

BIO SYSTEMS

E N G I N E E R I N G

DEPARTMENT OF BIOSYSTEMS AND AGRICULTURAL ENGINEERING
FARRALL HALL

SPRING 2005
MICHIGAN STATE UNIVERSITY

Message From The Chair

Dear Alumni and Friends:

Last year can best be described as a year full of changes for Michigan State University. The Board of Trustees appointed Dr. Lou Anna Simon as the 20th president of the University effective January 1, 2005. Dr. Simon had served the University as Provost for over a decade. She replaced Mr. Peter McPherson who served as the President for 11 years. Dr. Ian Gray was appointed Vice President of Research and Graduate Studies last fall. Before being appointed as the VP, Dr. Gray served as the Director of Michigan Agricultural Experiment Station for over eight years. Dr. John Baker, Associate Dean, College of Veterinary Medicine, has been appointed the acting director. Dr. Gary Lemme, Associate Director, MAES has become the Dean of the College of Agriculture and Life Sciences at South Dakota State University. Dr. Tom Coon, who was serving as the Associate Dean, College of Agriculture and Natural Resources, was appointed Director of MSU Extension and took office earlier this year. Dean Janie Fouke, College of Engineering, has accepted the position of the Provost of the University of Florida at Gainesville. She will begin her new responsibility on August 15. Among all these changes, there are some things that have remained unchanged. After a comprehensive review the Department Advisory Committee recommended to the Dean to reappoint me as the Chair for another five year term. I have accepted my reappointment and am humbled by the trust both faculty and the administration have placed in me. I look forward to continue to serve our students, faculty, and stakeholders.

Dedicated in Memory of Galen Brown

Dr. Brown was one of the recipients of the 2005 AE Distinguished Alumni Awards.

Galen was born and raised on a fruit farm in Byron Center, Michigan. He earned his B.S. in Agricultural Engineering at MSU, M.S. at University of California-Davis, and his Ph.D. in 1972 here at MSU. After earning his B.S. in 1961, he was employed by the Agricultural Research Service (ARS) of the USDA as a Research Engineering and Research Leader, at cooperative research locations with Land-Grant Universities in California, Ohio and Michigan. During this period, he worked on harvesting and handling projects for dates, cling peaches, prunes, apricots, pears, citrus, avocados, boysenberries, grapes, blueberries, jojoba, tart and sweet cherries, and an array of other fruits and vegetables as well as nursery crops. He retired from the ARS-USDA in 1995 and joined the Florida Department of Citrus as the Harvesting Program Administrator, working cooperatively at the University of Florida Citrus Research & Education Center at Lake Alfred. Galen retired again in 2003 after cooperative work to develop commercially viable mechanical harvesting systems for processing citrus. He also initiated R&D projects on fruit abscission and automated robotic harvesting for citrus.

Galen has over 200 professional publications to his credit, has received several awards, and is recognized as a national and international expert. His cooperative work with undergraduate and graduate students, research technicians, inventors, manufacturers and grower associations has been very productive.

Galen passed away on June 8, 2005. The Galen K. Brown Endowment Fund has been established by his family. For information, contact University Development, 4700 S. Hagadorn Road, Suite 220, East Lansing, MI 48824 or call 517-355-8257.



The year 2005 is a landmark year for MSU as the University celebrates its sesquicentennial year, having been founded in 1855 as the premier Land Grant University. We are also getting ready to celebrate our centennial year next year in 2006 since the Department was founded in 1906 as the Department of Farm Mechanics. The department name was changed to Agricultural Engineering in 1922 and to Biosystems and Agricultural Engineering in 2004. We granted the first B.S. in Agricultural Engineering degrees to two students in 1932. The Department building was completed in 1948 and in the same year the first Ph.D. was awarded to Dr. Walter Carleton. The degree program was first accredited in 1950 by ECPD and our last accreditation visit by ABET was in October 2004. To help us plan our centennial year we have formed a committee of our alumni. The first meeting of the Centennial Committee was on June 9 which also coincided with the Kedzie Reunion, a University-wide event where alumni who graduate 50 or more years ago, are invited. We were honored by the presence of many alumni. Mr. Jim Mitchell, who graduated with a B.S. in Agricultural Engineering in 1939, deserves a special mention.

We are very excited about our centennial. We are planning many activities during 2006-07. Look for details in our next newsletter and hope to see you on campus soon.

Sincerely,
Ajit Srivastava

2005 AE Distinguished Alumni Awards

This annual recognition is bestowed upon an alumnus who has distinguished himself/herself as a leader through professional contributions, public service, and personal accomplishments. Contributions to the Biological/Agricultural Engineering profession shall be the primary selection criterion. As a general rule, only alumni who have *graduated ten or more years ago*, with an undergraduate and/or a graduate degree will be considered.

William Splinter

William Splinter was raised on an irrigated farm west of North Platte, Nebraska. He graduated from the University of Nebraska in January 1950. Received his M.S. in Agricultural Engineering from Michigan State College in 1951, and his Ph.D.



from MSU in 1955. While pursuing his Ph.D., he with his major professor, Dr. Walt Carleton, worked on the dielectric properties of wheat and the electrostatic deposition of dusts. He also filled in for Clarence Hansen while he was in Colombia.

He went on to have a distinguished career, first by joining the faculty at North Carolina State College in 1954 as an Associate Professor. In 1968, he returned to University of Nebraska as Head of the Agricultural Engineering Department. While there he developed the doctorate program, and modernized the 1916 Agricultural Engineering building. He served as the Associate Vice Chancellor for Research, then Vice Chancellor for Research. During this time, he moved the university's research funding to a Category One Carnegie rating. In addition, he served as the Dean of Engineering and Technology (twice), Director of Nebraska State Library, and developed, and serves as volunteer Director of the Lester F. Larsen Tractor Test and Power Museum. Known as an agricultural engineer, educator, administrator, for invention and development of safer aerial spray systems and improved harvesting systems, he was one of the first in his profession to show the relationship between basic biology and engineering, and became advocate for development of alternate fuel sources, holder of four U.S. and two Canadian patents, authored more than 90 publications, participated in projects or presentations in nearly 15 foreign countries.

He is a Fellow in ASAE, AAAS, and NSPE. He has received the Massey Ferguson and John Deere Gold Medals. He served as President of ASAE and was the first President of the ASAE Foundation. Serves on the committee for Greatest Engineering Achievements of the Twenty-First Century, the National Academy of Engineering. The list goes on and on.

In his personal life Bill married his first wife, Eleanor Peterson while attending MSU. They were married for 46 years and raised

4 children. In 2001, he married Betty Calhoun from his home town of North Platte and acquired four more children and five more grandchildren to add to his own 4 1/2.

Dr. Benson J. Lamp College of Engineering Distinguished Alumni Award Recipient

The department takes great pride in congratulating Dr. Benson "Ben" Lamp in receiving the College of Engineering Distinguished Alumni Award in Biosystems and Agricultural Engineering. Established in 2004, this award is given to alumnus who has distinguished himself/herself as a leader in the biological/agricultural engineering profession through professional contributions, public service, and personal accomplishments. Alumni who have graduated at least ten years ago with an undergraduate and/or graduate degree are considered.



Benson Lamp, of Dublin, Ohio, is president and general manager of BJM Company, which deals in land development, rental buildings, and farming. He retired in 1992 as a professor emeritus from Ohio State University, where he had earlier earned his bachelor's and master's degrees in agriculture and agricultural engineering. He was awarded a PhD. degree in 1960 from Michigan State University. He was employed in OSU's agricultural experiment station from 1949 to 1961 and 1987 to 1992. In 1956, students in the College of Agriculture chose him to receive the Professor of the Year award. Ben conducted early soybean harvesting research and demonstrated more efficient harvest systems. Some of his other research contributed to improvements in farm safety, including identifying slow-moving vehicles. He detected a design flaw in portable farm elevators that allowed them to collapse under certain common conditions. Based on Ben's recommendation, all elevators manufacturers took corrective action.

Between long periods as an educator and researcher, Ben mad a foray into industry. He was an agricultural research engineer for two years for Massey Ferguson, then was a n executive in Ford Tractor Operations and Ford Aerospace for m1963 to 1987. Between 1971 and 1973, he lived in Brussels and marketed Ford tractors in Europe. He also made seven trips overseas to develop business relations with the People's Republic of China. Ben coordinated worldwide marketing and business plans for Ford Aerospace, which included the design and launch of the first satellite systems for India.

Ben was named a distinguished alumnus by both Ohio State and Michigan State Universities and is a member of Tau Beta Pi and Gamma Sigma Delta. A member of the American Society of Agricultural Engineers, Ben is both a past president and a McCormick-Case Gold Medal honoree. The National Academy

of Engineering cited him for “Research and development of harvesting machinery and commercialization of agricultural equipment worldwide.” He is also a member of CAST (Council of Agricultural Science and Technology) and the Alpha Gamma Rho fraternity, which recognized him as a “brother of the century” during the 2004 Century of Progress celebration.

Ben and his wife, Jane have four children, all graduates of MSU, one a chemical engineer. They have 10 grandchildren, whom Ben describes as “athletes and scholars.” Ben’s hobbies are golf and bridge. The Lamps enjoy membership in three country clubs - one in Ohio, one at Hilton Head, South Carolina, and one in Venice, Florida.

Congratulations to:

Every year, each department in the College of Engineering selects one faculty member to receive the Withrow Award for Teaching Excellence. This year the honor went to Biosystems & Agricultural Engineering Assistant Professor, William Northcott. Congratulations Dr. Northcott for this well deserved award!



The University of Nebraska-Lincoln awarded **Dr. Tim Harrigan**, for his proposed project entitled "Integrating Cropping and Nutrient Management Systems on Grass-Based Dairies with Manure Slurry Enriched Micro-Site Seeding."



Almond Board of California awarded Dr. **Brad Marks**, for his proposed project entitled "Thermal Inactivation Kinetics for Salmonella on Almonds Subjected to Moist-Air Convection Heating."



Lou Anna Kimsey Simon became the 20th president of Michigan State University on Jan. 1, 2005, after serving as Provost and Vice President for Academic Affairs since 1993.



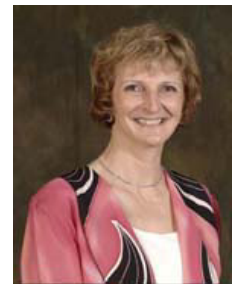
Ian Gray was appointed the Vice President of Research and Graduate Studies effective September 1, 2004.



Tom Coon was appointed the new Director of MSU Extension effective March 1, 2005.



Janie M. Fouke, dean of MSU's College of Engineering since 1999, has been named Provost and Senior Vice President for academic affairs of the University of Florida in Gainesville, effective August 15.



Simon Davies, Specialist, is leaving the Department of Biosystems and Agricultural Engineering as of June 30, 2005. He will be pursuing other opportunities at McMaster University in Hamilton, Ontario, Canada. His wife, Susan Masten, will be the Associate Dean of the College of Engineering. Best of Luck Simon!



BAE Reunion

The Department of Biosystems and Agricultural Engineering hosted our alumni on June 9th as part of MSU's Kedzie Reunion, honoring MSU graduates of 50 years or more. For the last 75 years, the Kedzie Reunion has been one of MSU's most significant traditional celebrations. The alumni attended a luncheon, watched a presentation on what the department is currently working on and took a tour of the many changes in the building over the years.



Everyone is enjoying the BAE Luncheon.



David Cheklich, BS '55



Larry Stephens, Dale Marshall (BS '60), Ellen Wilkinson, Robert Wilkinson (Ph.D. 63), Steve DeBoer (MS '73), and Hope Croskey.



George Cheklich, BS '51, MS '53.



Nick McLaren talks with Ajit Srivastava.



James Mitchell, BS '39.



Cerywn Kline, James Mitchell, William Stout (MS '55, Ph.D. '59), Robert Wilkinson and Ajit Srivastava



Ceila and George Greenleaf, BS '43, MS '59.



Cerywn Kline, BS '48

Sparty

This article first appeared in *Grand Haven Tribune*, By: [Matt DeYoung](#)

On the ring finger of his left hand, Mark DeKleine, former graduate student at the Department of Biosystems & Agricultural Engineering, wears a silver wedding band, commemorating his recent marriage to Shelly Jo Steger.

That ring is dwarfed by the piece of hardware residing on DeKleine's right hand. It features a green block 'S' surrounded by sparkling diamonds. It's a national championship ring, and he's got another ring of similar design on the way.

DeKleine didn't earn the ring as a member of a national championship athletic team during his four years at Michigan State University.

DeKleine was Sparty.

Actually, the 1999 Grand Haven High School graduate who recently moved to Phoenix was one of several Michigan State students who wore the famed Spartan mascot costume to various sporting and other events over the past two years.

"There are about five of us every year," DeKleine said. "The identities of the individuals are kept secret. The big thing is, they want to keep Sparty as Sparty, not as Sparty being somebody in the costume."

DeKleine wasn't allowed to tell anyone, outside of his family and a close circle of friends, that he was the man behind the oversized head and sculpted green chest plate. His last gig as Sparty came a few weeks ago, when the Spartans' men's basketball team pounded Purdue on Jan. 18 in East Lansing.

"My final event as Sparty was the Purdue basketball game, and it was sad, because of all the places I've gone and things I've seen, people I've met that I'll never forget," DeKleine said. "I'll never forget it. I'm glad I've got those memories. Now it's time to move on."

NATIONAL CHAMPS

The matching diamond-studded rings are a result of Sparty winning back-to-back national championships in the mascot cheer competition.

"They have a national championship every year, and last year, in 2004, Sparty became the first Big Ten mascot to win a national championship," DeKleine said. "Then just a few weeks ago, this January, we ended up winning again."

The national championship, put on by the Universal Cheer Association, includes a video competition the cast of Sparty worked on throughout the past year. After the videos are judged, the top 10 mascots go to Orlando for a live competition. Each mascot does a 90-second skit, complete with props.

"There's just one person in costume at that point, but we all come up with the ideas," DeKleine said. "After we won in 2004, that next week, we started planning for the next year's competition."

BUSY BODY

Little did DeKleine know, as a sophomore a few years back, what he was getting into when he attended a tryout to be Sparty.

"I thought it was just football games and stuff," he said. "I didn't realize all the things Sparty was involved in. It's enough to keep five people busy full time all year."

Sparty does appear at Michigan State football and basketball games, as well as other sporting events. But Sparty isn't exclusively associated with MSU athletics. In fact, he's a part of the Student Alumni Foundation, a group that organizes school spirit programs such as the Izzone at MSU basketball games.

"We do events ranging from athletics, like home and away football games, home men's and women's basketball games, volleyball, hockey, baseball and softball, and then everything from weddings, charity events, parades, fund-raisers ... Sparty even visits sick kids at the hospital," DeKleine said. "Sparty does just about anything you can imagine. He's at openings for banks and businesses around Lansing, retirement parties and birthday parties. It's quite an ordeal."

DeKleine said Sparty makes an appearance at an average of four weddings per weekend during the summer months.

"We have multiple costumes — nobody's supposed to know that," DeKleine said.

DeKleine said most of his appearances at weddings are a surprise.

"The best thing about being Sparty is, and 99.9 percent of the time, it's a surprise," he said. "You'll walk in and ask for the contact person, and they'll say, 'I can't wait — Nobody else knows!' The bride and the groom will be out on the dance floor, then the MSU fight song comes on and Sparty runs in. People go nuts. It's really fun to be a part of that."

DeKleine had a blast during his two years as Sparty, which is good, because he wasn't compensated in any other way.

"It' all volunteer. There's no scholarship that goes with it," DeKleine said. "The way I relate it, when I was in costume, the places I've been, the things I've gotten to see and do make up for any amount of pay I could ever have received."

This past fall, DeKleine was in Hawaii for five days with the Spartans' football team. The year before, he went to San Antonio for the Alamo Bowl. Last summer, he spent several days in Atlanta for an MSU alumni event.

"It was an annual meeting, so they paid our way down there," he said. "It was a lot of fun."

It's not all fun and games. In fact, being Sparty can be quite a chore at times.



“It’s about 40 to 50 degrees warmer in the costume than it is outside,” DeKleine said.

“So if it’s 80 degrees at a late August football game, chances are it’s 120, 130 in there.



“Then there are times when you run into intoxicated people who want to pick you up, do crowd surfing, pass you around. Each costume costs about \$15,000, so when people start trying to pick you up and throw you around, something’s going to get broke. That’s why we have escorts there, to intervene, because Sparty doesn’t talk.”

Two escorts follow Sparty everywhere he goes, to act as both contact people and body guards for the popular mascot.

During high school, DeKleine would attend MSU football games with friends. When Sparty would run out onto the field before games, DeKleine often joked that that would one day be him.

At the end of his sophomore year, he attended a tryout at the urging of his friends, and was shocked when only a total of nine people attended the tryout.

“They give you a minute and a half, and you have to come up with your own skit,” DeKleine said. “I came up with a mix CD with a bunch of random songs people would know. I came in to the State fight song, then danced to all these other songs.”



During the tryout, applicants also face some sort of an improvisation test.

“There will be a table with a crutch, a yellow cone and a broom on it, and they’ll say, ‘Sparty, run over to that table, grab one of those props and use it for something it isn’t,’” DeKleine said. “A lot of people use the crutch as a guitar. The people who can do that stuff quickly, without taking a moment to think about it, are the people who are going to do well.”

The tryout process is fairly extensive, and as a result, Sparty is one of the top mascots in the country, as is evident by his back-to-back national championships.

College of Engineering’s Academic Awards and Service Awards Reception April 1, 2004.

Shane Bennett, Tracy Kamikawa and Daniel Sparks received the Undergraduate Academic Award in Biosystems Engineering. This award recognizes the top three percent of juniors and seniors in each department with cumulative grade point averages of 3.5 or above and sophomores in the top one percent of their class.

Maria Suparno received the Graduate Student Awards. Dr. Kirk Dolan is her major professor.

Johanna Nugent, received the Undergraduate Service Awards by Dr. Thomas Wolff, Associate Dean for the College of Engineering. This award recognizes juniors and seniors who have made valuable contributions to the College of Engineering.

Shannon McGraw, was chosen as the College of Engineering 2003-2004 Ambassadors for Biosystems Engineering.

2004-2005 Biosystems Engineering Graduate Scholarship Recipients

The AE Endowment Fellowship was presented to Paula Steiner. Paula is a Ph.D. graduate student working with Dr. Tim Harrigan in pathogen transport in land applied manure.

The Merle and Catherine Esmay Scholarship was presented to Zarini Muhammad-Tahir. Zarini is a Ph.D. graduate student working with Dr. Evangelyn Alocilja in biosensors and safety.

The Bill and Rita Stout Scholarship was presented to Mitra Tripuraneni. Mitra is a Ph.D. graduate student working with Dr. Brad Marks in modeling fat transport during meat cooking.

2003-2004 Biosystems Engineering Undergraduate Scholarship Recipients

The F.W. Bakker-Arkema Minority Scholarship Award was presented to Daniel Sparks.

The A.W. Farrall Faculty Award was presented to Kevin Belen, Lisa Calcagno, Jesse Siemen, and Rochelle Vecchio.

The Clarence and Thelma Hansen Scholarship was presented to Sara Gerstacker, Tracy Kerchkof, Daniel Sparks, Erin Thelen, Bradley Wackerle, and Joy Wang.

The George E. and Betty L. Merva Scholarship was presented to Trista Gregorski.

The Howard F. and Esther L. McColly Scholarship was presented to Shane Bennett and Gale Bornhorst.

2005 Biosystems Engineering Showcase: Senior Design Projects



Scott Liberman,
Valerie Sanglier,
Roger Doherty,
Erin Thelen

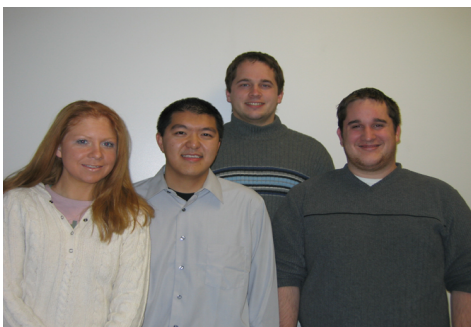
Turkey Power

Lead Academic Advisor: Dr. Ajit Srivastava, Professor and Chairperson. Technical Advisor: Dr. Gary Van Ee.

Michigan currently produces 4.5 million turkeys per year, which generate 1.9 billion pounds of litter. Confined Animal Feeding Operations (CAFO) currently rely on land application for disposal of turkey litter. The sheer volume of nutrient-rich turkey litter from confined operations often results in land application rates that locally exceed the soil's ability to adsorb or utilize nutrients. Excess nutrients become significant non-point pollutants of surface water and groundwater in the Great Lakes basin.

The team designed and constructed a concentric vortex-cell biomass furnace to convert transported turkey litter into a usable on-site heating source for Michigan's greenhouse industry. The furnace extracted 70 percent of the theoretically available heat. Stack emissions were 5% below the federal government's emission standards. The \$3,500 annual fuel oil cost, for heating a Michigan State University greenhouse, would be reduced by 90% through the combustion of freely available turkey litter in an on-site biomass vortex furnace.

The designed process and equipment pose a cost-effective and useful solution to problems of turkey litter disposal, rising greenhouse heating costs, non-point source pollution, and global depletion of fossil fuels.



Jari Buechler,
Blong Yang,
Andrew Stoeckle,
Rory McClintock

Concoctions

Lead Academic Advisor: Dr. Kirk Dolan, Assistant Professor. Technical Advisors: Dr. Brad Marks and Dr. James Steffe.

Do you crave chocolate? Try the Fiesta Bar, a new and exciting candy bar that incorporates a Central American twist. It is a crisped rice bar layered with dulce de leche and covered with dark chocolate.

The process facility design layout includes all stages from receiving raw ingredients to product packaging and distribution. A preliminary marketing analysis targeted 0.5% of the candy bar market and showed that the facility will need to produce 21 million Fiesta Bars per year. Preliminary analysis predicts a profit of over \$2 million during the third year. Challenges included meeting standardized sanitation requirements, product development, equipment selection, and an economic and market analysis.



Andrew Lauwers,
Johanna Nugent,
Andy Knowles,
Christie Sampson

LiNKS

Lead Academic Advisor – Dr. Gary Van Ee, Professor. Sponsors: White Hydraulics, Inc., Command Controls Corp., PreMach Engineering, Ltd., NAPA of Okemos and Brad Borgman.

LiNKS Consulting has engineered a noise-reducing exhaust system and an ergonomically superior cockpit for the Spartan Tractor Pullers off-road, suburban utility vehicle that will compete in June at the 2005 ASAE ¼ Scale Tractor Competition. This year marks the eighth consecutive MSU entry into the ASAE National Student Design Competition held in East Moline, Illinois.

System modifications that protect the human operator must be made without significantly reducing the vehicle performance, while strictly complying with extensive design competition rules.

LiNKS' modifications include creating a quiet exhaust system that minimizes back pressure, enhancing operator safety, and constructing an ergonomically designed cockpit. The design reflects consumer demand and improves the natural human interface between the operator and the control system. The new features increase cost about five (5) percent above that of a comparable unimproved vehicle, while reducing noise by up to 12 percent.



Vern Moore,
Matthew Williams,
Rebecca Larson,
Brandon Whittaker

Aero-Flow

Lead Academic Advisor, Dr. Ted Loudon, Professor Emeritu. Sponsor: Ring Industrial Group, LP.

Nearly 25 percent of U.S. homes utilize an on-site septic system for waste disposal and 10 to 20 percent of these systems are found in failure when surveys are conducted. Many failures are blamed on inadequate distribution of effluent, which causes anaerobic conditions that result in the formation of a biomat. The biomat clogs the drainfield and necessitates costly replacement. Uniform distribution of effluent can prevent anaerobic conditions and prolong the life of the drainfield.

The team developed a theoretical fluid analysis to assist with the design and testing of gravity-fed distribution pipe configurations that optimize effluent distribution. Gravity-fed surging mechanisms appear to be beneficial. For the experimental drainfield, we used manufactured polystyrene aggregate made from recycled material. An economic analysis shows that achieving uniform distribution is cost-effective. The team also developed an installation manual for the septic field designers and installers.

Student News:

Shane Bennett, is the recipient of the the 2005 Michigan Stormwater-Floodplain Association Scholarship. Shane of Clarkston, Michigan, is currently a junior working towards a Bachelor of Science in Biosystems Engineering. His interests include: natural resources protection, including wetland creation and conservation, and watershed management. He exemplifies a strong work ethic and enjoys working with a team.



Shane was named the Outstanding Sophomore in Biosystems Engineering in 2003/2004 and received the Howard and Esther McColly Scholarship for Excellence in Biosystems Engineering in the fall of 2004. He has remained on the Dean's List since his first semester at MSU and has a cumulative grade point average of 3.9/4.0.

Matthew Stasiewicz (a second-year student in Biosystems Engineering) recently was awarded a Barry M. Goldwater Scholarship. The Goldwater is a national scholarship in science and engineering.



The Goldwater Scholars were selected on the basis of academic merit from a field of 1,091 mathematics, science, and engineering students who were nominated by the faculties of colleges and universities nationwide. The Scholarship Program honoring Senator Barry M. Goldwater was designed to foster and encourage outstanding students to pursue careers in the fields of mathematics, the natural sciences, and engineering. The Goldwater Scholarship is the premier undergraduate award of its type in these fields.

The one and two year scholarships will cover the cost of tuition, fees, books, and room and board up to a maximum of \$7,500 per year

Jianwei (Tony) Qin will present a paper entitled “**Determination of the optical properties of turbid materials by hyperspectral diffuse reflectance**” at the ASAE meeting held in Tampa, Florida in July 17-20, 2005.

Congratulations goes to Johanna Nugent for receiving the Outstanding Biosystems Engineering Senior Award from the Kellogg company. Each year, Kellogg sponsors a scholarship for the highest academic GPA



Amanda Herzog, undergraduate of Biosystems Engineering writes “This week I just came back from the general ASM (American Society for Microbiology) conference in Atlanta Georgia. My abstract of the research that I do in the lab was accepted so I was able to make a poster and present it at the conference. I think that since Dr. Teidje’s name was on my poster (the President of ASM this year) and that microarray research for detection purposes is becoming more popular, I had a large response to my poster. I talked to approximately 15 people and one representative from Agtech Products Inc was really impressed that an undergraduate would present a poster, he gave me his card in-order to look into job opportunities with their company. I would estimate that about 70 people viewed my poster and I had a overall good response! While I was at the conference I was able to meet some “famous” scientists and I did some more networking looking for job opportunities for after graduation. The conference was inspiring and I’m excited to get back into the lab to do some good work to be able to present at the next conference! The attachment is a copy of my poster. I hope your summer is going well!”



Oral presentations at the Annual Meeting of the Institute of Food Technologists in New Orleans, LA (July 17-20):

Matt Stasiewicz, BE undergrad, former professorial assistant, and current engineering research intern: “**Modeling the effect of prior thermal history on the thermal inactivation rate of Salmonella in turkey.**” by M.J. STASIEWICZ, and B.P. Marks.

“**Production, separation and purification of galactooligosaccharides from whey**” by N. J. MATELLA, K. D. Dolan.

“**Fermentation of Michigan Dessert Apple Cider**” by S. KELKAR, K. D. Dolan, and P. J. Oriel.



DONOR LIST 2004-2005



The Department of Biosystems and Agricultural Engineering would like to thank all the generous people that have the foresight to support the Department and its various endowments and scholarships.

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John Rosevelt
Lauren and Sandra Rosier
Robert and Audrey Anderson-Rossman
Stanley and Jane Schafer
James Schell
Marion Secrest
Larry and Donna Segerlind
Isaac and Donna Sheppard Jr.
Berton and Regina Sheppard
Earl Sherwood
Jerry and Julia Spencer
William Splinter & Elizabeth Calhoun
Lee Sprowl
Ajit and Barbara Srivastava
Earl and Dorothy Stegman
Dale and Judith Sturm
Howard and Robin Thompson
Muluken Tilahun
Gilbert and Catherine Tinsey
Norman VanSickle
Barrett Vaughan
Clyde and Suzanne Walker
Erin Ward
John and Diane Weaver
Robert and Betty Webb
Patrick and Karen Weese
Kyle and Brooke Weidmayer
Gilbert Whitney
Jack and Joanne Wilson
Lee and Linda Wolf
Ralph and Virginia Woodruff
Mulusew Yayehyirad
Cortland and Elizabeth Young
Maryn Zengerle

NOMINATIONS REQUESTED FOR

DISTINGUISHED ALUMNI AWARD OUTSTANDING ALUMNI AWARD

The Distinguished Alumni Award will be bestowed upon an alumnus who has distinguished himself/herself as a leader through professional contributions, public service, and personal accomplishments. Contributions to the Biological/Agricultural Engineering profession shall be the primary selection criterion. As a general rule, only alumni who have *graduated ten or more years ago*, with an undergraduate and/or a graduate degree will be considered.

The Outstanding Alumni Award will be bestowed upon an alumnus who has accomplished outstanding professional growth and development and is recognized among his/her peers as a "rising star." As a general rule, alumni who received their undergraduate degree in the department *within the last ten years*, will be considered.

The deadline for submitting nominations is January 15. The awardee will be recognized during the BE Showcase held in April.

The nominator should submit a nomination letter outlining why the nominee would be a worthy recipient of the award and include the nominee's contact information. The credentials for nominees not chosen will be kept on file for consideration for two additional years, the nominator is welcome to update the file. Current MSU faculty members are not eligible. Send nomination letters via U.S. mail, fax 517-432-2892 or e-mail srivasta@msu.edu:

Department Biosystems and Agricultural Engineering
Michigan State University
Attn: Alumni Awards Committee
215 Farrall Hall
East Lansing, MI 48824-1323

Your News is Good News....

Please help us keep up with your accomplishments by returning this information request form.

Name: _____ Maiden: _____

Home Address: _____

City: _____ State: _____ Zip: _____

Home Telephone: _____ Business: _____

Business Address: _____

E-mail: _____

Business Title: _____

Indicate your degree(s) earned from MSU: _____

Notes about you (recent promotions, professional honors, career activities, civic achievements, family news). We will publish this in our next issue:

Classmate Lost and Found Have you lost track of an old college friend? Maybe we can help. Tell us who you are looking for and let us know how they can contact you.

I'm looking for: _____

Name

Class of

Major

Message

Department of Biosystems and Agricultural Engineering

HOW TO FIND US:

By mail:

Dr. Ajit K. Srivastava, Chairperson
Department of Agricultural Engineering
Michigan State University
215 Farrall Hall
East Lansing, MI 48824-1323

***BE Newsletter
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In 2005, Michigan State University celebrates the 150th anniversary of its founding as the pioneer land grant institution.

**MICHIGAN STATE
UNIVERSITY**

**BIOSYSTEMS
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MSU is an affirmative-action, equal-opportunity institution.