Agricultural Engineering Students Solve Problems for Industry

Leave it to a team of University of Illinois agricultural engineering seniors to solve a problem that has dogged specialty crop growers for some time. Students found a way for growers to reduce the time it takes to switch their combine settings for harvesting another crop by 60 percent.

Solving such real-life problems is part of the appeal of the senior design class in the department. The capstone design course for Off-Road Equipment Engineering is a requirement for engineering accreditation.

“Students work harder on this three-hour course than on any course they have in college,” said Doug Bosworth, adjunct professor and coordinator of the popular design class. “But they enjoy it more because they’re working on real-life problems. The students work with companies like John Deere, Caterpillar, Case-DMI, Spraying Systems, and Hydro-Gear. It provides them excellent preparation for industry.”

Katie Yagow, part of the four-person team that worked on the project, agrees. “Many of our engineering classes are very theoretical and abstract. We are given problems out of a book and have nothing tangible to attach the problem to. This class is the complete opposite.”

Mike Gentry, a second member of Wear-N-Tear, Inc. (the team’s “company” name) recently spoke with the team’s engineering contact in industry. According to Gentry, “They have an intern looking at the design. Depending on the progress made, the design may or may not go into production. There is also the possibility that the design may be put on the shelf for a few years until funding is available.”

Bosworth said that about one third of the students’ projects are implemented by the companies that sponsor the “real life” design experiences. “A project we had a year ago resolved a problem a company had for 30 years,” he said. “It was a simple thing – a door hinge for a cab. But when you have fresh eyes look at an old problem, some very good things come out of it. That particular design will be introduced in a new line of cabs in a few years.”

Continued on page 3
Welcome from Dr. Bode

Seasons Greetings to our alumni and friends from the faculty and staff in agricultural engineering at the University of Illinois!

It has been a great summer and fall semester. We enjoyed visiting with many of you at our alumni reception in Chicago during the ASAE International meeting. Hopefully we will see even more of you in Las Vegas next summer.

Three faculty were promoted to the rank of Associate Professor with tenure during the past year: Drs. Prasanta Kalita, Lei Tian, and Qin Zhang. Also note on page 7 the four new faces in the department this fall. We hope to have Gary Riskowski’s vacant position filled by January 1, 2003.

Paul Benson’s retirement in July provided the opportunity to bring Joe Harper into the department as a joint appointment with HCD and to hire Molly Hall as the new Executive Director of the Illinois Electric Council (IEC). Paul’s contributions were acknowledged in a special retirement celebration on November 23.

The most significant news related to our department is the proposal to change our name to “Agricultural and Biological Engineering.” The proposal has been submitted to campus and if approved by all the required entities, including the Board of Trustees, the new name

Continued on page 5

ASAE Meeting Summary

The ASAE Annual International Meeting/CIGR World Congress conference held in Chicago, IL on July 28-31, 2002 was very successful. Combining ASAE and CIGR was beneficial to both societies resulting in a total attendance of well over 1700.

The Central Illinois Section served as local hosts for the meeting while the Chicago Section handled the tours and special events. Approximately 120 four-hour time slots were required to host this conference. I want to express my thanks and gratitude to each of our faculty, staff and students that served as a local host. The bright red shirts were easy to identify and provided good visibility for our department. I received several wonderful comments from the ASAE Headquarters staff about the enthusiasm, politeness and helpful nature of the hosts. They enjoyed working with the students on the various activities during the meeting. They did a great job and I am proud of each of them.

Students were a major component of the conference. Ten undergraduate students attended from the U of I. The ¾ Scale Past President’s Tractor Pull was a hit and attracted a lot of attention. I was proud to see the Chief Revenge displayed with the other tractors at the exhibit hall. It is clear why it received the best appearance award at the national competition. At the AEM Student Award Luncheon, outgoing Secretary Adam Viall helped present the student awards to this year’s winners. The Illini Ag Mech Club was first runner up in the AEM competition. Marguerite Tan was introduced as the 2002-2003 Parliamentarian of the National Pre-Professionals Council.

Marvin Paulsen was inducted along with nine others as an ASAE Fellow. A special induction ceremony was held on Monday evening followed by a reception. Less than 0.2% of the total membership is selected for this honor each year. Kent Mitchell was presented the Hancor Soil and Water Engineering Award at the Awards & Recognition Luncheon. The award is to recognize outstanding contributions in the advancement of soil and water engineering. Ton Grift also received a 2002 ASAE Outstanding Paper award for “Mass Flow Measurement of Granular Materials in Aerial Application – Part 2: Experimental Model Validation,” by T.E. Grift, J.T. Walker and J.W. Hofstee. Carroll Goering currently serves the society in a major role as Chair of the Publications Council and is a member of the finance committee.

I was honored to receive an ASAE Leadership Award from the Publications Council. It was for our contribution to the ASAE Legacy Fund. In addition, I received a President’s Citation for “leadership on raising over $5,000 at the University of Illinois for the ASAE Electronic Publication Legacy Fund.” I accepted these recognitions in behalf of every faculty, staff and student who contributed to this special fund raising activity.
Such impressive statistics are the result of Bosworth’s high expectations of his student team members. “I give them complete control of their projects,” he said. “I expect them to do the necessary research, develop design alternatives, do the actual design, fabricate the parts, evaluate the parts, and write a formal report. They must then present an industry style report to the sponsor, along with a 20-minute Power Point presentation at the sponsor’s location.” Students are also required to develop and track project schedules, budgets, give their sponsors weekly project reports and present monthly project reviews.

Ryan Giordano, another student in the design course, worked with a team known as the “Shankbusters.” They were charged with designing and constructing a laboratory test stand for large ground-engaging equipment. “A class like this is a delicate balance between having successful projects that keep sponsors coming back, and giving the students enough freedom to let them make mistakes and learn from them,” he said. “Doug Bosworth excels at this balancing act. I imagine it’s something that can only be learned from year’s of experience.”

Bosworth’s experience includes 35 years as an engineer and manager at John Deere. While with the company, Bosworth was the contact that developed projects for this same class.

“So I’ve been on both ends of this thing,” he said. After taking early retirement, Bosworth came to the University to teach AG E 336 in 1995. Some of his former students are industry representatives who now provide projects for the class.

“What better way is there to try and get a job?” said Gentry. “This class gives each of us a chance to show what we can do. It’s like a semester-long interview.”

The most telling endorsement of the design course came last spring when the John Deere Foundation provided the Department of Agricultural Engineering with a grant to support the instructor’s position for the senior design class. On April 2, 2002, Doug Bosworth was installed as the first John Deere Capstone Design Instructor for Product Development in Agricultural Engineering.

Meanwhile, the companies involved also enjoy considerable benefits. Industry partners pay out-of-pocket costs and furnish parts, expertise and components. Bosworth estimates that expenses run somewhere between $2,000 and $2,500. In return, sponsors receive an optimum design solution to their problem, a working prototype and over 400 hours of engineering resources.

(Excerpt from an article by Leanne Lucas, College of ACES, ITCS.)
The Illini Pullers are geared up for another exciting and successful year. The goal of the Illini Pullers is to design and build a ¼ scale tractor that is able to pull a sled that is similar to a full size tractor pull.

Last year the team came home with an array of awards from the annual 1/4 Scale Tractor competition. Held in Moline, Illinois during the first week of June, this event hosts teams from around the globe and is sponsored by the American Society of Agricultural Engineers (ASAE). The Illini Pullers awards included: the Safety Award, Best of Show, 2nd place in the Oral Presentation, 3rd place in the Design Report, and 4th place Overall. This year the team hopes to come home with a 1st place finish.

The Illini Pullers team is structured like a small business. The management of monetary funds, tractor design and the actual construction of the tractor are done entirely by the team. The Illini Pullers allow students to apply their classroom knowledge to actual business management, team building, construction design, and engineering problems. Students learn how to raise and manage funds as well as how to draw computer designs using CAD software. Team members gain experience in material strength, drivetrains, steering systems, manufacturability, traction, weight transfer, testing, and research and development.

In this industry-based program, students are able to apply their knowledge to the real world. Even with deadlines and strict requirements, they are able to have fun learning new ideas from other students. This unique team environment allows students to expand their skills in teamwork, communication and leadership.

Illini Pullers offers a great opportunity to gain knowledge, experience and life long friendships.

Team members preparing for the competition at Moline, Illinois in June. (Photo courtesy of Craig Swartz).
The Illini Pullers is a sponsor-funded organization. The team is always open to sponsorships and support from those who are looking to invest in the future and we ask you to consider donating any amount of money possible. All donations are tax deductible. If you are interested in sponsoring the Illini Pullers, please send your donation to:

Dept. of Agricultural Engineering
1/4 Scale Tractor Team
1304 W. Pennsylvania Avenue
Urbana, IL 61801

The predecessor to the 2002 Illini Pullers’ tractor, which was named “Chief Full Pull,” was given a second chance to pit its strength against other predecessors in the X-Team Competition held at Moline on June 1.

X-Teams simulate the responsibilities of current-product engineers in carrying out improvements during the production life of the machine, in this case one year. Freshmen and sophomores are given the opportunity to update the tractor used in the previous year, with the help of the more experienced students, by analyzing data from the competition on performance, failures and feedback from the judges. The main goal is to improve the overall performance of the machine.

Kudos …

Dr. Robert A. Aherin – The Illinois University College of Applied Science and Technology Safety Program selected Bob Aherin as the Distinguished Alumni for 2002. He was selected for his contributions to occupational safety and health. Bob was honored at ISU’s homecoming on October 4-5.

During the UI Extension Annual Conference in October, members of our faculty and staff received the Outstanding or Innovative Program – Team Award for the Safe Electricity Program. Illinois is the only state to have implemented a comprehensive, public awareness program on electrical safety. A coalition of University of Illinois educators and representatives of the Illinois electric industry launched Safe Electricity last year. Team members include Ellen Burton, Stanley “Jay” Solomon, Molly Hall, Paul Benson and Bob Aherin!

Department Head Welcome … continued from page 2

will likely be effective on August 21, 2003. The department is transforming into a bio-based technology mindset and the proposed name more clearly defines the breadth of our programs. We anticipate that potential students will also respond to the new name with a better understanding of the curriculum when making a career selection.

My special thanks to each of you that provided a gift to the University of Illinois Foundation in support of our students and programs. With the severe budget restraints we are facing, these gifts are critical in maintaining the reputation that each of you helped develop.

Our 2003 Open House is scheduled for March 14-15. Please encourage students in your communities to come to campus to learn about the exciting opportunities available in agricultural and biological engineering.

Have a wonderful holiday season and drop by for a visit when you are in Champaign-Urbana.

Loren E. Bode
Head
Highlights of Department Research …

U of I Tracks Air Movement in Airplane Cabins … Agricultural engineers have constructed a partial, full-scale mockup of the passenger section of a Boeing 767, complete with dummy passengers. It’s all part of a research project to study the air quality inside airplane cabins.

Cabin air quality has become a public health concern for passengers on commercial airliners and an occupational health concern for the crews. In response to these concerns, the Centers for Disease Control (CDC) and the Boeing Company have co-sponsored the research project, which aims to characterize airflow and disease transmission in aircraft cabins.

To do the job, Dr. Yuanhui Zhang, Professor in the Bioenvironmental Engineering Section, has developed a three-dimensional system to measure airflow, called stereoscopic particle image velocimetry (SPIV). He and his colleagues are using SPIV to track the movement of neutral-buoyant, helium-filled bubbles.

“We record the bubbles’ movements by taking two pictures simultaneously with digital cameras set up at different angles, just like peoples’ two eyes,” Zhang said. “Then we load the pictures into a computer that combines the two photos and calculates the three-dimensional velocity, using an SPIV algorithm based on the two images.”

The full-scale mockup of the Boeing 767 measures 15 feet by 15 feet and contains 35 seats—five seven-seat rows. The Boeing Company provided the key equipment used to build the mockup. “It’s fairly good-sized,” said Zhang, “and everything is exactly the same dimension as the B-767. We’re using the same diffusers, the same seats, windows, panels, everything.” Thirty-five mannequins, each wrapped in a heating pad and tastefully dressed, are placed in the cabin to simulate body heat and to determine how air circulates around them.

“This research will enable us to study different ventilation systems in airline cabins and design the most efficient system,” Zhang said. “Once a pollutant is airborne, you have to use the air to clean it in a ventilated airspace.”

A better understanding of airflow patterns will eventually result in improvements across a variety of fields – from a more comfortable work environment in swine buildings to a better household air freshener. But for now, Zhang and his colleagues are working to provide Boeing and the CDC with information that will improve cabin air quality and help ensure the health and safety of the nation’s multitude of airline travelers.

New Research Says Filter Strips Can Control Dangerous Parasite … A tiny, yet potent, one-celled protozoan is the subject of extensive parasite, Cryptosporidium parvum (also known as Crypto) can cause acute gastrointestinal problems in healthy people, and can be fatal to anyone with a compromised immune system.

In 1993 more than 400,000 residents of Milwaukee, three out of every four people, were stricken with Cryptosporidiosis, the disease caused by the parasite. In the summer of 2001, it is believed 26 people were infected at a waterpark in Peoria. In both cases, contaminated water was the likely source of infection.

The good news … researchers have found that vegetative filters can effectively reduce the presence of Crypto in runoff water.

Crypto is a pathogen young livestock shed in their waste, said Prasanta Kalita, Associate Professor in Soil and Water Resources Engineering. Runoff from animal production operations can sometimes enter a nearby water source undetected, carrying Crypto with it.

Once drinking water is contaminated, Kalita said, treatment of the water is difficult. The dormant form of Crypto, called an oocyst (oh-a-sist), is very small, with a tough outer shell, and has the ability to withstand many environmental extremes. Crypto is also one of the most resistant parasites to water chemical treatment. So researchers are looking for ways to control Crypto at its source – such as using vegetative filters.

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New Faces …

Dr. Tony Grift joined the Department on August 21 as an Assistant Professor. Tony comes from The Netherlands where he received his B.S. and M.S. degrees. He received his Ph.D. from the University of Arkansas in 1998.

Tony brings unique expertise to the University of Illinois working in the area of Off-Road Equipment. His interest is in sensors and controls in automation of equipment for agriculture and forestry; machine vision systems, electronic sensor development and data acquisition for agricultural uses; and mathematical modeling and control systems. Tony will be teaching undergraduate and graduate courses in off-road equipment engineering.

Dr. Vijay Singh also joined the Department in August as an Assistant Professor. Dr. Singh received his B.S. from G.B. Pant University in Pantnagar, India and his M.S. and Ph.D. from Agricultural Engineering at the University of Illinois.

Vijay is working in the area of Food and Bioprocess Engineering. His interest is in process development and value-added processing of corn for corn wet milling and corn dry grind ethanol industries. His current research is in developing an enzymatic milling process for the corn wet milling industry and optimizing recovery of nutraceuticals from corn and other cereal grains. Vijay will be teaching undergraduate and graduate courses in food and bioprocessing engineering.

Tony and Vijay will provide a great addition to the faculty and programs currently underway in the Department.

Effective January 1, 2003, Dr. Michael Tumbleson will be joining our department as a full-time faculty member. He has been Professor of Veterinary Biosciences in the College of Veterinary Medicine since 1986. Mike will continue working with our food and bioprocess faculty on milling and processing issues. We look forward to utilizing Dr. Tumbleson’s expertise as the Department tackles biological issues related to food and agriculture.

Kudos … continued from page 5

Dr. Paul W. Benson, lecturer for Technical Systems Management, retired on July 30, 2002 after a 24-year career with the University. On Saturday, November 23, Paul was honored at a retirement dinner held in Urbana, Illinois.

Dr. Joe Harper, Professor Agricultural Education in the Department of Human and Community Development, has joined the department on a 30 percent appointment to teach the Technical Systems Management courses previously taught by Paul Benson. This appointment will give Dr. Harper the opportunity to provide leadership in connecting the TSM and AG ED programs in the Departments of AGE and HCD to a greater extent.

Dr. Joe Harper

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Alumni News and Notes …

1950 - 1979

Gary D. Bubenzer (Ph.D. 1970) retired on May 10, 2002 as Professor in the Agricultural Engineering Department at the University of Wisconsin.

Visitors to the department from Taiwan on August 21, 2002 were Ten Hong Chen (Ph.D. 1983/ M.S. 1979), Ray Hsin Chen (M.S. 1983) and family who were visiting Sarah and Don Day (professor emeritus). The Chen’s had just visited the University of Wisconsin and Purdue University where their sons are attending. They then departed for the University of California-Davis where Ten Hong will spend a few months leave with Ruihong Zhang (Ph.D. 1992). Ten Hong is the fifth former graduate student to visit Don Day this year.

David C. Ralston (B.S. 1952) dropped us a note in July 2002 indicating he was enjoying retirement after 36 years with SCS/USDA and nine years part-time with Michael Baker Jr., Inc. His time is occupied with woodworking projects, softball, gardening and maintenance work for his church. Travel has been varied with children in the area of Spokane, Boston, Flagstaff, and Manassas. There was a two-week trip to Italy in May—one week of it on a four masted clipper ship!

1980 – 1999

Jeffrey A. Duncan (B.S. 1999) has a new position as a Field Test/Crop Harvester Engineer at CNH Global.

In March 2002 Steven J. Furich (B.S. 1981) was named President, ADM Natural Health and Nutrition Division, which includes the business units of nutraceuticals, functional foods and ingredients.

We were saddened to learn of the passing of Eugene J. Fox’s (Ph.D. 1993) wife, Bev, on Friday, August 16.

Ke Liao (Ph.D. 1993) is now living in Plano, Texas. He left Alctel and is now working for J.C. Penny as an IT Infrastructure Architect. He and his wife, Wen, have two children, a boy nine years old and a daughter five.

Nathan A. Marsh (B.S. 1999) is now Project Manager, Ashton Pointe for the Pulte Home Corporation in Elgin, Illinois.

Cory A. Peter (B.S. 1995) joined Nutrition 101, Inc. as Vice President of Business Development. He will oversee operations of Nutrition 101 in the Chicago, Illinois area.

Joel A. Rissman (B.S. 1990) has been organic farming for years; now his farm is featured by the Smithsonian National Museum exhibit, “Listening to the Prairie,” which is currently on a 20 site tour around the U.S. The traveling exhibit began in May 2001 and will continue through August 2004. It features four farms along the prairie ecosystem.

On August 15, 2002 Matthew E. Rund (B.S. 1999) stopped by the department for a visit. He is now working for ADM in Paraguay, South America.

Thomas D. Sallas (B.S. 1994) has been busy since graduation! He started out with Monsanto as a process engineer and traveled the world; spending so much time in Argentina that Castilian Spanish became a third language. After obtaining his MBA Tom transitioned into an engineering management position where he developed manufacturing strategies for global production and distribution of products. Three years ago, he moved into a career in Business Services. According to Tom, “I continue to use my process skills, but now I engineer business processes for Accenture. The concepts currently touted as ‘cutting edge’ among the top business schools consists of nothing more than the engineering paradigms I learned in Champaign ten years ago.” Within the near future, Tom expects to pursue full-time some entrepreneurial endeavors in real estate acquisition and management.

Dr. Buriak recently received an e-mail from Matthew K. Schroeder (B.S. 1999) that brightened his day. Matt is now a Navy Aviator with the rank of Lieutenant. After having assignments in Florida and Texas, Matt will be headed for Norfolk, Virginia to start work as an Aviation Engineering Duty Officer and earning his “quals” while working on carriers. He also wants to check out the Navy Dive School before heading to MIT for a
Initially, these strips were used at the edges of fields to buffer waterways,” said Kalita, who has worked with buffer strips for many years. “They were found to be very beneficial in keeping sediments and chemicals like nitrogen and phosphorous from getting into streams.” Now Kalita and his colleague Mark Kuhlenschmidt, a veterinary pathobiology professor, are studying them to see if they can control Crypto as well.

Kalita and Kuhlenschmidt have built a tilting soil bed, which is 12 feet long, 5 feet wide and a foot deep.

Filled with soils from Champaign and Effingham counties, the bed is divided in half by a metal border. One half is left bare, the other planted with brome grass.

“We spray the live Crypto at the top of the bed,” Kalita explained. “We spray the same amount on both sides, set the bed on a certain slope and rain on it. Then we collect all of the water that comes off the surface, and the water infiltrated one foot below the soil surface.”

The researchers have tested several variables, including different rainfall intensities and slopes, as well as two different soil types. In both soil types, researchers saw similar results – vegetation greatly reduced the amount of Crypto in the runoff.

“But slope made a lot of difference,” said Kalita. “We found when we had a steep, 4.5 percent slope, the reduction was not very high because the water went straight across the filter.”

Kalita and Kulenschmidt are also doing tests to see if the Crypto absorbed by the soil and vegetation later seeps down into the groundwater. The researchers filled eight columns with three feet of soil and applied high concentrations of Crypto to each. When the water was drained from the columns, no parasites were detected in the samples. “That is a preliminary indication that Crypto doesn’t go through the soil. The soil acts like a barrier to filter it out,” said Kalita.

If these results hold true, he believes vegetative filter strips, especially in fields with tile drains, will be an excellent management practice for the containment of Crypto coming from animal feeding operations.
Kudos ... continued from page 7

PIONEER, a DuPont Company has endowed a scholarship in honor of Dr. Steven R. Eckhoff’s contributions to the corn processing industry. The scholarship will be awarded annually to a University of Illinois student who plans to enter the corn processing industry. Steve is a Professor in Food and Bioprocess Engineering. To celebrate Steve’s contributions, a special dinner was held August 13 at the University of Illinois. Representatives from PIONEER and the University shared some of Steve’s accomplishments and presented him with a self-portrait mounted over scenes from the corn industry. In addition, a check was presented to the University of Illinois Foundation establishing the scholarship in Steve’s name and honor.

The National Extension Association of Family and Consumer Sciences (NEAFCS) presented Dr. Ted L. Funk and the Consumer and Family Housing Development Team an Environmental Education Award. The award was presented for their program on radon in residential homes. Ted is an Assistant Professor and Extension Specialist in the Bioenvironmental Engineering Section of the department.

Graduate Students …

Keli Christopher, Michael Gratton, Amy Kaleita, Jason Kwiatkowski, Joshua McClure, Adam Viall, and Mark Wilkins were recognized as 2002-2003 Graduate Fellows at the November 5, 2002 College of ACES Graduate Student Recognition program.

The Warsaw Agricultural University Senate awarded J. Kent Mitchell the Warsaw Agricultural University Honorary Badge. The badge was awarded on September 11, 2000 in recognition of meritorious service to the Warsaw Agricultural University, but was presented on September 19, 2002 during Kent’s recent visit to Poland.

On September 20, 2002, the President of Poland, Aleksander Kwasniewski, installed Kaz Banasik as Professor. Kaz was a visiting scholar in Soil and Water Section from 1997-1998. A Professor appointment is reviewed and approved by a national panel. The installation is by the President at the Presidential Palace. Kaz is starting a three-year term as Dean of the College of Land Reclamation and Environmental Engineering, Warsaw Agricultural University.

Club of Bologna

John F. Reid, Manager, Intelligent Vehicle Systems of John Deere and Adjunct Professor in the department, was recently invited, and has accepted, to become a full member of the Club of Bologna.

The Club of Bologna is a world task force on the strategies for the development of agricultural mechanization. The Club of Bologna was established in 1989, as a free association, on the initiative and support of UNACOMA (Italian Agricultural Machinery Manufacturers Association), and under the auspices of C.I.G.R. with the goal to convene the highest international experts on mechanization in order to discuss subjects of preeminent importance for the development of the agricultural machinery sector in various countries.

In the Club, 42 countries are represented and 92 are full members belonging to research bodies (65%), industry (13%) and international organizations (14%). For more information on the Club of Bologna, you can go to the following website: http://www.unacoma.com/pubblico/attivi_gb.html.

Congratulations to John on this very prestigious honor!

Richard J. Godwin (MS 1970), Professor at Silsoe College of Cranfield University in the United Kingdom, is also a member of the Club of Bologna.
assignment working on a joint venture project with GM. After January, they will be returning to Torino, Italy where Sam is employed by Fiat Auto.

**Brian M. Lobdell** (M.S. 2001/ B.S. 1999) is working as a design and test engineer at the John Deere Harvester Works Product Development Center in Silvis, Illinois.

On Monday, October 27 **Vincent (Vince) L. Reincke** (B.S. 2000) stopped by the department and updated his alumni information. Vince is now working for Strategic Farm Marketing as an Ag Marketing Specialist in Champaign, Illinois.

**Gino D. Rigitano** (B.S. 2002) has joined Service Industries in Rolling Meadows, Illinois.

**Congratulations are in order …**


**Thomas J. Crowell** (M.S. 1990/ B.S. 1988) married Danielle Sunderland on November 17, 2001 in Peoria, Illinois. Tom is employed as a Senior Project Engineer at Caterpillar, Inc.

June 15, 2002 was the wedding day for **Andrew D. Greenlee** (B.S. 1999) and Betsy Kelly. Andy is employed as a Purchase Loader Engineer for John Deere Davenport Works. His main job responsibility is to work with a partner company to supply quality loaders to North America.

**Tonya Phelps and Timothy W. Gowler** (B.S. 1998) were married May 25, 2002 in Social Circle, Georgia. Tim is an area service manager for New Holland, North America in Norcross, Georgia.

**Scott W. Quinlan** (B.S. 2002) and Rebecca Champion were planning an October 19 wedding. Scott is employed as a network technician at Frasca International, Urbana, Illinois.

Our deepest sympathy to the families of our alumni …

**Charles J. Doubet** (B.S. 1944) passed away on January 17, 2002 from complications of diabetes. He is survived by his wife and two children. Charles retired after working 33 years for DeKalb Ag. Research.

**William F. Lytle** (B.S. 1939) passed away on October 7, 2002 at the age of 84. His wife, daughter, son and five grandchildren survive him.

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**Moving, changing jobs, new happenings … Let us know**

Name: ____________________________________________

Company Name: ______________________________________

Home Address: _________________________________________

Home Phone (w/area code): ________________________________

Comments: ____________________________________________

_____________________________________________________

December 2002