Purdue ABE Ranked #2

Each year U.S. News & World Report ranks the best graduate schools in the nation and publishes its Exclusive Rankings issue. Purdue’s graduate engineering programs were ranked third in the country by employers – and among the best in the nation overall.

Our Department was ranked 2nd nationally in the specialty rankings for Agricultural & Biological Engineering. Rankings are based on a school’s overall academic program quality and how well the program prepares students for success.

In order to have a top ranked department, all the pieces of the academic puzzle have to be in place – an academic circle of life if you will. The strength of faculty and staff, research activities, and the performance of students and alumni contribute to the Department’s success. We are very proud of this honor and the public acknowledgment.

Thank you for helping us continue to be among the best!

ABE Completes Comprehensive Review

In February our Department participated in a Comprehensive Program Review by the USDA Cooperative State Research, Education and Extension Service (CSREES). Six distinguished scientists and university administrators visited and reviewed our teaching, research, and extension programs; overall the review was very positive.

Over the past six years, the ABE Department has been in a period of unprecedented change and growth. Since our last CSREES review in 1994, undergraduate numbers have grown to historic sizes and we are now one of the nation’s largest programs. Research productivity has also remained high while the number of ABE faculty members has increased to 23. In addition, we have recently received approval to fill an additional position in the Biological Engineering area in the coming year.

Academic Programs. In preparation for our upcoming 2001 ABET review, the ABE faculty developed “outcomes-based assessment” tools for each of our undergraduate programs. Placement of graduates from these programs remains strong with B.S. graduates being offered salaries among the top in the Schools of Agriculture and Engineering. Many of our Ph.D. graduates have also received top offers from industry and academic institutions.

Research Programs. Department faculty currently guide approximately 58 graduate students in the following areas and technologies: Environmental and Natural Resources Engineering (GIS and environmental modeling), Machine Systems Engineering (instrumentation, sensors, electro-hydraulics, and safety), Food Process Engineering (physical properties and food safety), and Biological Engineering (bioprocessing and bioseparations).

Extension Programs. Over the past six years, the development of multi-media and web based educational materials has been an effective new way to disseminate information. Current extension activities can be categorized in the following areas and
Dear Alumni and Friends:

Welcome to the spring edition of the Purdue Agricultural and Biological Engineering Newsletter. As you will see, we have been hard at work preparing for external reviews, and celebrating with alumni, friends, and our recent ABE graduates. Thanks to your continued support and the success of our graduates, Purdue ABE continues to be ranked high in the national polls of best departments.

The spring semester has just been completed and the campus has been filled with graduation celebrations. We continue to graduate record numbers of students from our undergraduate programs (20-ASM, 11-ABE and 14-FPE for a total of 45 graduates). Over the past six years we have graduated 390 B.S., 50 M.S., and 41 Ph.D. alumni. Student placement is still strong despite the slowing economy. B.S. graduates from ABE this past year were commanding top level salaries from companies like Parker, Deere, ADM, Eli Lilly, Quaker Oats and Kraft Foods.

In April, we held our ABE Outstanding Alumni and Service Awards ceremony welcoming seven honorees and their families back to campus. We recognized their professional success and thanked them for their continued support and service to Purdue ABE. As part of the day’s activities, we also commemorated the establishment of an ASAE Historic Marker for grain aeration research by George Foster and others during the 1940’s and 1950’s. Also, during the same weekend we celebrated the selection of Harmon Towne as a Purdue Distinguished Engineering Alumnus. Harmon was selected for his engineering contributions to the grain and livestock industry, his leadership in ASAE, and participation on the ABET Board. We were proud to host Harmon and his family during this prestigious event.

As usual, there are many exciting things happening in the ABE Department and on the Purdue campus this summer and fall. We are looking forward to another great football season and numerous activities associated with the games. If you would like more information or a personal tour of the Department please let us know when you can visit.

If you plan to be in California for the ASAE meeting please plan to join us for a complimentary breakfast (July 31 at 7 a.m.) courtesy of the Deans of Agriculture and Engineering.

I hope to see you all soon! Hail Purdue!!

Future Opportunities. In preparing for this review, the faculty reminded itself of the coming impact of biology and the biological sciences on agriculture. Not only are new products for agriculture and the farmer going to result in new challenges for maintaining the status of top producers, but the science behind these developments will need to be thoroughly understood by the professionals associated with Agricultural and Biological Engineering who will advise the agribusiness sector.
Distinguished Engineering Alumnus

Harmon Towne
AGEN BS 1963

On April 20th, Harmon L. Towne was honored by the Schools of Engineering with a Distinguished Engineering Alumni Award. These awards are given each year to honor graduates for professional achievements and related accomplishments.

Harmon Towne earned his bachelor’s degree in Agricultural Engineering in 1963 and is currently vice president of engineering and product development for Brock Grain and Feed Systems, Milford, Indiana, a business unit of CTB, Inc. Harmon patented the design of the Ultra-Dry in-bin, grain-drying system and earned a 1991 Agricultural Engineering 50 Award, which recognizes innovative products. He designed one of the first automated inlet systems for livestock ventilation which is used in thousands of livestock facilities around the world. He also has been involved in the design and installation of several grain storage, drying and handling systems that improved international grain drying and processing.

Towne is currently president of ASAE, the Society for Engineering in Agricultural, Food and Biological Systems and is a member of the ASAE Foundation Board of Trustees. In 1999, he received an ABE Outstanding Alumni Award. His ongoing involvement at Purdue has included lecturing, research, and extension support, as well as corporate involvement with the Post-Harvest Research and Extension Center.

In an interview Harmon was asked about his activities that involved reaching out through education. “I am extremely proud of the fact that I have been a part of the Engineering Accreditation Commission of ABET. It has given me the opportunity to help those in the academic world understand the strong parts of their engineering programs as well as share in the success of others’ programs, with the overall goal of making sure that today’s engineering graduates are prepared for a successful career after graduation. As President of ASAE (the Society for Engineering in Agricultural, Food, and Biological Systems), I also have had the opportunity to meet with student groups and share my thoughts with them as well as trying to be more proactive in sharing with others why education is so important.

We all need to find ways that we can educate the public better about the importance of agriculture and engineering... to explain why it’s important to all of us. And we need to start at a much earlier age. A lot of universities are doing that. But those of us in industry can too, by working with our local community schools and getting involved there.”

The title of Distinguished Engineering Alumnus has been given to the following ABE Alumni:

1973  Paul G. Sink  
AGEN BS ’52 MS ’60

1977  Howard K. Johnson  
AGEN BS ’51 MS ’54

1979  Ben M. Pollard  
AGEN BS ’54

1988  Robert O. Martin  
AGEN BS ’57

1990  Donald R. Price  
AGEN BS ’61 PhD ’71

1993  Kevin G. Forster  
AGEN BS ’75

1997  R. Wayne Skaggs  
AGEN PhD ’70

2001  Harmon L. Towne  
AGEN BS ’63
An Award-Winning Day in ABE

Seven individuals were honored April 19th as ABE Outstanding Alumni and Service Award recipients. These Awards were established to recognize and honor alumni and friends of the department who have achieved significant professional, community, educational, and social accomplishments in areas involving agriculture, engineering and technology.

Family and friends gathered on campus for the day-long celebration that started with an awards ceremony and reception that included the commemoration of an ASAE Historic Landmark for grain aeration (see page 7), a luncheon at the Union, followed by a poster contest for students in our Senior Capstone courses, and a department roundtable discussion. Activities were capped off with a reception and student award banquet that evening.

David B. Beasley (Miss. St. AGEN BS ’72, Purdue MS ’73, PhD ’77)

David B. Beasley is a Professor of Biological and Agricultural Engineering at North Carolina State University in Raleigh, North Carolina. From November 1991 through June 1999 he served as Head of the Department at NC State and from 1988-1991, he was Head of the Biological and Agricultural Engineering Department at the University of Georgia’s Coastal Plain Experiment Station. Prior to that, he was a faculty member at Purdue University from 1978 to 1988 and the University of Arkansas from 1977 to 1978.

Beasley’s Ph.D. work at Purdue involved quantifying the impacts of land use and management on water quality in the Great Lakes basin. The ANSWERS water quality model was a direct result of his doctoral work. Today, that model continues to be used around the world. Ed Monke was Dave’s major professor and Larry Huggins was his primary research partner when Dave returned to the Purdue faculty in 1978.

As Head at NC State, Dave led one of the largest Agricultural Engineering programs in the United States. He chaired the southern and national Department Heads groups, helped write the ABET EC 2000 program criteria for biological engineering curricula, and helped put together the multi-state animal waste consortium, of which both NC State and Purdue are members. He has been an ABET evaluator for eight years, is the ASAE liaison with NCEES (National Council of Examiners for Engineering and Surveying), is serving a second term on the ASAE Foundation Board of Trustees, and represents District 2 (southern U.S.) on ASAE’s Membership Development Council. Currently, he represents NC State in International Programs in the environmental area and is directly involved in exchanges with Rostock University in Germany and the Agrarian State University of Moldova.

David is married to Jan (Purdue graduate in Home Economics) and they have two daughters.

Donald M. Edwards (So. Dak. St. AGEN BS ’60, Purdue MS ’61, PhD ’66)

Donald M. Edwards was Dean of the College of Agricultural Sciences and Natural Resources and a Professor in the Department of Biological Systems Engineering at the University of Nebraska-Lincoln (UNL) from July 1989 until June 2000. From July 2000 to June 2001, he is served as a Professor and Director of Special Projects in Institute of Agriculture and Natural Resources in the Department of Biological Systems Engineering at UNL.

Don served as Professor and Chair of the Department of Agricultural Engineering at Michigan State University from September 1980 until June 1989. Before his employment with MSU he was appointed Assistant Dean in the College of Engineering and Technology at UNL in August 1970. He was appointed Director of the Engineering Research Center and Associate Dean in November 1973. Since July 1976, he had also been Director of the University of Nebraska Energy Research and Development Center. From January 1966 to August 1970, he served on the Agricultural Engineering teaching and research faculty at UNL.

A native of Tracy, Minnesota, Edwards, a registered professional engineer, is a member of many organizations, including Nebraska and National Society of Professional Engineers, National Association of
Kurt Waananen is a Senior Research & Development Manager for the Betty Crocker Meals Division of General Mills in Minneapolis. He has worked at General Mills for 11 years in areas including breakfast cereals, snack foods, beverages, and yogurt, and serves as recruiting coordinator for General Mills’ efforts to hire Purdue engineers and food scientists. Additionally, Kurt serves as a member of the ABE Academic Advisory Board and has been very active in assisting us in preparing for our ABET Review in 2001.

Kurt received his B.S. from Washington State University and M.S. and Ph.D. degrees from Purdue University, all in agricultural engineering with an emphasis in food engineering. His research interests include drying, extrusion, and rheological properties of foods. Additionally, he has presented papers and organized sessions for national American Institute of Chemical Engineers (AIChE) and Conference of Food Engineering (CoFE) meetings.

Kurt lives in Maple Grove, Minnesota, with his wife, Susan, and three children.

Ted S. Macy (Purdue Ag Mech BS ’76, MS ’80)

Ted Macy is recognized as an industry leader in the application of technology for precision agriculture. He and his wife Nancy started their current company, MapShots, Inc., in the fall of 1999 to provide contract GIS development services to other companies wanting to add mapping into their existing business applications. In addition to corporate clients (like Pioneer Hi-Bred, Ag Connections and Deere & Co.), they recently acquired the popular EASi Crops suite of software products.

Macy’s interest and expertise with computers had its beginning during his years at Purdue, an era when “computers on a chip” were being introduced. His programming experiences with Purdue’s Model-B (an LP model) and desktop applications for Purdue’s Cooperative Extension Service, sparked his interest in computers and their potential and practical applications for agriculture. He returned to the home farm near Cambridge City in Wayne County, Indiana, where, for the next several years, he set about devising and integrating the equipment, software, and record-keeping techniques that would lead to variable-rate application, mapping, etc. on his own farm - pioneering concepts that are the basis for much of site-specific farming today.

In 1992 Ted left farming to develop full-time at developing the record keeping, mapping and analysis software needed to advance precision agriculture. He became Vice-President of Applications Mapping, Inc., a newly-formed company in Frankfort, Illinois. His DOS-based AgLink software package - for yield and nutrient mapping, and for the development and use of application control maps with field equipment - quickly became the software of choice for hundreds of crop producers and for commercial firms providing soil testing and nutrient application services. The company was so successful that it was purchased by Deere and Company, then traded to InterAg Technologies, Inc., Roswell, Georgia, which, in turn, was acquired by John Deere in 1996.

From 1996 through 1998, Ted Macy served as Vice President of Crop Production Systems at Agris Corporation (a division of InterAg). He also served as an industry representative to the Ag Electronics Association in their efforts to facilitate the compatibility and interchangeability of electronics technology used in agriculture. During this last year at Agris, he served as a Strategic Product Development Consultant for Deere and Company.

Kurt M. Waananen (Wash. St. AGEN BS ‘85, Purdue FPE MS ’87, PhD ’89)

Kurt Waananen is a Senior Research & Development Manager for the Betty Crocker Meals Division of General Mills in Minneapolis. He has worked at General Mills for 11 years in areas including breakfast cereals, snack foods, beverages, and yogurt, and serves as recruiting coordinator for General Mills’ efforts to hire Purdue engineers and food scientists. Additionally, Kurt serves as a member of the ABE Academic Advisory Board and has been very active in assisting us in preparing for our ABET Review in 2001.

Kurt received his B.S. from Washington State University and M.S. and Ph.D. degrees from Purdue University, all in agricultural engineering with an emphasis in food engineering. His research interests include drying, extrusion, and rheological properties of foods. Additionally, he has presented papers and organized sessions for national American Institute of Chemical Engineers (AIChE) and Conference of Food Engineering (CoFE) meetings.

Kurt lives in Maple Grove, Minnesota, with his wife, Susan, and three children.
Since February 2000, Phillip Wegh has served as Operations Director at Kraft Foods LLC, Russia, responsible for all Kraft Foods factory investments in Russia, including construction, commissioning, and operation of a new $10M coffee packaging factory in St. Petersburg. The factory is now operating in 3 shifts, 6 days per week, with 92 employees, packaging both Maxwell House and Jacobs soluble coffee in jars and tins. The factory has an installed production capacity to pack 5,000 tons of soluble coffee per year.

From April 1997 through January 2000, he was the General Director of ZAO Dirol (part of the Denmark based Dandy Group) and Project Manager responsible for 250 Russian employees working in 5 shifts, 7 days a week, producing Stimorol and Dirol brand chewing gum. Prior to that he served as the General Director (April 1996 to April 1997) of the same facility.

Phil has been active on the Purdue campus when his travels bring him back to the U.S. He has presented seminars in the Ag Economics department related to international business strategies and career opportunities. Additionally, he hosts many Purdue students when they visit Russia.

Outstanding Service Award Recipients

**Larry R. Cline (Purdue Ag Ed BS ’72, Ed MS ’73)**

Larry graduated with a BS in Agricultural Education and M.S. in Education from Purdue in the early 70’s. While working on his M.S. degree, he spent one semester as an Assistant in the Ag Education Department and one year as a Graduate Instructor in the Agricultural Engineering Department assisting Professor Arlen Brown.

After graduation, he spent a year teaching agribusiness at Washington High School in Washington, Indiana and then went to work for John Deere in Columbus, Ohio, in July of 1974. He has held various positions with John Deere, including Area Service Manager for eastern Ohio, West Virginia, parts of Pennsylvania, and various parts of northern Indiana. He also served as a Hay Product Specialist and recently completed a 2 1/2 year assignment as a Combine Marketing Specialist, bringing the “10 Series” and new “50 Series” John Deere combines to the North American market. He is now the Territory Aftermarket Manager for northwest Indiana.

Besides working with several ABE faculty members, he has also had ties with Agronomy, 4-H, Animal Sciences, and the Agricultural Economics Departments at Purdue. He is a professional horse show judge for several breed associations and multiple state 4-H associations and has coached the 4-H Horse & Pony Judging Team for the past 11 years. A West Lafayette resident, Larry has been active as a 4-H Leader in Tippecanoe County for the past 13 years, serving several terms with the Tippecanoe County 4-H Exhibit Association as the Leaders’ Representative and on the Indiana State 4-H Advisory Board for a 3-year period.

**Alvin C. Dale (Univ. Tenn. AGEN BS ’41, Iowa St. MS ’42, PhD ’50)**

Dr. Alvin C. Dale came to Purdue’s Department of Agricultural Engineering in the fall of 1949 to teach courses in farm structures design and stayed for 38 years, retiring in 1986. In 1952, under Dr. Dale’s guidance, the Department applied to the Graduate School and received approval to offer the Master of Science in Agricultural Engineering. Shortly after this, he began to lay the foundation for the offering of the Ph.D. degree (first awarded in AGEN in 1959). By the mid-1960’s 30+ students were enrolled in graduate studies in the Department.

During his tenure, Dale was chair of the graduate committees of 21 students receiving Masters degrees and 18 PhD’s, and was a member of 23 other graduate student committees. He was an appointee to former Secretary of Agriculture Hardin's committee on Agriculture and the Environment, and was an ASAE representative on the Intersociety Committee on Environmental Quality.

He was frequently honored as an outstanding instructor, receiving the 1970 Outstanding Instructor by the
ASAE has honored the pioneering accomplishments in the agricultural engineering profession with the dedication of a plaque recognizing the significance of grain aeration research done at Purdue. The plaque, which designates grain aeration as an historic landmark in time, recognizes the efforts of USDA engineers George H. Foster (AGR BS ’39, MS ‘42, AGEN BS ’53) and Robert N. Robinson (AGEN MS ’54) in demonstrating the effectiveness of aeration in large horizontal grain storages. The plaque provided by ASAE will be installed near the ABE Building.

The commemoration of this plaque took place April 19th in conjunction with the ABE Outstanding Alumni and Service Awards. Special guests included three of George Foster’s children, as well as professional and personal acquaintances from his days at Purdue. Foster was an adjunct professor in our Department 1948-72; later, after leaving USDA-ARS, he returned to Purdue as a professor in 1976 and retired in 1985. Larry Huggins, former ASAE President, represented the Society and presented the plaque to the Foster’s and ABE Department Head Vincent Bralts.

Many thanks to Gerry Isaacs, ABE Department Head 1964-81, for initiating and writing the nomination for this landmark designation.

An excerpt from plaque inscription reads:

“G. H. Foster and R. N. Robinson, USDA Agricultural Engineers, cooperating with Purdue University, demonstrated the effectiveness of aeration in large horizontal grain storage in 1949-50.

Grain aeration is essential to maintaining an adequate year-round supply of quality grain to feed the world’s people.”

Indiana Chapter, Tau Beta Pi; 1970 Outstanding Teacher of Agricultural Engineering; 1969 and 1970 Alpha Epsilon Teacher of the Year awardee; and School of Agriculture’s Educator of the Year in 1970. Additionally, he was elected ASAE Fellow in 1968 and awarded the ASAE Metal Building Manufacturer’s Association Award (now the Henry Giese Award) in 1962.

His other achievements include an honorary membership in the Institute of Advanced Sanitation Research, appointment as an Honorary Commissioner of Agriculture in the State of Indiana, and ASAE Paper Awards in 1966, 1964, 1953, and a graduate paper award in 1950.
Agricultural Systems Management
Front row: Brandon Everhart, Eric Wiestefeld, Greg Conner, Brian Zebring
Row 2: Corey Lemen, Darin Heet, Jaime Hernandez, Matt Lechlitner, Dave Betz
Row 3: Kerry Trambaugh, Nathan Rice, Mike Deutsch, Jason Brown
Row 4: John Loech, Jeremy Sweeten

Professor Rabi Molnar with Travis Wilson

Department Head Vince Bralts chats with Dave Betz & family during the ASM reception.

Agricultural & Biological Engineering
Front row: Steve Lyon, Nathan Schoonover, Joe Geffert, Louis Cassens, Joe Fussner
Row 2: Mike Smith, Dan Sellers, Greg Denham, Aaron Dockard
Row 3: Dan Pitzick, Matt Wenger, R. Jason Brown, Pete Reinhart
Row 4: Mike Thomas, Matt Peter

Deb Felix, ABE student services coordinator, graduated in May with an associate degree in OLS. Deb’s son Dan (center) and husband Doug (right) also graduated with bachelor’s degrees in horticulture. (Purdue News Service Photo by D. Umberger)

Louis Cassens shares a few laughs before the ceremony begins.
Food Process Engineering
Front row: Steve Mezsick, Rebekah Kennedy, Sarah Shreves, Matt Sabo, Steven VanScoyoc, Ricardo Henriquez
Back row: Kelly Jarvis, Alana Bills, Amanda Zeltner, Markelle Grossman, Erica Clerc, Cinnamon Brown, Karen Lewis

Agricultural Systems Management Graduates
(L to R) Jeremy Sweeten, Corey Lemen, Eric Westefeld, John Leach, Jamie Hernandez, Michael Deutsch, David Betz, Jonathan Everhart, Matthew Lechlitner, Gregory Conner, Nathan Rice.

R. Jason Brown (ABE), student responder for the Schools of Engineering commencement ceremony was invited by Andrew Cowan (AGEN BS ’51) to meet with former Secretary of Agriculture, Earl Butz.

Scott Wiens preparing for commencement ceremonies.
Rebekah Kennedy (Sr., FPE), Louis Cassens (Sr., ABE), Matt Peter (Sr., ABE) and faculty team adviser Anton Sumali have created a home heating fuel that mixes 20 percent soybean oil and regular heating oil, resulting in oil that is cheaper and burns cleaner than regular fuel oil, and can be used without making any changes to existing heating systems. The estimated cost of the blended oil is 10 percent less than fuel oil alone. Their invention earned top prize in the seventh annual New Uses for Soybeans Student Contest, sponsored by the Indiana Soybean Council and Purdue University.

The team began brainstorming for ideas in September. With Bekki doing the chemistry, Matt covering marketing and finances, and Louis’ knowledge about oil, coming up with a product wasn’t too difficult for the team. They finished in February, having worked on the project for five months.

The students are now in the process of sorting out patents for, and ownership of, the oil.
2001 Outstanding ABE Students

Justin Dougherty
Freshman, ASM (Needham, IN)

When nominating Justin Dougherty as Outstanding Freshman, department head Vincent Brals stated, “Justin is a freshman who shows all the signs of compiling an impressive record of achievement over the next three years.” Justin is definitely headed in the right direction as recipient of the Deere & Co. Scholarship, ABE New Century Scholarship, and School of Agriculture Award of Excellence. In addition to excelling academically, Justin is a member of FarmHouse Fraternity, American Society of Agricultural Engineers, Agronomy Club, and plays trombone in the Purdue Collegiate Band and Boiler Brass.

Matthew Subler
Junior, ASM (Berne, IN)

Mack Strickland’s nomination for Outstanding Junior noted that Matt “already had two internships, but to expand his knowledge further, will be participating in an international exchange trip to France this summer.” Matt has been an academic tutor for ASM students for two years and is the ASM student representative to the ABE Academic Programs Committee. Included in his activities and accomplishments are: Parker Hannifin Scholarship, Dean’s List and Semester Honors, FFA, School of Agriculture Award of Excellence, ASM Club, President of Alpha Mu, and volunteer at the local YWCA Women’s Shelter.

Don Shoemaker
Sophomore, ASM (Vallonia, IN)

Impressed that Don is “very focused on what he wants to do, both academically and professionally upon graduation,” Mack Strickland nominated Don as the Outstanding Sophomore. Don was the 2000 Outstanding Freshman and has continued his quest for excellence. His many accomplishments include the Dean’s List, Semester Honors, Agriculture Ambassador, New Century Farmer Award, and is John B. Greiner Scholarship. Don is also an active member of the ASM Club and Alpha Mu Honor Society.

Markelle Grossman
Senior, FPE (Wolcottville, IN)

Markelle was nominated for Outstanding Senior by Martin Okos. Professor Okos stated, “It is indeed a great honor to recommend Ms. Markelle Grossman based on her academic achievement and her leadership in extracurricular activities.” Markelle will graduate in December 2001 with a dual degree in Biochemistry and Food Process Engineering carrying a 4.0 grade point average. Markelle’s efforts have resulted in numerous scholarships and awards including Dean’s List and Semester Honors, Alpha Epsilon (Ag Engineering Honorary), SCHOLAR (Coop Housing Honorary), Women in Engineering Merit Awards, Tri Kappa Scholarship, Purdue Valedictorian Scholarship, and Purdue Dean’s Engineering Scholarship. She also finds time to participate in intramural sports, and community and church activities.

Agricultural Systems Management
David L. Betz, Saint Anthony
Gregory D. Conner, Fountaintown
Michael J. Deutsch, Evansville
C. Brandon Everhart, Morristown
Jaime A. Hernandez, Flora
John R. Leach, Cicero
Matthew J. Lechlitner, Wakarusa
Corey E. Lemen, Osgood
Randall B. Morris, Jr., Greenwood
Derrick L. Raymer, Quincy
Nathan J. Rice, Blanchester, OH
Jeremy W. Sweeten, Wabash
Eric A. Wuestefeld, Batesville

Machine Systems/Environmental Engineering
R. Jason Brown, Pendleton
Louis V. Cassens, West Lafayette
Aaron D. Deckard, Wheatland
Greg J. Denham, Merrillville
Joseph R. Fussner, Brookville
Steven W. Lyon, Navarre, OH
Matthew R. Peter, Odon
Daniel P. Pitstick, Rensselaer
Daniel L. Sellers, Bourbon
Michael F. Thomas, Brookston

Spring Class of 2001

Food Process Engineering
Alana J. Bills, Falmouth
Brandi M. Grandinetti, Chantilly, VA
Lufi HandriUtami, Indonesia
Kelly J. Jarvis, Carmel
Karen M. Lewis, Seymour
Steven M. Mezsick, Mooresville
Matthew B. Sabo, West Harrison
Sarah D. Shreves, Hartford City
Jeb D. Sloan, Indianapolis
Steven M. VanScoyoc, West Lafayette
Bethany J. Woodruff, Michigan City
Sumali Receives A. A. Potter Award

Hartono “Anton” Sumali received the Schools of Engineering A. A. Potter Award for outstanding teaching. Recipients are chosen for their superior ability to communicate and stimulate their student’s desire to master their subject. Award recipients also recognize that their teaching responsibility does not stop at the classroom door, and are ready to aid and motivate their students through counseling and advising.

Jason Brown, one of Anton’s students, wrote to the nominating committee stating that “He has always been readily available to help students at all times of the day and night, and this is a rarity among most professors. His courses offer the most interesting laboratory activities that I have been involved in while at Purdue. He achieves this by uniting the necessary theoretical presentations with exciting and thought provoking hands-on activities.”

ABE Outstanding Teacher and Counselor Awards

Congratulations to ABE faculty members Dan Ess voted by undergraduate students as the ABE Outstanding Teacher for the Ag Systems Management program, and Hartono Sumali, selected as the ABE Outstanding Engineering Teacher. Martin Okos was named Outstanding Counselor for the entire ABE Department.

1/4 Scale Tractor

The ASAE Student Design 1/4 Scale Tractor Competition was held June 1-3 in East Moline, Illinois. The competition provides ASAE student members the opportunity to design and fabricate a tractor by applying their engineering skills and personal ingenuity. Our team placed 13th in this year’s competition.

Community Service is Never Out of Season

The Purdue Society of Biochemical & Food Process Engineers organized a Jubilee Christmas Project filling Christmas stockings for 65 families in the Lafayette area. 200 stockings were stuffed by BFPE members and volunteers from other ABE student organizations. The students solicited local businesses and company representatives for donations to fill the stockings. We would like to thank the following individuals and companies for their support.

Keith Schafer, M&M Mars
Shoshone Leung, Kraft Foods, Inc.
Palida Jameson, General Mills
Amy Delaney, Armour Swift-Eckrich
Alfred J. Arcidiacono, The Quaker Oats Co.
Wendy Renkas, Cargill Human Resources
Our Department has had a long and productive association with the field many label as “precision farming” or “site-specific farming.” Long before these terms were coined, we had faculty and graduate students developing technologies that are now in use for measuring and managing crop production variables on a site-specific basis. Gary Krutz worked on systems for combine automation (with International Harvester) and grain yield monitoring (with Allis-Chalmers) in the 1980’s. Larry Gaultney (faculty 1979-92, AGEN MS ’80, PhD ’83) had licensed soil organic matter-sensing technology (to Tyler Industries) long before the first commercial yield monitor measured its first bushel of grain. Gaultney and Willie Hart (AGEN PhD ’90) did pioneering work in variable-rate chemical application technology. Their efforts were followed by the soil property sensor developments of Mark Morgan and Viacheslav “Slava” Adamchuk (ABE MS ’98, PhD ’00). Other contributors: Dan Ess and Keith Morris (ASM MS ’98) developed one of the country’s first precision manure application systems; and Gaines Miles has explored machine vision for weed identification and site-specific herbicide application.

In addition, the department was one of the first in the world to offer a regular university course that focused solely on the technology for, and management of precision crop production systems. Begun in 1996, ASM 322, Technology for Precision Agriculture, has helped prepare many graduates for positions ranging from applying and managing state-of-the-art technologies at local farmer cooperatives, to developing next-generation technologies for international corporations. Mark Morgan and Dan Ess expanded and refined their original ASM 322 course notes, and published the book, The Precision Farming Guide for Agriculturists (Deere Publishing, 1997).

Beginning in 1995, Sam Parsons organized and coordinated a monthly series of brown bag luncheons to provide a forum for Precision Agriculture ideas and discussions. This interdepartmental group of Purdue faculty, staff, and graduate students hosted seminars by producers and industry reps, planned and conducted educational meetings for producers and extension personnel, contributed to regional and national conferences, and organized exhibits for Farm Progress Shows and other international meetings. The brown bag series was a great success and has continued to meet monthly for the last seven years. The group has also come together to form Purdue’s Site-Specific Management Center (SSMC) housed in Lilly Hall on the West Lafayette campus. The Center is now a clearinghouse for all precision farming-related activities of research, teaching, and extension specialists throughout the School of Agriculture (website: www.purdue.edu/SSMC/). The first formal “product” of the Center is the recently published book, Precision Farming Profitability (Purdue University, 2000). It includes chapters co-authored by Sam Parsons, Mark Morgan, Jane Frankenberger, Mack Strickland, Dan Ess, Keith Morris, and Monte O’Neal (ASM PhD ’00).

So, the contributions of ABE to Precision Agriculture have been exceptional for years . . . and there’s no end in sight!

SSMC & ABE Faculty Use GPS to Create “The Boiler Mazer”

During the Farm Progress Show in Tippecanoe County, Indiana you can walk your way through “The Boiler Mazer” corn maze. For more information about the Farm Progress Show and to follow the progress of the maze, visit website: www.agry.purdue.edu/ext/corn/maze/
PHASE I – THE SEARCH FOR LAND
The ABE Development Committee has undertaken a project of establishing an ABE farm near West Lafayette. Potential uses of an ABE farm would be the demonstration of machine function, measurement of machine productivity and timeliness in crop production operations, measuring impacts of machine traffic on soil properties in situ, and studying machine-soil interactions at full scale and in real time. All activities could be captured digitally for recording and/or broadcast to campus teaching facilities and to off-site clients. The farm site would open the opportunity for ABE to offer training to manufacturers and suppliers of off-highway equipment using the actual products that trainees would encounter in the field.

Our students need the best educational experience that we can provide. If any ABE alumni or friends of Purdue know of resources or a land solution near campus, please contact Dan Ess (765-496-3977), Vince Bralts (494-1162), or Gary Krutz (494-1179).
**Class Notes**

**1950’s**

Dale Reed, AGEN BS ’53 received one of six Small Business Advocate Awards from the California Chamber of Commerce in April. Dale was recognized for his activities and work to advance the interests of small business in San Leandro, CA. Dale co-owns ACME Scale Co.

**1960’s**

Ross Ulmer, AGEN BS ’61, retired from SCS in 1994 and has been working part time for Neel-Schaffer, Inc. (private engineering firm) in Jackson, MS. Ross and his wife Patricia are enjoying their grandchildren and retirement.

Dale Wilkins, AGEN BS ’61, was named a Top 10 Finalist in the National Society of Professional Engineers’ (NSPE) 22nd Annual Federal Engineer of the Year Award program. Dale is supervisory agricultural engineer for the USDA-ARS, Pendleton, Oregon.

Stanley Morton, AGEN BS ’66, Palmor Products, Inc., Thorntown, IN, manufactures TracVac commercial lawn care equipment. One of their products is a vacuum collection system for lawn mowers (being inspected by John Hine (AGEN BS ’50), Gary Krutz and Stan in photo). They manufacture models for home and commercial mowers. Stan recently began manufacturing log splitters as well.

**1970’s**

Richard (Rick) Dean, AGEN BS ’81, is a civilian employee of the Baltimore District U.S. Army Corps of Engineers. Rick spent six months in 2000 building base camps for American peacekeeping forces in Kosovo. Rick and two others were responsible for establishing a master plan for the construction of a 2,500 man base camp and utilities. The project included demolishing wrecked and bombed buildings, renovating severely gutted buildings, establishing utilities and new construction. Rick’s assignment after Kosovo was a six-month tour of active duty with the 50th Anniversary of the Korean War Commemorative Committee planning events to recognize veterans and families for their efforts. Rick and his wife Holly are living in Springfield, VA.

**1980’s**

Jason Furrer, AGEN BS ’92, became a registered PE in February and wrote to thank Professors Maier, Haghighi and Krutz for “your teaching, patience, encouragement, and reference letters, which have facilitated this accomplishment. I am very grateful for the excellent staff in the ABE Department at Purdue!”

Cyrille Precetti, AGEN PhD ’94, accepted a new job as the director of a small machine vision system company near Paris. Cyrille and his family moved back to France March 1st after living in Iowa and traveling for Pioneer. The Precetti family won’t miss the winter weather in Iowa, but will keep the snow shovel “just for the kick of reminiscing.”

Steve Smetana, AGEN BS ’95, has moved. His new address is: 39430 Country Lane, Novi MI 48375.

**1990’s**

Todd Redlin, AGEN BS ’96, and his wife Sarah have been named Indiana’s 2001 American Soybean Association-DuPont Young Leaders. The title is given each year to the young farmer or farm couple who demonstrates outstanding leadership ability and an interest in using those skills to promote the soybean industry. As Young Leaders, the Redlins’ have two main objectives: to ensure that public research remains public, and to promote soy products.

Patrick Collins, FPE/BCHM BS ’97 was married on April 21, 2001 to Talia McKinney. Patrick is working for Jim Beam and is living in the Cincinnati, OH area.

Kathryn Northquist Fakhoury, ABE BS ’97, ABE MS ’99, and husband Ahmad have relocated to Apex, NC. Kate is working as an environmental engineer at ThermoRetec in Durham, NC.

Jada Phillabaum, ABE BS ’97, is working for Caterpillar and will be relocating to Sao Paulo, Brazil in June.

Jill Krutz, FPE BS ’98, will receive her Master of Science in Mechanical Engineering from the University of Cincinnati in May and has accepted a job with Caterpillar in their Manufacturing Development Program. Jill may also get the opportunity to return to ABE occasionally to recruit other ABE engineers for Caterpillar. Jill’s new address is: 4135 Landing Dr. #2C, Aurora, IL 40504.

Jon Waits, ASM BS ’99 returned to campus last winter to participate in the AGEC 331 Ready-Set-Sell program. He is a financial consultant for Wells Fargo Investments. Jon is living in Rushville, IN.

Please help us keep up with your accomplishments and activities by completing and returning the information request form. This is your opportunity to connect with other ABE alumni.
## Calendar

### AUGUST
- 5 Summer Commencement
- 20 Fall Classes begin

### SEPTEMBER
- 2 Football @ Cincinnati, OH  1:30 pm
  - Ag Alumni Tour
- 3 Labor Day
- 11-12 Industrial Roundtable
- 15 Home Football – Notre Dame
- 22 Home Football – Western Michigan
  - Saturday with the Boilers - on-campus program for high school seniors
- 25-27 Farm Progress Show
  - Tippecanoe County, Indiana
  - ABE Building Tours 4-5 daily

### OCTOBER
- 2 Agricultural Career Day
- 6 Home Football - Iowa
- 6-9 October Break
- 27 Homecoming - Northwestern 11:10 am
  - ABE Open House 3 pm - 5 pm
  - Ag Tailgate 2001  7:30 am -10:00 am

### NOVEMBER
- 3 Home Football – Illinois
- 17 Home Football – Michigan State
- 22-23 Thanksgiving Holiday

### DECEMBER
- 10 Final Exams begin
- 16 Winter Commencement

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### In Memoriam

**Walt Wischmeier**

Walter H. Wischmeier, adjunct faculty 1953-75, passed away in February 2001 at the age of 90. He established the USDA-ARS-SWC National Runoff and Soil Loss Data Center at Purdue in 1953, and was named Research Investigations Leader, Water Erosion, for SWC's Corn Belt Branch in 1961. Walt’s most widely-known and appreciated contribution was his development of the Universal Soil Loss Equation (USLE), first published in 1958, but continually refined during his career. He was the recipient of two USDA Superior Service Awards during his professional career, and was inducted into the ARS Science Hall of Fame in 1991.

**L. Eugene Smith**

L. Eugene Smith (AGEN BS ’68 MS ’69) was killed in a farming accident June 13, 2001. Mr. Smith cut a wake through American agriculture with aggressive land buys and well-publicized bankruptcies. Mr. Smith was featured in articles in *The Wall Street Journal*, *Business Week* and farm magazines, most recently (March 2000) *Top Producer* magazine featured an article “Farming’s Comeback Kid”.

### Remember When?

**Members of the 1958 ABE Bowling team:**

(L. to R) Bill Friday, Arlen Brown, Al Dale, Don Sisson and Ben Stahl. ABE still has an active bowling team making this a tradition for over 40 years!