study (available at our website) will provide these details. As there were not enough students wanting to specialize in traditional Agricultural Engineering we had to expand the program to include

applications of engineering to other biological systems (dealing with plants, animals, humans, and the environment) in addition to production agriculture. We have also included Biomedical Engineering/Pre-Medical as a fourth concentration enabling us to collaborate/conduct research and extension activities in the human and public health arenas.



I hope this assures you that **agriculture** continues to be extremely important to us, as it always has been. We have always applied engineering to the agriculture industry and will continue to do so. In fact the agriculture heritage better prepares us to tackle other evolving and challenging issues. We must however look beyond and be prepared to apply our engineering skills to other biological systems. This philosophy holds true for research and extension activities also. There is growing interest in our newly designed curriculum and our graduates will be very well-educated and trained to enter the engineering work force with an edge over other engineers due to the background in biological sciences in addition to a solid engineering education.



If you have any concerns or questions we are always willing to try to address them. I would welcome your comments or suggestions to further improve our programs to better serve our clientele.



Faculty & Staff News

Jalene

Ramsey, BAE Administrative Assistant was chosen Employee of the Quarter.



Jalene received a plaque at the Staff Senate Meeting in January. She will also be invited to attend the University of Arkansas Employee Awards Banquet in October. In addition she will be considered for Employee of the Year. Jalene has worked in the BAE department for 4 years.



Yanbin Li has been invited to attend the China Agricultural and Biological Engineering Development Strategies Forum, June 25-27, 2002, Yangling, China, and will give two presentations on “Biosensors: Concepts, technologies and applications” and “Food safety engineering: interdisciplinary practice and systematic approach.”



Marty Matlock has been certified as a senior ecologist by the Ecological Society of America. His professional credentials as an ecologist and his adherence to the ESA code of ethics qualified him for this title.



Ellen Johnson retired from the department on April 30, 2002 after working for the University of Arkansas since 1985. Ellen’s contributions to the department will be greatly missed.

*Moving, changing jobs, new happenings
Let us know...*



Name: _____
E-Mail: _____
Company: _____
Address: _____
City: _____ State: _____ Zip Code: _____
Home Phone: _____ Business Phone: _____
Comments: _____

BAEG CHARTER ACADEMY MEMBERS



ANDREWS



BOCKSNICK



BRYAN



BUCHELE



COOKSEY



DANFORTH



FOWLKES



FORTENBERRY

The University of Arkansas Department of Biological and Agricultural Engineering inducted 24 charter members into the Arkansas Academy of Biological and Agricultural Engineering during a banquet Jan. 10. The department recently initiated a biology-based engineering curriculum called Biological Engineering with concentrations in Food and Bioprocess engineering, Bioenvironmental engineering, Biomechanical engineering, and Biomedical engineering (including Pre-med).

The academy will honor alumni of the department who have distinguished themselves in their profession. It will also promote and support biological and agricultural engineering programs at the university and the profession. The charter members have elected officers and will soon be setting goals for the academy. Fred Fowlkes will serve as BAE Academy President, Randy Young as Vice-President, and Michael Freer as the Secretary-Treasurer.

Charter members of the Arkansas Academy of Biological and Agricultural Engineering and the years they earned their U of A degrees are, from Arkansas: Stanley Andrews of West Fork, B.S. '90, M.S. '93; Billy Bryan of Fayetteville, B.S. '50, M.S. '54, retired head of the Biological and Agricultural Engineering Department; Alan Fortenberry of Lowell, B.S. '72, M.S. '77; Dayna King of Springdale, B.S. '85, M.S. '88; Fred Fowlkes of Vilonia, B.S. '68, M.S. '77; Michael Freer of Springdale, B.S. '85, M.S. '88; Fred Stringer of Fort Smith, B.S. '70; Steven Danforth of Stuttgart, B.S. '80; Jeff Madden of Stuttgart, B.S. '88; Michael Shook of Stuttgart, B.S. '82; John P. Hoskyn of Little Rock, B.S. '60, M.S. '64; Stanley Mathis of Mansfield, B.S. '84; Albert Miller of Newport, B.S. '55, M.S. '57 (inducted posthumously); Stanley Reed of Marianna, B.S. '73; Rick Rorex of Jonesboro, B.S. '78, M.S. '81; Jamal Solaimanian of Little Rock, B.S. '83, M.S. '85, Ph.D. '89; Randy Young of Little Rock, B.S. '71, M.S. '75; and Bruce Westerman of Hot Springs, B.S. '90.

From outside Arkansas: John Bocksnick of Willow Springs, N.C., B.S. '76, M.S. '78; Wesley Buchele of Ames, Iowa, B.S. '43, M.S. '51, Ph.D. '54; Bill Cooksey of Geneseo, Ill., B.S. '79; Floyd Gunsaulis of Perry, Okla., B.S. '88, M.S. '90; William Ridgway of Thibodaux, La., B.S. '88; and Wes Ritter of Katy, Texas, B.S. '79, M.S. '80.



FREER



GUNSAULIS



HOSKYN



KING



MADDEN



MATHIS



MILLER



REED



RIDGWAY



RITTER



ROREX



SHOOK



SOLAIMANIAN



STRINGER



WESTERMAN



YOUNG

Engineering for Life

www.baeg.engr.uark.edu

Student News ♦ ♦ ♦

Dean's Honor Roll

The spring semester Dean's Honor Roll has been announced. Our department had 10 students listed. They are **Dylan Carpenter, Gabe Chedister, Willie Dillahunt, James Geurtz, Amber Gosnell, Kyle Kruger, Chris Long, Johnny Mason, Tommy Riley, and Cory Scott.** Congratulations to all these students on their academic achievements!

Student Awarded NASA Fellowship

Graduating senior **Johnny Mason** has been selected to receive an award for graduate study through the NASA Graduate Student Researchers Program. The award consists of an \$18,000 basic stipend for 12 months, a student allowance of \$3,000 and a university allowance of \$3,000. Mason will be coordinating his graduate research with the Stennis Space Center. His research



will be relevant to NASA research and development activities of the Stennis Space Center. Mason was also awarded a Burlesworth Scholarship for the 2001-02 academic year.



Kati White recently was awarded the Randall Mathis Scholarship for Environmental Studies by Arkansas Environmental Federation. Kati is pursuing a doctorate in bioenvironmental engineering. The \$1,500 scholarship is for the 2002-03 school year.



Amy Cotter received 1st place and a \$400 cash prize for her oral presentation at the Annual Conference of Arkansas Water Works and Water Environment Association April 29 in Hot Springs. The title of her presentation was "TMDL Data Requirements for Agricultural Watersheds."



Undergraduate student **Tyler Gipson** was recently hired by MRV Technologies, Inc. of Georgetown, Texas for a summer/fall cooperative

internship. MRV is a design-built company that has sent Tyler to various locations across the United States including California, Illinois, Virginia and Oklahoma to assist in the design and construction of biological and chemical wastewater treatment systems. Tyler will return to the University in the spring of 2003.



Liju Yang won third prize in the Graduate Student Poster Competition sponsored by the Arkansas Chapter of Gamma Sigma Delta in March 2002 and second prize in the Presentation Competition at the 2002 IBE Annual Meeting on January 18-21 in Baton Rouge, Louisiana. Her poster was titled "An immunosensor for detection of *Escherichia coli* O157:H7 using electrochemical impedance spectroscopy."



Professional Development Course to be Offered at 2002 State ASAE Annual Meeting

The Annual Arkansas ASAE Section Meeting will be held October 4 in Little Rock. Any proposals for presentations at the general session will be considered. Please contact Ivan Berry at iberry@arkansas.net with proposals.

A Professional Development Course titled Introduction to GIS Applications in Engineering will be offered at the 2002 State ASAE Annual Meeting in Little Rock. There will be limited seating, so please register early. The registration fee will be \$45.00/person. Participants will receive a certificate of attendance and professional development credits. The session is currently under development. If you would like specific topics included, please contact the instructor.

To register, contact Drs. Sreekala Bajwa or Indrajeet Chaubey.

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Vice-chair Professional Development,
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Email: chaubey@uark.edu

ASAE Student Branch News

Chris Long, President
Tyler Gipson, Vice President
Drake McGruder, Sec./Treas.
Dr. Griffis, Faculty Advisor

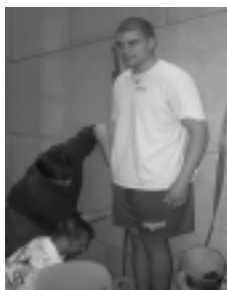
The ASAE student club had a very busy spring semester. Thanks to a donation of candy bars from alumni Kevin Henry of M & M Mars, the club was able to sponsor several club meetings complete with pizza and drinks. Money was also used to purchase the desserts for this year's Dead Day Feast.

Our departmental club was instrumental in getting students to compete in the Engine Week festivities. While we had our sights set on first place, we feel the second place overall finish was a great achievement for a department of our size. So watch out next year!

Tom Costello allowed us to have the spring outing at his home. Everyone enjoyed hamburgers, kabobs, jambalya, fishing and other activities. Gabe Chedister was the winner of the fishing tournament.

Departmental Activities

ENGINE WEEK ACTIVITIES



Engine week kicked off April 8 with several BAE students participating. First place was captured in the domino competition, the volleyball team, the Stick 'Em Up contest, Wallyball, Bridgeneering, and the Paper Airplane contest. Our students had second place finishes in the Egg Drop, Paper Airplane, and Car Race competition. Tug of War team finished third after an "up hill battle". Overall our department garnered a second place finish in the Engine Week events out of seven departments participating.



Sophomores **Andrea Ludwig** and **Elizabeth White** are shown above building their trebuchets for the sophomore design class taught this fall by Marty Matlock. As their first design project of the year, the sophomore class constructed mathematically calibrated trebuchets. It was the boys of the class against the girls, with each team making adjustments to a given model to ultimately pinpoint the range of a hurled grapefruit. While the both teams learned much from the experience, the boys' team hurled their grapefruits a distance of 220 feet.

CLASS OF 2002

The department had seven graduating seniors this spring. Pictured below, left to right are **Zach Dalmuth**, **Gabe Chedister**, **Johnny Mason**, **Rachel Davis**, **Amber Gosnell** and **Chris Pixley**. Not pictured was **Scott Dennis**. Three of our graduates plan to attend graduate school here at the university. Chris Pixley will be pursuing his Masters degree with Dr. Billy Hargis of the Poultry Science Department. Amber Gosnell will be pursuing her masters degree under the direction of Dr. Carl Griffis and Johnny Mason will be pursuing his masters degree with Dr. Sreekala Bajwa, both in the Biological and Agricultural Engineering Department. Zach Dalmuth has accepted a job with NRCS in Little Rock, Gabe Chedister will be working with the Air Force in Florida, and Scott Dennis has accepted a position with Riceland in Stuttgart.

A reception was held for the students and their guests in the Department on graduation day.

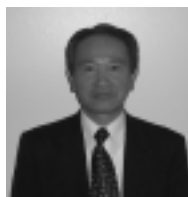


Costello Accepted to NASA/ASEE Faculty Fellowship Program

Tom Costello was selected to participate in the **2002 NASA/ASEE Faculty Fellowship Program** at Kennedy Space Center. The department had a Bon Voyage Party for Costello and his family before they left. The 10 week program will begin on May 20, 2002 at the Kennedy Space Center at Cape Canaveral, Florida. Costello will be working with NASA colleague, John Sager, on implementation and testing of computer-based controls using CLSACT (Combined Life Support Autonomous Control Technology) to effect autonomous control of the Environmental Growth Chambers, i.e., growth chambers, nutrient delivery system, air handling and condensate collection.



Department Visitor



Dr. Hironoshin Takao, director of Fundamental Technology at the Institute of Agricultural Technology (IAM) in Bio-oriented Technology Research Advancement Institution (BRAIN), presented a **seminar on Post-harvest Technology**. Dr. Takao is currently serving as the JAICA Project Leader at the National Center for Standardization of Agricultural Machinery in Mexico City, Mexico. His technical interests are in nondestructive quality evaluation of fruits and vegetables, and post-harvest technology.

Meet Our Extension Engineers and Staff



Dennis R. Gardisser (Ph.D. '92, University of Arkansas, Adjunct Professor, U.A. Extension) Extension education programs related to engineering aspects of agricultural chemical applications (pesticides, plant nutrients, and other biological products), processing (including on farm storage, drying, and handling of grain), fencing and other aspects of animal confinement or movement control, educational leadership and coordination of precision agriculture, GPS and GIS. Liaison: agricultural aviators, commercial chemical applicators, chemical application equipment dealers, grain drying and processing entities, fencing, precision agriculture, crop commodity groups and regulatory agencies.

Phil Tacker (MSAE '82, University of Arkansas, Adjunct Associate Professor, U.A. Professor): development and management of soil and water resources for row crop and horticulture crop production in the state. Work with drainage, irrigation, water resource development and management and water quality (domestic and irrigation), irrigation system design, selection and operation using soil and water management variables for determining drainage and irrigation requirements, determining proper irrigation scheduling, monitoring irrigation pumping and controlling pumping costs. Develop and maintain professional and cooperating relationship with agencies involved in soil and water resource development and management.



Gary Huitink (M.S. '71, Iowa State University, Extension Agricultural Engineer and Adjunct Associate Professor): Education and consulting on engineering aspects of farm tractors and implements, yield monitors and reduced-tillage equipment. Developed criteria for wheat and soybean no-tillage equipment and subsoilers for soybean production. Provides educational leadership on harvesting equipment, cotton gins and farm safety. Conducts Farm Accident Rescue workshops and "Farm Safety and Legal Responsibility" programs jointly with the Arkansas Farm Bureau safety coordinators.

Karl W. VanDevender (Ph.D. '92, University of Arkansas, Adjunct Associate Professor, U.A. Extension): Development and implementation of a statewide Extension education programs in livestock and poultry waste management, liquid and dry. Develop curricula and training materials for educational programs in collection, storage, and land application of waste to prevent contamination of surface and groundwater. Work with other U.A. personnel to develop and demonstrate manure storage, treatment, and utilization practices that address environmental, production and economic considerations. Develop and maintain positive working relationships with other government agencies and industries.



Justin Calhoun
Technical
Support Specialist



Cindy Corbitt
Administrative
Office Supervisor



Richard DeSpain
Architectural
Draftsman



LaSondra Hunt
Secretary



Doug Kratz
Technical
Support Specialist

Let's Endow These Two Scholarships

A scholarship is the password to higher education for many high ability students. Providing opportunities for students to become intellectually engaged enhances the Bumpers College experience. A major goal of the Department of Biological and Agricultural Engineering is to increase the quality and quantity of the student body. The Walker and Bryan scholarship funds will play a significant role in meeting this goal through the creation of endowed scholarship funds for the most worthy students in the department at the University of Arkansas.

Joel T. Walker Memorial Scholarship



The **Joel T. Walker Memorial Scholarship** was established in 2002 to honor the memory of Dr. Joel T. Walker, former professor of the Department of Biological and Agricultural Engineering at the University of Arkansas. Joel taught and performed research for the department from 1979 to 1999 and served as interim head from 1999 to 2000. In 2000, he accepted a position at the Ohio State University where he was a professor until his death in 2002.

Joel grew up on a 100-acre tobacco and cattle farm just north of Knoxville, Tennessee. The farm was handed down to his father from his grandfather on his mother's side. Joel worked with his dad and three brothers on tractors, hay rakes and balers at an early age. The hillsides were steep and presented challenges to mechanized operations. They found from experience that it took extra care to keep the tractor from turning.

He and his brothers did the usual things boys do growing up on the farm (riding bicycles, sliding down hillsides on car hoods, exploding fence posts with firecrackers), except Joel was always experimenting in those typical situations. He conducted simple and spontaneous experiments to determine the trajectory of objects, their durability under "stress," and their adaptability to unusual applications. As a college teacher and university researcher, we watched Joel share that delight in experimentation with his students and colleagues. As a gifted teacher and mentor, he was able to tap into the student's sense of wonder and play and turn it into creative experimentation. Many times over his career, his students were recognized nationally in student design competitions.

Joel spoke a lot about his experiences in FFA and the influence of his agriculture teacher. Joel was state FFA vice-president in high school. He knew very early that he wanted to be an agricultural engineer. He earned his B.S. degree from the University of Tennessee in three years and then followed that immediately with graduate work, earning his Ph.D. in 1979. Upon completion of his education, he came to the University of Arkansas to teach mechanical design and to perform research into design and development of agricultural machinery.

Joel was a talented researcher, experimenter, inventor and teacher who was well respected by his peers in engineering and agriculture and well admired by his students. He was also highly active in professional societies, including distinguished service as associate editor of a premier engineering journal. He was also deeply committed to community service. He and his wife Margret were actively involved in the United Marriage Encounter ministry. He was a good friend who was generous with his time. His door was always open. He put people first. This scholarship seeks to recognize students with a similar creative intellect and caring, generous spirit.

Billy Bryan Scholarship



The **Billy Bryan Scholarship** was established in 1991 to honor Professor Bryan following his retirement after 38 years as a member of the faculty of the Department of Biological and Agricultural Engineering. He joined the faculty in the summer of 1953 as an assistant professor with the assignment of research in cotton mechanization and irrigation. He served as professor and head from 1964-1986. At that time, Billy returned to the faculty and devoted full time to recruiting, student advising and teaching. He retired in 1991.

Billy was born in 1921 and grew up on a cotton farm south of Forrest City, Arkansas. Cotton was the primary income-producing crop; other crops included corn, soybeans, pasture and hay. During high school Billy's vocational agriculture teacher took a special interest in him and encouraged him to participate in the FFA public speaking program which led to winning several contests in Arkansas and other states in the region. He was elected president of the Arkansas FFA. Later as a college student, he was twice elected national vice president of FFA.

In 1939 Mr. Bryan began attending Arkansas Polytechnic College at Russellville. In 1941 he worked as an engineering aid with the Soil Conservation Service at Morrilton, his first association with the agricultural engineering profession. He served in the U.S. Army in the European Theater during World War II and earned the rank of 2nd Lt.

Upon returning home in 1946, he attended the University of Arkansas for two semesters before transferring to the University of Nebraska, where he completed the B.S. degree in 1950 and an M.S. in Agricultural Engineering in 1954. He worked as an assistant professor and extension irrigation engineer at Kansas State University during his graduate studies. In 1953 he accepted a position as assistant professor of agricultural engineering at the University of Arkansas.

Mr. Bryan was instrumental in attracting students to the fledgling agricultural engineering program. His contacts for recruiting students included almost every vocational agriculture teacher in the state. Billy continued his aggressive recruiting efforts as department head, representing the program across the state at high school career day programs. Since retiring, Billy has begun writing the history of the department, organized the 50th Anniversary of the first graduate of the accredited engineering program and volunteered in several areas.

Over the years Professor Bryan has been a strong advocate for the department as it developed a strong accredited engineering program which has served Arkansas agriculture through its research, teaching and extension efforts. He took a personal interest in every student who enrolled and graduated during his tenure. His legacy is the continued contributions of those graduates, a talented group of engineering professionals who were touched by his mentoring at the University of Arkansas.

Yes! I would like to contribute to the scholarship fund!

Please accept my contribution to the following scholarship. My check for \$ _____ is enclosed.

Billy Bryan Scholarship Fund _____ **Joel T. Walker Memorial Scholarship Fund** _____
Biological & Agricultural Engineering General Scholarship Fund _____

NAME: _____
ADDRESS: _____
CITY: _____
STATE: _____ ZIP: _____

RETURN TO: Biological & Agricultural
Engineering Department
203 Engineering Hall
University of Arkansas
Fayetteville, AR 72701

Alumni News —

Fred Fowlkes, B.S. '68, M.S. '77, retired from Entergy Corporation on May 1, 2002. Fowlkes was inducted as a Charter Member of the Arkansas Academy of Biological and Agricultural Engineering and is currently serving as president of the Academy. He lives in Vilonia where he operates a small cattle farm, provides some consulting engineering services and is involved in volunteer community activities.



Michael Freer, B.S. '85, M.S. '88, was recently appointed to the position of plant manager for the Clarksville Complex of Tyson Foods, Inc. They process 1.2 million birds per week and IQF products for many retail customers.



Judge **H. Franklin Waters**, age 69, died April 16, 2002, of complications from Multiple System Atrophy. Judge Waters was appointed to the federal bench October 31, 1981, by President Ronald Reagan. He received a Bachelor of Science degree in Agricultural Engineering from the University of Arkansas in 1955, and while working full-time at Ralston Purina, he attended St. Louis University School of Law and received an LL.B. in 1964. Memorials may be made to the H. Franklin Waters Foundation for Multiple System Atrophy Research, P.O. Box 6785, Springdale, AR 72765.



John Langston, B.S. '70, M.S. '73, retired from the Cooperative Extension Service on January 1, 2002. He had served as Section Leader – Agricultural Engineering and Farm Safety for 30 years.



Calendar of Events

JULY

4	Independence Day (UA closed)
8-9	Orientation Session 5
11-12	Orientation Session 6
15-16	Orientation Session 7
18-19	Orientation Session 8

AUGUST

16-17	Orientation Session 9
19-20	Orientation Session 10
26	Classes Begin

SEPTEMBER

2	Labor Day (UA Closed)
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OCTOBER

TBA	Fall Outing
4	State Section ASAE Meeting Little Rock
26	Homecoming (Ole Miss)

NOVEMBER

28-29	Thanksgiving Holiday
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DECEMBER

11	Dead Day
12-18	Final Exams
16	Academy Induction Ceremony
16-17	Winter Retreat

BAE Lifeline

Department of Biological and Agricultural Engineering

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Dale Bumpers College
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Life Sciences
and the
College of Engineering



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