

Extension leader wins national award

Dr. Raygene Paige, Mississippi State extension service leader, recently received national recognition for her service to the organization.

Paige was presented the 1997 National Diversity Award during a U.S. Department of Agriculture awards ceremony in Washington, D.C. A 33-year extension veteran, she is the state program leader of family and consumer education.

"Dr. Paige exemplifies superb leadership that fosters diversity and pluralism in every aspect of extension," said Dr. Ron Brown, extension service director, who nominated Paige for the award.

Paige has helped extension become a diversified organization and possesses leadership skills and abilities to work well with others and look to the future, Brown added.

Some of Paige's accomplishments include developing and conducting statewide training for extension personnel on civil rights awareness. The program includes recruiting minorities, identifying



Paige

leaders and developing programs to reach culturally diverse audiences.

Paige's other recent awards are the state Institutions of Higher Learning Black History Month Educator and American Association of Family and Consumer Sciences Leader Award.

Hardin endowment honors Zacharias

A \$100,000 donation from the Meridian-based Phil Hardin Foundation will honor former President Donald W. Zacharias.

The contribution establishes the Donald Zacharias Faculty Excellence Endowment at the university. The announcement was made recently at a Meridian luncheon attended by officials from the foundation, the city of Meridian and the university's Meridian and Starkville campuses.

"The Hardin Foundation joins with friends of learning everywhere in announcing the establishment of the Donald Zacharias Faculty Excellence Endowment," said foundation board president Mark M. Porter. "The Hardin Foundation family is honored to make the lead contribution to this fund" so the work of "a caring and enlightened

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Lab working to make nuclear 'gunk' environmentally safe

A "drum-thunker" and a high-temperature electric torch are helping a Mississippi State laboratory develop ways for America and the world to reduce and safely store nuclear wastes.

The Diagnostic Instrumentation and Analysis Laboratory currently is working with more than \$25 million in U.S. Energy Department grants. The research involves new technologies that can reduce environmental threats from both high- and low-level wastes.

"DOE has spent well over \$1 billion on the development of new technology for nuclear waste cleanup," said lab director John Plodinec. "Very few of the technologies are actually being used because the right link has not been made between

developers and the ultimate users."

He said DIAL—Mississippi State's longest and largest continuous research project—is focusing on the development of technologies involving an electric arc capable of reaching 15,000 degrees Fahrenheit. Known as the plasma torch, it can turn virtually any material, including nuclear waste, into glass. DIAL researchers also have found new ways to monitor pressure inside drums storing low-level nuclear wastes.

Virtually all high-level nuclear waste in the U.S. comes from the production of Cold War nuclear weapons. "The most dangerous portion of the high-level nuclear waste is in the form of aqueous slurries, commonly referred to as 'gunk'

because of their appearance," Plodinec said.

At present, the gunk is stored in large steel tanks in the states of South Carolina, New York and Washington.

Plodinec said DIAL researchers are aiding in the cleanup effort at all three high-level waste sites, as well as at other facilities with low-level radioactive waste. Low-level waste ranges from the spent fuel rods of nuclear reactors to the protective clothing used by nuclear facility workers. Most is stored in sealed 55-gallon drums.

Plodinec said tank and drum storage continue to be acceptable methods of dealing with nuclear waste, even though more effective solutions have been

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Space-based technology to aid farmers

A Mississippi State researcher is using space-based technology to help improve crop management decisions for the state's farmers.

Alex Thomasson, an assistant professor of agricultural and biological engineering, leads a multi-state study focusing on ways satellite remote sensing can provide precise agricultural data.

Remote sensing uses high-flying sensors to capture and transmit data about the earth. In agriculture, the data can be used to create field maps showing water, fertilizer and other input needs for specific areas within a field. Treating only precise areas can save farmers money while generating environmental benefits.

"The use of satellite data to determine the types of inputs needed for specific locations is in its infancy," said Thomasson, who also is a researcher with the Mississippi Agricultural and Forestry Experiment Station.

"This study will focus on improving farm management based on site-specific knowledge."

The project is funded by a three-year, \$372,000 grant from the U.S. Department of Energy's Idaho National Engineering and Environmental Laboratory. It will begin with the 1998 crop year and involve scientists in Mississippi, Kentucky and Idaho.

Cotton will be the target in Mississippi; corn in Kentucky and wheat in Idaho.

Bridal Fair is Jan. 27

The 1998 Bridal Fair will be held Jan. 27 in the Colvard Union ballroom.

The annual fair is sponsored by the MSU Fashion Board and the Campus Activities Board.

In addition to the bridal fashion show, the fair will feature booths displaying merchandise of area businesses. The booths open at 5 p.m. and the bridal show begins at 7 p.m.

Admission is \$3.

All bridal wear is provided by Ray of Sunshine Flowers, Gifts and Bridal. The trousseau is provided by Sister's, The Sundial, Belle's, Stage, and The Fashion Accent.

For more information, please contact the Campus Activities Board at 325-2930.

Dean Pennington, executive director of the Yazoo Mississippi Delta Joint Water Management District, is co-investigator for the Mississippi research. He and Thomasson will use the fields of cooperating producers to gather the data.

Primarily, they will explore the use of satellite-generated field maps to determine crop yields and water needs, as well as the amount of crop biomass—the residue from earlier seasons.

According to Thomasson, some parts of a field can become stressed before others because water loss isn't uniform.

The biomass part of the study will be important for producers using no-tillage systems since biomass builds up on top of the soil.

Researchers will compare the satellite data with information collected by researchers on the ground. The comparisons will help them perfect ways to interpret and use the information generated by the satellite observations.

United Way campaign sets university record

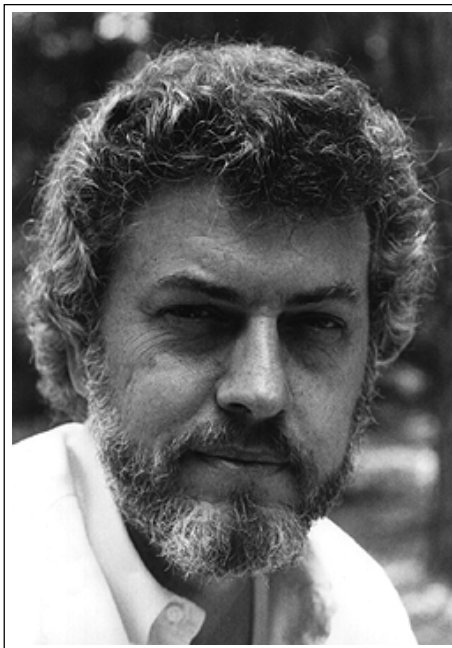
Mississippi State's 1997-98 United Way campaign effort set a record for faculty and staff contributions as it topped \$95,000 for the first time.

The funds exceeded this year's faculty and staff goal by about \$20,000, according to Paul Welch, campus United Way chair. A separate student campaign netted another \$3,500 in pledges, bringing the university's total to more than \$98,000.

The faculty/staff campaign was divided into 18 divisions with nearly 150 volunteers assisting in the fund-raising effort.

While the campaign is officially over, Welch said contributions are still welcome. For more information, telephone him at 325-3228.

Guest artist to present concert Jan. 13



Bugg

Bass-baritone G. William Bugg and pianist Gregory Freeze will present a guest artist recital Jan. 13 in the McComas Hall theater.

The 7:30 p.m. program will include

songs by Schubert, Gottfried, Duparc, Ibert, and Ireland.

Bugg, assistant professor of voice and director of opera at Samford University near Birmingham, presented his New York debut recital at Carnegie Recital Hall in 1986. The vocalist has appeared in operatic productions throughout the South and earned critical acclaim for his performances in "Don Pasquale," "Hansel and Gretel," and "Fidelio."

He has performed as soloist with numerous symphony orchestras, choral groups and oratorio societies, including the Alabama Symphony and the Louisville Bach Society.

Selected in 1970 as one of the Outstanding Young Men of America, Bugg has been honored by the Greater Birmingham Arts Alliance with the Obelisk Award for outstanding vocal performance. He also appears in "Who's Who in American Music."

Tickets are \$3 for faculty, staff and students and \$5 for the general public. They are available at the door.

For more information, contact Dr. Randi L'Hommedieu of the Department of Music Education at 325-3070.

Foil wins forestry award

Dr. Rodney Foil, vice president for the Division of Agriculture, Forestry and Veterinary Medicine, is the 1997 recipient of the Mississippi Forestry Association's Meritorious Service to Forestry Award.

The award honors a person who represents a lifetime of service to the Mississippi forestry community.

Foil's contributions to forestry have been as a teacher, researcher, extension specialist, and administrator. For 10 years, 1964-74, he served as head of the Department of Forestry. He has served as dean of the School of Forest Resources and director of the Mississippi Agricultural and Forestry Experiment Station. He was named to the vice presidency in 1986.

He is a fellow of the Society of American Foresters.

Foil, a native of Bogalusa, La., received bachelor's and master's degrees in forestry from Louisiana State University and a doctorate in forestry from Duke University.



Foil

Feb. 2 is deadline for award nominations

Nominations for the 33rd Faculty Recognition Awards are due by Feb. 2.

Awards traditionally are presented in the following categories: Teaching Awards—Graduate Level, Upper Level and Lower Level; Research Award and Service Award.

Each award recipient will receive a commemorative plaque and monetary award at the Faculty Recognition Program on April 30. The program rewards those faculty members who make a significant contribution to the welfare of humankind and the stature of MSU.

Nominations and all supporting data must be submitted to Libba Andrews, associate director of the sponsoring Alumni Association. To receive a nomination booklet, call 325-2434, or come by the Butler-Williams Alumni Center.

For more information, telephone Andrews at 325-3479, or e-mail her at landrews@alumni.msstate.edu; or contact Karen Hudson, 325-2284, khudson@alumni.msstate.edu.

Bettsworth Lecture Series launched

Mississippi State is notifying high schools and community colleges of a new service being offered by university faculty members.

The John K. Bettsworth Lecture Series recently was announced by the divisions of Student Affairs and Academic Affairs. Faculty members have volunteered to speak on more than 100 topics ranging

Library sets hours

Mitchell Memorial Library has set the following hours for spring semester:

Regular spring semester hours: Monday-Thursday, 7:30 a.m.-midnight; Friday, 7:30 a.m.-6 p.m.; Saturday, 10 a.m.-6 p.m.; Sunday, 1 p.m.-midnight.

Hours for the Dr. Martin Luther King Jr. holiday weekend include: Saturday, Jan. 17, 10 a.m.-6 p.m.; Sunday, Jan. 18, closed; Monday, Jan. 19, 3 p.m.-midnight.



from the environment to arts and culture to career opportunities.

"The series is named in memory of Mississippi State's vice president for academic affairs from 1961-77," said Roy H. Ruby, student affairs vice president. "Dr. Bettsworth was an outstanding historian and author, and this lecture series is another way to memorialize his contributions to scholarship."

Bettsworth also authored the university's official history, "The People's University," which was completed during MSU's centennial celebration in 1978.

The Office of Enrollment Services coordinates the lecture program, which is free to requesting institutions. Reservations may easily be made by telephoning (601) 325-3076. The fax number is 325-1MSU; the e-mail address is [<LEAD@msstate.edu>](mailto:LEAD@msstate.edu).

The series is divided into 11 general topic areas. They include agriculture, animals and environmental issues; arts and culture; business; careers; communication; education; history; mathematics and science; personal development; society and politics; and technology.

Cook contributes to encyclopedia

Dr. Robert L. Cook, deputy director of the Diagnostic Instrumentation and Analysis Laboratory, is a contributing author to the recently published "Encyclopedia of Chemistry."

Cook, also a professor of physics and chemistry, contributed an article on microwave spectroscopy to the four-volume work. His is one of 750 articles in the compendium of knowledge about general chemistry. It is published by MacMillan Publishing.

Cook's expertise deals with the absorption of microwave radiation by gas-phase molecules.



Calendar of Events

Send your calendar items to

Calendar, 102 George Hall; Campus Mail Stop 9512; FAX 325-7455; e-mail

jonesk@ur.msstate.edu.

Please notify Calendar of Events at least three weeks in advance. For updates, check: http://msuinfo.ur.msstate.edu/hot_news/events.htm

January

13

Guest artist recital with bass-baritone G. William Bugg, McComas Hall theater, 7:30 p.m. Tickets are \$3 for faculty, staff and students. 325-3070.

15

MSU vs. Arkansas, women's basketball, Humphrey Coliseum, 7 p.m.

16

International Student Extended Orientation: "Academic Misconduct," Dr. Mike White; "Your Physical Health," Bill Broyles; "Avoiding the Pitfalls of Culture Shock," Stephen Cottrell, Colvard Union small auditorium, 3-5 p.m. 325-8929.

17-19

Gulf District American Rose Society Winter Workshop, MAFES.

21

MSU vs. Georgia, men's basketball, Humphrey Coliseum, 7 p.m.

23

International Student Extended Orientation: "The INS and You," Barry Walker, Colvard Union small auditorium, 3-5 p.m. 325-8929.

25

MSU vs. Auburn, women's basketball, Humphrey Coliseum, 2 p.m.

26

General faculty meeting, McComas Hall, 3:30 p.m.

27

Bridal Fair, Colvard Union ballroom. Booths open 5 p.m., fashion show is 7 p.m. Admission is \$3. 325-2930.

28

MSU vs. Auburn, men's basketball, Humphrey Coliseum, 7 p.m.

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individual may be remembered, emulated and continued."

"All of us at the Hardin Foundation are honored to join with many other friends to celebrate Dr. Zacharias' distinguished leadership for Mississippi State University by establishing this permanent vehicle to enable institutional renewal and excellence," added C. Thompson Wacaster, foundation vice president for educational programs and research.

Annual proceeds from the endowed fund will support faculty recognition and development, including rewards for outstanding faculty performance and support for teaching and program improvement.

Wacaster said that the Zacharias Endowment also would serve as a model for the establishment of other such endowed funds supporting faculty and as a catalyst for ongoing institutional renewal.

The Phil Hardin Foundation was established in 1964 to work for the improvement of education of Mississippians.

Among possible projects supported by the Zacharias Endowment: development of new courses, curricula and programs, or revision of existing ones; faculty travel to acquire new skills and knowledge; books, materials and equipment purchases; and the planning and implementation of special academic, artistic and intellectual events.

The vice president for academic affairs will administer the fund's income, while a committee of faculty and administrators will recommend specific projects for support. The committee will be appointed by the university's president.

"I am most grateful to Mr. Porter and the members of the Hardin Foundation, and I thank you for your generosity," said Zacharias, who announced his resignation last March after being diagnosed with multiple sclerosis. "This is the greatest gift, one which will enable our faculty to accomplish their missions with even greater vigor than ever possible in the past."

A native of Salem, Ind., Zacharias became Mississippi State's 15th president in September 1985, after serving for six years as president of Western Kentucky University. He also has been an adminis-

trator at the University of Texas and a faculty member at Texas and at Indiana University.

During his 12-year tenure, Mississippi State has realized unprecedented growth in enrollment, private support, construction and renovation, research activity, and athletic success. He has served the university longer than any of his predecessors except Stephen D. Lee, the institution's first president.

Zacharias plans to remain as president emeritus and Board of Trustees, Institutions of Higher Learning Professor, working on projects to advance the university and higher education. He also is a tenured professor in the communication department.

On Jan. 1, West Point native and Mississippi State alumnus Malcolm A. Portera succeeded Zacharias as the university's 16th president.

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developed in recent years.

He said DIAL's research is geared to practical applications of new technologies that help storage facilities reduce environmental risks. Projects involving the tremendous heat of a plasma torch are finding effective ways to turn nuclear waste into glass.

Then, there are the problems of pressures that build in drums storing low-level wastes. The most immediate danger here is to personnel handling the barrels.

"As the sealed material breaks down, pressure builds up and creates the possibility of an explosion if the drum is damaged or opened without care," Plodinec explained.

He said researchers Daniel Costley and Mark Henderson have developed a "drum thunker" to test the pressure inside a drum while it is still sealed. The non-intrusive device senses the amount of pressure in a drum, which is read with the help of a laptop computer equipped with a soundcard and microphone.

"The information provided by the tests will enable Lockheed Martin personnel to plan for safer handling of their storage drums," Plodinec said.