Inside:
Agronomy researchers and students look to expand Iowa’s profitable crop options.
Dear Agronomy Alumni:

Since I wrote the last alumni letter, many exciting things have gone on in Agronomy and agriculture in general. I would like to share some of them with you. First, Dean Wendy Wintersteen recommended, and the faculty agreed, that I be given a three-year appointment as chair of the Agronomy Department, thus removing the word interim from my title. This makes me the thirteenth chair of Agronomy in a long list of outstanding leaders. It is both humbling and challenging to serve a department with a legacy such as ours.

My top priority remains undergraduate education. It is the heart and soul of what we do as a university and as a department. We are currently in the process of undertaking a major revision of our undergraduate curriculum that will prepare both the students and the department for the great future agriculture has to offer. We are looking to educate future leaders and will make professionalism and leadership an integral part of the new curriculum. Look for future announcements as we continue to revise our curriculum.

The big news in Iowa for the past year has been the bioeconomy, or more specifically bioenergy. Iowa is recognized as a national leader in bioenergy as is evidenced by our current ethanol production from corn starch and our biodiesel production from soybean oil. We are now engaged in exploring the use of lignocellulosic feedstocks – such as corn stalks, switchgrass, miscanthus, triticale, and just about any other plant we can grow – as sources from which to produce biofuels. The challenge facing scientists in agronomy is how to maximize production of biomass from these crops while maintaining Iowa's most precious natural resource – its soils.

Speaking of soils, this fall our department hosted the 2006 World Food Prize winners – all distinguished soil scientists from Brazil. We took the opportunity to kick off and raise awareness for our development of the Soil Science Institute during their visit. The purpose of the Institute is to enhance research and education opportunities in soils and to emphasize the importance Iowa's soils play in crop production, animal and human health, weather, and water quality. Everyone recognizes the importance of Iowa soils, but few are aware that there is little state or federal support to conduct soils research. Our goal is to generate the political support both within and outside Iowa to establish a national Soil Science Institute at ISU. Please feel free to contact us if you would like to find out how you can help make this happen.

I always enjoy hearing from alumni. Please continue to send me your thoughts and let the department know about your remarkable successes. I hope to have the chance to talk with you in person at VEISHEA. The Agronomy Department will be hosting several exhibits in a tent on central campus on April 21. We would love to see you and your families participate in our fun, agronomic activities.

Sincerely,

Kendall Lamkey
Chair, Iowa State University Department of Agronomy
High school students from the Chicago High School of Agriculture Sciences (CHSAS) enrolled in an Iowa State Agronomy course during the Fall 2005 semester to learn about crop production and soil management principles. “We have one of the best agronomy departments in the world,” said David Acker, associate dean for academic and global programs in the College of Agriculture. “However, you would be hard pressed to find very many 17-year-olds in Chicago who could tell you what agronomy is all about. So, with the help of a donor’s support, Steve Fales and I decided to use this experimental course to introduce an exciting major to a new audience.”

Those who completed the course earning an A or B and then enrolled as a freshman in the College of Agriculture at Iowa State received a $1,000 scholarship from the College of Agriculture. Four of the ten Chicago students who took the course in Fall 2005 have since enrolled at ISU. The course is the exact one Iowa State students take on campus as their introduction to crop production, said Gina McAndrews, course instructor.

The students use the Computer Integrated Multimedia Program for Learning Enhancement, which is an interactive multi-media computer program that includes digitized tutorial videos, practice learning exercises, self-quizzes, and problem-solving scenarios. Subjects range from plant anatomy and grain quality to plant breeding and tillage practices. One difference of the distance class is that students have hands-on lab assignments to help them learn the material. The College of Agriculture and the Agronomy Department hope to increase the number of students involved, in other states and in Iowa. The course is open to Iowa high school students as part of the Post Secondary Enrollment Options Act.

Students from the Chicago High School of Agriculture Sciences FFA are shown above.
ISU AGRONOMY CONGRATULATES 2006 GRADUATES
The Agronomy Department at Iowa State presented 22 B.S. students, 10 M.S. students, and four Ph.D. candidates degrees in May. In Aug. the department bestowed six doctoral and nine master's degrees, and in Dec. five B.S. students, seven M.S. students and four Ph.D. candidates received their degrees from the Agronomy Department.

AGRONOMY MAJOR CROWNED HOMECOMING KING
Nathan Katzer, a senior in Agronomy from Creston, was chosen as the ISU 2006 Homecoming King of the Cardinal Court. He was picked from five finalists who were evaluated based on academic record, campus involvement, goals and objectives, and their responses to two essay questions. Katzer and the other four finalists were recognized throughout ISU homecoming festivities. He also made an appearance in the VEISHEA parade and at local ISU Alumni Association outreach events throughout 2006.

GRAD CLUB GRILLS FOR ALS
In support of the Agronomy team “The A-maize-ing Agronomists” the Agronomy Undergraduate Club helped host a BBQ to raise money and awareness for the ALS Association. The team was formed to walk in the annual ALS Walk in memory of the late Deb Muenchrath (’86 B.S. Agronomy, ’95 Ph.D. Plant Physiology), agronomy associate professor. The efforts of the team and proceeds from the BBQ totaled close to $5,000 which will be used to support ALS research and patient support. The Agronomy Department also had a team participate in the American Cancer Society 5K for Life of Story County in honor of Agronomy faculty and staff affected by cancer, especially the late Agronomy Professor Alfred Blackmer.
Walter Fehr (’67 Ph.D. Plant Breeding and Genetics), Charles F. Curtiss Distinguished Professor in Agriculture, marked the thirtieth year of his undergraduate internship program in soybean breeding in 2005. The program has helped launch the career of many leaders in plant breeding and genetics research. Fehr, a member of the Raymond F. Baker Center for Plant Breeding and professor of Agronomy, is a soybean breeder specializing in the development of specialty soybeans.

About seven students are accepted into the program each year in which students learn the genetics involved in plant breeding, work in the field, learn methods for trait selection, and practice techniques and procedures used by plant breeders. For their final project students design a plant breeding program including a description of the specific trait chosen for cultivar improvement, a detailed timeline, procedures, and expected outcomes for developing the cultivar.

For some alumni of the internship program, the experience led to dramatic shifts in career plans. For James Miller (’75 B.S. Agronomy, ’77 M.S. Plant Breeding) the internship he completed had a “profound impact” on his career. He said, “Thanks to Dr. Fehr, though I thought two years at ISU would be enough, I ended up going to college for eight years, getting a Ph.D., and securing a job as a soybean breeder in the private sector. My career in plant science research has now stretched past 30 years and culminated in my serving as the head of research for the largest seed company in the world, Pioneer Hi-Bred.”

Three Iowa State University students were named Golden Opportunity Scholars by the American Society of Agronomy. Raechel Baumgartner, an Agronomy senior from Ponce, Puerto Rico; Andrew Miller, an Agronomy senior from Silver City, Iowa; and Addie Hall, a junior in Genetics from Hamburg, Iowa received the awards at the society’s national meeting in Nov.

Lucia Gutierrez received the G.O. Mott Scholarship from the Crop Science Society of America. The award is among the most prestigious the society presents to a graduate student. Gutierrez is working on her Ph.D. with Agronomy Associate Professor Jean-Luc Jannink.
IOWA STATE CROPS TEAM PLACES THIRD AT NATIONAL COMPETITION

The Iowa State University Crops Team placed third at the North American Colleges and Teachers of Agriculture (NACTA) crops contest held in Macomb, Ill. April 21. The team of Agronomy undergraduates placed first in the lab practical portion of the contest and third in math, plant and seed identification and agronomic knowledge. The crops contest consists of a series of written, problem-solving, and identification exams. Landon Ries of Ringstead placed first in the overall individual competition. He was first in agronomic knowledge and lab practical and third in agriculture math. Jeff Chalstrom of Webb placed sixth overall and was third in lab practical. Other team members were Jared Uhlman, Adair; Wade Kent, Algona; Raechel Baumgartner, Ponce, Puerto Rico; Kellie Tholen, Tipton; Jesse Stayner, Prairie City; and Michael Schrum, Grand Junction. Lance Gibson (’92 M.S. Plant Physiology), associate professor of Agronomy, coaches the team. It is sponsored by the Iowa Crop Improvement Association. NACTA is a professional society that promotes the recognition of excellence in teaching agriculture and related areas at the post secondary level.

ISU SOIL JUDGING TEAM PLACES SECOND AT REGIONAL CONTEST

The Iowa State Soil Judging Team placed second overall at the American Society of Agronomy regional soil judging contest held at Kansas State University in Oct. Four of the Iowa State team members placed among the top ten in the individual competition out of 48 total participants and the team earned second place out of seven in the group-judging portion of the contest. The team qualified to compete at the national competition hosted by Utah State University in spring 2007. The team consisted of John Hammerly, a senior in Agronomy from Newton; Nick Ihde, a junior in Agricultural Business from Prairie du Chien, Wis.; David Laubenthal, a junior in Agronomy from Wesley; Curtis Maeder, a sophomore in Agricultural Engineering from Creston; Jana Matthiesen, a senior in Agricultural Studies from Bryant; Grant Nelson, a junior in Agronomy from Greenfield; Adam Peterson, a senior in Agronomy from Boone; and Ashley Raes, a sophomore in Agronomy from Johnston. Jon Sandor, Agronomy professor, and Amber Anderson (’06 B.S. Agronomy), an Agronomy graduate student from Aurelia, coach the team. During the contest students described soil layers, classified soils, determined geological characteristics, made topographic and hydrologic measurements, and interpreted soil properties.
IOWA STATE UNIVERSITY WEEDS TEAM COMPETES IN COLLEGIATE CONTEST

The Iowa State University Weeds Team competed in the 2006 Collegiate Weed Science Contest in July. The contest was hosted by Midwest Research, Inc. and located in York, Nebraska. Four Agronomy students participated on the team: Erik Christian (‘04 B.S. Agronomy), a graduate student from Story City; Jason Haegele (‘06 B.S. Agronomy), a graduate student from Davenport; Landon Ries, a senior in Agronomy from Ringstead; and Wade Kent, a senior in Agronomy from Algona. The contest consisted of weed identification, unknown herbicide identification, written and actual sprayer calibration, and a problem solving exercise known as “Farmer Problem.” Agronomy Professor and Iowa State University Extension Weed Specialist Mike Owen (‘74 B.S. Plant Physiology, ‘75 M.S. Weed Physiology) and ISU Extension Agribusiness Education Program Coordinator Brent Pringnitz (‘96 M.S. Weed Science) mentored the team.

Student Profile: Rachael Cox

When Rachel Cox returned to the ISU campus after working in Africa she had more questions than answers. “What should I study in college? How am I able to better understand poverty and hunger? What am I going to do with my life? What does this world really need?” She selected a major in Agronomy, focusing on agroecology, but she also plans to take courses in Sociology, Economics, Anthropology, Political Science, and Philosophy. The issues of poverty, hunger, justice, peace, and the environment are complicated and go beyond facts and figures, she said.

Cox received the John Chrystal Intern Award during the 2006 World Food Prize International Symposium for her international work. She was a Borlaug-Ruan International Intern in the summer of 2005 at the International Centre of Insect Physiology and Ecology in Nairobi, Kenya. Her work involved field mortality factors of Diamond Black Moth eggs and larvae in semi-arid crucifer growing conditions. “I got interested in Africa in about the seventh grade when I read about it, which sparked my interest in the region and the issues there. Since then I have continued to pursue these interests,” said Cox. She was selected as Borlaug-Ruan International Intern after completing the World Food Prize Youth Institute in October of 2004.

Cox returned to Africa in 2006 with five other College of Agriculture students who taught classes and helped create a school garden at a farm school in Uganda. The Iowa Staters also helped build a chicken house and establish a borehole to provide water for drinking and irrigation. The students learned much about culture, poverty, malnutrition, and agriculture in a different environment, according to Cox.

Cox advises others deciding on a career to find something they are passionate about. “If we have passion for something, it spreads out into all other areas of our life. Suddenly classes are exciting because you know that what you are learning will help you go deeper into that passion,” she said. “Most importantly, be open to passion changing. The more we learn and have life experiences, the more our passion will take us in new directions we never thought we would go.”
GRAD STUDENTS HONORED BY ISU FOR TEACHING, RESEARCH EXCELLENCE
Several ISU Agronomy graduate students were honored by Iowa State University for excellence in research and teaching in 2006. The ISU Research Excellence and Teaching Awards are given to the top ten percent of students involved in research and teaching including all majors in the university. Valentín Picasso received a Spring 2006 Teaching Excellence Award. He will graduate with a Ph.D. in Sustainable Agriculture in Aug. 2007. Von Mark Cruz and Mindy DeVries (’02 B.S. Agronomy, ’06 Ph.D. Crop Production and Physiology) were presented with Iowa State University Research Excellence Awards during summer commencement in Aug. 2007. Cruz is a postdoctoral student in Agronomy. DeVries received her Ph.D. in Crop Production and Physiology.

AGRonomy GRADUate STUDentS Honor Peers
The Agronomy Graduate Student Club recognized Mindy DeVries and Brian Gelder as Outstanding Graduate Students of 2006 based on their academic achievements and departmental service activities. DeVries (’02 B.S. Agronomy, ’06 Ph.D. Crop Production and Physiology) graduated in Aug. and now works as a Technical Development Representative for Monsanto in Illinois. Gelder (’00 B.S. Agronomy) will receive his Ph.D. in May of 2007 with co-majors in Soil Management in Agronomy and Soil and Water Resources in Agricultural Biosystems Engineering.

Isowa State aGRonomy GradUate Students aWard-ed Schüler Fellowship
Bryce Lemke (’99 B.S. Agronomy, ’02 M.S. Crop Production and Physiology), who is working on a doctorate in Plant Breeding, and Jordan Spear (’05 B.S. Agronomy, ’06 M.S. Plant Breeding), were named the recipients of the 2006 Josef F. Schuler Graduate Fellowship in Agronomy. The award is given to graduate students in the Department of Agronomy who are pursuing a degree with an emphasis in crop breeding. A preference is given to students who have graduated from an Iowa high school or an Iowa undergraduate institution.

Iowa State Agronomy Graduate Students Awarded Schuler Fellowship

Bryce Lemke

Mindy DeVries

Brian Gelder

ISU Agronomy Poster Contest Winners
The first annual ISU Agronomy Poster Competition was held on Nov. 29. Three faculty judges evaluated 15 posters created by Agronomy graduate students and staff according to American Society of Agronomy poster guidelines. Agronomy graduate student Valentín Picasso placed first. Graduate students Juan Astini, second place; and Brock Blaser (’05 M.S. Crop Production and Physiology) third place, all received gift certificates to local restaurants and award certificates.

Check out our new prospective student Web page at: www.agron.iastate.edu!
Click prospective students, then undergraduate to view our new Agronomy video library, photo album, and student blogs!
Six Native American students participated in the George Washington Carver Summer Internship program with Carolyn Lawrence, a USDA collaborator and assistant professor in the departments of Agronomy and Genetics, Development, and Cell Biology. The program is funded by a grant from the National Science Foundation awarded to Volker Brendel, an Iowa State professor in Genetics, Development, and Cell Biology. The students assisted Lawrence, director of the maize genetics and genomics database, and Von Mark Cruz, a postdoctoral student in Agronomy, is researching the genetic makeup of Native American corn populations. The research Brendel is conducting is part of an effort by the U.S. Department of Agriculture’s Agricultural Research Service to maintain genetic diversity of plants and enter germplasm information into a public database. The research focuses on a genetic abnormality that threatens the genetic diversity of southwestern maize, which would affect various phenotypes, including kernel color.

Cruz explains that by using genetic markers the researchers plan to develop a means to identify the Abnormal Chromosome 10 (Ab10) in maize. “This is a component of the project that aims to ultimately get molecular fingerprints of the maize germplasm donated by Native American Indian tribes to the U.S. National Plant Germplasm System,” Cruz said. “Once these fingerprints are generated, it will be possible for tribe members to submit inviable kernels of corn for similar analyses. By matching the fingerprints from the inviable kernels to those of the seeds in the National Plant Germplasm System, plants once lost from the tribes’ collections can be restored.”

The National Plant Germplasm System hopes to maintain diversity not only for cultural purposes, but also to protect the world’s crops. The world’s food supply relies on genetic uniformity, but this uniformity increases plant susceptibility to pests and disease.

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**ISU Agronomy Club Products**

The following items are available for purchase from the ISU Agronomy Club:

- Tan caps with ISU Agronomy Club logo - $15
- Black or white caps with red “ISU Agronomy” lettering - $5
- Red Agronomy koozies with ISU Agronomy Club logo - $3
- Soil Judging Video (describes the basics of soil judging) - $5
- Weed seed identification packets (each pack includes seeds of 33 common weeds and descriptions) - 1-6 packets = $40/each, 6-10 = $35/each, 11 or more = $25/each

Call (515) 294-3846 or e-mail agron@iastate.edu to order.
DOUBLE-CROP FIELD PEAS: IOWA’S THIRD CROP?
Field peas could be an alternative as a third crop for Iowa producers. As part of a special Ecology Initiative project of the Leopold Center for Sustainable Agriculture at Iowa State University, ISU Extension’s Field Crop Specialist Jim Fawcett (’78 B.S. Agronomy, ’80 M.S. Crop Production and Physiology) and Swine Specialist Tom Miller are studying the economic feasibility of growing field peas in southeast Iowa for swine rations. Field peas can be fed directly without processing and are a short season crop, offering the opportunity of double-cropping with soybeans, thus increasing potential profits. Yields from a 75-acre field of spring-planted field peas in Louisa County ranged from 30 to 55 bushels/acre. The harvested field peas were used in a large-scale swine feeding trial in Washington County. Soybeans were planted after the field pea harvest on July 1, yielding 26 bushels/acre in mid-Oct. The project includes winter field peas followed by soybean, and spring field peas planted after wheat. The researchers are working with three farmers and on plots at the ISU Crawfordsville Research Farm. They received a U.S. Department of Agriculture grant and a three-year Leopold Center grant.

INTERNET TOOL AIDS AG PROFESSIONALS
Iowa State University Extension has a free Internet site called “Ag Decision Maker” at www.extension.iastate.edu/agdm/ that provides a wealth of agricultural business information. This site is designed for farmers, lenders, farm managers, agricultural instructors, and others involved in agriculture. It provides up-to-date information from agricultural economists at Iowa State University and other universities and institutions.

NEW TOOLS HELP MANAGE ASIAN SOYBEAN RUST
There are two new tools for Iowa soybean producers and agricultural professionals to help them manage Asian soybean rust should it arrive in Iowa. The first tool is a new publication, Asian Soybean Rust Management Strategies 2006 (PM 2028). It offers management guidelines describing when it is appropriate to use fungicides, which class of fungicides to use at various growth stages, and a current listing of fungicides approved for use in Iowa to treat Asian soybean rust. The other tool is the newly redesigned Web site www.soybeanrust.info.
NEW ISU AGRONOMY EXTENSION CORN MANAGEMENT WEB SITE

A new Web site has been launched for ISU Agronomy Extension Corn Production. The site contains current and relevant management information for producing corn in the state of Iowa. The Web site is designed to provide research-based recommendations and diagnostic tools for producers and agricultural clientele. The new site is housed within the Agronomy Extension Web site (www.agronext.iastate.edu). Select “Corn Production” in the left sidebar to be directed to it or access it directly at: www.agronext.iastate.edu/corn. The Web site was developed by Lori Abendroth, Extension Agronomy specialist, and Roger Elmore, Extension corn specialist.

TWO ISU RESEARCH FARMS CELEBRATE ANNIVERSARIES

The Iowa State University Northern Iowa and McNay Research and Demonstration Farms celebrated the anniversaries of their origins during 2006. The Northern Iowa Research Farm in Kanawha celebrated its 75th anniversary at a field day on Sept. 8 and the McNay Research Farm near Chariton observed its 50th anniversary on Sept. 14. Summer field days typically focus on agronomic crops. These events cover research on corn and soybean management including insect and management topics, soil fertility, tillage systems, water quality, planting dates, crop population, manure management, and value-added crops.

INTEGRATED CROP MANAGEMENT CONFERENCE, AGRI-BUSINESS EXPO HELD IN NOV.

The 18th Annual Integrated Crop Management Conference was held Nov. 29 and 30 in conjunction with the Agribusiness Association of Iowa (AAI) Agribusiness Expo on the Iowa State University campus. Over 850 participants attended presentations that offered the latest information on crop production and protection technology for Iowa and surrounding states. The conference was hosted by the Agribusiness Education Program, ISU Extension, the College of Agriculture, and the departments of Agronomy, Entomology, Plant Pathology, and Agricultural and Biosystems Engineering.

ISU EXTENSION HIRES TWO FIELD CROP SPECIALISTS

In Aug., two crop experts joined ISU Extension. Mark Licht serves west central Iowa and Kyle Jensen serves south western Iowa. “ISU Extension is pleased to have the opportunity to employ two well-qualified individuals who possess a wealth of knowledge and practical experience in crop production and protection,” said Gerald Miller (’71 M.S. Soil Morphology and Genesis, ’74 Ph.D. Soil Morphology and Genesis), director, ISU Extension to Agriculture and Natural Resources. Licht earned a B.S. in Agronomy and M.S. in Soil Management and Conservation from ISU. He is based at the Carroll County Extension office. Jensen earned a B.S. in Agronomy and a M.S. in Soil Science from ISU. He is based at the Southwest Area Extension Office near Lewis. They work with faculty and other specialists to develop and deliver educational programs in support of Iowa crop production. They work with farmers, agribusiness, educational institutions, governmental agencies, farm organizations, cooperatives, commodity groups, community colleges, and youth.

At right, College of Agriculture Dean Wendy Wintersteen, Congressman Tom Latham, and Agronomy Department Chair Kendall Lamkey are shown talking at the 75th anniversary celebration at Kanawha.
Researchers at Iowa State University hope what they’re learning about the winter habits of mice may lead to better weed control with less reliance on herbicides. “For the last four years, we’ve been keeping a detailed account of what goes into and what comes out of the bank of weed seeds in the soil,” said Agronomy Professor Matt Liebman, who leads the project. “We think most of the missing seeds have been consumed by insects and rodents that live in crop fields,” Liebman said. The research began in 2002 on 36 test plots at the ISU Marsden Farm in eastern Boone County and in larger fields on other ISU farms. Averaged over 27 measurement periods in two years, about one-third of the velvetleaf seeds and half of the giant foxtail seeds were lost to predators within two days. In 2003, the loss of velvetleaf seeds to predators was greater in the four-year rotation than in the two-year rotation. Overall, seed predation patterns in the different crops were complementary.

The project represents a unique collaboration between two weed ecologists, Liebman and Paula Westerman, both from Agronomy, and an animal ecologist, Brent Danielson from the ISU Department of Ecology, Evolution, and Organismal Biology. The project builds on work funded by the Leopold Center for Sustainable Agriculture and received a three-year $499,500 grant from the U.S. Department of Agriculture’s Cooperative State Research, Education, and Extension Service.

RESEARCH PROJECT TESTS REMOTE SENSING TO MEASURE EARTH’S WATER CYCLE

A team of Iowa State and University of Iowa researchers began a new project to perfect the use of remote sensing technology to monitor the water cycle. Brian Hornbuckle is principal investigator for the project. He’s an assistant professor in Agronomy, Electrical and Computer Engineering, and Geological and Atmospheric Sciences at Iowa State. The team received a $1.3 million, five-year grant from NASA. The research is taking place on 200 acres of Iowa State research farmland south of campus. On-site equipment will measure soil moisture, precipitation, radiation, and evapotranspiration. Some manual measurements also will be taken. Remote sensing equipment will be taken to the field during each of the four seasons to see if data from the on-site monitoring matches data from the remote monitoring.

Hornbuckle said remote sensing instruments work like cameras and record the “brightness” of the earth’s surface. But instead of detecting visible light like normal cameras, Hornbuckle’s remote sensing instrument that will be used at the site “sees” microwaves. “Wet soils appear dark and dry soils appear bright. Eventually microwave remote sensing instruments on satellites will take pictures of the earth’s surface and produce maps of soil moisture,” he said.

Amy Kaleita, assistant professor in Iowa State’s Agricultural and Biosystems Engineering department, is a co-investigator on the project.
IOWA STATE, USDA RESEARCHERS STUDY SOYBEAN’S FAMILY TREE

A group of U.S. Department of Agriculture-Agricultural Research Service researchers in Iowa State’s Agronomy Department are sequencing the soybean genome to discover the similarities and differences with its relatives in the legume family. Working in collaboration with the Department of Energy’s Joint Genome Institute, Randy Shoemaker (’84 Ph.D. Genetics), Steven Cannon, and their colleagues hope comparisons of the DNA in related plants can help researchers understand how agronomic traits evolved and, in turn, aid plant breeders in creating improved crop varieties.

As part of this effort, Cannon and the USDA-ARS research group at Iowa State will work with others at many institutions to assemble and make sense of this sequence. “This information will be especially useful in helping plant breeders target oil and protein quality, disease resistance, and other valuable traits,” Cannon said. “This information can speed up the entire breeding process. For example, breeders could evaluate seedlings rather than waiting for the trait to be visible in mature plants.” The genome sequence also will help determine what genes are helpful in creating resistance to common diseases such as Phytophthora (stem rot) and Asian soybean rust. Studies of all the DNA in a plant, known as the genome, are underway in several species, including another ISU project focusing on the corn genome.

IOWA STATE SCIENTISTS STUDY ALTERNATIVE CROPS FOR FUEL PRODUCTION

Crops not routinely found on Iowa farms -- switchgrass, Indiangrass, big bluestem, eastern gamagrass, sweet sorghum, triticale, kenaf -- fill several research plots on an Iowa State University farm west of Ames. “Our primary goal is to provide realistic alternatives for Iowa producers to diversify their cropping systems,” said Ken Moore, Agronomy professor. But he’s quick to point out this isn’t just about developing alternative crops, but also developing uses for the new crops. For instance, emerging markets for liquid fuels and other industrial products made from crop biomass are now offering new opportunities. Several projects are underway. Others involved with Moore in the research are Matt Liebman, Agronomy professor, and Robert Anex, associate professor of Agricultural and Biosystems engineering.
Flax is making a comeback. Thanks to researchers at the Iowa State University Agronomy Department, flax may find a profitable place among the corn and soybean fields of Iowa.

Many researchers in the department are working to find suitable crops to add to the state’s mostly duo-culture crop production. One such project, led by Agronomy Associate Professor Mary Hagemann Wiedenhoeft (’80 B.S. Agronomy), is examining the potential for producing and marketing flax, a crop that hasn’t been grown widely in Iowa since the 1940s.

Seeking Answers
Wiedenhoeft and her students and colleagues began this flax research project shortly after an organic flax processing facility was built in Northwest Iowa in 2004. Wiedenhoeft says it was one of those rare occasions in which the processing plant was built before a supply of the crop existed.

Once the processing plant appeared, farmers had many questions about the potential for producing flax to meet its demand. Wiedenhoeft’s project works with several farmers in Iowa to conduct on-farm research, in addition to test plots on ISU research farms, to answer their questions.

The Health Silver Bullet
Producing flax is especially viable now thanks to increased demand for the crop’s healthful properties.

Oil pressed from flax seed is rich in Omega-3 fatty acids, which are reported to be beneficial for a variety of health conditions including heart disease, hypertension, diabetes, and some forms of cancer.

“Flax oil is not as good as cod liver oil, but it is a good compromise,” said Wiedenhoeft, “since it is much easier to get than cod liver oil.”

In addition to health supplements, flax is also a popular additive to animal feed to increase the level of Omega-3 fatty acids in meat and eggs. While conventional flax contains the same health benefits, organic flax is currently most in demand in Iowa.

“Health orientated consumers tend to be concerned about the environment as well as their own health so they have a tendency to prefer organic products,” Wiedenhoeft said. “Because of this, the highest profit comes from flax grain and oil used for human consumption, then for animal feed, then non-organic flax.”

Flax oil can also be used as furniture varnish if processed differently. Another variety of flax not included in this research project is grown as a fiber crop. Fiber produced as a byproduct of flax grown for oil is often used for cigarette paper, Bible paper, and upholstery fiber.

Midwest Management
Canada and North Dakota supply the majority of the market’s flax. Research has shown the quality of oil from flax grown in the Midwest is not as high as that grown in more northern climates. So, Wiedenhoeft’s project focuses on selecting varieties of flax with high-quality oil that are suitable for Iowa’s growing seasons and conditions.

Results of their research show flax yields are highest when planted early, cultivars differ in grain yield potential, and flax requires moderate nitrogen to maximize yields.

“Agronomy Associate Professor Mary Wiedenhoeft, left, leads the flax research project.
In addition to variety selection, this project examines organic weed control strategies which are essential since the crop is not very competitive against weed pressure.

Their research shows flax can be underseeded with a legume. However, underseeding will not out-compete weeds until after the flax has been harvested and the legume can re-establish. Weeds will need to be controlled throughout the crop rotation, not just during the flax cycle. The best strategy is to plant flax when weed pressure is lowest in the crop rotation.

The Big Picture
Researchers are examining the social and economic implications surrounding the process of introducing alternative crops by working with Jan Flora, professor of Sociology, and Jim Kliebenstien, professor of Economics. Wiedenhoeft says the entire process has value.

“We have to be involved in the bigger picture than just agronomics. We need diversity in Iowa cropping systems now more than ever before. Alternative crops aren’t for everyone,” she says. “This is one opportunity to help organic farmers have diversity.”

Wiedenhoeft said a future for non-organic flax in Iowa is possible, but will not develop soon since the only processor in Iowa is exclusively interested in organically grown flax grain. Despite growth in production in the Midwest she believes Canada and North Dakota will always dominate flax production.

Results of the flax research program at Iowa State are being shared locally and internationally through Extension publications, field days, scientific meetings and conferences. Farmers, processors and grain buyers are among those most interested in the findings, but often curious consumers can be found among attendees.

Margaret Smith (’77 B.S. Agronomy, ’80 M.S. Crop Production and Physiology), ISU Extension program specialist, works with flax growers and processors to examine business organization and explore the flax market in Iowa. She coordinates farmer outreach and education programs about flax production and helps facilitate relationships among processors and Iowa farmers.
Future of Flax

In the future, Wiedenhoeft plans to study the fertility needs of flax. She and her colleagues also will expand their research to include both organic and nonorganic flax so data will be available if the non-organic flax market does take off in Iowa. They also plan to examine the production of non-GMO canola for human consumption.

Initial funding for the flax research program at Iowa State came from the Department of Agronomy Endowment, the Leopold Center for Sustainable Agriculture, the W.K. Kellogg Foundation, the on-farm research funding from the ISU College of Agriculture, and Practical Farmers of Iowa.

Engaging Students

Like many Agronomy professors, Mary Wiedenhoeft engages both graduate and undergraduate students in her research. When Wiedenhoeft established her research team she worked with each student to identify and coordinate their interests with project goals.

“I don’t just want worker bees. I want students to have their own piece of the research,” she says. “I want them to have ownership in the project and learn about the entire process.”

Jenny Trump, a senior in Agronomy, is one of the undergraduates working on the project. Her primary interests entering the project were in weed biology, extension, and international agriculture. Trump’s work in the project involved analysis of planting date affect on flax grain yield and individual weed biomass. Flax grain yield and weed biomass samples were collected from three different flax planting dates. In addition, she sorted the total weed biomass into individual species to measure individual species biomass.

“By observing underseedings of alfalfa and red clover and broadcast seeding of flax used as methods of weed control, I learned how to think outside the box to avoid the use of synthetic chemicals,” Trump said. “Working with the flax team was an eye-opening experience, and I am glad that I had the opportunity to be a part of it.”

Jaclyn Linkenmeyer, senior in Biology and Anthropology, also worked with the program performing a literature review about the health benefits of flax.

Sarah Carlson is a graduate student in Sustainable Agriculture and Crop Production and Physiology who is working with Wiedenhoeft on the project. She is considering the environmental, social, and economic factors of flax production in organic cropping systems.

“This project allowed me to strengthen my agronomic focus and work with farmers, which is what I really like to do” Carlson said. “We created research questions to address farmers’ questions and help them decide if it was economically and agronomically viable to add flax to their rotations.”
PROF RECEIVES NATIONAL SOIL FERTILITY AWARD
Antonio Mallarino (’81 Soil Fertility and Crop Production and Physiology, ’88 Ph.D. Crop Production and Physiology), Agronomy professor, was presented the 2005 Werner L. Nelson Award in Feb. by the Fluid Fertilizer Foundation at the national Fluid Forum in Scottsdale, Ariz. Mallarino is a professor and Extension specialist in soil fertility. He was presented the award for his contributions to the development of soil fertility practices and plant nutrition management. Recipients are selected based on demonstrated leadership, innovation, insight, and integrity in the use of fertilizer to maximize crop yields.

ASA/CSSA/SSSA RECOGNIZES AGRONOMY FACULTY
The ISU Agronomy Department received numerous awards at the 2006 international annual meetings of the American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA) in Nov. in Indianapolis. Agronomy faculty honored by the societies include Tom Kaspar and Sally Logsdon, who were named fellows of ASA based on their professional achievements and meritorious service. Kaspar is a plant physiologist with the USDA-ARS and an Agronomy professor/collaborator. Logsdon is a research soil scientist with the USDA-ARS and an associate professor/collaborator in Agronomy. Jean-Luc Jannink, Agronomy associate professor, was honored by CSSA with the Young Crop Scientist Research Award.

MOORE PRESIDENT OF AMERICAN SOCIETY OF AGRONOMY
Kenneth Moore, Iowa State University professor, is the 2006-2007 president-elect of the American Society of Agronomy (ASA). Moore took office at the annual meetings of ASA, held in conjunction with the Crop Science Society of America (CSSA) and Soil Science Society of America (SSSA) Nov. 12-16 in Indianapolis. He became the 101st president of ASA during the association’s 100th anniversary celebration at the 2007 annual meetings. Moore earned his bachelor’s degree from Arizona State University and his master’s and doctorate degrees from Purdue University. He is the director of the Master of Science in Agronomy distance education program and Crop Adviser Institute at Iowa State University. He is a Fellow of CSSA and ASA and was president of the CSSA in 2004.

KCCI WEATHER AWARD, NWS SPECIAL SERVICE AWARD
Daryl Herzmann, Agronomy program assistant for the Iowa Environmental Mesonet, received a “KCCI Weather Award” from KCCI-TV in Des Moines in recognition of his partnership in saving lives during the tornado outbreak in Iowa on Nov. 12, 2005. The program Herzmann works with, the Iowa Environmental Mesonet, also received a Special Service award from the National Weather Service. The Mesonet was honored for support and partnership during the Central Iowa severe weather outbreak of May 21-24, 2004. The award was presented at the National Weather Service office in Dec. 2005.

AGRONOMY PROGRAM WIN NATIONAL AWARDS
The National Agricultural Alumni and Development Association presented the ISU Agronomy Department with a first place award for its “Following the Path to the Future” stewardship material booklet and second place for the Agronomy Department alumni newsletter, “The Agronomist” in 2006.

DISTANCE ED AWARD TO MS IN AGRONOMY PROGRAM
The Master of Science in Agronomy Distance Education Program received the 2006 Innovator’s Award from the Iowa Distance Learning Association (IDLA). The program began development in 1995 and the first courses were offered in fall 1998. The award was presented at the IDLA spring conference in April.

AGRON PROFESSOR HEADS IOWA WATER CENTER
Rick Cruse (’72 B.S. Agronomy), Agronomy professor, and coordinator of a College of Agriculture initiative emphasizing water quality, has been named director of the Iowa Water Center. The Iowa Water Center located at Iowa State University encourages interdisciplinary efforts to address critical and emerging water issues. The former name of the program was the Iowa State Water Resources Research Institute. It was created in 1964 as part of the federal Water Resources Act. Each state has a similar institute or center.
ISU FOUNDATION HONORS AGRONOMY FACULTY FOR RESEARCH, ADVISING
Agronomy Professor Ali Tabatabai (’65 Ph.D. Soil Chemistry) was the recipient of the ISU Foundation Award for Outstanding Career Achievement in Research. The award is given for documented evidence of outstanding national/international recognition for contributions in research, as well as evidence that the research activity has influenced undergraduate and/or graduate students. Lee Burras (’81 B.S. Agronomy, ’84 M.S. Soil Genesis), Agronomy professor, was also honored by the ISU Foundation with the Award for Academic Advising. The award is given for documented evidence, including advisee and peer evaluations, of strong commitment to academic advising and effectiveness in promoting the development of advisees as both students and individuals.

AGRONOMY FACULTY AND STAFF MAKE 25-YEAR CLUB
Three Agronomy professors who have served Iowa State for 25 years were honored at the annual 25-Year Club banquet in 2006. The new members of the 25-Year Club from Agronomy are Arden Campbell (’70 Ph.D. Plant Breeding), Ricardo Salvador (’84 M.S., ’88 Ph.D. Crop Production and Physiology) and Michael Thompson.

SUE SPRONG RECEIVED LAS MERIT EXCELLENCE AWARD
The College of Liberal Arts and Sciences recognized 22 faculty and staff members with awards for research, teaching, and service on Sept. 6. Sue Sprong, secretary in the Agronomy Student Services Office, was one of the recipients for merit excellence award. For years Sprong has offered administrative support for both the environmental programs at Iowa State and the Iowa Lakeside Lab. She has managed the paperwork associated with student and faculty records for these programs.

FACULTY HONORED AT AG COLLEGE CONVOCATION
The College of Agriculture at Iowa State University presented annual awards to faculty and staff at its spring semester convocation. Palle Pedersen, assistant professor of Agronomy, received the award for Early Achievement in Extension. He is responsible for soybean production and management extension programs and has received $1.2 million in research funds. Jean-Luc Jannink, Agronomy assistant professor, received the Raymond and Mary Baker Agronomic Excellence Award. Jannink received the award for his work in applying DNA markers to enhance the breeding and understanding of crop genetic architecture. The Iowa State Agriculture Diversity Committee, chaired by Agronomy Associate Professor Andrew Manu, received the College of Agriculture Team Award.

FACULTY DEPARTURES
The Agronomy Department had two faculty departures in 2006. Charlie Brummer, Agronomy professor, left to accept a position as a Professor of Forage and Biomass Crop Breeding in the Center for Applied Genetic Technologies at the Crop and Soil Science Department of the University of Georgia. Agronomy Professor Ricardo Salvador (’84 M.S., ’88 Ph.D. Crop Production and Physiology) also left the department in 2006. Salvador is now program director for Food Systems and Rural Development programming at the W.K. Kellogg Foundation in Battle Creek, Mich.

New Faculty and Staff

NEW STAFF
Jaclyn Borza – Research Associate I
William Fjelland – Ag. Specialist II
Dean Grossnickle – Ag. Specialist II
Ye Lin – System Analyst I
David Losure – Ag. Specialist I
Bradley Miller – Program Coord. I
Kelly Poole – Program Coord. II
Charles Sauer – Program Coord. II
Kyle Vander Molen – Research Associate I

Mitzi Wilkening – Research Assoc. I
Jill Litwiller - Secretary II
Barbara Neal – Clerk II

NEW FACULTY
Steven Cannon, Collaborator, USDA/ARS
Michelle Graham, Collaborator, USDA/ARS
Faculty and Staff News

2006 AGRONOMY EXCELLENCE AWARD WINNERS HONORED
The 2006 ISU Agronomy Excellence Awards were presented on May 19 at the department's annual meeting. Award winners were Cindy Clark, ag specialist; Maria Hartt, research associate; and Helene Lawrence, secretary. New faculty and staff were also introduced at the meeting and awards and honors from throughout 2006 were announced.

Faculty Profile: Bob Horton

Bob Horton, professor of Agronomy, was named a C.F Curtiss Distinguished Professor in Agriculture in 2006. The title of Distinguished Professor, first awarded in 1956, is the highest academic honor bestowed by Iowa State University. It recognizes faculty members for exemplary performance in at least two of the following areas: teaching and advising; research, scholarship, or artistic creativity; and extension, university service, or professional practice.

Horton’s work has contributed significantly to understanding in climatology, water quality, and agricultural production. He is one of the world’s foremost scientists studying coupled heat and mass transfer in soil. Horton has developed a renowned soil physics research and teaching program at ISU, earning international recognition and garnering him the 2001 Soil Science Research Award and the 2002 Don and Betty Kirkham Award, given to the top soil scientists in the world. He has been a member of the ISU Agronomy Department for 25 years.

Horton said the most enjoyable part of his job is working with graduate students. “I marvel at being paid to have the opportunity to encourage and observe scientific and personal growth in my graduate students. I feel blessed to have worked with so many outstanding students through the years.” He claims the students deserve the lion’s share of credit for his scientific accomplishments.

He received his B.S. in Agronomy in 1975 and his M.S. in Soil Science in 1977 from Texas A&M University and his Ph.D. in Soil Physics in 1981 from New Mexico State University. Horton has six living children, five daughters and one son. He says there is never a dull moment at home with his kids and wife Nannet who, according to Horton, is a “full time homemaker and a Distinguished Person which far exceeds Distinguished Professor.” He is an active member of St. Thomas Aquinas Catholic Church and “regularly prays for students and colleagues.”
In Memoriam

FRED BLACKMER
Agronomy Professor Alfred M. Blackmer died on January 28, 2006. Blackmer, 62, battled pancreatic cancer for two years. He received an associate’s degree from the University of Massachusetts in Animal Sciences in 1964. He enlisted in the United States Army in February of 1966 and served as a food inspector in the U.S. Army Veterinary Medical Service.
Blackmer returned to the University of Massachusetts and completed a B.S. in Animal Science in 1971 and a M.S. in Plant and Soil Science in 1973. He received a Ph.D. in Soil Microbiology and Biochemistry in 1977 at Iowa State University.
He began his career in soils research at Iowa State University and taught graduate courses in Soil-Plant Relationships and Advanced Soil Fertility. He maintained an active field research program with primary focus on nitrogen management. One of his major objectives was to develop knowledge and tools that increase the profitability of crop production while conserving soil, water, air, and energy resources. He has more than 350 publications and received 14 professional awards. He was honored posthumously by Wallace’s Farmer magazine with the Exceptional Service Award and with the Iowa Master Farmer Exceptional Service Award.

DEB MUENCHRATH
Deborah Muenchrath, assistant professor of Agronomy at Iowa State University, died on July 10, 2006, after a courageous struggle with ALS (Lou Gehrig’s Disease). She was 50 years old. She received her B.S. in Agronomy and Ph.D. in Plant Physiology at Iowa State and her M.S. in Plant Breeding at the University of Minnesota. A gifted teacher, Muenchrath was instrumental in creating the MS in Agronomy distance education degree program at Iowa State, designing Internet courses in crop science to actively engage students and enhance their professional skills. She also developed courses to expand undergraduates’ international perspectives. Her excellence in teaching was well known and recognized by the ISU Foundation Early Achievement in Teaching Award.
Her research encompassed maize diversity, ecophysiology, and adaptations to abiotic stress, emphasizing maize native to the American Southwest. To develop an integrated understanding of these time-tested cultivars and agroecosystems, she collaborated with anthropologists, ecologists, geneticists, soil scientists, and Native American groups.
DON DUVICK
Donald Duvick, Agronomy affiliate professor and retired senior vice president of research at Pioneer, died on May 23, 2006 from complications of a brain tumor at the age of 81.

He received a B.S. in agriculture from the University of Illinois in 1948 (following service in the military during World War II), and a Ph.D. in botany (majors in genetics and biochemistry) from Washington University (St. Louis) in 1951. Pioneer Hi-Bred International, Inc. employed him from 1951 to 1990. He began work as a Geneticist/Corn Breeder and retired as Senior Vice-president/Research.

In 1990 he joined the Agronomy faculty at Iowa State as an affiliate professor of plant breeding. Duvick’s research laid the foundation for plant breeding. As Senior Vice-president/Research for Pioneer he was responsible for research operations employing 1000 people dealing with nine field crops as well as bacteria used for agricultural benefit. The research programs were conducted in 85 locations distributed among 25 countries. Products of these research groups were widely acknowledged as industry leaders in performance and sales, nationally and internationally.

Duvick provided public service to science through many years of service on committees, boards and as an officer of professional societies concerned with agronomy and other fields of biology.

He received numerous honors including induction into the National Academy of Sciences, the Agronomic Service Award from the American Society of Agronomy, the DEKALB Crop Science Distinguished Career Award and the Genetics and Plant Breeding Award for Industry from the Crop Science Society of America.

ALUMNUS AND FORMER EXTENSION DIRECTOR DIES
Retired extension director and College of Agriculture alumnus Marvin Anderson died March 6 at Green Hills Health Care Center in Ames. Anderson was 93. He earned bachelor's and master's degrees in Agronomy, in 1939 and 1949, and a doctorate in Agricultural Economics and Soil Management in 1955. Anderson joined Iowa State in 4-H and became director and dean of Iowa State University Extension, retiring in 1974.

FORMER SOILS INSTRUCTOR FOLKS DIES
Former soils instructor Homer Folks died on June 14. He worked as a soils instructor in the Agronomy Department from 1953-54. He received his Ph.D. in soil morphology and genesis from ISU in 1954. He worked briefly as an extension area agronomist in southeastern Iowa and worked at North Carolina State University. He spent the bulk of his career at the University of Missouri with the MidAmerica International Agricultural Consortium.
AGRONOMY ALUMNUS JOHN ASKEW APPOINTED AS EPA REGION 7 ADMINISTRATOR

John B. Askew was appointed to serve as the Region 7 Administrator for the U.S. Environmental Protection Agency in the Kansas City office. Askew is the current president of the Iowa Soybean Association Board of Directors. As a leader of the association, he has helped develop and implement agronomic and environmental programs that help farmers evaluate alternative management practices, incorporate environmental management systems, and use watershed programming so they can become better growers, better managers and better environmental stewards. He holds a B.S. in Agronomy from Iowa State University.

AGRONOMY ALUMNA NAMED AAAS FELLOW

Alumna Karen Kuenzel Moldenhauer was named a fellow of the American Association for the Advancement of Science. Moldenhauer, the University of Arkansas Rice Industry Chair for Variety Development, joined the faculty of the university in 1982. She works at the Rice Research and Extension Center near Stuttgart and was selected as a fellow in the academy section on agriculture, food, and renewable resources. Moldenhauer earned a doctorate in Plant Breeding from Iowa State in 1975.

SPENCER AWARD FOR SUSTAINABLE AG TO FARM FAMILY

A Shelby County family has been honored with one of the state’s largest awards in sustainable agriculture. Ron and Maria Vakulskas Rosmann, along with their sons David, Daniel, and Mark, received the 2006 Spencer Award for Sustainable Agriculture at the Iowa Organic Conference Nov. 20 in Ames. Daniel earned a bachelor’s degree in Agronomy in 2005 from ISU, and has joined the family operation. David is also an ISU alum and is a rural organizer for Iowa Citizens for Community Improvement. Mark is a junior in Agronomy and history at ISU.

Alumni Profile: Ted Crosbie

Ted Crosbie, agronomy alumnus and vice president of Global Breeding at Monsanto directs breeding research teams that supply more than 1,000 commercial varieties and hybrids each year to farmers around the world. This accounts for about 40 percent of the world’s commercial production of seven crops. He supervises more than 800 employees in 25 countries, including 150 plant breeders. The Global Plant Breeding Group is one of the largest research departments within Monsanto.

Crosbie received his M.S. and Ph.D. in Plant Breeding from Iowa State in 1974 and 1976, respectively. “The education I received in plant breeding from Iowa State has been the single most influential element of my career,” he said. “The worldwide impact of Iowa State’s plant breeding education and research is unsurpassed.”

Crosbie received the 2006 Floyd Andre Award at an Iowa State University Alumni Association awards ceremony in Oct. The award is given annually by the Iowa State College of Agriculture to honor an Iowa State alum who has made an outstanding contribution to production agriculture, agricultural business, or who has significantly influenced Iowa agriculture. While on campus to receive the award Crosbie also presented a biotech seminar titled “A Decade of Plant Biotechnology: What Have we Learned and What Does the Future Hold?”

Crosbie also accepted the Order of the Knoll Corporate and Foundation Award for Monsanto Co. at the ISU Foundation Order of the Knoll celebration in April. The award is presented to a corporation or foundation that has demonstrated outstanding generosity to Iowa State.

Crosbie also visited campus in 2006 to address Agronomy graduating seniors during the spring academic semester. He shared his experiences with the students and led them in a discussion of the book The Innovator's Dilemma by Clayton Christensen.
PLANT BREEDING SYMPOSIUM NAMED FOR ALUM DUDLEY
The First International Plant Breeding Symposium held in Mexico City in Aug. was dedicated to alumnus John Dudley, emeritus professor of Plant Genetics at the University of Illinois. Dudley earned master’s and doctorate degrees in Plant Breeding from Iowa State in 1955 and 1956. The symposium, sponsored by Iowa State, Monsanto, Pioneer, CIMMYT and the University of Illinois, attracted more than 350 participants from 60 different countries. Dudley was honored for his research on long-term selection for oil and protein in corn, for innovative applications of quantitative genetics to plant breeding in corn, alfalfa and sugar beets, and for mentoring a number of graduate students who hold responsible positions in plant breeding throughout the world.

ALUM NAMED PRES.-ELECT OF SOIL SCIENCE SOCIETY
ISU alumnus Gary Peterson, head of the Soil and Crop Sciences department at Colorado State University, has been named president-elect of the Soil Science Society of America. Peterson took office at the 2006 annual meetings Nov. 12-16 in Indianapolis. Peterson earned his Ph.D. in Soil Fertility from the Department of Agronomy in 1967.

In Memoriam
Raymond Allmaras, 10/12/2006, Ph.D. 1960
Dean Barnes, 3/5/2006, B.S. 1950, M.S. 1965
Alfred Blackmer, 1/28/2006, Ph.D. 1977
George Eastburn, 7/6/2006, B.S. 1954
Homer Folks, 6/14/2006, Ph.D. 1954
Edwin Gamble, 10/9/2006, Ph.D. 1957
Mario Gutierrez, 7/20/2006, M.S. 1948, Ph.D. 1952
John Halbach, 1/26/2006, B.S. 1942
Wilbur Harding, 10/30/2006, B.S. 1942
Randall Higgins, 5/12/2006, Ph.D. 1982
Howard Holsapple, 8/5/2006, B.S. 1960
Theodore Johnston, 5/20/2006, Ph.D. 1953
Joseph Kelly, 1/25/2006, M.S. 1941
Deborah Muenchrath, 7/10/06, ’86 B.S. Agronomy, ’95 Ph.D. Plant Physiology
George Person, 10/23/2006, B.S. 1952
Frank Petr, 1/12/2006, Ph.D. 1959

Special Note:
Due to inaccurate information provided to the ISU Agronomy Department, Thomas Devine was incorrectly listed in the “In Memoriam” section of the 2006 The Agronomist. Devine is a research geneticist for the USDA-ARS Sustainable Agricultural Systems Laboratory in Beltsville, MD.

Look for information about Fall 2007 Agronomy Alumni activities in your mailboxes this summer!
Above ISU Agronomy department alumni, faculty, staff, students, and friends are shown at a tailgate before ISU vs. Nebraska football game on Oct. 7. Catered meals were served and door prizes were awarded throughout the afternoon. The department also hosted an alumni reception on October 21 featuring building tours, a greenhouse activity “Agronomy Private Investigator (P.I.) School,” and refreshments.

ASOYIA CHIEF, ISU ALUM HONORED BY IOWA FARM BUREAU
Vivan M. Jennings, founder, chief technology officer and former CEO of Asoyia LLC received the Distinguished Service Award from the Iowa Farm Bureau Federation at the organization’s annual meeting in Des Moines in Dec. The award honors individuals for service to agriculture that has been of importance to the industry at the local, state, and/or national level. Jennings received his M.S. in Agronomy in 1966 and his Ph.D. in 1974. He served as a professor at Iowa State University and held many leadership roles with ISU Extension. In 1985, Jennings left Iowa to serve as Deputy Administrator for the U.S. Department of Agriculture’s Cooperative States Research, Education and Extension Service in Washington D.C. After retiring from the USDA in 1995, he returned to Iowa. He was responsible for the evolution of Asoyia, LLC in 2004.

UNDERGRAD SCHOLARSHIPS TOTAL MORE THAN $100,000
In 2006, 68 privately funded scholarships were awarded to Agronomy undergraduate students. In total more than $107,000 was awarded to students through scholarships. Agronomy Travel Fellowships funded by the Agronomy Endowment totaling $39,000 were awarded to 55 agronomy and other undergraduate students for study abroad courses. Students traveled to such places as Argentina, Costa Rica, Ghana, Malaysia, Panama, Uganda, and Uruguay.

ENDOWED ASSISTANTSHIPS HONOR FORMER FACULTY
The Agronomy Department has a number of memorial endowments that provide scholarships to undergraduate and graduate students. Currently ten graduate students in Agronomy are fully or partly supported by the following memorial assistantships and scholarships. If you are interested in learning more about these scholarships or creating a new one contact the ISU Foundation via phone at (866) 419-6768 or visit them on-line at: www.foundation.iastate.edu.

• Wayne Scholtes’ Teaching Assistantship Endowments
• Franz J. Haas Memorial Fellowship
• Gustav-Gertrude-Peter C. Seeck Fellowship
• Louis Thompson Endowment for Agronomy
• Charles N. Brown and Verna H. Brown Scholarship
• Josef F. Schuler Graduate Fellowship in Agronomy
• Frederick Soil Microbiology Award
• Virgil K. Webster Graduate Scholarship
• C.R. Weber Award of Excellence in Plant Science
What’s new?
Your news is important to the Agronomy Department and to other alumni. Please detach, complete, and mail this card to tell us about your latest business ventures, career moves, honors and awards, and family. Even if you have no news to share right now, please provide your current contact information so we can stay in touch with you. You also can e-mail us at agron@iastate.edu.

Name

Degrees(s) / Major(s) / Year(s)

Home Address

City/State/Zip

Preferred E-mail Address

This is a new home address.
☐ Yes ☐ No

Please include my e-mail in the departmental list for occasional news updates.
☐ Yes ☐ No

Recent News:

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AGRONOMY ALUMNI UPDATE
IOWA STATE UNIVERSITY
2210 AGRONOMY HALL
AMES, IOWA
50011-1010

Please fold along lines, seal with tape (do not staple) and mail. Thank you!
1940s
Charles Persinger, Onawa, Iowa, B.S. Agronomy 1949. Now retired from farming, Persinger was a Services Key recipient at Iowa State University and retired co-chairman of the board. He regularly attends ISU football games and is busy with volunteer church work.

1950s
Kenneth Bruene, Platte City, Miss., B.S. Agronomy 1950. Bruene retired last year from the grant program of U.S. EPA.

Norman (Charles) Brown, Normal, Ill., B.S. Agronomy 1951, M.S. Agronomy 1953. Brown shared memories of being raised on the old Agronomy Farm where he and his three siblings lived through their college days.

Ted Axland, Rio Verde, Ariz., B.S. Agronomy 1955. Axland is currently the Director of the Phoenix Agricultural Club. The club’s Feb. 2006 meeting with the theme “Corn to Ethanol” featured speakers from Iowa, Neb., Miss., and General Motors created much enthusiasm among Midwestern snowbirds. He welcomes ideas for their 2007 program.

Arden Battensperger, Las Cruces, NM., Ph.D. Plant Breeding 1958. Battensperger shared fun memories from ISU. Battensperger now attends Agron-Hort functions at N.M.S.U.

Zachary Senwo, Normal, Ala., Ph.D. Soil Chemistry 1995. Senwo is the Director of the Center for Environmental Research and Training and associate professor of Environmental Science & Toxicology at Alabama A & M University.

1960s
Ricardo Martinez, Bogota D.C., Colombia, M.S. Plant Breeding 1969. Martinez is retired after 30 years with the National University of Colombia. He now works for the Oil Palm Center of Colombia and teaches at the graduate school of the Javeriana University.

1970s
John Cushman, West Lafayette, Ind., M.S. / Ph.D. Soil Physics and Mathematics 1978. Cushman was named University Distinguished Professor of Earth and Atmospheric Sciences (the first distinguished professor in the department), and is currently a professor of Mathematics at Purdue University.

Marc Hermann, Manchester, Iowa, B.S. Agronomy 1978. Hermann is a shareholder in Delaware County Meats, a local value added ag meat and gift box company.

1980s
J.L. Sridodo, Bogor, Indonesia, Ph.D. Soil Fertility 1980. Sridodo retired in 1993 as researcher of the Central Research Institute for Agriculture. He also served as consultant for the Bank of Indonesia from 1993-2002 and was active as associate professor in the graduate school at Tarumanagara University in Jakarta, Indonesia.


Rashit Ismail, Orlando, Fla., M.S. Crop Production 1987. Ismail was promoted to Vice President for Global Marketing at Tupperware Brands. Ismail’s family relocated to Orlando, Fla. in August 2006.

1990s
Mike Stahr, Ogden, Iowa, M.S. Crop Production 1997. Stahr is now on his 25th year at Iowa State. He is a member of the Board of Examiners, Genetic Technology, Society of Commercial Seed technologist (SCST), and is Assistant Scientist II at the ISU Seed Laboratory, in charge of trait testing.

2000s
Chad Johnson, Omaha, Neb., B.S. Agronomy 2000, M.S., Crop Physiology 2004. Johnson passed the bar exam in 2006. He works for the law firm Suiter Swantz, PC LLO, in Omaha, Neb. and specializes in intellectual property law representing companies in the agriculture and food industry.

Justin and Tami (Tungland) Farmer, Lakefield, Minn. Tami B.S. Agronomy 2001, Justin B.S. Agronomy 2002. The Farmer couple is farming in southwest Minnesota. Justin recently became a sales rep for Pioneer Hi-Bred International. The Farmers have two daughters, Regan (3), and Maci (1 1/2), and are expecting their third child in June.


ALUMNA WRITES ABOUT FAVORITE PROFESSOR

“My angel came in the form of Dr. Wayne Scholtes, soils professor in the Agronomy Department. He was my mentor. He told me that there were few blacks or women in the field of soil science, but he said, “If this is something you want to do, I will make sure you are the best soil scientist there is.” After graduation, I tried many times to repay him, and he always told me to repay him by helping others. I am doing that now – and have been since I left ISU – with Big Brothers/Big Sisters, Habitat for Humanity, mentoring, and many other things. I know my story is bigger than I am because it is not about me; it is much bigger than that. It is about passing the baton to inspire young people so they can achieve more than others expect of them as was done for me. Dr. Scholtes passed several years ago, but I carry his memories and training within me. I know where I came from, and without my mentor I would not be where I am.”

Jeannette Bradley is a remote sensing leader with the USDA in Burleson, Texas. Wayne Scholtes (’39 Forestry, ’51 Ph.D. Soil Genetics), a professor of Agronomy at ISU from 1951 to 1983, died in 1998 at the age of 81. At the time of his retirement, he was a Charles F. Curtiss Distinguished Professor in Agriculture, and he was twice voted Professor of the Year by students in the College of Agriculture. For information about the scholarship set up in his honor see page 24.

Photo: Jim Heemstra.