

Inside This Issue

ABE Awards

ABE Faculty News

ABE Outstanding Students

ABE Outstanding Alumni

ABE News and Events

ABE Alumni Update

**WE'RE
NUMBER ONE!**

U.S. News and World Report has ranked the Purdue University Department of Agricultural and Biological Engineering graduate program one of the nation's best. See our ABE web pages for additional information.

From Department Head - Bernie Engel

We've completed another successful academic year. Many of the recent successes of alumni, students, faculty and staff are highlighted in the newsletter. As you may have noticed in the box adjacent to this letter, Purdue ABE was recently ranked the number one Biological/Agricultural Engineering graduate program (tied with Cornell) by the US News and World Report. This is largely due to the hard work and support of faculty, staff, students and alumni.



Thank you for helping make our programs truly outstanding!

An important change in our undergraduate engineering degree programs has been recently finalized. Beginning in August 2009, our BS Agricultural and Biological Engineering (BS ABE) degree will be split into two degrees: BS Agricultural Engineering and BS Biological Engineering. We began offering the BS ABE degree in August 1997 (had been BS Agricultural Engineering prior to that). Students in the Biological and Food Processing area will pursue the BS Biological Engineering degree while students in Machine Systems and the Environment and Natural Resources areas will pursue the BS Agricultural Engineering degree. The splitting of the BS ABE into two degrees helps us align with ABET criteria. Most importantly though, this split will allow us to maintain the comprehensive nature of our programs while providing continued opportunities to improve and grow. Our Agricultural Systems Management degree (previously Agricultural Mechanization) remains the same.

Placement for graduates of our programs has created some challenges given the current economy. Thank you to all of you who have passed along opportunities. If you are aware of job opportunities, please continue to send these to Micky Creech (mcreech@purdue.edu).

We have begun initial planning for an ABE event during Homecoming weekend (October 3). Please watch your e-mail and our web site for additional details.

Our Mission

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

ABE AWARDS

Purdue Agriculture 2009 Team Award



The Dean's Team Award annually recognizes the achievements of faculty and staff collaborating on interdisciplinary teams. This year's Team Award winner is the Integrated Corn Ethanol Co-Products Team. This team is composed of more than 40 researchers representing five

departments within Agriculture, including Agricultural and Biological Engineering, Agricultural Economics, Agronomy, Animal Sciences and Botany and Plant Pathology.

Agricultural and Biological Engineering members are: Seth Bossingham, Dennis Buckmaster, Clairmont Clementson, Anoldo Garcia, Klein Ileleji, Teshome Jiru, Don Jones, A.R.P. Kingsly, Dirk Maier, Chad Martin, Kyle Probst, Shannon Snyder and Richard Stroshine.

The Integrated Corn Ethanol Co-Products Team, an interdisciplinary applied research and Extension rapid response effort, addresses issues surrounding the increasing production of DDGS from the corn ethanol industry, including the DDGS production process, impacts of DDGS as an animal feed ingredient, and economics of its use. The team has created a series of Bioenergy Extension publications (<http://extension.purdue.edu/renewable-energy/bioenergy.shtml>), sponsored several seminars and a conference for stakeholders, and written numerous refereed journal articles. The team's effort is supported by partnership with The Andersons Clymers Ethanol (a local ethanol plant) and the Indiana State Department of Agriculture.

“Many hands, many minds, one goal”!



Bill Field - was presented the Ag Alumni Association's highest honor, the Certificate of Distinction!

This award, which was instituted in 1938, is presented to those who have distinguished themselves with significant contributions that have enhanced the agricultural profession.

Bill has been a professor at Purdue since 1977 and in 1979 he established the Breaking New Ground Resource Center, which serves the needs of farmers and ranchers with disabilities.



Indiana Soybean and Corn Contest

Each year the Indiana Soybean Alliance and the Indiana Corn Marketing Council sponsor a contest for students that focuses on teaching them how to become innovative entrepreneurs, while using corn and soybeans. The ABE students were very successful and took several top prizes. Congratulations to all participants!

First Place Soy Competition (tie) - Mohamad Abiad (ABE) and Jacob Smoker (HPM) - Advisor Dr. Campanella - Terra Mat/Cork
 First Place Soy Competition (tie) - Erin Rosswurm (ABE), Marci Colglazier (FMO), Victoria Horton (BFPE), Anna Verseman (BCHM) - Advisor Dr. Mauer - Melt-Away Cupcake Liners
 First Place Corn Competition - Mary Jane Stine (ABE), David Jaroch (BME) and Jessamine Osborn (BIO) - Advisor Dr. Rickus - Natures Silk Toilet Paper
 Other Entries -
 Shawn Ehlers and Zach Kemper (ASM) - Advisor Dr. Buckmaster - Organic Garden Pottery
 Craig Barcus, Heather Serwacki, Allison Calahan and Courtney Gray (All BFPE) - Advisor Dr. Rickus - Auto Wax
 Hector Chang and Deepa Bhandari (both ABE) - Advisor Dr. Narsimhan - Biodegradable Soy Foam Food Container
 Scott Stella, Rui Ma, David Digiovanni, Haroon Mohammed (All ABE) - Advisor Dr. Campanella - Paintballzz

For additional information visit our web page at: www.purdue.edu/ABE

ABE FACULTY NEWS

Jenna Rickus - was selected as a US delegate to the NSF funded WIRES International summit for the field of micro/nanotechnology. The summit connected women researchers from around the world in the fields of energy systems, Micro/nanotechnology and simulation-based engineering. The summit was held June 1, 2, 3 and 4 in Barcelona Spain.

Gary Krutz - was recently recognized for thirty years of active membership with SAE International.

Joseph Irudayaraj - has developed nanoscale multifunctional probes that can help pinpoint the location of tumors and might one day attach to cancer cells.

Marshall Porterfield - was featured in Purdue Today as well as various other publications for helping create a precise biosensor that detects blood glucose and potentially other biological molecules by using hollow structures called single-wall carbon nanotubes anchored to gold-coated “nanocubes”.

Chang Lu - presented his seminar titled “Microfluidic tools for single cell analysis” at both the University of Notre Dame and the University of California Riverside.

Monika Ivantysynova - gave a presentation entitled “Prius Without a Battery - An effective way to save fuel and reduce emissions with hydraulic power trains” in the Light Duty Hybrid Vehicle Technology Session of the 2009 SAE Government/Industry meeting held in Washington DC.

John Lumkes - received the NFPA Education and Technology Foundation Award for the project titled - “Design, Simulation and Control of Hydraulic System Topographies with Integrated Energy Recovery”.

Monika Ivantysynova and John Lumkes - and 11 of their graduate students traveled to the University of Minnesota to attend the annual site visit of the Center for Compact and Efficient Fluid Power (CCEFP). The center is funded by the NSF and consists of 7 universities and 59 industry partners. This year’s visit was critical to the success of the center as the NSF advisory board will be deciding whether or not to continue funding the center for the next 7 years. The students played a key role in presenting their research findings in the form of posters to the NSF advisory board.

Nate Mosier - was an instructor at the Penn State Cellulosic Biofuels Short Course held in San Francisco California.

Al Heber - testified before the U.S. House Committee on Science and Technology during a hearing entitled: Monitoring, Measurement and Verification of Greenhouse Gas Emissions II: The Role of Federal and Academic Research and Monitoring Programs. He presented a 5-minute Power Point presentation and answered several questions from the committee members during the 2 hour and 20 minute long hearing. He was one of seven members of the scientific panel.

Michael Ladisch - was presented the Charles D. Scott Award at their annual Symposium on Biotechnology for Fuels and Chemicals. The Symposium was held in San Francisco and this award recognizes persons who have discovered innovative uses of biotechnology to produce fuels and chemicals.

Dennis Buckmaster - has found a way to get more bang for fewer bucks when it comes to processing cellulosic material to make ethanol. By shredding corn stover instead of chopping, as is commonly done, about 40 percent less energy is needed to gain access to more of the material stored in the plant.

Marshall Porterfield - was awarded the University Faculty Scholar Award in April.

**Further Details Available On
Our Web Page At:
www.purdue.edu/ABE**

2009 ABE OUTSTANDING STUDENTS

Craig Barcus

(BFPE) - this ABE Outstanding Senior is an intelligent, talented, hard working, mature, grounded, out-going, well-rounded student and a great leader. Craig has tremendous motivation for research and is a great student in the lab. Craig entered Purdue's Masters program last fall and has dual status as a senior and a Master's Degree student. He is making rapid progress towards completion of his thesis. Craig has also been very helpful in the recruitment of new students to ABE. He has participated in freshman engineering lectures and is a freshman advisor for 1st year engineering students.



Jacob Ohlemiller (ANRE)

- this ABE Outstanding Sophomore is an excellent student who never missed a class, never turns in homework late or incomplete, and is always courteous to both faculty and fellow students. Jacob is a well-rounded student with excellent academic skills, as well as being very involved in campus and community activities. Jacob's engineering inquisitiveness, academic ability, outstanding service to Purdue, overwhelming positive approach to life, and a desire to truly make the world and others in it a better place are contagious.



Graduate Student Awards

Magoon Award Honoree - **Andrew "Dewey" Mann**

Celebration of Graduate Student Teaching Honoree - **Oscar Ramos**

Purdue Student Engineering Foundation Outstanding Graduate Student Award - **Majdi Abou-Najm**

ABE Outstanding MS Graduate Student - **Azalenah Shah**

ABE Outstanding PhD Graduate Student - **Jun Wang**

Bilsland Dissertation Fellowship - **Jun Wang**

Purdue Doctoral Fellowships - **Margaret McCahon**

Ross Fellowship - **Joshua Zimmerman**

Lynn Fellowship - **Isaac Emery**

Hugh and Edna Donnan Fellowship - **Clairmont Clementson**

NSF Fellowship - **Ruth Pinto, Elizabeth Casey and Janie McClurkin**

USDA National Needs Fellowship - **Laurent Ahiablame**

Ivanhoe Fellowship - **Laurent Ahiablame**

Janie Stine (BFPE)

- this ABE Outstanding Junior has outstanding academic abilities, a direct, no-nonsense personality and wonderful organizational skills. She is constantly helping her fellow students to understand course material. She has an essentially perfect GPA, indicating her very strong scholastic skills. Janie also participates on Purdue's iGEM team, where she helps organize and participates in genetic engineering competitions. Thanks to her enthusiastic leadership and participation, the Purdue iGEM team has received several awards in national competition.



Benjamin Daily (ASM)

- this ABE Outstanding Freshman is an excellent student, he communicates clearly, understands the context of his degree, and has a well-planned and very bright future. In addition to his ASM major, he plans to obtain minors in Spanish and Management. Ben is also active in the Agricultural Systems Management Club as well as the Agronomy Club and is active in the Lafayette community.



Ben Dietrich - is the 2009 Purdue Student Engineering Foundation Outstanding Senior. While maintaining a respectable GPA, Ben has been exemplary in his service to the department. He has volunteered to help with recruiting events as well as Purdue's cooperative education program. Ben is currently the president of the Purdue ASABE student chapter. The combination of leadership and service that Ben has demonstrated make him highly deserving of this recognition.

2009 ABE OUTSTANDING ALUMNI



Jeffrey F. Birkel received his Bachelor degree in Agricultural & Biological Engineering in 1984 and shortly thereafter started his career with Caterpillar in Peoria Illinois, and recently celebrated 25 years with them.

Jeff owns and operates a 1,000 acre farm where he designed his own irrigation system and installed a managed grazing operation. He is president and CEO of McCullough Island Energy, LLC a renewable energy company he formed in 2008 to investigate the potential for commercial wind on his ranch in Nebraska.

Jeff lives in Peoria with his three children and enjoys traveling, snow skiing and sailing. He is a marathon runner and is a mentor/coach on the Peoria Notre Dame High School FIRST Robotics Team.



Ryan D. Howard graduated from the ABE department with a Bachelor degree in Food Process Engineering in 2000.

Ryan is the president and cofounder of The Chicago Soydairy a company specializing in allergy-free and vegan foods (strict vegetarian: meat-free, dairy-free, egg-free foods).

Ryan credits his problem solving abilities to his ABE training and his real-world experiences. His focus on innovation is what keeps his business running and prepared for whatever is ahead.

Ryan says that as a small businessman, you have to find new ways to compete. This means both creating new products and more effective ways to manufacture existing ones.

Chicago Soydairy products can be found at natural food stores and restaurants nationwide.



Gary A. Michel received his Bachelor degree in Agricultural Mechanization from Agricultural & Biological Engineering in 1975 and has recently retired from the Purdue University Extension Service, after devoting over 32 years of service to the citizens of Indiana.

In his Extension Career, Gary worked with many ABE staff to bring knowledge in Farm Safety, Breaking New Ground, Farmstead Plans, Design and Construction, Bio Fuels, Grain Composition Analysis, Grain Quality and Water Quality to farmers and rural citizens.

Gary has received numerous awards and honors as Extension Educator. He earned the NACAA National Achievement Award in 1983 and the Distinguished Service Award in 2005.

Gary and his wife Jonsie have been married for 25 years and they have two children.

The ABE department hosted the Annual Alumni & Student Celebration on April 23. The department hosted events all day with our 2009 Outstanding Alumni being recognized in the morning, ABE Senior Design and ASM Senior Capstone projects on display for judging in the afternoon and the student awards and scholarship banquet in the evening with over 200 faculty, staff, students, parents and friends in attendance!

The academic programs committee awarded \$60,000 in scholarships to 68 students.

ABE NEWS AND EVENTS

Two New ABE Scholarships!

The John C. Nye Scholarship in ABE has been formed with the support and gifts of his wife, Gloria Nye, and son, Donn Peterson. John Nye (AGEN PhD '71, MS '70) was an ABE faculty member from 1971-84, and in 2000 he was honored as an ABE Outstanding Alumni. John passed away on April 30, 2002.

The Bartlett Family Scholarship in ABE has been created with the support and gifts of Ms. Virginia Bartlett and son, Jim Bartlett, and his wife Martha. James Bartlett (BS ABE 2008), grandson of Virginia and son of Jim and Martha, is currently pursuing an MS ABE.

These scholarships will help us recruit outstanding undergraduate students. More information about scholarships awarded this spring and their sponsors can be found at our web page. The John C. Nye Scholarship and the Bartlett Family Scholarship will be awarded annually beginning in 2010. Thank you to the Nye and Bartlett families for their generous support for our students!



ABE at the Indianapolis Indians Game - the ABE department hosted almost 90 guests at the Indianapolis Indian's game on Friday June 12, 2009. The event included a picnic before the baseball game and tickets behind home plate - as well as fireworks immediately after the Indian's winning game!

*Hope to see YOU Next Year
At This Popular Alumni Event!*

Family Day - September 19th - come join us in the ABE department for coffee, donuts and juice and to hear about the latest ABE news.

Homecoming - October 3 - be sure and keep an eye on our ABE web page for more information about our alumni event on Saturday! Hope you can join us!



Professor Don Jones joined the Department of Agricultural and Biological Engineering at Purdue University in 1977 and after 32 years of service retired in early 2009.

Don's research and teaching interests included computer applications such as spreadsheets, multimedia and web-sites in agriculture and water resources, especially as applied to agriculture production systems and rural waste management. He conducted active outreach programs in areas of manure management and on-site wastewater.

Don has actively participated in the development of several expert systems and over 60 internet-based environmental educational programs. Don has been the recipient of many awards including: ASABE Fellow, PUCESA Career, Senior and Team awards, Hovde Award for Excellence in Educational Service to Rural People of Indiana, ABE Outstanding Teacher in ASM, ASABE Henry Giese Structures and Environment and Nolan Mitchell Young Extension Worker Awards, Certificate of Distinction Award, and Ag Dean's Team Award.



Professor Don Jones

The Agricultural and Biological Engineering Department wishes Don the best in his retirement.

ABE ALUMNI UPDATE

Emily Raderer (BS ABE '07) - is working at Texas A&M's Urban Solutions Center in Dallas doing research. She married fellow Purdue graduate Allen Guzik in October 2008.

Jada Phillabaum (BS ABE '97) - was recognized as a 2008 recipient of the Emerging Leader Award from the Society of Women Engineers. Phillabaum is a marketing recruitment and development supervisor in Caterpillar's Marketing and Product Support division.

David Yung (BS ABE '08) - and his parents visited with Purdue President France Cordova when she attended the Purdue Alumni Event in November in Hong Kong, China.

Brad Lukac (BS ABE '96) - welcomed a new member to his family! Paxton Carter Lukac was born on November 11th and she weighed in at 8 pounds and 3 ounces and was 20 inches long.

Scott Benko (BS ABE '82) - works for Indy Tractor LLC, in Mooresville, Indiana.

Dr. Kelsi Bracmort (MS ABE '01, PhD. ABE '04) - has accepted a new position as an analyst in agricultural conservation and natural resources policy for the Congressional Research Service (CRS).

Dustin Thurston (BS ABE '03) - joined the RM Armstrong Company as a Program Engineer. He will be working on the drainage and permitting programs for transportation projects.

Lawrence Ranck (BS ABE '68, MS ABE '72) - retired from Sonoco Products Company as President of Sonoco Development, Inc. and Sonoco Products Company Resources, Inc. in January 2009 after 32 years of managing intellectual properties.

John Chenoweth (BS ABE '53) - is consulting part-time during retirement from the USDA-NRCS. John states that his training in hydrology and hydraulics served him well, and that he has very fond memories of the Purdue faculty and fellow students.

Robert Dieterie (BS ABE '70) - retired after 30 years with Viking Pump located in Cedar Falls, Iowa. During his time with Viking Pump he served as a Project Engineer, District Manager and Regional Manager.

David Pyle (BS ABE '08) - joined POET Biorefining located in North Manchester Indiana as a Plant Engineer.

Corey Arrick (BS ABE '00) - is a Senior Process Engineer with Barry-Wehmiller Design Group located in Philadelphia.

Levon Mathews (BS ABE '81) - was promoted to President and Chief Executive Officer of Vantus Bank, headquartered in Iowa.

Evandro Chartuni Mantovani (MS ABE '81, PhD ABE '84) - has added a new member to his family - grandson Francisco

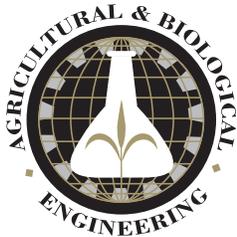
Michael Hitchcock (BS BFPE '88, MS ABE '91) - is employed by LinkedIn in Florida and spends a lot of time fishing in the Saint John's river.

THE ABE DEPARTMENT WISHES TO EXTEND SINCERE SYMPATHY TO THE FAMILY AND FRIENDS OF SAMUEL D. PARSONS

Samuel D. Parsons joined the Purdue University Agricultural Engineering department (now ABE) in 1964 and retired in 2001. Dr. Parsons' major emphasis was in the area of farm machinery management. Professor Parsons died on March 24, 2009.

PURDUE UNIVERSITY

Published for Alumni and Friends of
the Department of Agricultural and
Biological Engineering



Newsletter:
Micky Creech, Editor



<http://www.purdue.edu/abe>

Purdue University
Agricultural & Biological Engineering Department
225 South University Street
West Lafayette, IN 47907-2093

Address Service Requested

Non-profit Organization
U.S. Postage
PAID
Purdue University

Purdue University is an equal opportunity/equal access employer

CALENDAR

July

4 University Holiday

August

7-23 Indiana State Fair
7 Purdue Day at the Indiana State Fair
8 Commencement - College of
Agriculture at 9:30 am
24 Classes Begin

September

7 University Holiday
19 Purdue Family Day
22-24 Ohio State Farm Science Review
- London, Ohio

October

3 Purdue Homecoming
12 Columbus Day/Student October
Break Begins
13 Student October Break Ends
21-24 National FFA Convention in
Indianapolis
31 Halloween

November

1 Daylight Savings Time Ends
11 Veteran's Day
25 Student Thanksgiving Break Begins
26 University Holiday
27 University Holiday
28 Student Thanksgiving Break Ends

*ABE Alumni!
We Want To Hear From You!*

*We would like to keep in
touch with you about ABE
activities and events, as well
as other college and
department events, so be sure
you send your e-mail address
to Micky Creech at
mccreech@purdue.edu*

