

Purdue University

# Agricultural & Biological ENGINEERING



**Dr. Dale Reed**  
Honorary Doctorate

**ABE Outstanding  
Alumni and Service  
Awardees**

**Spring Graduation  
Activities**

**Scholarships and  
Awards**

**Faculty Awards**



## "Extreme Engineering"


Is Agricultural and Biological Engineering fast becoming the arena for "Extreme Engineering" in the 21<sup>st</sup> Century? What does all this mean for the traditional agricultural and food processing industries? What role will Purdue ABE play in the development and utilization of these new technologies?

The 20<sup>th</sup> century was just a warm up round for Agricultural Engineering. During this period we learned many things: how to reduce human and animal labor input in agriculture through agricultural mechanization, how to grow food in a variety of conditions and climates with drainage and irrigation, and how to use chemicals, soil and water resources in efficient and productive manners. However, what lies ahead for our profession could be the main event. In the future we will need to be open to new scientific discoveries and opportunities to help feed, clothe, and house the world's masses through the application of science and engineering in the arena of "Extreme Engineering".

The arena of "extreme engineering" includes sciences such as biology and buzz words such nanotechnology, micro-electronics, proteomics, GMOs and GIS. Discoveries and changes in our knowledge

### What is a nanometer?

(10<sup>-9</sup> meters)

Human Hair		10,000 nanometers
Blood Cells		1000 nanometers
Protein		10 nanometers
Atom		0.1 nanometers

*Cytochrome C structure,  
from Scripps Research Institute*

in these fields will significantly influence the foods and fibers we grow and how we grow them in the 21<sup>st</sup> Century. Information systems and bio-differentiated crops requires new production, processing, consumption, and tracking, as well as real time sensors to identify the new designer crops. These measures are needed to guarantee safety to the ultimate consumer. Advanced sensors, geographical information systems and global positioning systems for precision agriculture are just a few of these technologies.

Agricultural and Biological Engineering has played a pivotal role in the last century and if we can seize this opportunity, we will continue to be real players in the next. In the new century the extremes of today may become the norms of tomorrow.

## Whittaker Joins ABE Faculty

Beginning July 1, 2002, Dale Whittaker began his new assignment as the associate dean and director of academic programs for the School of Agriculture. Dale earned his masters (1984) and his doctoral (1987) degrees from Purdue ABE.

*"Purdue already has a great agriculture program, and I would like to see more students take advantage of what the school has to offer,"* Dale says.

*"I will also continue to mesh the academic vision of the School of Agriculture with the needs of the state of Indiana. I believe in business and government partnerships that improve school resources and the quality of the learning experience for students."*

Purdue ABE faculty and staff are particularly pleased to welcome Dale Whittaker to the department.

*"We are excited to have Dale back at Purdue. As a former student, he has a unique insight into our academic programs and brings some great new ideas,"* says dean of Agriculture, Victor Lechtenberg.



*Dale Whittaker*  
Associate Dean  
of Agriculture



## Letter from the Department Head

Dear Alumni and Friends,

Welcome to another edition of the Agricultural and Biological Engineering Newsletter. The spring term was quite eventful as we completed our external reviews and celebrated the success of outstanding alumni and students. We also enjoyed visiting with many of you during the recent ASAE meeting in July.

The past year was definitely an eventful one. **Dr. Martin Jischke**, the new University President initiated a strategic planning process. ABE faculty members are contributing to both the School of Agriculture and the Schools of Engineering plans. One component of the new plan is to add 300 new faculty to improve undergraduate education. Another goal is to advance human and intellectual diversity in both the students and faculty. We will also expand research capacity in new and evolving areas, such as Biological Engineering. From my perspective, Purdue ABE is in a unique position to benefit from these new initiatives. We plan to keep you up to date as things evolve and to consult with our departmental advisory boards where appropriate in developing our specific goals.

Purdue ABE faculty ranks continued to grow over this past year (26 at last count). Most recently, the School of Agriculture was very fortunate to attract **Dale Whittaker** as the new associate

dean and director of academic programs. Dale comes to us from Texas A&M where he served as a faculty member for 15 years and as Associate Department Head for the past five. Dale will add to our department expertise in the computer modeling and simulation area as well as add a unique interdisciplinary perspective to the Dean's office. **Larry Huggins** was recently appointed as the new Dean of Academic Affairs in the Schools of Engineering as part of a reorganization of the Schools. Having ABE faculty members in offices of both the Dean of Engineering and the Dean of Agriculture, is a recognition of the strength of our faculty, and gives us a unique opportunity to contribute to the new developments in each of our schools.

Both faculty and students continue to receive numerous recognitions and awards. Over this past year, we had a record number of faculty promotions. **Albert Heber** and **Dirk Maier** were promoted to Full Professor. **Oswaldo Campanella**, **Daniel Ess** and **Rabi Mohtar** were promoted to Associate Professor. **Daniel Ess** and **Anton Sumali** received the award for outstanding teaching in the Department. Daniel Ess also received the award for the School of Agriculture. **Mack Strickland** was recognized as the Outstanding Counselor in the School of Agriculture. This was the first time in history that both awards were presented to faculty members from the same department. In addition, our undergraduate students have also been receiving a historic number of scholarships and awards. We have listed the most recent recipients on page 10. Each year we give out over \$ 24,000 in Departmental and endowed scholarships to undergraduate students. In addition, the Schools of Agriculture and Engineering add an additional \$50,000 of scholarships and awards. In the past academic year we graduated 62 undergraduate and 14 graduate students for a total of 76 graduates. We are proud of all of these individuals, their accomplishments and the recognition that they bring to Purdue ABE.

The ABE graduate program continues to be among the best. We expect to admit 21 new graduate students this fall. This infusion of new graduate students will bring our graduate population to nearly 60 students, with a mix of about half domestic and half international students. The quality of our graduate students is first-class which is why our graduate program continues to be ranked 2<sup>nd</sup> in Agricultural and Biological Engineering in the country. This has been an exceptional season of success.

Many of these positive events and activities would not be possible without the continued support of alumni and friends. During this past year your contributions to the Department have helped us support student scholarships, student participation in national meetings, laboratory instrumentation enhancements, and numerous other Departmental improvements. Your contributions make a real difference in our ability to deliver excellence in preparing our students and programs for the 21<sup>st</sup> Century. Thank you for your support!

As always please feel free to drop by to see us if you are in the West Lafayette area. We would be happy to show you around the building and bring you up to date on campus activities and events.

**Go Boilers!!!**

### Our Mission:

*"To prepare students, citizens, and industry for the future through innovative education and extension/outreach programs, and the discovery of knowledge."*

## Dr. Dale D. Reed Receives Honorary Doctorate

During the May 2002 commencement ceremony, Dr. Dale Reed received an Honorary Doctorate of Science degree from Purdue University. The University awards this highest honor to individuals of distinction who have made significant contributions to society and the betterment of humankind.

Dale is currently the Chairman, CEO, and part owner of Buran and Reed, Inc., a scale manufacturing company in San Leandro, CA. Buran and Reed, Inc. produces Acme scales, the industry standard in agriculture, as well as a number of innovative products. He graduated from Agricultural and Biological Engineering with a B.S. degree in 1953. Since then he has proven himself as an entrepreneur, an innovator, an advocate for the business community, as well as a tireless volunteer.

In 1984, Dale established the Civic Bank of Commerce in California. As Chair, he promoted a commitment to knowing and working directly with the owners and operators of client businesses.

There can be no question that Civic Bank's commitment to the community stems from Dale's personal commitment to community service. He has volunteered countless hours to organizations in San Leandro, many of them in leadership positions. Dale has served as President of the San Leandro Chamber of Commerce, as a Trustee of the San Leandro Hospital, as President of the San Leandro Scholarship Foundation, as Vice Chair and director of Goodwill Industries of the East Bay, and as Chair of the San Leandro Planning Commission. He also serves as President of the National Scale Dealers Association and is a member of the Alameda Transportation Advisory Committee.

Dale's volunteer spirit extended far beyond his community and his company. In January of 1992, he was a member of a five-person delegation that traveled to Russia as guests of *Intellect*, Russia's charity foundation, to begin a technical assistance program supporting the privatization of Russian agriculture in the Staritsky District. Currently, he is an advisor to the Triquest Group in Stamford, CT, which funds the Staritsky Project as well as telecommunication projects in Russia.

With associates of the Staritsky Project, Dale entered into an agreement to dismantle 38 missile sites in Russia and recycle the precious metals, including silver and gold, through a company named Plowshares.

Dale has also selflessly given his time and energy to Purdue University. In 1997, he returned to campus as an Old Master to talk with current students about his life and career. That same year he participated in the first Agricultural & Biological Engineering Development Board, which helped identify activities and opportunities for alumni support of departmental programs. He continues to support his Purdue fraternity, Triangle, in fundraising activities. Dale is a member of the Purdue President's Council and was honored as a 2000 Agricultural and Biological Engineering Department

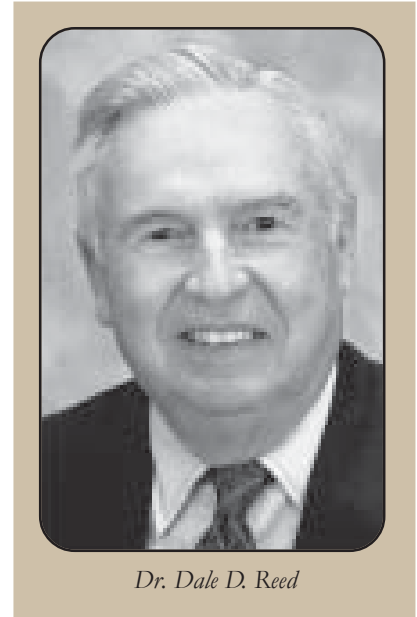
Outstanding Alumnus. His ties to Purdue were further strengthened when one of his daughters graduated from Purdue with a degree in Mechanical Engineering.

In the coming year Dale will serve on the University Planning Committee, implemented by President Martin Jischke.

For his role as a key mediator in redevelopment, eminent domain conflicts, and other accomplishments, Dale was honored in 2001 with a *Small Business Advocate Award* from the California Chamber of Commerce, just one of six awards given statewide. In a letter

supporting his nomination for this award, the Mayor of San Leandro, the CEO of the San Leandro Chamber of Commerce, and numerous others wrote that he was a "true civic leader who by his humble nature would prefer to remain in the background." They went on to note his role in helping San Leandro make progress in "many areas including transportation, education, energy, election reform and needed tax reform."

Dale's wife Donna, their three children, and several grand children joined in the weekend commencement activities. The Department held a special dinner for Dale and his family the evening before commencement where he gave a brief account of the people and philosophy that had allowed him to be come successful. Dale's personal attitude and life are a testament to the difference that one person can make. From his work in manufacturing and banking to his dedicated volunteerism, Dale has touched thousands of lives and is a role model whom we can all admire.



*Dr. Dale D. Reed*



*Dale Reed (center) and Donna Reed (r) visit with faculty during the ABE reception to honor Dale. Dale is chatting with Professor Emeritus Alvin Dale (l) and his wife Anna.*



## ABE Celebrates Exceptional Alumni & Friends

*Purdue ABE honored seven individuals on April 18th as ABE Outstanding Alumni and Service Award recipients. ABE established these awards to recognize and honor alumni and friends of the department who have achieved significant professional, community, and social accomplishments in the areas involving agriculture, engineering, and technology.*

*Family and friends gathered on campus for the day-long celebration that started with a morning reception and luncheon at the Sagamore Room in the Union, followed by a poster session, roundtable discussion, and reception. The event finished with a student awards banquet and keynote speech by Lyle Stephens.*

### Kevin L. Eikenberry (ASM BS '84)

Kevin Eikenberry is an entrepreneur, author, consultant, speaker, trainer, and life-long learner. Kevin earned a B.S. with honors in Agricultural Mechanization in 1984. Kevin began his career with Chevron Chemical Company. In 1993, he formed his own training and consulting organization, the Discian Group. The Discian Group (<http://discian.com>) provides a wide range of services, including training design and delivery, facilitation, performance coaching, organizational consulting, and speaking services. Discian works with Fortune 500 companies, including Amgen, Aramark, various Chevron companies, Purdue University, Rolls Royce, the Red Cross, R.L. Polk, Southwest Airlines, and the United States Mint.

Kevin's projects beyond the Discian Group include hosting an Internet radio program, working on a book, and putting out three email-based publications. In addition, he is an annual contributor to *McGraw Hill Training and Development Sourcebooks* since 1997 and a contributor to Pfeiffer and Company's *20 Active Training Programs*.

Kevin is serving his third term as Chair of the North American Simulation and Gaming Association (NASAGA). He was recently elected Vice President and President-Elect of the Purdue Agricultural Alumni Association Board, and is a member of many professional organizations. He has also been a keynote speaker for many organizations, non-profit groups, and conventions.



**Kevin L. Eikenberry**  
*President, Discian Group  
Indianapolis, IN*

### Jane L. Lavey (FPE/BCHM BS '92)

Jane Lavey began working as a Process Engineer in the Technical Services Department for Eli Lilly and Company, Clinton Labs, in June 1992, after graduating from Purdue with a dual B.S. degree in Food Process Engineering and Biochemistry. In her first years with Lilly, Jane supported the technical aspects of multiple products and processes in Animal Health Manufacturing.

In 1998, Jane moved to the Human Health area at Clinton Labs as a Quality Control Representative supporting the manufacture of the antibiotic Ceclor, where Jane's primary responsibility was to ensure the quality and safety of pharmaceutical products approved by Clinton Labs. She solved multiple contamination and product quality issues for Ceclor and provided this information to the Food and Drug Administration during inspections. Jane returned to the Animal Health area in 2000 in order to provide experience for several new quality control representatives. In January of 2002, Jane joined the Clinton GMP Quality Control Improvement Team.

Jane is involved in several civic organizations, regularly speaking to students about her degrees and engineering as a career. She has chaired the Survivor Program for the Wabash Valley Race for the Cure for the past five years. Jane recently received the Certificate of Merit from Zeta Tau Alpha for outstanding service to the community.



**Jane L. Lavey**  
*Assistant Senior Quality Control  
Representative  
Eli Lilly and Company  
Clinton, IN*

**Evandro C. Mantovani (AGEN PhD '84, MS '81)**

Evandro Chartuni Mantovani is a Senior Researcher for EMBRAPA – National Research Center for Corn and Sorghum. Evandro collaborated with Professors Gary Krutz, Harry Gibson, Rabi Mohtar, Mark Morgan, Mack Strickland, Dan Ess, Anton Sumali, and Agriculture associate dean Dave Sammons in the visiting research program with EMBRAPA.

Evandro's involvement with Purdue started with his undergraduate coursework in Viçosa, Brazil. His M.S. thesis was under the supervision of Ray Marvin Lien: "Basic Requirements for Soil Bed Formation," and Ph.D. thesis was under the direction of Gary Krutz: "A Soil Surface Traffic-Corn Yield Model for a Cerrado Soil in Brazil with less than 10 years of Cultivation". He served as a major professor for M.S. students and was a committee member for 13 MS and four Ph.D. students at the Federal University of Viçosa, UNICAMP and UNESP.

Evandro is the Vice-President of the Brazilian Society of Agricultural Engineering (2001-2003), presently in the second mandate. Evandro has been Agricultural Commerce and Industry Secretary for the city of Sete Lagoas, MG.

During the development of the new corn hybrid Br-201 for the Cerrado region during the 1980's, he solved a major farming problem regarding planting time, by developing a new series of planting disks. Ninety-percent of Brazilian planters use these disks and the Br-201 corn hybrid planting. This combination was responsible for 15% of the Brazilian corn market during the 1990s.



**Evandro C. Mantovani**

*Senior Researcher  
 EMBRAPA  
 Sete Lagoas, Brazil*

**Michael E. Massonne (AGEN BS '88)**

Mike Massonne recently joined DLZ as a Project Manager and is responsible for engineering and environmental projects such as drainage studies, storm water programs, lake and river enhancement studies, and storm water best management practices.

Prior to joining DLZ, Mike spent more than 13 years with the Indiana Department of Natural Resources (DNR) where he completed program technical oversight, specific project design, and hydraulic analysis. He provided engineering assistance to departmental staff regarding erosion control methods, practices, and recommendations. He also participated in state and national training opportunities to improve the understanding of current and developing technologies pertaining to controlling erosion and off-site sedimentation on urban and rural lands, stream enhancement, and restoration.

Mike has helped place many ABE graduates into Indiana environmental positions. While at the DNR, Mike became certified by the Covey Leadership Center to facilitate training for *7-Habits of Highly Effective People* and *Principle Centered Leadership*.



**Michael E. Massonne**

*Project Manager, DLZ  
 Indianapolis, IN*

**Lyle E. Stephens (AGEN PhD '71)**

Lyle Stephens is a Senior Engineer with John Deere & Company and group leader in soil dynamics at the John Deere Technology Center. He has been the group leader in Soil Dynamics since 1983, responsible for research and application of soil mechanics technology for corporate products, and for developing farm management computer models for corporate planning needs.

He was elected ASAE Fellow in 1992. As an ASAE fellow and 30-year member of ASAE, he has served the Society in a number of offices. He was professional vice-president in 1996; meetings council chair in 1997 and past chair in 1998; fellow screening chair in 1997 and past chair in 1998; EMI (now AEM) student trophies chair in 1999; former Electric Power and Processing Division standards committee chair, and engineering and technology accreditation committee chair. He has also been active with the ASAE Quarter-Scale Tractor Student Design Competition and began his term as ASAE President in July 2002.

Lyle has four US patents relating to grain drill designs, and has several publications on grain handling. He received an honorable mention for an ASAE Outstanding Paper. He also received two patents for trash cleaning structure for a furrow-opening device.



**Lyle E. Stephens**

*Senior Engineer  
 John Deere Technology Center  
 Moline, IL*

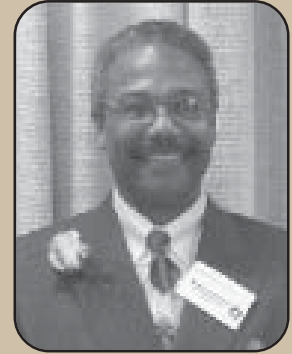
## Outstanding Service Award Recipients

### Duane M. Crockrom (MBA '93, Lake Erie College; BA '73, Baldwin Wallace)

Duane Crockrom is the Group Human Resources Manager for Parker Hannifin Corporation in Cleveland, Ohio. Duane has spent his entire career in the Human Resources arena beginning with Sherwin Williams Corporation, Warner & Swasey Company, and NASA. Duane presently provides human resources management, consulting, and problem solving for 4,800 employees. He has designed and managed a corporate/group college recruiting/partnership program as well as a global intern program. Duane has developed management education workshops and coordinated a corporate ethics program for Parker.

He recruits for Parker nation-wide at all major U.S. universities. Duane has recruited many ABE and Purdue students who have had successful careers at Parker. Duane has created a relationship with Purdue and has been instrumental in providing funding for numerous Parker ABE scholarships, one of which will be endowed in 2002. Additionally, Parker holds an annual University Day to help fluid power teachers exchange ideas and new lab technologies.

Duane is a member of Alpha Phi Alpha fraternity. He is a former arbitrator for the Cleveland Better Business Bureau. He enjoys fishing, boating, golf and mentoring young people to be the very best they can be.



**Duane M. Crockrom**  
*Group Human Resources Manager  
Parker Hannifin Corporation  
Cleveland, OH*

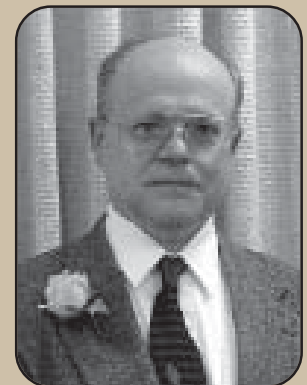
### Lawrence F. Schrader Jr. (MS BA '71, U. Akron; AS '68, Lorain Community)

Larry Schrader has been the Global Motion & Control Training Manager for Parker Hannifin since 1976. He is responsible for all non-product technical training in the areas of hydraulics and pneumatics conducting courses in the United States, Canada, and Europe. Larry developed, implemented, and directed the new courses and textbooks, including directing the translation of materials into other languages.

Larry is involved in many organizations, including the American Society for Training and Development, the Society of Automotive Engineers, American Society of Engineering Education, Instrumentation Society of America, Society of Lubrication Engineers, National Fluid Power Association, and National Conference on Fluid Power. With the National Fluid Power Association he served in various capacities – Associate Director (1983), Director (1984), Guest Speaker Cleveland (10/80), Chairman of the Board (1990/1998), Board Member (Presently Active); Fluid Power Society (Local Chapter - President 1983–1984); University of Akron – Mechanical Engineering Advisory Board; Purdue University – Otto J. Maha Advisory Board.

Larry enlisted in the Army Reserve June 4, 1970 and trained as field wireman. While in home unit, he attained the rank of E-6, Marine Maintenance Supervisor and Larry became familiar with the operation of landing craft. To gain practical experience in the many aspects of seagoing vessels and the supervision of the crew, he arranged to go aboard various vessels for “*on the job training.*”

Larry has been instrumental in the development of the Purdue ABE Fluid Power Laboratory. In 1997, Larry initiated the Purdue Parker Fluid Power Laboratory in ABE Room 102, which Parker has supported with approximately \$200,000 worth of teaching equipment. Through his efforts, Purdue ABE has received significant gifts of equipment and educational materials from the Parker Hannifin Corporation.



**Lawrence F. Schrader Jr.**  
*Global Motion & Control Training  
Manager  
Parker Hannifin Corporation  
Cleveland, OH*



## ABE Faculty Accept Prestigious Leaves

Three ABE faculty members have accepted appointments in prestigious national and international organizations for the 2002-2003 academic year. Two of the leaves are for sabbaticals and the third is a leave of absence to work in a national laboratory. All three are with exceptionally prestigious laboratories and organizations and reflect the quality of our newly hired faculty. When these faculty return to Purdue next summer and fall we will all benefit from the new technology and insights that they will bring to both Purdue students and Indiana agriculture.



**Jane Frankenberger**  
*Associate Professor*

Jane Frankenberger, Associate Professor in ABE, will be helping to develop policies and programs related to water quality at the United States Department of Agriculture, Cooperative State Research and Extension Education Service (CSREES) and the United States Environmental Protection Agency (EPA) in Washington DC. Jane will be working with these agencies to develop policies and programs related to Total Maximum Discharge Loading (TMDLs) and water quality.



**Rabi Mohtar**  
*Associate Professor*

Rabi Mohtar, Associate Professor in ABE, will be working with the Center for International Research in Agricultural Development (CIRAD) in Montpellier, France. He will be helping researchers in France develop computer models for estimating crop water use. His work will focus primarily on the extension of the COTON model for simulating crop growth and to expand its applicability to various regions around the world.



**Anton Sumali**  
*Assistant Professor*

Anton Sumali, Assistant Professor in ABE, will be working at the Sandis National Laboratory, a nuclear weapons laboratory, in Albuquerque, NM on projects in structural dynamics, vibration, and acoustics related to nuclear missiles and space satellites. Anton has been teaching undergraduate courses in instrumentation and hopes to develop new models and methods for locating and controlling machine systems. This technology will have significant applications to the operation and control of agricultural equipment.



*Agricultural & Biological Engineering and Food Process Engineering May 2002 Graduates*



*Professor Miles helps Spring Fest exercise in Global Positioning System*



*ASM students cook hamburgers to sell during Spring Fest '02.*



*Erika Quebe and Michelle Kelly*



*Carl Rivir, Purdue Student Engineering Foundation Outstanding Senior, and R. Jason Brown, Purdue Student Engineering Foundation Outstanding Graduate Student.*



*Leroy Pickett asks Leslie Kopko (l) and Megan Walters (r) about their senior project "Fruit Leather." Leslie, Megan and Chad Gorrell (not pictured) won 1st place for FPE projects.*





...t participants with an  
 ...ystems (GPS).

## Spring Time Fun!



*Michelle Kelly Miller tries her hand at jousting during Engineering Senior Send Off.*



*Matt Wright & Kurt Lanzone*



*Jason Brown receives the Purdue Student Engineering Foundation Outstanding Graduate Student award from Dean Katebi.*



*Kelsi Bracmort with Vince Bralts at the Black Graduate Association awards banquet. Kelsi received the Dr. Johnny E. Brown Membership Award.*



*ASM Graduates get together during the ABE Graduation reception. (l to r) Eduardo Sequeira, Nathaniel Fellows, Matt Wright, Aaron Hacker, Andrew Coomes, Richard Hoeing, Matt Subler, Kurt Lanzone, Brian Beyer.*

## Purdue School of Agriculture Scholarships

### Agricultural Research Fund Scholarship

*Austin D. Ehle* Sr. ABE Harlan

### Herbert E. Parker Memorial Scholarship in Ag

*Leah B. Maxwell* Jr. FPE Francesville

### Junior Scholarship

*Julia M. Hoover* Jr. FPE Crown Point

*Gregory D. Swank* Jr. ASM Lafayette

*Jacob R. Walker* Jr. ASM Waterloo

### Leonard B. Clore Scholarship

*Nathan A. Fleck* Jr. ASM Vincennes

*Adam E. Sederlund* Jr. ABE Charlotte

### Scholarship Award of Excellence

*Ross C. Chapman* Fr. ABE Bloomington

*Paul A. Klockow* Fr. ABE South Bend

*Philip W. Wetzal* Fr. ABE Indianapolis

*Benjamin J. Wicker* ABE

### Senior Scholarship

*Kyle D. Barlow* Sr. ASM Shelbyville

*Brian M. Costigan* Sr. FPE Cincinnati, OH

*Julie A. Creech* Sr. FPE Dayton, OH

*Merysia Enggalhardjo* Sr. FPE Indonesia

*John Z. Gallien* Sr. ABE Bloomington

*Jennifer L. Ketchmark* Sr. FPE Naperville

*Leslie A. Kopko* Sr. FPE Greenwood

*Leah B. Maxwell* Sr. FPE Francesville

### Sophomore Scholarship

*Jared A. Baird* So. FPE Marysville

*John T. Davis* So. ASM Depauw

*Nathan A. Fleck* So. ASM Vincennes

*Keith J. Harmeyer* So. ABE W. Batesville

*Lo N. Lien* So. ABE Malaysia

*Jacob L. Misch* So. ASM Wheatfield

### Southern States Cooperative, Inc. Scholarship

*Donald A. Shoemaker* Jr. ASM Vallonia

## Society of Women Engineers Awards

### Outstanding Junior - Weldon Foundation

*Leah B. Maxwell* Jr. FPE Francesville

### Kraft Foods

*Julie A. Creech* Jr. FPE Dayton, OH

*Merysia Enggalhardjo* Jr. FPE Indonesia

### Alumnae Award

*Leslie Kopko* Sr. FPE Greenwood

*Amanda Stewart* Sr. FPE Winslow

### Activity & Leadership Award

### Tree, Limb & Leaf Award

*Leah B. Maxwell* Jr. FPE Francesville

## ABE Scholarship

*Leah Maxwell* Jr. FPE Francesville

## Fluid Power Educational Foundation/ Otto J. Maha Scholarship

*Rob Schilpf* Sr. ABE Milford

*Austin Ehle* Sr. ABE Harlan

*Samuel Hall* Sr. ABE Lebanon

## Parker Hannifin Scholarship

*Curt Elpers* Fr. ABE Dale

*Justin Dougherty* So. ABE Needham

*Dustin Thurston* Jr. ABE Muncie

*Kyle Folk* Jr. ABE South Bend

## Gary W. Krutz Scholarship

*Donald Shoemaker* Jr. ASM Vallonia

## John Deere Ag Engineering Scholarship

*Jacob Misch* Fr. ASM Wheatfield

*Thomas Sprague* Fr. ASM Newburg

*Jacob Walker* So. ASM Waterloo

*Brian M. Bauman* So. ASM Rochester

## Caterpillar Scholarship

*Gregory D. Swank* So. ASM Lafayette

*Scott W. Strickland* Jr. ASM West Lafayette

*Adam E. Sederlund* Jr. ABE Charlotte, MI

*Heith J. Harmeyer* Fr. ABE West Batesville

## Kellogg's Scholarship

*Jared A. Baird* Fr. FPE Marysville

## Greiner Scholarship

*Kristen N. Mebling* So. FPE Columbus, OH

*Melissa A. Sorrell* So. FPE Middletown, OH

*Aaron W. Miller* Jr. ABE Colchester, IL

*Merysia Enggalhardjo* Jr. FPE Indonesia

*Nathan A. Fleck* Jr. ASM Vincennes

## McCarty/Caterpillar Scholarship

*Kyle Kuehnert* Sr. ASM Roanoke

## Schools of Engineering Magoon Award for Outstanding Graduate Teacher Assistants

*Chell E. Nyquist* Grad ABE Dundee

*Louis Cassens* Grad ABE W. Lafayette

## Black Graduate Assoc. Humanitarian Award

*Akilah Martin* Grad ABE Chicago, IL

## Dr. Johnny E. Brown Membership Award

*Kelsi S. Bracmort* Grad ABE Fort Washington, MD

## 2002 Outstanding ABE Students



**Jacob Misch**

*Freshman, ASM, (Wheatfield, IN)*

When nominating Jacob Misch for Outstanding Freshman, Dan Ess states *“he is focused, organized, and willing to take ownership of his academic present and his professional future. He has aggressively pursued advanced credit for courses within his program of study.”* Jacob is off to a great start in the ASM program. He has been the recipient of the Deere & Co. Scholarship, the 21<sup>st</sup> Century Scholars, and the School of Agriculture Award of Excellence. In addition to excelling academically, Jacob is a member of the ASM club and participates in intramural sports. He also currently owns a small farming operation.



**Julia Hoover**

*Sophomore, FPE, (Crown Point, IN)*

Julia was nominated by Richard Stroshine. Professor Stroshine states *“Julia has maintained high standards of academic performance during her college studies.”* Julia has shown the ability to succeed in the FPE program. She has been on the Dean’s list every semester she’s been at Purdue. Julia has been the recipient of the Sydney Smith Memorial Endowed Scholarship and the Channing R. Dooley Alumni Scholarship. Julia has work experience in the Lutheran Retirement Village and the Surgical Associates of NW Indiana.



**Leah Maxwell**

*Junior, FPE/BCHM, (Francesville, IN)*

Vince Bralts’ nomination for Outstanding Junior notes that Leah *“has all of the characteristics of a rising star in our field”*. Leah is one of our dual major students. She will graduate with a degree in ABE and Biochemistry. Leah has work experience with A.E. Staley Manufacturing Company and Kraft Foods, Inc. in the Post Cereals Division. Her many accomplishments include the Dean’s list, Purdue Valedictorian Scholarship, Dean of Engineering Scholarship, New Century Scholarship, Kellogg’s Scholarship, General Mills Scholarship, and awards such as the Purdue Academic Success Award and Outstanding Freshman Woman Engineer. In addition, Leah and her team placed 2<sup>nd</sup> in the New Uses for Soybeans Student Contest, developing Soyastic: The Homemade Plastic which is a soft plastic made from soybeans that hardens in response to UV light.



**Carl Rivir**

*Senior, MSE, (LaOtto, IN)*

Carl made an impression on Anton Sumali who notes Carl has *“the strongest work ethic among all the students I have met in the department.”* Carl received an Outstanding ABE Student award as a Freshman. Carl was President of Gemini Cooperative House, a member the National Society of Professional Engineers, Golden Key National Honor Society, and vice president of administration for the Purdue Cooperative Council. His many accomplishments include Semester Honors and Dean’s list every semester, School of Agriculture Award of Excellence, Earl Butz Scholarship in Agriculture, Walmart Community Leader Scholarship, Marquardt Alumni Scholarship, Chicago Farmers Association Scholarship, 4-H Foundation Scholarship, Greiner Scholarship, and several others. Carl is currently a manufacturing engineer for Pella Corporation.



*(Agricultural Communication Service photo by Tom Campbell.)*

### Soybean Utilization Contest

*Sponsored by the Indiana Soybean Board*

**Melinda Durack (FPE), Amanda Stewart (FPE), Rylie Vance (FPE) & Brian Costin (FPE)** won 1st place in the Soybean Utilization Contest with their Soy Marx markers and ink made of 25% soy product. The markers have increased brightness, consistency and faster drying time.

**Rob Schlifp (ABE) and Erika Quebe (FPE)** invented “Jack’s Beansticks” and won 2nd place in the contest. The edible peppermint flavored Popsicle sticks are not only economical, but edible too.



*(Agricultural Communication Service photo by Tom Campbell.)*

**Bernie Tao**, serves as the administrator for the Indiana Soybean Board’s Soybean Utilization Contest. In May Bernie was named the **Telmark/AgriAmerica Farmer of the Week** for his love and promotion of soybeans and for making learning fun.



## Don Jones Receives ASAE Award

Professor Don Jones received the 2002 Henry Giese Structures and Environment Award at the American Society of Agricultural Engineers (ASAE) Annual Meeting in Chicago, July 31. The ASAE presents this award to an engineer who demonstrates “*outstanding and meritorious, significant achievement in advancing the knowledge of science of agricultural structures and environment.*” This award takes into consideration teaching, research, design, and basic knowledge of agricultural structures and environment, including livestock and poultry buildings, plant growth structures, crop and other storage and processing structures, and rural human housing. Jones has worked with livestock production buildings and their environmental problems since the 1960s. His work included aeration systems for cattle and swine manure to reduce gas levels for workers and animals and odor and water contamination threats. Don’s years at Purdue included working with previous Giese Award

winners including A.C. Dale, W.H. Friday, and B.A. McKenzie (1967, 1997 and 1973, respectively).



*Don's daughter Jo (l) and wife Hiromi (r) were with him in Chicago to accept the award.*

His extension program dealing with animal manure issues is

nationally recognized; he co-authored numerous extension and MWPS publications to help livestock producers and builders improve the design, construction, and operation of their farms and minimize environmental problems. He also developed more than 70 multimedia environmental educational programs in conjunction with the United States Environmental Protection Agency on many topics, including residential wastewater treatment, pesticides, energy conservation, and

chemical management. Along with fellow Purdue faculty members Bernie Engel and Mack Strickland, he established the Center for Technology Transfer and Pollution Prevention, funded from state and federal sources at approximately \$100,000 per year. A number of the Center’s programs were translated into Spanish, and one into Hungarian to meet the needs of their intended audiences. You can find most of these programs at the US EPA’s software tools web site ([www.epa.gov/seahome](http://www.epa.gov/seahome)).

## ASAE Presidency, a Purdue “4-Pete”

Lyle E. Stephens (AGEN PhD ’71 and 2002 ABE Outstanding Alumnus) has become the new president of the ASAE (The Society for Engineering in Agricultural, Food and Biological Systems). A “4-Pete” as we say her at Purdue! Lyle is the fourth consecutive Purdue ABE alumni to become president of ASAE. He follows R.Wayne Skaggs (AGEN PhD ’70 and 1997 Distinguished Engineering Alumnus), Harmon L. Towne (AGEN BS ’63 and 1999 ABE Outstanding Alumnus) and Larry F. Huggins (AGEN PhD ’66 and current associate dean and director of academic programs for Purdue’s Schools of Engineering).

Lyle was recently recognized as an ABE Outstanding Alumnus during our spring awards celebrations. As part of that celebration, he spoke to undergraduate students, faculty, and alumni at the Student/Alumni Banquet. His talk was titled “*New Engineers for the New Economy*”. In that speech he discussed the coming “carbohydrate economy” and the effect that it will have on ABE graduates in the coming years.

We are all very proud of these Purdue ABE alumni and we appreciate their leadership in our profession. They are great role models for our students and a positive reflection on the quality of Purdue Engineering.

## ABE Faculty Earn Teaching Awards

**Daniel Ess** and **Anton Sumali** both received the awards for outstanding teaching in the ABE Department. Daniel Ess also received the Outstanding Teacher award for the School of Agriculture. **Mack Strickland** received the award for the Outstanding Counselor in the School of Agriculture. This is the first time in the history of the awards that the School of Agriculture presented both awards to faculty members from the same department.

Students in the ABE programs participate in the selection of these individuals. We believe that the success of these individuals is a testament to the continuing excellence of the ABE teaching programs.



*Daniel Ess*



*Anton Sumali*



*Mack Strickland*

## Faculty Promoted

### Professors



*Albert Heber*



*Dirk Maier*

Five ABE faculty members were promoted during this last year. **Albert Heber** (agricultural air quality) and **Dirk Maier** (post-harvest grain processing) were promoted to Full Professor.

**Oswaldo Campanella** (rheology and food process engineering), **Daniel Ess** (*pictured above*), (precision agriculture), and **Rabi Mohtar** (environmental and natural resources) were promoted to the position of Associate Professor.

The support shown by university personnel for these promotions was exceptional. We are pleased and proud of these individuals. As a group, they represent the best in our teaching, research, and extension faculty at Purdue.

### Associate Professors



*Oswaldo Campanella*



*Rabi Mohtar*



**Correction:** Sam Parsons came to ABE after completing his MS at Cornell. He was a power and machinery extension ag engineer for 37 years, taught farm machinery management for many years in both the Ag Short course, and for a regular university undergraduate program, and taught the introductory course for ASM students for three years prior to his retirement last year.

## ABE Participates in Purdue Day Activities

ABE participated in Purdue Day's at Chicago's Navy Pier and the Indiana State Fair. On July 20, Purdue alumni in the Chicago area were invited to join members of the Purdue Club of Chicago, Board of Trustee members, along with faculty and staff members to enjoy special entertainment, displays, and activities. Professors Krutz, Okos, and Field attended the activities to chat with alumni. If you live in the Chicago area, be sure join us next year.

For the first time in Indiana State Fair history Purdue hosted a day at the fair. Purdue Day at the Indiana State Fair was August 14th. Special events, parades, entertainment, demonstrations of Purdue research and outreach were

part of the day's activities.

ABE students and staff were there to share information about the department. They displayed one of the Breaking New Grounds modified tractors as well as the ASAE Student 1/4 scale tractor.



*Cory Spaetti (l) and Nick Vanlaningham (r) explain the 1/4-scale tractor competition to fair goers.*



*President Jischke stopped by the ABE Booth to chat with David Gonzalez and Erika Quebe.*

## Alumni Activities

### Family Hog Roast & Silent Auction

**October 26, 2002 10 am - 3 pm**

**Who:** All ABE Alumni, Students & Friends  
(bring your spouse, children, grandchildren, and parents)

**What:** Family Hog Roast

\$5 per person

11:30 am - 1:30 pm

**Silent Auction**

9 am Auction items available for viewing & bidding

11 am Phone lines open to accept off-campus bids

1 pm Auction CLOSES

**When:** Saturday, October 26, 2002

10 am - 3 pm

**Where:** ABE Building, Room 205



### Alumni Dinner

**February 11, 2003**

**Who:** All ABE Alumni & Spouses

**What:** Dinner & Conversation with ABE Alumni & Faculty

**When:** Thursday, February 11, 2003

National Farm Machinery Show

**Where:** Hyatt Regency - Louisville, KY

Additional information on exact time and location will be mailed in January 2003

## Telefund Calling November 15 - 24, 2002

Once again, Purdue students will be making calls on behalf of the ABE Department. They will give you a brief update on Department news and ask for your financial support.

More than ever before, support from our alumni is necessary to continue our quest for preeminence. Your support will allow us to continue offering student scholarships, and to purchase lab equipment and new industry software. Keeping up with industry standards and helping our students prepare for future employment is our top priority.

Please take a few minutes from your busy evenings to visit with the students and consider your gift to Agricultural & Biological Engineering.

**NOTE:** A special Purdue university-wide campaign will begin soon - your support to both fundraising efforts are appreciated.



*Thank you.*



# Class Notes

## 1960's

**Gary Bubenzer, AGEN MS '65, BS '62** recently retired from the University of Wisconsin-Madison. Gary has a Ph.D. from the University of Illinois and has been a Professor in the Biological Systems Engineering Department.

**Bailey W. Mitchell, AGEN Ph.D. '69, MS '66** was recently honored as an ASAE Fellow for more than 31 years of outstanding service to the agricultural engineering profession, the poultry industry and to ASAE. Bailey is a research agricultural engineer, USDA – Agricultural Research Service, Southeast Poultry Research Lab, in Athens, GA.

## 1970's

**Joe Boddiford, AGEN MS '73** returned to the family farm in GA after completing his masters. He started with 400 acres and has gradually worked up to 2000 acres. Joe farms cotton, corn, and peanuts. He is active in Farm Bureau, currently serving as the county president, and is active with his church and local school board. In 1997 he was elected to the board of the Georgia Agricultural Commodity Commission for Peanuts. Joe has two children ages 7 and 5.

**Kevin Forster, AGEN BS '75**, has been working in Hong Kong and China for six years and is President of Carlisle Asia Pacific. Carlisle has five companies in China producing roofing and waterproofing materials, industrial tires, industrial drive belts, plastic injection molded parts, and stainless steel processing equipment for pharmaceutical and specialty chemical companies.

**Larry W. Turner, AGEN MS '78 BS '76** has been named the University of Kentucky associate director and associate dean for extension. He will lead the state's 400-agent Cooperative Extension Service. In 1978 Larry began working as an extension agricultural engineer and faculty member for UK and in 1984 earned a Ph.D. in agricultural engineering for the University of Kentucky.

## 1980's

**William C. Werner, AGEN BS '82**, has been working for EATON since 1987 serving in various capacities at the Eden Prairie, MN and Shawnee, OK locations. Bill is currently

the product engineering plant site leader in Shawnee. They produce the EATON CharLynn Disc and VIS Motor product lines. A part of Bill's responsibilities is to share product engineering knowledge concerning the hydraulic motor and components with other plant site disciplines to enhance cross functional decision making processes.

**Patrick Redington, Ag Mech BS '86**, recently married and is living in Newton, KS. He has been working for AGCO Corp. for several years and works in the Product Reliability group as Technical Service Manager-Loaders and Compact Tractors.

## 1990's

**Derek Choi, FPE BS '91** returned to Hong Kong to work after graduation. He is manager of processing equipment for Balama Prima Engineering Co., LTD.

**Timu Gallien, AGEN BS '96** has been promoted to Plant Manager for Parker Hannifin's Santa Fe Springs, CA Hydraulic Accumulator Division Operation. Timu joined Parker in 1996 as a Manufacturing/Marketing Engineering trainee and served in the Global Development Program in England, Germany and Sweden in 1998-1999.

**Aaron B. Yoder, AGEN BS '96** is working as a Territory Sales Engineer with Morrell, Inc. They are distributors of Rexroth motion/control equipment. He recently purchased his grandparent's homestead and is living in Kokomo, IN.

**Brent Anderson, FPE BS '97** and **Maria M. Carlos, FPE BS '97** were married in June 2001 and are living in California. Brent is working on his Ph.D. in Food Engineering at the University of California-Davis. Maria is a quality engineer at the General Mills flour mill in Vallejo, CA.



**Krista Richardson, ABE BS '99** wrote to thank Professor Mohtar for his guidance and encouragement. She is living in Chicago and working for Roy F. Weston, an environmental engineering/consulting company. Most recently she has worked on an EPA remediation project for a former aircraft components storage facility in Michigan. Krista found herself using textbooks and course material to evaluate different remediation technologies for the groundwater plume at the site.

**Brent Smith, ABE BS '99** has taken a position as a Senior Associate with MainStream Management. Brent helps organizations improve processes and efficiency by reducing workload and improving quality.

**Matthew White, ABE BS '99** has moved to Dubuque, IA and accepted a position with Deere.

## 2000's

**Alyson Faulkenburg, ABE MS '00 BS '98**. Alyson is a project engineer for Earth Tech in Indianapolis. In a recent note to Professors Engel, Mohtar and Frankenberger Alyson says her Purdue education was "*paying off (or coming back to haunt me, whichever you prefer.)*" Alyson is working on a project for Earth Tech to teach IDEM staff BASINS and SWAT. She is the only employee with SWAT experience. Alyson asked them to pass a message on to their students. "*...more and more my ABE education with ArcView, water quality models, and hydraulic models is paying off in the consulting world.*"

**Erica Clerc, FPE BS '01** is working for Nestle as a Management Trainee in the Confections & Snacks Division. She returned to campus in February for recruitment and to talk to ABE classes about her experiences since graduation.

**Michael J. Deutsch, ASM BS '01** married Beth A. Phares on June 15, 2002. Beth graduated with high distinction from CFS in Retail Management and is a manager with Kohl's department store. Mike is working as a sales manager for AgriGold Hybrids. They are living in McCordsville, IN.

**Ricardo Henriquez, FPE BS '01** accepted a position with Bacardi-Martini Product Development. He is a Laboratory/Pilot Plant Technician in Bacardi-Martini's only R&D facility. Ricardo is working on development of products ranging from high proof spirits and liqueurs to low proof flavored/carbonated alcoholic beverages. In his message to the department Ricardo said "*Once again thank you very much for all the help and advice... and all the things I learned from your classes at Purdue. It was a very rewarding experience that I'll never forget. I will always carry a piece of Purdue and the ABE Department in my heart.*"

**Ryan Gehlhausen, ABE BS '02** has accepted an engineering position in the Water Pump Bearing line at NSK in Liberty, IN.

## Calendar

## September

- 7 PU @ Notre Dame Noon EST  
 14 PU vs. Western Michigan  
 1pm EST  
 (Band Day/Family Day)  
 21 PU vs. Wake Forest TBA  
 26-28 **HOMECOMING 2002**  
 26 Night Train Homecoming  
 Parade 7pm  
 27 Bill Cosby, Hall of Music 8pm  
 28 University-wide  
 Homecoming Celebration,  
 Purdue Mall 11:30 am  
 PU vs. Minnesota 5pm

## October

- 5 PU @ Iowa 11:10am CDT  
 7-8 Fall Break  
 12 PU @ Illinois TBA  
 19 PU vs. Michigan TBA  
 25 ABE Academic Excellence  
 Awards Celebration  
 26 ABE Alumni Hog Roast  
 PU @ Northwestern 11:10am CDT

## November

- 9 PU vs. Ohio State TBA  
 16 PU @ Michigan State TBA  
 23 PU vs. Indiana TBA  
 28-29 Thanksgiving Break

## December

- 9 Final Exams begin  
 15 Winter Commencement

**Class of '76 - Where Are They?**

We received several responses from members of the Ag Mechanization Class of '76, their class mates, and friends.

**Charles Canary, Ag Mech BS '77**, emailed after receiving his issue of the ABE Newsletter. *"I really like reading it when it arrives, as it brings back memories of my days at Purdue... Ted Macy, John Bogemann, Bob Taylor and I worked at the dairy farm together and I was President of Ag Mech Club that year."* Charles is farming, driving a school bus, and dabbles in politics. He still works with Purdue, at the Indiana State Fair in the Purdue Ag Pioneer Farm Village.

**Kenny Seibert, Ag Mech BS '77**, replied that he recognized himself, Ted Macy, Kenny Mesker, and several others looked familiar.

**Steve Baker, AgMech BS '78**, is living in Marion, IN and working full time in the computer services industry, and helps his brother farm during the busy seasons. Steve remembers Frank Bischoff from the Class of '76 who is currently hog farming in Cassopolis, MI. Steve and Frank lived at Dover Coop together and have stayed in touch since graduation. Steve was Ray Lien's Teaching Assistant from fall '76 to spring '78.

**W. Grant Frantz, Ag Mech BS '80**, wrote that he remembered when the photo hung in the halls of the Ag Engineering building. *"These were the guys that I revered and hoped we could be like one day. Most of all, I remember Ray Lien. He of course was our advisor, and in many of our eyes, the High Potentate of our chosen major. Ray was a fatherly figure, whose door was always open. His office was a reflection of the man himself, and somewhere I always felt at ease. He was a good man, full of humor and wisdom, and a large part of my experience at Purdue."* Grant is a Logistics Management Specialist at the Naval Surface Warfare Center in Crane, IN.

**Steve Beyer, ABE parent**, recognized John Bogemann in the picture and says John lives in Shelbyville. Steve's son Brian graduated in May '02 with a degree in Ag Systems Management and accepted a job with Caterpillar in Decatur, IL.

**Phil McCloud, Friend of ABE**, recognized Jim Woody's picture in the "Where Are They?" picture. He has known Jim for about 10 years, but didn't know he had graduated from the Ag Engineering Department. Phil reports that Jim is currently working for the IDNR Division of Soil Conservation in Danville, IN as a Resource Specialist.

**In Memory**

**John Nye (AGEN PhD '71, MS '70)** ABE faculty 1971-84, and 2000 ABE Outstanding Alum passed away April 30, 2002 at the age of 57. He was the dean and director of the college of Agriculture & Natural Resources at the University of Delaware. John joined the ABE faculty in 1971 when he taught until 1984 when he accepted the position of department head of Biological and Agricultural Engineering at Louisiana State University. During his teaching career John won multiple "Best Teacher" awards and the Martin Luther King, Jr. "Keeping the Dream Alive" award in 1990 from Louisiana State University. John was a valued friend and strong supporter of Purdue ABE. We will all miss him greatly.



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