UNIVERSITY OF SASKATCHEWAN

Agknowledge

COLLEGE OF AGRICULTURE AND BIORESOURCES 01 | 2010

Education that Feeds our Future

ENGAGING COMMUNITIES ALL OVER THE MAP

PLUS //

WALTER REDEKOP: A LIFE WITH CIDA

NEW FACILITIES BOOST RESEARCH

WHAT DOES COAT COLOUR TELL US?

WORKING WITH THE MEAT INDUSTRY

Prairie strong, worldwide.

Bachelor of Science in Agriculture
Class of 1986
Masters of Science in Agriculture
Class of 1988
University of Saskatchewan

" For many decades, U of S agros have made important contributions to the grain industry of Western Canada. At the Canadian Wheat Board, we're fortunate to have knowledgeable U of S grads working in all aspects of the business – from marketing farmers' wheat and barley to delivering services for producers and developing innovative new strategies for the future. For more than 30 years, the CWB has provided undergraduate scholarships and graduate fellowship programs for U of S agriculture students. We've built a strong partnership that will continue for the years to come."

– Ward Weisensel
Chief Operating Officer, Canadian Wheat Board

CWB

www.cwb.ca
1- 800-275-4292

Agknowledge
COLLEGE OF AGRICULTURE AND BIORESOURCES 01 | 2010

Editor
Mark Wartman
Contributing Editor
Colleen Romuld
Writer
Peter Norman
Creative Director
Susie Brown
Graphic Designer
Annie Kim
Publisher
SkinnyFish Media Inc.
Website: www.skinnyfishmedia.com
Phone: (403) 338-1731
Printer
McAra Printing

Agknowledge is designed and published by SkinnyFish Media Inc. on behalf of the University of Saskatchewan College of Agriculture and Bioresources.

Return undeliverable Canadian Addresses to:
College of Agriculture and Bioresources
University of Saskatchewan
51 Campus Drive
Saskatoon, SK S7N 5A8 Canada

Published for
College of Agriculture and Bioresources
University of Saskatchewan
51 Campus Drive
Saskatoon, SK S7N 5A8
Phone: (306) 966-4056
Fax: (306) 966-8894
Website: www.agbio.usask.ca

Publication Date
January 2010

IN EVERY ISSUE

COMMUNITY ACTIVITIES

FEATURES

PAGE 10 PAGE 30 PAGE 25

University of Saskatchewan
College of Agriculture and Bioresources

MESSAGE FROM THE DEAN

EDUCATION THAT FEEDS OUR FUTURE

Welcome to *AgKnowledge* 2010! I am excited to be greeting you for the first time as Dean of this wonderful College of Agriculture and Bioresources. Since starting on July 1, 2009, I have met a few of you at various events throughout the province, and I am eagerly anticipating meeting many more of you as I discover what the Agros have built.

I've been involved in professional agriculture for nearly 30 years, starting at Agriculture Canada at Brandon, then the University of Manitoba and finally (mostly) at the University of Guelph. I can say honestly that the sense of potential to build the agriculture of the future is stronger here than anywhere. That potential is supported by the relative economic stability of the province, but truly derives from a combination of this province's ability to understand agriculture as a solution, and from the remarkable sense of community that exists here and flows through every aspect of life. It seems that every activity manages to bring together people from many walks of life, who unite to achieve a goal that serves the common good. For us, that means that a wildly diverse group of people (business, government, educational institutions, independent entrepreneurs, retirees, students) are encouraging and helping us create a dream where agriculture is providing food, fibre, energy, clean air, pure water and living and recreational spaces that will be sustainable and renewable for our grandchildren's great-grandchildren, and beyond.

To do this, we must embrace a wider definition of "agriculture" (we can grow fuel and bricks, develop uses for waste, guide urban gardening and green technologies, reclaim damaged landscapes and build communities) and be receptive to alternative ways of learning and knowing. Just as maintaining genetic diversity retains a wide choice of genes to help plants and animals adapt to changing environments, so too does cultural diversity allow society to adapt its learning and responses for changing times. What climate change and politics will bring is unknowable, so not only must we teach today's students to be ready to adapt, but we have to devise policies, scientific technologies, business models, farming practices, economic theories and resource management tools that are robust, flexible and useful enough to help tomorrow's leaders (today's students) provide a healthy life for their families and our planet.

Agriculture in Saskatchewan has the amazing advantage of business, education, government and the public being willing to work together to develop a viable future that can be a model far outside our provincial boundaries. The College of Agriculture and Bioresources is poised and determined to lead and/or participate in the kind of partnerships that will develop the educational products, research knowledge and outreach tools to create and support the agriculture of the future. We will be looking to you to talk to us, argue with us, join with us and help us fulfill our mission to advance the responsible use of land, water and bioresources to provide products and services that enhance the quality of life.

Sincerely,
Dr. Mary M. Buhr

FACULTY RENEWAL

NEW FACULTY WELCOMED TO THE COLLEGE

HELEN BOOKER

Plant Sciences

Joined U of S: August 2009

Academic Background: BSc, Molecular Biology and Genetics, University of Guelph; MSc, Plant Phsyiology, University of Guelph, 1990; PhD, Plant Breeding and Genetics, University of the West Indies, 2006

Focus of Work: Flax genetics, particularly plant adaptation and ability to overcome environmental limitations; examining the potential for a genetic basis of early maturity or photosensitivity in indeterminant crop plants.

Passion: To elucidate the genetics and mechanisms of traits involved in plant adaptation in flax, in order to provide the scientific knowledge base for an informed breeding program. A tremendous research effort in Canada and other countries is directed at developing a strong genomics research base to assist flax breeding and improvement. Characterization of early maturity in flax will allow plant breeders to combine this trait with other novel genes and create varieties targeted for different agronomic environments and management practices. The development of a flax research program will improve overall productivity of crops and minimize the environmental impact of agriculture. I would like to attract students to my basic science program and help rectify the shortage of qualified individuals in plant breeding, as well as involving graduate and undergraduate students in my research and providing them with hands-on experience in field-scale experimentation and plant breeding.

ANTHONY A. KIMARO

Soil Science

Joined U of S: July 2009

Academic background: BSc in Forestry, Sokoine University of Agriculture, 1997; MSc in Forestry, Sokoine University of Agriculture, 2000; PhD in Forestry, University of Toronto, 2009.

Focus of Work: Ecological interactions and carbon sequestration in agroeocosystems, particularly agroforestry systems. Soil fertility management in tropical soils.

Passion: Growing up in a farming community, I always admired the mixture of trees, coffee and food crops (especially banana) in my father's home garden. Later in my career I realized that this garden is one of the most popular agroforestry systems in the tropics, Chagga homegardens, on the slopes of Mount Kilimanjaro. Accordingly, my research interest is to explore ecological functions of trees and shrubs in agricultural landscapes to address global environmental challenges, including unsustainable crop production, high deforestation rates and climate change. In particular, my research focuses on understanding physical and biological processes and tree-crop interactions that affect carbon storage, nutrient availability, and greenhouse gas emissions in agroforestry and other agroecosystems under both temperate and tropical conditions. My previous work experience includes three months as a field forester with the Wildlife Conservation Society of Tanzania and three years as a lecturer of Ecology and Botany at Sokoine University of Agriculture in Tanzania.

GREGORY B. PENNER

Animal and Poultry Science

Joined U of S: September 2009

Academic Background: BSA, University of Saskatchewan, 2004; MSc, University of Saskatchewan, 2006; PhD, University of Alberta, 2009.

Focus of Work: Nutritional management of beef cattle, particularly aspects related to rumen function, including the production, absorption and metabolism of short-chain fatty acids, and epithelial barrier function. I am also interested in the impact that forage quality has on forage utilization and the health and performance of cattle.

Passion: Learning and helping others in the learning process. I can't think of anything more rewarding than watching the change in how a student thinks from the time they enter a program until the time they complete the requirements. Sometimes the rate of this change is truly astonishing! With respect to livestock physiology, my passion is the rumen and the complexity of its functions. I am intrigued to understand how the ruminant animal keeps the rumen environment conducive to microbial growth and anaerobic fermentation while facilitating the absorption of fermentation byproducts across a selectively permeable barrier (the rumen epithelium). Although the rumen epithelium's primary function is to facilitate absorption of energy substrates and minerals, it also acts as the initial barrier to pathogenic organisms and antigens. We know very little about the maintenance of these functions, and I am excited to work with students to unveil these mechanisms.

STUDENT AWARDS

RECIPIENTS OF AWARDS AND SCHOLARSHIPS

ENTRANCE AWARDS

AgBio Renewable Entrance Scholarships
Danielle Cyr, Calgary AB
Stephanie Derbawka, Borden
Isabelle Knudsen, Porcupine Plain
Tanya Orser, Delisle
Kaitlyn Schurmann, Abbotsford BC
Blake Weiseth, Shaunavon

AgBio Entrance Scholarships
Claressa Campbell, Aberdeen
Jodi Christopher, Swift Current
Maria Epp, Clavet
Kristopher, Ewen, Riverhurst
Brianne Giesbrecht, Swift Current
Andrea Gress, Arborfield
Breann Guraluick, Ogema
Andrea Hart, Moose Jaw
Victoria Hipkins, Bjorkdale
Shane Johnson, Saskatoon
Ashley Labrecque, Saskatoon
Moira Reilly, Saskatoon
Regan Reynolds, Asquith
Erin Ross, Grenfell
Alicia Sopatyk, Meacham
Jessica Weber, Landis
Lindsay Weinrich, Spiritwood
Marissa Wilford, Winnipeg MB

AgBio Renewable Entrance Scholarships, *Second Year*
Lindsay Griffith, Bangor
Sarah Hardy, Grenfell
Angela Japp, Eston
Alyssa Krone, Saskatoon
Kristin Krone, Saskatoon
Devon Wilson, Eyebrow

AgBio Renewable Entrance Scholarships, *Third Year*
Amy Larre, St. Walburg
James Paul, Saskatoon
Bradley Pohler, Spalding
Meagan Reed, Kindersley

AgBio Renewable Entrance Scholarships, *Fourth Year*
Jennifer Bentz, Saskatoon
Jill Keet, Asquith
Bonita McCuaig, Consul
Breanne Wilson, Eyebrow

AgBio Renewable Transfer Scholarships *First Year*
Sharon Hankey, Saskatoon
Graham Parsons, Kinistino
David Pratt, Warman
Kendra Purton, Yorkton

AgBio Renewable Transfer Scholarships *Second Year*
Nicole Avramenko, Calgary AB
Jodi Souter, Pleasantdale

AgBio Renewable Transfer Scholarships *Third Year*
Andrea Stone, Loreburn

Arnold and Emily Robinson Scholarship
Ian Epp, Rosthern

Beatrice Murray Entrance Scholarship
Tannis Diachuk, Saskatoon

Canadian Wheat Board Diploma Entrance Award
Blaine Cowan, Storthoaks
Samantha Ann Sentes, Raymore
Eric Schick, Ormiston

Douglas Christie Ferguson Fund Scholarship
Shayna Buhs, Watson
Andrea De Roo, Fairlight
Justine DeNure, Maple Ridge BC

Heather Haeusler Memorial Entrance Award
Breanna Rak, Cutknife

Jim Anderson Scholarship in Agriculture
Brent Gunningham, Moose Jaw
Megan Keis, Abbotsford BC

Robert and Maude Hale Scholarship
Jonathan Katzman, Saskatoon

Saskatchewan Chicken Industry Development Fund Award in Agriculture
Stephanie Derbawka, Borden

CONTINUING STUDENT AWARDS

Adeline and William Haberman Memorial Scholarship
Kaitlin Strobbe, Saskatoon

Albert and Beatrice Trew Memorial Scholarship
Alyssa Anderson, Lloydminster
Kristin Krone, Saskatoon

Animal Nutrition Association of Canada Scholarship
Kristen Spitzke, Spruce View AB

Bayer Crop Science: InVigor Canola Scholarship
Lyndsay Arnst, Lanigan
Bryce Wendland, Waldheim
Claire Kincaid, Wawanesa MB
Stacey Shewchuk, Wishart

Bert Hargrave Scholarship
Sarah Hardy, Grenfell

Bert Salloum Scholarship in Agriculture Economics
Evan Chute, Moose Jaw

Brent Ganzer Memorial Scholarship
Ryan Goodwin, Dauphin MB

Canadian Prairie Lily Society John Bond Scholarship
Breanne Wilson, Eyebrow

Canadian Prairie Lily Society T.A. (Andy) Dingwall Scholarship
Breanne Wilson, Eyebrow

Canadian Society of Animal Science Book Prize
Aphroditi Antonopoulos, Saskatoon

Canadian Wheat Board Undergraduate Awards Programs
Graham Dietrich, Leader
Raea Gooding, Saskatoon
Meghan Johnson, Moose Jaw
Cindy Lukianchuk, Winnipeg MB
Kaitlyn McLean, Birch Hills
Christine Ulrich, Saskatoon

Aphroditi Antonopoulos, Saskatoon
David Brown, Swift Current
Evan Chute, Moose Jaw
Jill Keet, Asquith
Hannah Konschuh, Wilcox
Breanna Needham, Maple Creek
Travis Neufeld, Dorintosh

Charles L. Vickar Award
John Hilderbrand, Rabbit Lake

Dairy Farmers of Saskatchewan Undergraduate Scholarship
Michael McLeod, Caronport

David J. Welch Memorial Prize
Aimee Eggerman, Watson

Dow Agrosciences Scholarship in Agriculture
Nathan Trowell, Saltcoats
Michelle Nordick, Saskatoon

Dr. Keith Downey Award for Undergraduate Excellence
Erin Karppinen, Macrorie
Lisa Malo, Wolseley
Chelsy Ostoforoff, Canora
Brittany Wheler, Moose Jaw

E.W. McKenzie Scholarship
Jennifer Bentz, Saskatoon

Ewald M. & Donna I. Kitsch Scholarship in Crop Science
Ellen Sawchuk, Saskatoon

FCC Business Planning Award Term One 2008-09, *1st Place*
John Hilderbrand, Rabbit Lake
Kimberley Hoppe, Bruno
Jessie Huber, Hazlet
Jeremy Kenny, Grenfell

FCC Business Planning Award Term One 2008-09, *2nd Place*
Courtney Allen, Lemberg
Robert Bachman, Wilkie
Graham Beddome, Prince Albert
James Bells, Humboldt

FCC Business Planning Award Term One 2008-09, *3rd Place*
Janelle MacDonald, Kindersley
Mandy Rowland, Pangman
Landon Schindel, Janzen
Francis Tan, Malaysia

FCC Business Planning Award Term One 2008-09, *4th Place*
Caalan Covey, Beechy
Stephanie Dreger, Ebenezer
Joel Finlay, Vanguard
Craig Macfie, Crystal Springs

FCC Business Planning Award Term Two 2008-09, *1st Place*
Elizabeth Byleveld, Australia
Brad Krawchuk, Saskatoon
Rachel Sirski, Dauphin MB
Clint Unsworth, Medicine Hat AB

FCC Business Planning Award Term Two 2008-09, *2nd Place*
Brandon Edgar, Wolseley
Tracy Meyer, Viking
Evan Rorquist, Wadena

F.J. Fear Scholarship in Soil Science
Catlan Dallaire, Bonnyville AB

Frank and Freda Riecken Scholarship in Soil Science
Courtney Kosty, Saskatoon

Gillian Hughes Memorial Travel Fellowship
Sarah Anderson, Sceptre

Harvey Scholarship
Sarah Anderson, Sceptre
Laura Field, Prince Albert
Nicholas Hawkins, Humboldt
Heather Krahn, Swift Current
Bonita McCuaig, Consul
Carla Norleen, Strasbourg
Jodi Souter, Pleasantdale
Andrea Stone, Loreburn

James Donald Hardin Scholarship
Lindsey Barber, Biggar
Aimee Eggerman, Watson
Chelsy Ostoforoff, Canora

Jickling Agricultural Scholarship
Roxanne Perrault, Saskatoon

John and Laura Morris Scholarship
Kendra Purton, Yorkton

John Mitchell Memorial Scholarship
Alyssa Krone, Saskatoon

Kelly Aulie Memorial Scholarship
Matthew Kumlin, Calgary AB

Larry Janzen Memorial Scholarship
Samuel McClinton, Cold Lake AB

Molson Canada Book Prize
Shane Hilderman, Duval
Andrea Stone, Loreburn
Megan Tannahill, Saskatoon

Olive and Jim Blackburn Scholarship
Derek Fadden, Abbotsford BC

Pat Toderian Scholarship
Aphroditi Antonopoulos, Saskatoon
Matthew Kumlin, Calgary AB

R.K. Baker Prize for Excellence in Poultry Science
Centaine Raginski, Saskatoon

Rossnagel Scholarship for Academic Improvement
Kaitlin Strobbe, Saskatoon

Russell Fisher Scholarship
Kelsey Dust, Humboldt

Saskatchewan Institute of Agrologists Diploma Scholarship
Trent Hilderman, Duval

Saskatchewan Institute of Agrologists Scholarship
Nikki Gannon, Gouldtown
Janell Healey, Prince Albert
Kirsten Schafer, Gravelbourg

SaskPower Shand Greenhouse Education Prize
Naomi Stumborg, Naicam

Syngenta Achievement Award
Andrew Florence, North Battleford

University of Saskatchewan Scholarships
Aimee Eggerman, Watson
Ryan Koetke, Holden AB
Courtney Kosty, Saskatoon
Devon Wilson, Eyebrow

University Undergraduate Scholarship
Lindsey Barber, Biggar
Angela Japp, Eston
Vanessa Vandertweel, Gronlid
Kaleb Wagner, Abbey

Walter Scott Scholarship
Ryan Schroeder, Regina

Westgen Scholarship
Rachel Claassen, Rostern

W.J. Copeland Scholarship in Crop Science
Jodi Souter, Saskatoon

GRADUATION AWARDS

The Fulton Family and Saskatchewan Institute of Agrologists Award
Graham Dietrich

Norman Horace Pearce Prize in Animal and Poultry Science
Brandi Petrukovich

Molson Canada Award of Excellence
Kelci Lee Ottenbreit

P.M. and Y.Y. Huang Distinguished Award in Soil Science
Alana DeBusschere

Saskatchewan Institute of Agrologists Gold Medal
Brittany Chovin

Frank Sosulski Graduation Prize in Crop Science and Plant Ecology
Brittany Chovin

William Allen Memorial Prize in Agriculture Economics
Derek Tallon

POSTGRADUATE AWARDS

Alexander and Jean Auckland Postgraduate Award
Melissa Arcand
Parul Jain

John Baerg Award
Kelly Konecsni

John Blake Memorial Postgraduate Scholarship
Thushan Sanjeewa

Canadian Dairy Commission Graduate Scholarship
Rachel Claasen
Hayley Rutherford

Class of '43 60th Anniversary Award
Hanny Elsadr

Canadian Wheat Board Graduate Fellowship
Katarzyna Bolek

Canadian Wheat Board Fellowship in Agriculture Economics
Russell Lawrence

Candace Savage and Keith Bell Fellowship in Grasslands Ecology Studies
Graham Fairhurst

Dairy Farmers of Saskatchewan Scholarship
Kate Davies

Dollie Hantelman Postgraduate Scholarship
Khaled D. Alotaibi
Sushama Arya
Samiran Banerjee
Asim Biswas
Henry Wai Chau
Gwinyai E. Chibisa
Sangeeta Dalal
Kate Davies
Aman Deep
Dani Degenhardt
Gurbinder Singh Dhaliwal
Joel Enns
Ryan Hangs
Mohammad Shakeri Hosseinabad
Holly Hynes
Ricky Lam
Amanda Mycock
Allison Ozog
Maxine Paré
MarcusPhillips
Aura Helena Quinonez-Corredor
Felipe Reveco
Clare Sullivan
Lee-Anne Walter
Kimberly Lynn Will

O.M. Elviss Postgraduate Scholarship
Allison Ozog

Maurice Hanson Sr. Postgraduate Award
Louis-Pierre Comeau

L.H. Hantelman Postgraduate Scholarship
Hanny Elsadr

S.N. Horner Postgraduate Scholarship
Melissa Archand
Christine Stadnyk
Morgan Sather

Paulden F. and Dorathea I. Knowles Postgraduate Scholarship
Eric Kwabena Asare
Rohit Dhanda

Norman and Kathleen Lean Postgraduate Scholarship
Jin Li

Roderick Alan McLean Memorial Award
Krystalee Wiebe

Molson Canada Scholarship
Yit Goh

Harris and Lauretta and Raymond Earl Parr Memorial Scholarship in Agriculture
Samira Bakhshi
Xiaoyu Liu
Jennifer Menat
Rakhi Palit

Barbara and Frank Pavelich Postgraduate Scholarship
Morgan Sather

Martin Pedersen and Family Postgraduate Scholarship
Thomas King
Jocelyn Stefankiw
Lee-Anne Walter

Purdy Postgraduate Scholarship
Jin Li

Putnam Family Memorial Award
Alana DeBusschere

Dr. Robert E. Redmann Memorial Graduate Scholarship in Plant Sciences
Jin Li

Saskatchewan Pulse Crop Development Board Dr. Alfred E. Slinkard Scholarship
Clare Sullivan

Saskatchewan Pulse Crop Development Board Don Jaques Memorial Fellowship
Mohammad Shakeri Tahir

Saskatchewan Institute of Agrologists Scholarship
Rajesh Jha

Syngenta Scholarship in Sustainable Agriculture
Louis-Pierre Comeau

Rene Vandeveld Postgraduate Scholarship in Crop Science
Aurelie Cohen-Skali
Dilshan De Silva Benaragama
Rohit Dhamda

Warburtons Award in Agriculture Post Graduate Scholarship
Krystalee Wiebe

John Wickhorst Memorial Scholarship
Krystalee Wiebe

C. Paul W. and Marianne M. Ziehlke Postgraduate Award
Ricky Lam
Jin Li
Thushan Sanjeewa

2009 ~ 2010

AGBIO SCHOLARSHIP TRUST FUND "WALL"

09/10 RECEPIENTS OF RENEWABLE SCHOLARSHIPS

PREPARING TOMORROW'S LEADERS

COLLEGE PROGRAMS KEEP LEARNING RELEVANT

Reflecting the dynamics of a changing industry, programs at the College of Agriculture and Bioresources are continually evolving and expanding, while new initiatives ensure that our students remain well equipped for the industry's demands.

One of the most exciting of these initiatives is the One Earth Farms project, launched in March 2009 with a $27.5-million investment from Sprott Resource Corporation. The goal, as described by SRC President and CEO Kevin Bambrough, is "to build a long-term profitable agricultural business in partnership with the First Nations, which will improve the management and environmental sustainability of First Nations' farm land as well as benefit their peoples through increased revenue and job opportunities." Using a hub and spoke system, One Earth will plant crops and ranchlands in annual increments. This development, SRC hopes, will foster an aboriginal agriculture sector.

> ***"Our role was to develop a management trainee tier of aboriginal people."***

To help build the necessary workforce, One Earth Farms turned to the College for help. "One Earth has a base in Saskatoon," says Associate Dean Dan Pennock, "and the people involved have a good knowledge of [the College's] breadth of aboriginal programming. Our role was to develop a management trainee tier of aboriginal people."

Many aboriginal students at the University of Saskatchewan pursue non-agricultural degrees, so the College devised a post-degree course to apply their skill sets to the farming industry. "They already have a lot of very good skills from that degree," Pennock explains. "Critical thinking, communication, writing. But they don't have the knowledge of the agricultural industry. What we provide is that knowledge."

The Sprott Foundation has provided $1-million in funding over five years. Half is for program development and delivery; the other half is for scholarships. "The program will be available to any student," Pennock notes, "but the scholarships will be more targeted at students who might work at the One Earth Farms organization." The curriculum will be geared toward One Earth's employment needs. "We want to make sure we're coming up with a really optimal mix of courses," says Pennock, "that will make those students highly employable."

This, of course, ties in to an ongoing mission at the College: keeping its courses relevant to the bioeconomy, and making sure that its students are groomed for leadership in the field. With that goal in mind, the College is making significant changes to its Food and Bioproduct Sciences major. ▷▷

"We're putting through a substantial revision," Pennock explains, "that will be in place for next September and will increase our offerings in that area: food, bioproducts, biofuels. We used to have two majors in that area. We're combining them and adding new courses in some very topical areas—for example, the area of biofuels."

Pennock credits the faculty with embracing these innovations and making change possible. "That's why we've been able to move quickly," he says. "There's tremendous buy-in. The College faculty have been very supportive."

This dynamic approach to education gives the College's students a notable advantage—they are acquiring the knowledge and skills to help them thrive in today's industry. As Pennock puts it, "We work in applied science. We provide degrees that lead to careers."

NEW PROGRAMS THRIVING

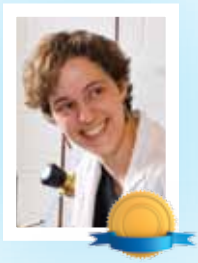
Thanks to two programs ushered in during the 2008-09 school year, students graduating from the College are even better equipped for an ever-evolving job market. A major revision to the diploma program has made it easier to earn degree credits from diploma courses, while the Bachelor of Science degree in Renewable Resource Management builds a skill set specifically geared to meet pressing global needs. "The enrolment for both those programs is substantially up this year," says Associate Dean Dan Pennock, "so that has certainly been a success."

TEACHING AWARDS OF EXCELLENCE

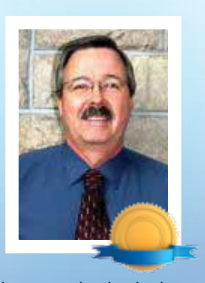
NEW PRIZES HONOUR OUTSTANDING INSTRUCTORS

Passionate and effective teaching has long been a core strength of the College of Agriculture and Bioresources, and the College has honoured several of it's professors with teaching awards. This academic year, a new set of awards was introduced by the College, ensuring that AgBio professors will receive their due recognition every year. The winners of the inaugural AgBio Teaching Awards were announced in November at "Bean Feed," the annual awards banquet.

Nick Low, Head of the Department of Food and Bioproduct Sciences, received the North American Colleges and Teachers of Agriculture Teaching Award. Low's enthusiastic participation in his courses' laboratories impressed the awards committee, as did his contribution to the teaching environment through his role as a student advisor, in which capacity he advises 40 to 50 students every year.



One of two Dean's Awards for Excellence in Teaching went to Angela Bedard-Haughn of the Department of Soil Science. The committee noted her passionate, thoughtful approach to teaching, as well as her development of new course material and integration of new teaching technology.



The recipient of the other Dean's Award was Terry Tollefson, also of the Department of Soil Science. His multi-faceted contribution to teaching at the College has included the development of several courses and a crucial role in the transformation of the diploma program. The committee also noted the excellent reviews he receives from students.

The inaugural committee included Dean Mary Buhr, Associate Dean Dan Pennock, students Devon Wilson and Kendra Purton, and three faculty representatives: Professor Alec Aitken (Geography and Planning), Professor Rick Schwier (Acting Director, University Learning Centre) and Professor Emeritus John Thompson. The three winners will be the faculty representatives on next year's panel.

ACTING GLOBALLY

SUPPORTING AN ETHIOPIAN AG STUDENT

Stepping out of the classroom and interacting with the community is a key component of the student experience at the College of Agriculture and Bioresources. Last year, six graduate students took that interaction a step further, reaching out to another continent to make a huge difference in the life of a fellow scholar.

The students were enrolled in an AgBio course on the impact of subsistence agriculture in Ethiopia. Part of the curriculum was a trip to Ethiopia to study at Hawassa University. Before their departure, the six students decided to take an active role in helping their host country. On April 26, 2009, they held a fundraising dinner to sponsor a female agriculture graduate student in Ethiopia, where financial constraints and family commitments often make it difficult for women to complete degrees. The dinner raised $2,400, a response that co-organizer Dani Degenhardt describes as "overwhelming." This amount represents two years' living expenses for a graduate student in Ethiopia.

> ***"It was a great way to give back to our host university... It was amazing to see such gratitude and joy."***

The scholarship was awarded to **Maeza Negash**, the only female student in Hawassa's Department of Soil Science. "Maeza is a very motivated, kind, hard-working student," says Degenhardt. "We are delighted to support her research," which examines phosphate deficiency in maize crop production. Maeza hopes to continue her studies by pursuing a PhD in a new locale, possibly even the University of Saskatchewan. In May 2009, the six students arrived in Ethiopia, where they met Maeza, presented the scholarship and left behind one of their laptops as an additional donation.

For Degenhardt and her fellow organizers, this act of community outreach was intensely rewarding. "It was a great way to give back to our host university," says Degenhardt. Maeza and the Hawassa faculty, she adds, were profusely thankful: "It was amazing to see such gratitude and joy."

YOUNG LEADERS CONVENE AT U OF S

BY SARAH ANDERSON, WAAC 2009 CO-CHAIR

The College of Agriculture and Bioresources was honoured to be selected as the 2009 host for the World Association of Agriculture Councils (WAAC) annual conference. During the week of March 10–15, our campus united almost 100 of the brightest young minds in the agriculture sector, drawing graduate and undergraduate students from across North America as well as from Sweden, Australia, Brazil, Romania and Switzerland. The WAAC has a long history, but 2009 marks only the second time that the conference has been hosted by a Canadian university.

Because WAAC 2009 emphasized leadership development and showcasing Saskatchewan as a leader in agriculture, the host committee felt that "Growing for the Future" was an appropriate theme for the event. The week was comprised of several workshops aimed at helping delegates develop their professional and leadership skills. Keynote addresses from individuals such as Brad Wildeman, president of the Canadian Cattlemen's Association, and Len Penner, president of Cargill, reinforced the ideas of strong agricultural leadership that were promoted throughout the week.

Delegates had the opportunity to tour several locales, including the Cory Potash Mine, the Western Beef Development Centre, the Prairie Agriculture Machinery Institute, Craik Eco-Village and the facilities of Canadian Light Source, Pound-Maker and Dow AgroSciences. The variety of tours highlighted the diversity and richness of Saskatchewan's agricultural industry and showcased the province as a leader in innovation and science.

WAAC 2009 proved to be a valuable experience for all involved. The event would not have been possible without dedicated support from the student-organized host committee, the College faculty, and generous sponsors. Planning is already underway for WAAC 2011, which will be hosted by Oklahoma State University.

LEADERSHIP THROUGH SERVICE

AGBIO STUDENTS LEND A HAND TO THE NEEDY

Community Service Learning (CSL) is an educational method that brings students out of the classroom and into the larger world. In addition to forging stronger connections between campus and community, it gives participating students a unique and fulfilling experience.

In 2006, Robin Mueller introduced a CSL element into the Entrepreneurial Leadership course she teaches at the College of Agriculture and Bioresources. "All the students in my class spent roughly a day of service in the community of Saskatoon in our core neighbourhood—what we call a community plunge," Mueller says. "The point is for these students to be immersed in a not-for-profit environment that serves a specific community, and to get the experience of learning what the organization is all about, how they serve their constituency, what their obstacles and challenges are."

But that initial experience was only the beginning. "Students in the class are assembled in small groups and they are responsible for following up with the organization, doing some research, and determining what the leadership story in the organization is," explains Mueller, "and then how those skills could transfer to business. The purpose is to have these students see that all organizations, whether they be not-for-profit or business entrepreneurship, serve a specific community, and they do that by figuring out what their niche role in that community is."

> ***"An excellent opportunity for the College and its students to engage with the community through meaningful, hands-on service."***

Mueller is still searching for the best way to blend this experience into her curriculum, and this year she has set aside the CSL component to try other techniques.

But she hopes to reinstate the CSL as a regular feature. It's an excellent opportunity for the College and its students to engage with the community through meaningful, hands-on service—and it can have a lasting impact on the business leaders of the future. "When it's powerful," Mueller says, "it's really powerful—a profound life experience."

PUSHING FOR HOPE

AGROS HIT THE ROAD FOR TELEMIRACLE

Since its inception in 1977, the annual Kinsmen Telemiracle telethon has raised over $78-million. Those dollars have purchased equipment such as lifts, specialized wheelchairs and communications devices for Saskatchewan residents, as well as helping people travel to health facilities. Organizations and health facilities have also reaped the benefits of Kinsmen grants—these have included the Moose Jaw Hospital, the South Saskatchewan Stroke Care Network and the Preeceville Integrated Health Care Facility. Nearly five hundred grants are awarded every year.

For approximately three decades, members of the Agricultural Students Association (ASA) have contributed to Telemiracle through an event that combines fun, exercise and fundraising: the annual Bed Push. A bed mounted on bicycle wheels is pushed along the highway by a team of students, starting in Saskatoon and going as far as the number of participants allows. Along the way, the students collect donations from curious motorists and residents of the communities they pass through. Annually, the Push raises between $10,000 and $15,000 for Telemiracle.

ASA president Pam Aube, who is in the fourth year of her AgBio undergraduate degree, expects to see around fifty students show up for this year's event in March. "As Agros," Aube says, "we understand the importance and impact that Telemiracle has on lives of people living in Saskatchewan." The Bed Push provides these enthusiastic students with a terrific—and physically active—opportunity to contribute to the community and interact with citizens they encounter on the way. And the money they raise is of immense benefit to Saskatchewan citizens in need.

So if you happen to be behind the wheel this March, and you notice a large wheeled bed making its way along the side of the road, be sure to stop and say hello—and, of course, to donate to this worthy cause.

FOOD BANK PROJECT ENRICHES STUDENTS

BY LUKE SIMCOE; REPRINTED FROM *THE STARPHOENIX*

When some of Michael Rogers' students approached him about doing a class project instead of a paper, the Food Science professor assumed they were just trying to get out of writing an essay.

"Well, that was part of it," admitted Tristan Pickens, a biochemistry student at the University of Saskatchewan. Regardless of his motivations, Pickens, along with classmates Caitlin Olauson, Haylee Smysniuk and David Willis, approached Rogers in January 2009 with the idea of studying how people donate to Saskatoon's Food Bank and Learning Centre.

After talking with the food bank's executive director, Paul Merriman, the four canvassed various neighbourhoods in Saskatoon for donations and kept track of the results. The project turned into a labour of love and ultimately raised more than 850 pounds of food. "It was a blast," Pickens said.

> ***"Once people understand the generosity of the community and the good feeling of giving back to their community through the food bank, they get more and more involved."***

Of the five neighbourhoods the students went to, Nutana and Lawson Heights were the most generous, giving an average of 3.4 kilograms of food per person. In the comparatively wealthier area of Briarwood, residents gave 2.6 kilograms per person, while those in Mount Royal and Martensville gave an average of 1.7 kilograms and 1 kilogram per person, respectively. "The fact that it wasn't the affluent people that were giving really surprised me," Rogers said.

The students say their sample size of 50 households per neighbourhood is too small to be considered accurate, but Merriman says the group's findings aren't that startling. He says the lower- and middle-class neighbourhoods have a long tradition of giving to the food bank. "They understand the value of it," he said. "If they were ever on the food bank or some kind of assistance and they got off it, the first thing they want to do is give back." In comparison, he says, people in upper-class neighbourhoods or communities in rural areas are less likely to be familiar with the effects of hunger and urban poverty. "It's not in their face, so they don't feel they have to give as much," Merriman said.

33% of residents did not donate

67% of residents donated

Rogers said he was shocked at the amount of time and effort the students gave to the project, and he plans to bring more "experiential" learning opportunities into his classroom. "They could have written an essay about food security and they wouldn't have learned as much about it," he said. "Food security" refers to the level of access residents have to affordable, healthy food—something Rogers says is an issue in Saskatoon, particularly in core neighbourhoods. "In terms of metropolitan areas, Saskatoon has one of the highest incidences of food insecurity in Canada," he said.

The students said they were amazed at the level of generosity in the city—67 percent of all residents donated—as well as the extent of the food shortage in Saskatoon. "You hear about hunger in developing countries, but more attention needs to be paid at home," said Olauson.

All four students plan to continue their involvement with the food bank, something Merriman says is also not that surprising. "Once people understand the generosity of the community and the good feeling of giving back to their community through the food bank, they get more and more involved," he said.

The Saskatoon Food Bank and Learning Centre is located at 202 Avenue C South and hands out about four tonnes of food every day. For more information, visit www.saskatoonfoodbank.org.

MARKETING IN THE REAL WORLD

STUDENT ORGANIZATION PROVIDES AGRIBUSINESS EXPERIENCE

When the enthusiasm of students joins forces with an exciting new market product, the results can be remarkable.

The Canadian Agri-Marketing Association (CAMA) is a business-oriented organization with student chapters across the country. The University of Saskatchewan student chapter consists of students from the College of Agriculture and Bioresources and the Edwards School of Business. Every year, members of the group attend the US-based National Agri-Marketing Association (NAMA) conference, where they compete against groups from across North America by presenting a marketing plan for an agricultural product.

> ***"...learning leadership, thinking outside the box—it forces you to grow within yourself..."***

Last year, that product was a beverage developed by Northern Vigor Berries, a small Saskatoon-based company. The beverage is made from sea buckthorn, a highly nutritious berry that contains omega fatty acids 3, 6 & 7 as well as antioxidants, vitamins and minerals. After market research to determine the appropriate product positioning, the students branded the drink "helõ," an acronym of "healthy evolution lives on."

While they developed this plan, the students also raised funds to get ten of their members to Atlanta, Georgia, for the NAMA conference. "This money came from industry support, as well as a silent auction during the Crop Production Show, in partnership with the Saskatchewan Pulse Growers, says Tracy Meyer, last year's chapter president.

Although the U of S contingent did not win the marketing competition, the conference was a memorable and rewarding experience. It was attended by more than 1,000 students and industry representatives from across North America.

Meyer, who in the space of a year has gone from heading CAMA at U of S to entering the agribusiness workforce, says that her involvement with the group was immensely valuable. "Professionally, it's helped enormously," she says. "You work with a team of 15 people, learning leadership, thinking outside the box—it forces you to grow within yourself and take on challenges you don't face just going to classes."

Under the leadership of new president Nikki Gannon, this year's CAMA crew is looking forward to another successful year. With its hands-on learning, its teamwork and its interaction with actual companies like Northern Vigor Berries, the CAMA experience is a perfect embodiment of the values and core strengths of the College.

From L to R: Bryce Wendland, Jennelle Mountreil, Kirsten Schafter, Mandy Rowland (VP), Tracy Meyer (P), Heather Krahn (Secr/Tres), Lyndsey Kreway, Nikki Gannon, Kendal Moore, Troy Prosofsky (VP)

CAMA: BEYOND THE CONFERENCE

It wasn't just the marketing competition and the Georgia conference that kept CAMA students busy throughout the school year. "The marketing plan takes up a large portion of the group's time," concedes Tracy Meyer, last year's CAMA president. But, she adds, the group "also organized various events on the University campus, including resume-building workshops, Etiquette Night and guest speakers."

DID YOU KNOW?

Sea buckthorn bushes became widespread in Saskatchewan thanks to a government-subsidized shelter belt program. The plants were favoured because they improve marginal soils. "Today, there are many of these orchards through the province," says Nikki Gannon, president of the CAMA's student chapter at U of S, "producing berries for a largely untapped market. The great health benefit of these berries is not common knowledge."

INTERCONTINENTAL COOPERATION

COLLEGE JOINS FORCES WITH JAPANESE UNIVERSITY

Located near the northern end of Japan's Honshu island, Iwate University has an important ingredient in common with the University of Saskatchewan: cold winters. Through its Graduate School of Agriculture and its United Graduate School of Agricultural Sciences, Iwate has traditionally offered excellent programs in cold-weather agriculture.

When the Japanese government encouraged its universities to pursue international ties, Iwate approached the College of Agriculture and Bioresources to look into possible collaborations. In 2007, a Memorandum of Agreement was signed, setting the groundwork for student and faculty exchanges, resource pooling and curriculum cross-pollination. The Memorandum lists four possible areas of collaboration: stress physiology (particularly agriculture in cold climates), agro-biosciences, environmental sciences and sustainable agriculture.

Since then, five Japanese PhD students have come to Saskatchewan for three-week summer study programs. "They worked in various labs in the College, were exposed to different kinds of research, and had the opportunity to talk to faculty and graduate students at the University," explains Bruce Coulman, who has been leading the College's side of the collaboration.

So far, no U of S students have visited Iwate, but, says Coulman, "we're going to encourage students from our graduate student population to go the other direction." Aside from its cold winters, the environs of Iwate University should be attractive to students interested in this opportunity. The city of Morioka, where the university is located, was founded in the 16th century as a castle town at the confluence of three rivers. The outlying district is famously scenic, boasting the Rickuchu Coast National Park, the Hachimantai ski resort and three prominent mountains, including Mt. Iwate, a 2,038-metre-high volcano nicknamed "Mt. Fuji of the Nambu Region."

The collaboration with the University of Saskatchewan also allowed three AgBio College scientists to present papers at a symposium entitled "The Effect of Climate Change on Biological Systems in Cold Climates," hosted by Iwate University in October 2008. And the schools are currently working out the details of an online graduate-level course, "Abiotic Stress in Plants." The course will be taken simultaneously by students in Saskatchewan and Iwate. The time zone difference, Coulman notes, is "a bit of an obstacle"—the class will have to take place in the morning for the Canadian students and in the evening for the Japanese.

Collaboration among institutions is becoming increasingly prominent in today's research environment, as scientists join forces to tackle complex international challenges such as climate change. Connections with universities like Iwate will continue to be vital as the College strengthens its position on the cutting edge of agricultural research.

IWATE UNIVERSITY

Iwate University is located in Morioka (population 290,000), the capital city of Iwate Prefecture, otherwise known as "the town of forests and hills." The surrounding area is renowned for its natural beauty. The University, which celebrated its 60th anniversary in 2009, has over 6,000 students and 800 staff members.

Left to Right: Angela Bedard-Haughn, Vlad Vujanovic, Doug Waterer, Gordon Gray, Darwin Anderson, Bruce Coulman, and Nick Low

University of Saskatchewan

College of Agriculture and Bioresources

The College of Agriculture and Bioresources is one of the two founding Colleges at the University of Saskatchewan. From its very first days and continuing today many people, organizations and businesses along with successive governments have shown tremendous support for the College and its work. Funding for research and development, funding for capital projects such as the funds contributed by the "Sodbusters" that inspired the grand Agriculture Building and funding for the new Grains Innovation Lab, the Pulse Lab, scholarships, bursaries and Endowed Chairs has been generously donated. We do our utmost to express our thanks in personal letters and by continuing to do world leading research, development and teaching. In every department: Animal and Poultry Science; Bioresource Policy, Business and Economics; Food and Bioproduct Sciences, Plant Sciences/Crop Development Centre; and Soil Science we have worked collaboratively with farmers, students, industry, and governments to help build a strong and progressive agriculture and bioresource industry and an economy that is progressive, environmentally sustainable and profitable. Farmers and indeed the whole economy and environment of Saskatchewan have benefited and will continue to benefit tremendously as a result of work done by the College. Doing exceptional work is one of the ways we express our gratitude for the amazing support we continue to receive.

Many of our generous supporters have been donating annually to the College for years. It is our hope that we will not miss the names of any of our long term supporters as we list and thank those who made donations in 2008-09. In some cases where there are ongoing commitments donors names are included in categories that more accurately reflect the longer term level of their support. Included in this list are bequests, corporate donations, gifts in kind, partnerships with business and personal donations. When the bequests are taken into account, the range of gifts is from $10.00 to approximately $6 Million. If there are names missed or donors put in the wrong category, please forgive us, speak to us and we will make sure to correct our mistakes.

In general, we thank each and all of you for your tremendous support for the College of Agriculture and Bioresources over this past year and through the many preceding years.

– Thank you.

Major Gifts

$1,000,000 TO $6,000,000

Adam Winisky, The Sprott Family - Through the Sprott Foundation

$100,000 TO $999,999

Torvald and Margaret Tollefson

BASF The Chemical Company

CIBC Small Business For what matters.

Saskatchewan Pulse Growers

Monsanto imagine

CropLife Canada

novozymes Rethink Tomorrow

$10,000 TO $99,999

Candace Savage and Keith Bell, Estate of Frank J. Godwin, Gertrude Knoedler, Rudolf W. Kaul, Greg Noval, Malcolm V. Rondeau, Morris Sebulsky

syngenta

Bayer CropScience

Morris Seeding, Tillage and Haying Solutions

CWB

Farm Credit Canada

SeCan

Canterra Seeds

$1,000 TO $9,999

InfraReady Products (1998) Inc.
Saskatchewan Canary Seed Development Commission
Saskatchewan Canola Development Commission
Saskatchewan Flax Development Commission
Saskathcewan Oat Development Commission
Gary Carlson
Dairy Farmers of Saskatchewan
Elaine Redmann
Saskatchewan Institute of Agrologists
Saskatchewan Turkey Producers'
101016481 Saskatchewan Inc.
Don Blackburn
Canadian Prairie Lily Society
David A. Christensen
Vincent Coffey
Bruce Coulman
Edwin Everitt
Lorne Fisher
Howard Fredeen
William Hurd
Donna I. Kitsch
Made-Rite Meat Products LP
George Paleologou
Kenneth E. Pedersen
Power Greenhouses Inc.
Marjorie and Eric Putt
Saskatchewan Poultry Council
Saskatchewan Chicken Industry
Saskatchewan Seed Growers Association
Anne Sigurdson
Lloyd Sonmor
Frank Stack
Karen Tanino
Terry Tollefson
Jim Tsukishima
Molson Canada
Port Metro Vancouver Authority
Viscofan Canada Inc.
Warburtons Foods Ltd.
West Coast Reduction Ltd.
Laurel & Brian Rossnagel
Westgen, Western Canada's Genetic Centre

Generous Donations

$100 TO $999

Albert Beattie
Murray Belyk
James Braaten
Bryan & Company LLP
John Clarke
Hank & Lynn Classen
Harold Cottier
Bob Dodds
Douglas O. Goss Professional Corporation
William Farley
Leonard Fisher
Yves Garez
Robert & Jeanne Gibbons
Michael K. Giles
Greater Saskatoon Chamber of Commerce
John Harrington
Richard Hempler
Morley Jasman
William LaClare
John MacDonald
Maple Leaf Foods Inc.
Andrew Moore
Nature's Kick
Frank Osterwoldt
Regina & District Bee Club
Royal Bank of Canada
A.C. Running
Saskatchewan Canola Growers Association
Terry Tollefson
Trish Tweddell
Warren Wismer
Tom Abrametz
Clifford Acton
D.W. & I.A. Ahner
Keith Akins
Maurice Akister
T. D. Aldous
Ken Allan
Terry Ardell
Kenneth Baglole
Stanley Barber
Lyle Bateman
Eric Beamish
Karl Beaulieu
Art Beck
Tom Beckett
Dave Beckie
Joseph Bedford
Herve Bellanger
Stan Benjamin
Randy Bergstrom
Timothy Berscheid
O.G. Bilokury
Bryan Bittner
Gordon Blackmore
L. Allan Blair
Dave Blau
Murray Booy
Norma-Jean Botterill
Ian Bowie
Gordon Bristol
Jay Bruggencate
Donald Buchanan
James Calanchie
Pat Callin
Timothy Calwell
Glen Campbell
John N. Campbell
Herbert Carlson
Lorraine Carlson
Brian Carruthers
Dan & Monique Chapman
Harold Chapman
Raymond Christensen
Lorne Christopherson
Class of 62 Agros
Charles Clay
John Coldwell
Dale Conacher
Kathy Connor
Raymond Cooper
Bill & Alma Copeland
Kenneth Cubbon
David & Judy Cubbon
William Darcovich
Jack Davison
Neil Dean
Maurice Delage
Joseph Denomie
Dewar Orthopaedic Society
James Dodds
Paul Douglas
Herbert J. Dow
Donald Dowdeswell
Lorne Duczek
Kathleen Duhaime
Robert Duncan
Bruce Edney
Ross Edwards
Todd Ehman
Bruce A. Elke
Wendy Elliott
Alfred & Betty-Lou Ernst
Dalton Ewert
Terry Fennell
Lloyd J. Fink
Gerald Forbes
Arther Froehlich
Ronald Gabert
Ron Gallaway
David Gehl
Barry Ghiglione
George Gibbons
Ronald Gilmour
Robert Gilmour
Maurice Girvin
Harvey C. Goehring
Lindsey & Kimberly Good
Barry Gordon
Albert Gorrill
Mark Grant
Ted Gray
Allan Green
Clarence Gutheil
Gordon Gwillim
Bob Hammerlindl
Andrew Hammermeister
Alan Hammond
Elizabeth Hannaford
Jack Haraldson
Edgar Harder
Wilbert Hardy
Keith Harris
Glen Hart
Bryan & Eileen Harvey
Elvin Haupstein
Lynn Hayes
Larry Heavin
William Heenan
Mike Hegedus
Murray Henderson
Jack Hextall
John F. Hickie
Kelly Hill
Mark Hill
Leo Hleck
Terry Hogg
Neal Holt
Eric Holt
Wayne Holzapfel
Charles H. Hopkins
D.H. Hopkins & B.J. O'Connor
Donald Horsman
Ron Howard
Kelly Howe
Bill Howell
Forest & Tessa Howell
Gary Howland
Eiler Humbert
Innovation Place
Tom Janzen
Joseph Jeanneau
Garry Jensen
Warren Johnson
Lorne Johnstone
Douglas Jones
Robert Jorgensen
Warren Kaeding
Bill Kalyn
Wilf Keller
Brian Kennedy
Douglas Kent
Erich R. Kerber
Joseph Kernaleguen
Ferdinand Kiehn
Ken Kirkland
E.G. Koester
Hans Korven
Larry Koturbash
Armin Krahn
Randall Kurulak
Donald Lambie
Dick Lane
Roderick Lanier
Gary Laycock
Mary Anne Ledsham
David Leisle
Kenneth & Kathleen Little
Frank Lockwood
William Lowes
Jody Lysyk
Stu Marshall
Don Martin
Terry Martin
Allan Matheson
Aubrey May
John McDougald
Shirley McKell
Peter McLaren
Erica Miller
Dale Miller
Kenneth Miller
Vaughn Minogue
James & Irma Molnar
R. Gordon Moore
Allan Moskal
Moyen Honey Farms Ltd.
Cliff Murch
Orville Myrvang
Nadeau Seeds Inc.
Timothy Nell
Yvonne Nelson
Larry & Susan Nelson
Ronald Nielsen
Richard O'Donnell
Terrance Oleksyn
Barry Olson
Kevin Olson
Wayne Olson
Stewart Palmer
Parkland Holstein Club
J.A. Peck
Ruth Peer
James Peltier
Bryan Perkins
Henry Peters
Hixon Pittman
Gordon Plaxton
Florian Possberg
Ronald Prafke
Jim & Bev Pratt
James Puckett
David Pulfer
Dale Pulkinen
Jack Quick
Geza Racz
Ronald Rakochy
Ed Reimer
John Rennie
Chris Reynolds
Ross & Irene Reynolds
Ritz Reynolds
A. Gary Rice
Howard W. Rice
Wendell Rice
Bruce Richards & Sherry Saxton-Richards
Frank Robinson
Jeffrey Robinson
Alfred Robinson
Jim Rolston
Charmaine Ross
Royal Bank of Canada
Nick Rudrick
Barry Rugg
Thomas Runcie
Ray Ryland
James Sakundiak
Saskatchewan Agricultural Graduates Association (SAGA)
A.J. (Art) Sawatsky
Wayne Schick
Dennis Schlekewy
Ed Schultz
Scotiabank
Cameron Seidle
Gary Seime
Ron Shaak
Glen Shaw
Alfred Silzer
Gregory Simpson
Clarence Slater
John Slykhuis
Donald Small
Murray E. Smith
Allan Smith
Stanley Smith
David Spencer
Jim Stadnyk
Bowmont Animal Hospital
Gordon Stephenson
Kathleen Stewart
Michael Stiefel
Keith Stolhandske
Hugh Stueck
Donald Sutherland
Harley Sutherland
Rodney Sveinbjornson
John Sweatman
Don Tait
Wade Taylor
Durold Textor
Ken Thompson
Dave Thompson
David Thornton
Al Toews
Mike Torrens
David Torwalt
Kari Tosczak
Arnold Treble
Arnold Tremere
Mr. Bill & Mrs. Joan Turner
Lorne Ulven
Peter Valli
Jim Vancha
William Volk
Dr. Thomas Warkentin
Mark Wartman
Ron Watson
Charles Waywell
Ormond Wedin
Murray Westby
Western Ag Labs Ltd
Wayne White
Stewart White
Robert Widdup
Raymond Wilfing
Lorne Willner
Gordon & Marion Wilson
Stacy Wilson
Douglas Winmill
Terri & Brian Wintonyk
Robert Wolfe
Grant Wood
Henry Zilm

$10 TO $99

Donald Adnam
Grant Alexander
Troy Atkinson
Bill Aulie
Jim Babcock
Guy & Lucie Baillargeon
Larry Balion
Timothy Bank
Glenn Barclay
Ken Bassendowski
William Bayda
Andrew Beach
David Beach
Richard Bellamy
Thomas Benson
Lorraine Berg
Grant Berger
Boyd Bergstrom
Ivan Beuker
Andy Birch
Brent Blackwell
Irwin Blank
Rick Blenner-Hassett
Arden Body
Darrow Bottoms
Norman Bray
Todd Brunas
Chad Bruynooghe
Gordon Bue
Michael & Kayla Burechailo
Constantine Campbell
Robert Campbell
Daren Capcara
Michael Carefoot
Gail Carruthers
Shannon Chant
Mary Clark
Orrin Clayton
Arlene Clemence-Kary
Malcolm Coakwell
Wayne Cochran
Donald Connick
Gary Cortus
James Craig
Neil Crosbie
Timothy Crossley
Trent Crozier
Stuart Cutts
Kevin Daniels
Bert de Gooijer
Derek Derdall
Ron Dietrich
Joan Digney
Gordon Dobson
Quienten Domes
Blaine Dubreuil
David Ducherer
Edward Duchnitski
Brian Dyck
Murray Dyck
Janice Dyer
David Eaton
Dave Edgar
Kevin Emmerson
Janet Eng
Delbert Enns
Sharon Faye
Russell Fersch
Wade Fisher
Carey Fitterer
Brent Flaten
John Flynn
Keith Fournier
Arthur Fredeen
Hubert Freitag
Patrick Frith
Gerald Fritz
Doug Froehlich
Myles Fuchs
Eldon Funk
Jeffery Gaab
Jennifer Garner
Don Geddes
Lawrence Gelleta
Rob Gilmour
Helgi Goodman
Robert Gordon
Richard Gray
Bob Mason & Cora Greer
Kent Gress
John Gruszka
Grant Hale
Geoffrey Hammer
Edgar Hammermeister
Mathew Hanke
Marc Hannotte
Dwayne Harder
Richard Hards
Lee Harris
Bruce Harrison
Daniel Hawkins
Vanessa Headford
Brian Healey
Janet Heatcoat
Wayne R. Henderson
Ronald Hetl and
Michael Hicks
Harry Hill
Aaron Hougham
Garry Hovland
Ralph Howes
Daniel Hritzuk
Barry Huffman
Jennifer Hume
John Jacek
Lucien Jacobs
Shaun Jamieson
Janet Coldwell Jobe
Jason Johns
Vaughn Johnson
Angie Johnson
T J Consulting Ltd.
Scott Johnstone
Ira Jones
Bobby Jones
Richard Kabzems
Roger Kaeding
Heather Karst
Ivan Kennedy
William Kent
Ross Kingdon
Lauren Kirychuk
Lorne & Donna Klein
Donald Kolla
Herbert Kopperud
Doug Korver
Gordon Koshinsky
Bernard Kotelko
Dale Kramer
Lyn Kuhn
Darren Kushner
Robert Laackmann
Walter LaBrash
Fred Lane
Meron Lanoway
Robert Lauder
Jeffry Lawrence
Christopher Leader
Richard Lindsay
Robert Little
James Lowe
Will Lowe
Leonard Lozinsky
Alan & Valerie Macdonald
Cameron MacDonald
Larry MacDougall
Krista MacLean
William Macza
William Madin
Beverly Magill
Roger Malchow
Larry Malinowski
Bryce Mandziak
Robert Marks
Ronald Marquardt
Joseph Martin
Bruce Martin
Bob Mason
Christopher Matweow
Michael McAvoy
Patrick McCall
Trevor McCrea
Gerry McCrie
James A. McGillivray
Linda McGregor
Ray McVicar
Garry Meier
Roger Meyers
Raymond Milne
Patrick Mitchell
Murray Mooney
Kevin Morin
Richard Morken
Ron Morningstar
James Murphy
Owen Myhr
Scott Near
Breanna L.J. Needham
Marty Nervick
Robert Neufeld
April Nichol
Jake Nickel
Becky Niessen
Garry Nisbet
Zhi Niu & Li Zhang
Peter Nordli
Bob Norman
Peter Novak
Tracy Ohrt
Dan Olfert
Daniel O'Reilly
Wayne E. Oscvirk
Faye Osiowy
Lyndon Osman
Roderick Ostrosky
Ben Packet
William Peacock
Gordon Pearse
Jeanette Pearson
Sheri Pederson
Brian Peet
Brian Persson
Mark Pickard
Syd Pickerell
George Pipp
Margaret & Ronald Plunz
Harold Popoff
Pam Pritchard
Melanie Quintal
John Raine
Alan Raymond
Blaine Reble
Tom Reynolds
Dale Risula
Dale Robb
Alana Robertson
James Rogers
Carrie Rogers-Butterwick
Louanne Roschuk
Lorraine Royer
Tyler Russell
Lloyd Sadler
Robert Sandager
Donald Sanderson
Bruce Richards & Sherry Saxton-Richards
Forrest Scharf
Cletus Scherman
Dale Schmale
William Schroeder
Timothy Schultz
Carla Shabaga
David N. Sharpe
Launa Shaw
Ronald Shea
Robert Sheard
William Sheppard
Kelvin Shultz
Brian Shuya
Andrew Shymchuk
John Simpson
Lester Skarra
Craig Smith
Douglas Smith
Louis Sparks
James Spiers
Adam Spies
Marianne Stamm
Judy Staszczak
David Stewart
Pat Stilborn
Lionel & Pat Stilborn
Rene Stock
Richard Stokes
Maria Strasser
Clay Sumner
Ralph Swanson
Glenn Tait
John Tatarynovich
Garry Thiel
Ryan & Leanne Thompson
Dave Thornton
Timothy Tollefson
Patrick Toner
John Trawin
Daryl Tumbach
Trevor Tyson
John Vallance
Kathy Vancha
Josh Vogel
Michael Volk
Gerald Walkeden
Peggy Walker
Doug Watson
Bill Weighill
Perry Weisberg
Bernard H. Wiebe
Donald Wilkins
Allan Wilson
Jay Wirth
Ian Wourms
Dannie Wreford
Kari Zemlak
Aaron Zubot

Gifts In Kind: VALUE UP TO $300,000

Brandt Industries: Auger, Sprayer, Harrow
CNH - New Holland: 2 Tractors
Fast Genetics: Piglets for AgBio Discovery Camps
Morris Equipment Ltd.: Air Seeder
The Western Producer: For their generous donation of two full pages so the College could thank all our wonderful supporters








WITH DEEP GRATITUDE

REMEMBERING ALUMNI AND FACULTY

JAMES T. (JIM) ANDERSON

Jim Anderson was born and raised near Conquest, Saskatchewan. He and his wife, Katherine, who predeceased him in 2008, operated a mixed farming operation, which included the original Anderson homestead, until their retirement, first to Outlook in 1983, and later to Saskatoon. Jim was active in his church and the Masonic Lodge, and served terms as reeve of the RM of Fertile Valley and as chairman of the board of the Outlook and District Pioneer Home. Jim and Katherine travelled widely and were keen supporters of community events of all kinds.

Jim graduated from the School of Agriculture at the University of Saskatchewan in 1937. Crediting his ability to attend the School in the 1930s to his receiving a $50 bursary, and keenly aware of the lifelong benefits of post-secondary education, he generously provided funds to the College of Agriculture and Bioresources to establish the James T. Anderson bursaries for Diploma students. He was able to attend the Bean Feed awards night on several occasions and to meet the recipients of his bursaries, lastly in 2007. Jim made additional financial contributions to the College in years subsequent to the establishment of the bursaries which bear his name.

DOUG KNOTT

Douglas R. Knott was born in New Westminster, BC. He graduated from the University of British Columbia with a BSA, and obtained his MSc and PhD from the University of Wisconsin. He joined the University of Saskatchewan Field Husbandry Department in 1952, serving as Head of the Crop Science Department from 1965 to 1975, Acting Dean of the College of Agriculture in 1979 and 1989 and Associate Dean of Research from 1988 to 1993. During his term as Head, he was instrumental in establishing the Crop Development Centre.

Douglas was an internationally known expert in wheat stem rust resistance, and a number of his graduate students went on to leadership positions in plant breeding and pathology around the world. He was also known for releasing a number of durum wheat cultivars. His first variety, Stewart 63, became a popular variety on the Canadian prairies. He was named a Fellow of the American Society of Agronomy, a Fellow of the Crop Science Society of America and a Fellow of the Agricultural Institute of Canada. The first holder of the W.J. White Chair in Crop Science, he was later inducted into the Saskatchewan Agricultural Hall of Fame and appointed to the Order of Canada.

PAN MING HUANG

Pan Ming Huang was born in Taiwan in 1934. After graduating from National Chung Hsing University, he came to the University of Manitoba in 1961, where he completed his Masters with Professor Bob Soper and met Lin, the young woman who was to become his wife. Ming earned his PhD at University of Wisconsin at Madison, and in 1965 joined the Department of Soil Science at the University of Saskatchewan. In addition to assembling a remarkable publication record, Ming was appreciated by students for his organization and thoroughness, his passion for science, and his high expectations.

Ming has received many awards and fellowships, none more appreciated than the Distinguished Researcher recognition by his own University in 1997. After retiring in 2001, Ming remained active as a Professor Emeritus and was still at work just days before his death, editing The Handbook of Soil Science and writing research proposals for continuing use of the Canadian Light Source in his research. Lin and Ming raised two children and have four grandchildren. Every day, Ming took a break from work and made the short drive home for lunch. Lin and Ming travelled the world together, attending every World Soil Congress since 1968.

ONE GOOD TURN

INSPIRING GENEROSITY FROM THE CLASS OF 1943

Celebrating their class's 66th anniversary in June were (left to right) Harold Chapman, Saskatoon; Betty (Myrick) Barlow, Davidson; Vince Coffey, Regina; Leah Fedoruk, recipient of the Agro Class of '43 award; Howard Fredeen, Lacombe, AB; and Jack Haraldson, Hanley.

At their 60th anniversary reunion in 2003, the Agro Grads of 1943 hatched a plan. They had reaped the rewards of an education at the University of Saskatchewan, and now they wanted to give something back. "The decision was made to develop a fund to provide a bursary for a graduate student in some project relating to sustainable agriculture." says Harold Chapman, a member of the Class of '43. "We wanted to make this significant." Class members contributed their own money to build the fund.

The result was the Agro Class of '43 Postgraduate Scholarship. Last year's recipient, Leah Fedoruk, is working toward a Master's degree in Plant Science. Her thesis looks at optimizing herbicide timing in lentils. After completing her Master's, she hopes to pursue a career that will allow her to continue in crop science.

When the award was announced, says Fedoruk, "I was very happy. Financial help is always more than welcome." She met some of her benefactors at the anniversary reunion at Saskatoon's Park Town Hotel last June, which was attended by five of the twelve living members of the Class of '43.

In addition to easing the financial burden of her student years, the award also allows Fedoruk to continue benefiting from the first-rate instruction provided by the College of Agriculture and Bioresources, the same school from which she received her Bachelor's degree. "It's really been a great experience," says Fedoruk of her university education so far. "There's so much expertise within the AgBio college. It's great to be working with and learning from internationally respected professionals."

> ***"It's great to be working with and learning from internationally respected professionals."***

Harold Chapman agrees. "We have benefited a great deal," he says, "from the degree that we got back in 1943." The Class of '43 Scholarship is an inspiring example of the gratitude of AgBio grads, and the impact they make when they decide to give something back.

CIRCLE OF GIVING

GRADUATES OF 1969 CELEBRATE THEIR BOND WITH NEW AWARD

In addition to an education, students at the College gain relationships with their classmates that sometimes last a lifetime. When those Agros reunite for anniversary events, they often end up conspiring to give something back to the College that brought them together.

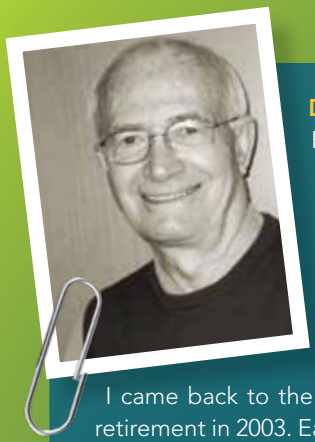
"The academic side is one important part of a university education," says Terry Martin. He graduated from the College of Agriculture in 1969, launching a lifelong career with the Canadian Wheat Board immediately afterward. "And the other part of the experience is the acquaintances that you make and maintain over the years."

As their 40th anniversary reunion approached, members the Class of 1969 wanted to mark the occasion in a significant way. Martin took the lead, phoning members of the grad class to solicit contributions. In the end, forty of them pitched in to create a $4,000 bursary, which was awarded last year.

Martin is accustomed to fundraising for worthy causes—the humanitarian projects he's been involved with include First Steps Canada, which works to eradicate child malnutrition in North Korea. With the knowledge his education gave him, and his consequent ability to make a positive difference in the world, Martin says it was natural to want to help other students acquire those same skills and eventually make their own contribution.

"We've always felt that our university offers the best education in the field of agriculture, in a region where agriculture has been important and still is," Martin says. "We wanted to contribute some small part to help another student. Everyone was very happy to do it."

This kind of generosity from alumni keeps the virtuous circle going. Thanks to the Class of 1969, one more student can experience the benefits—academic and personal—of an education at our College.



DAVID CHRISTENSEN

Professor Emeritus, Department of Animal and Poultry Science

The University of Saskatchewan has played an important role for my family. My father was in the Associate Agriculture program in the 1920s, and since that time my family and my wife's family including in-laws and nephews and nieces have received over 20 degrees from the University of Saskatchewan. For example, our son has received two degrees and our daughter three degrees. My own 1958 BSA degree was followed by MSc and PhDs from McGill and post-doctoral studies at Cornell.

I came back to the U of S as an assistant professor of Animal Science in 1965 and remained in that Department until retirement in 2003. Early in this appointment, I was seconded to Makerere University in Kampala, Uganda, for two years and became involved in CIDA and Canadian industry projects in about 28 countries around the world. Fifteen of my 55 graduate students were from developing countries.

These experiences have left me with two beliefs as reasons to support students at the U of S. One is the value of this University in providing education and experience to international students. Many of these students have access to international, University or other Canadian funding sources. A second belief is the benefit to Canadian students in receiving international experience. Travel to both developing and developed countries can be of great benefit to the student, to Canada and to other countries.

In support of international experience for our students, I was encouraged by then-Dean Ernie Barber to set up the David Christensen International Bursary Fund, to which I and others can contribute. I contribute to this fund together with the library in recognition of the importance and value of the U of S to my family and to many others.

GIVING BACK

GENEROUS ALUMNI HELP THE COLLEGE EXCEL

GARY CARLSON

A Lifetime of Generosity

Gary and Jessie Carlson live in Regina, where they have operated the Daybreak Bed and Breakfast since 1992. They have lived a life of thoughtful contribution, supporting and giving back to their communities.

Growing up on a small farm southeast of Tisdale, Gary was an award winning 4-H member and a successful exhibitor at summer fairs. In 1957 he graduated from Tisdale High School as class valedictorian. At the University of Saskatchewan's College of Agriculture, Gary specialized in agriculture economics, graduating in 1964 with BSA and MSc Degrees. As an agrologist, he worked for the Saskatchewan Department of Agriculture in press, radio and television and later as the Research Director for the Saskatchewan Crop Insurance Board. From 1967 to 1984, Gary was the Executive Secretary of the Saskatchewan Federation of Agriculture, a lobby group for farmers and co-operatives. From 1984 to 1989 he worked on soil conservation programs for PFRA.

In his 46 years in Regina, Gary has been an active volunteer in church and community development, helping establish such organizations as the Saskatchewan Agriculture Hall of Fame, the Saskatchewan Farm Vacations Association and Nuffield Canada. He also provided leadership in the founding of Sunset United Church, the South Leisure Centre and Regina's first co-operative day care. Since 1977, Gary has been active in his Regina Eastview Rotary service club. The Carlsons love to travel: they have visited 52 countries and every province in Canada.

Gary has contributed financially to the College and the University throughout his career. He was a member of the "Sodbusters Club," which provided the start-up funds for the new College of Agriculture Building. A Walter Murray Fellow, Gary has established two undergraduate scholarships in the College of Agriculture and Bioresources and set up a planned gift through life insurance. He served for 15 years on the University Senate and six years on the Board of Governors.

WALTER REDEKOP

U OF S ALUMNUS REFLECTS ON AN AMAZING CAREER

During his 42 years as an agriculture specialist, Walter Redekop worked extensively in developing countries to establish a legacy of sustainable development. He mentored several firms and won a host of prestigious awards. But the story of this remarkable international career begins at the University of Saskatchewan.

A native of Herbert, Redekop earned two degrees at U of S: an honours BSA in Animal Science (specializing in Dairy Science and Reproductive Physiology) and an honours Bachelor in Education (specializing in Economics, Sociology and Administration). His years at U of S, Redekop says, planted the seeds of his career. "I was decidedly influenced," he explains, "by the international activities of people like Red Williams and Dave Christensen—my professors at the time—and international students that I connected with."

In 1964, Redekop embarked on his first overseas assignment: a stint in Tanzania, where he ran Animal Science Departments at two universities under the auspices of the Canadian University Service Overseas (CUSO). With the establishment of the Canadian International Development Agency (CIDA), Redekop continued his work in Africa, instigating agricultural programs in 11 African countries.

In 1984, Canada launched an official program of development cooperation with China, which would soon become Redekop's major focus. Eight years later, he was asked to take over all aspects of CIDA's Agricultural Program in China. In total, Redekop was involved in 28 bilateral agriculture projects in that country, representing $120-million of CIDA investment. Tens of thousands of technical staff and hundreds of thousands of farmers received training; millions of Chinese farmers and their families benefited.

Thanks to Redekop's efforts, commercial progress, environmental sustainability and social health, particularly for the rural poor, became prominent in CIDA's Chinese agenda. He helped instill sustainable agricultural techniques, create national parks, conserve grasslands and expedite Canadian contributions to Food Aid provided to China through the World Food Program.

Honours have been showered on Redekop from home and abroad. Canadian awards include the Queen's Jubilee Medal, recognizing "significant contribution to Canada," and the Agriculture Institute of Canada's International Recognition Award. China has honoured Redekop with four major distinctions, including the Friendship Award, presented in 2003 by Premier Zhu Rongji "in recognition of outstanding contribution to China's economic and social progress."

For all of these accolades, though, Redekop's greatest satisfaction is the tangible difference his work has made. "I'm proud of coming up with a formula whereby agriculture progress could be built," he says. "It didn't matter where. The ideas started on one or two farms, and at the end of the day they were national programs. Making that formula, delivering results, is what I'd consider to be the biggest accomplishment."

Redekop retired in 2004 after making an immeasurable impact on the regions where he worked. "I feel very fortunate," he says. "It was the greatest job in the world."

BY THE NUMBERS

Over the course of his remarkable career, Walter Redekop has kept track of some equally remarkable numbers. By his count, he racked up:

- 1,212 international flights, including 85 Atlantic crossings and 81 Pacific crossings
- 28 missions involving trips to Africa; 29 to South America; 57 to Asia
- 55 work-related trips to Europe; 71 to the U.S.
- 3,165 days in official travel status (or 8 years, 8 months, 8 days)

How do we feed a growing world population?

syngenta

The world needs more food. By 2050, there will be another 2 billion people on our planet. How do we provide enough high-quality food and preserve our environment? At Syngenta, we believe the answer lies in the boundless potential of plants. We develop new, higher yielding seeds and better ways to protect crops from insects, weeds and disease. So farmers can get more from existing farmland and take less new land into cultivation. It's just one way in which we're helping growers around the world to meet the challenge of the future: to grow more from less. To find out more, please visit us at www.growmorefromless.com

Bringing plant potential to life

EXEMPLARY OUTREACH

JEFF SCHOENAU, LEADER IN COMMUNITY ENGAGEMENT

When it comes to outreach, Jeff Schoenau, who holds the Ministry of Agriculture Soil Nutrient Management Strategic Research Chair, is an inspiring exemplar. A winner of numerous awards, Schoenau is a sought-after speaker and has presented at conferences worldwide. He has built partnerships with important industry organizations and impacted Western Canadian crop yields by helping develop fertilizer management guidelines and tools including the Plant Root Simulator™ probe. For all this remarkable work—and the passion with which he carries it out—Schoenau was honoured with a 2007 University of Saskatchewan Award for Distinction in Outreach and Engagement.

Jeff Schoenau, Ministry of Agriculture Soil Nutrient Management Strategic Research Chair

What makes Schoenau so devoted to outreach? He credits a "desire to get research results out to the end user. To make sure that the final destination of research findings is not just the report or scientific journal article, but that they also get to the front lines to benefit agriculture."

In addition to sharing research results with the wider world, Schoenau is highly effective at disseminating knowledge within the university. He is the winner of numerous teaching awards, including three Professor of the Year honours from the Agriculture Students Association and, in 2001, the National Association of Colleges and Teachers of Agriculture Award of Excellence.

For Schoenau, teaching and outreach stem from the same motives. "Again, it's the opportunity to take knowledge and disseminate it. Undergraduates are going to be taking the information you give them and extending it themselves in their careers. Graduate students are going to be the scientists and research managers of tomorrow."

> ***"I've had a lot of inspiration from students, colleagues and mentors who have helped fulfill my dream of working toward the betterment of agriculture in general."***

Schoenau was himself a student at the College of Agriculture and Bioresources, where he earned his BSA and his PhD. "The College has been a great inspiration over the years," he says. "I've had a lot of inspiration from students, colleagues and mentors who have helped fulfill my dream of working toward the betterment of agriculture in general."

BIGGER AND BETTER

THE NEW GRAINS INNOVATION LAB

The Plant Sciences department has been developing new crop varieties since the early 1900s, and since 1971 this work has been done at the Crop Development Centre. Now, the CDC's quality laboratory has a brand new home. The Grains Innovation Laboratory consolidates the CDC's malting, baking, cooking and wet chemistry labs with its milling, grinding and office facilities, which were formerly located on campus.

> ***"The concept was to build this new space and make our operations more efficient, put it all in one place..."***

The project was made possible by funds provided by the provincial and federal governments under the Agricultural Policy Framework, many generous private and corporate donations, as well as some seed money from the CDC. "The concept," says CDC Managing Director Dorothy Murrell, "was to build this new space and make our operations more efficient, put it all in one place, and also put it just on the edge of campus, where our ag research field labs are located. You can bring samples in from the field and bring them directly into the lab. If you bring in a sample of wheat to make bread, first of all you have to mill that wheat, and grind that wheat, and make flour out of it. Those functions are right next door to the main lab now. This is much more efficient than the prior arrangement."

More efficient, and also bigger. At 1,466 square metres, the expansion gives the CDC more space to do its work, and has even allowed it to tackle new tasks. "One of the new initiatives," says Murrell, "will be the ability to make pasta. We can measure quality of durum, and know whether this is going to make a good pasta-making variety."

That's just one of the many tasks that will keep staff busy at the new centre. "We have to understand whether a new variety of wheat is going to give the proper texture, volume and taste of a loaf of bread," says Murrell. "We have to know what the character of a malt barley is going to be when it gets to the processor. For flax, two parameters we look at are oil quality and quantity. In oats, we look at oil content and fibre profile, for example. For pulse crops, among other parameters, we examine protein content, dehullability and cooking quality. Those are the types of tests that we do to make sure that our varieties are meeting the needs of farmers, processors and end users. The new facility will allow us to do our work more efficiently and will give us the opportunity to do more, as market needs develop and change."

Murrell notes that industry support has been very important to the lab's creation. "We have received very strong private sector support from research sponsors and seed companies," she says. "They see the Grains Innovation Laboratory as germane to the needs of the industry."

CDC FOCUSES ON MAJOR PRAIRIE CROPS

The Crop Development Centre is a breeding organization which, according to Managing Director Dorothy Murrell, "covers the gamut of the primary crops grown in Saskatchewan, with the exception of canola and mustard. We test in the field, in order to understand the agronomic advantage of new products—yield, standability, disease resistance, threshability—and also test the qualities of grain which are part of the end-use profile."

UNDER ONE ROOF

NEW FACILITY MEANS MORE COLLABORATION

The new Grains Innovation Laboratory, completed in mid-November, is a boon for Plant Sciences at the College of Agriculture and Bioresources. But that department is not the only one to benefit. The new lab will include an upgraded home for Soil Science department researchers, who until recently were working in aging Quonset huts.

In addition to benefiting the department itself, this move will also allow greater cooperation between departments. "It's exciting for us that the facility's jointly shared with Plant Sciences," says department head Fran Walley. "That underscores our desire and intention to work more closely with Plant Sciences."

Collaboration across disciplines, says Walley, is part of an emerging and valuable trend. "Interdepartmental collaboration, and even between colleges and institutions, is absolutely necessary. As we start to address issues like climate change, we have to be considering a much wider picture than we might have focused on in the past. Our approach to solving problems and addressing new issues is absolutely more interdisciplinary in nature." As an example, Walley points to the challenge of increasing crop yield. "There are plant breeding considerations, but you also have to put together a really good agronomy package, and that includes good soil fertility and understanding crop rotations. There are also environmental considerations: good stewardship of the land and good use of inputs."

Collaboration has increased not only between departments, but also between the College and industry. "Industry partners are facing the same challenges as all of us," explains Walley. "Climate change, potential changes we may see in agriculture. All of us—the farmers themselves, the industry, the researchers—need to be working together." And it's not just the agricultural sector that comes into play. "We also do a lot of work with industries such as the oil sands developers, for remediation and reclamation work," says Walley. "There's a broad spectrum of industry engagement."

Fran Walley and Adam Gillespie

NEW FEED PROJECTS

COLLEGE AND INDUSTRY CONNECT THROUGH TWO NEW DEVELOPMENTS

Exciting projects continually emerge when the College collaborates with industry. This year, some of the most significant new developments are occurring in the area of animal feed: a brand new research facility and an emerging biofuel network.

THE CANADIAN FEED TECHNOLOGY RESEARCH FACILITY

Last year, the University of Saskatchewan acquired a North Battleford feed mill, which is now being transformed into a brand new $12.5-million home for College researchers. Industry partners, too, are looking to test innovations there. The Canadian Feed Technology Research Facility (CFTRF) will be home to the research, development and commercialization of improved high-value animal feeds from low-value crops and biofuels products.

Colleen Christensen, acting executive director of the Feeds Innovation Institute, points out that the CFTRF has a distinct advantage over commercial feed mills because of its size. "The benefits of the facility are the size and scale, and the degree of flexibility we'll have," she says. "It's smaller than what exists commercially."

This is an advantage not only for College researchers, but also for industry users of the facility. "We hope to have them coming in and testing some new feed ingredient relevant to Canada," says Christensen, "to determine how it works for them within our facility, prior to utilizing it in their own facility. When they're making decisions about whether to change the formulation, this can be where they test it at a smaller scale."

The size advantage—together with the presence of a staff of scientific researchers and the opportunity for university, government and private groups to use the resources—makes the CFTRF the only facility of its kind in Canada and one of a half-dozen in the world.

Occupying approximately 4,316 square metres on five floors (including exterior bulk storage bins), the CFTRF has a pilot-scale research line and an industrial-scale line. On its array of equipment, students can be trained as highly qualified personnel and a wide range of research can be conducted. Experimental diets can be prepared for animal nutrition research. College scientists can examine a wide range of processing and treatment conditions to determine the best use of such feed ingredients as grains, protein sources, oil seeds, fibre, food processing by-products and fractionated products. The equipment itself can be developed and evaluated.

The goal is to have the new facility fully operational for experimental use by mid-2011. In addition to the private sector, the Canada Foundation for Innovation and the government of Saskatchewan have provided funding. The CFTRF positions the College of Agriculture and Bioresources at the forefront of international research. "There are very few facilities like this in the world," says Christensen. "In Western Canada, having a facility like this—where we can look at the incorporation of peas, lentils, pulses, wheat, barley and canola meal into livestock rations—really makes us unique globally."

THE FOBI NETWORK

Formed in 2007, the Feed Opportunities from the Biofuels Industry (FOBI) Network is a collaborative, multidisciplinary network of researchers from both public and private research institutes. Its goal is to stimulate sustainable growth of the bio-ethanol and livestock sectors. Colleen Christensen, who is serving as the network's administrative lead, describes FOBI as "the largest multidisciplinary approach in Canada to a relevant industry problem since the 1990s."

Over $6-million has been pledged to the network, $5.5-million of that coming from Agriculture and Agri-Food Canada. Its sixty-three researchers represent such groups as the Prairie Swine Centre, the Western Beef Development Centre, universities from Alberta and Saskatchewan, and federal and provincial government bodies. "From health to meat quality to nutrition to economics, we've got a lot of expertise in this network that we can draw from," says John McKinnon of the Animal and Poultry Science Department, who serves on the FOBI Executive Committee.

FOBI's first feeding trials have begun as the network takes a look at product variation. Its spring 2008 planting has yielded its harvest, and the first complete regional set of data. The network hopes to optimize the feed value chain of wheat DDGS and add value to bio-ethanol co-products.

The network has partnered with five Western Canadian bio-ethanol producers—"innovative, growing companies with different research questions and different opportunities that they bring to the table," says McKinnon. In his view, it's a successful example of university researchers engaging with industry. "I think it's quite impressive," he says, "the degree of cooperation and networking that's been accomplished between the industry and this group of researchers. It's really exciting to work with these companies."

Below: Feed Technology Research Facility at North Battleford.

CFTRF EQUIPMENT

How do you fill 4,316 square metres of feed research floorspace? The equipment that will constitute the complete pilot-scale and industrial-scale lines at the CFTRF makes for an impressive list. The pilot-scale line will include a roller mill, hammer mill, 500-kilogram mixer, flaker with a steam chamber, pellet mill (including a feeder and triple pass conditioner), counterflow cooler, crumbler, triple-deck screener, dryer and industrial-scale vacuum coaters. It will be completely automated and capable of extensive data and sample collection. The industrial line's heavy equipment will include two 250-HP hammer mills, a three-tonne Ribbon mixer and a three-tonne surge hopper. This line will boast a fully automated 20-tonne-per-hour multispecies feed capacity.

SOWING THE SEEDS

HANDS-ON TRAINING FOR SCIENTISTS OF THE FUTURE

College outreach and liaison efforts do not focus exclusively on today's agricultural community. A significant campaign is underway to attract the scientists of tomorrow.

At the high school level, extensive liaison programs target both students and teachers. The Discover Science program is tailored for secondary students, particularly in grades 10 through 12. "We go out to high school science classes around Western Canada and talk about careers in research and education," explains Jon Treloar, the College's Community Liaison Co-ordinator. "Last year we hit over 50 schools. That translates into about 2,500 kids a year."

Career fairs provide another venue for getting the word out. "We've attended numerous career fairs around Western Canada," says Treloar, "using a hands-on interactive display to promote the science of agriculture and bioresources."

The College has made great strides at introducing agricultural science into high school classrooms. Treloar explains: "We have been developing a high school science curriculum that uses agriculture to teach science." Schools throughout Saskatchewan have taken it on board. This fall, Evan Hardy Collegiate in Saskatoon, using this curriculum, received a recognition award from the Saskatchewan Regional Centre of Expertise on Education for Sustainable Development.

To bolster this initiative, the College hosts workshops to help high school teachers present the material most effectively. "We've had over 100 teachers through the College now," says Treloar. "They have been introduced to the curriculum and to the science and research that we do. It's been tremendously successful." Several teachers have said it is the best in-service course they have experienced.

Elementary school students and teachers also enjoy the fruits of College outreach. The AgBio Discovery program gives elementary school students a hands-on experience in agricultural science. Its purpose, says Treloar, is "immersing kids in the science of agriculture and bioresources, to let them know what the industry entails." The entire chain of food production, from field to plate, is presented. Activities range from making ice cream to weighing piglets.

The program has two components. In May and June, field trip programs are available for schools. Teachers bring in their classes for two to three hours of experiential learning. Last year's field trips attracted 31 classes comprising 874 students. "Teachers love it," says Treloar, "and want to come back year after year with their students." In July and August, day camp programs allow a week-long immersion in the agricultural science experience. The 2009 summer program hosted 130 students from grades 3 through 6.

Whether attracting high schoolers making crucial decisions about their future, or instilling a love of agriculture in younger students, the liaison program is planting the seeds today that will yield a harvest of enthusiastic AgBio students in the years to come.

THE OUTREACH EXPERIENCE

Youngsters and their teachers are not the only ones to benefit from the AgBio Discovery camps. University of Saskatchewan undergraduates operate the camps, allowing them to share their enthusiasm for their subject and discover first-hand the rewards of community outreach.

COLOUR CODES

GENETICIST UNLOCKS THE SECRETS OF COAT COLOUR

Cutting-edge research has long been a core goal of the College. Equally important is outreach, ensuring that the discoveries benefit the community. Geneticist Sheila Schmutz has led the charge in both areas. Her research is widely published and internationally acclaimed, and her efforts to assist the community earned her a 2005 Outreach and Engagement Award from the University of Saskatchewan.

Schmutz says that one of the highlights of her research has been examining the hidden connections between coat colour and other characteristics in cattle and dogs. "There are sometimes tie-ins that you wouldn't expect," she explains. For example, "early in the embryonic development of animals, the cells that make pigments and the cells that make nerves are one and the same. One gene that's involved in making black or red pigment is also involved in the appetite pathway, and signals animals whether they're full or hungry."

One of Schmutz's major outreach projects has been operating two websites to answer questions about coat colours from animal owners. Three to five e-mails arrive every week, and that rate skyrockets during dog show season. Queries have rolled in from such diverse locations as Sweden, South Africa, Poland, Mexico, Brazil, Spain, Australia and East Asia. Schmutz has also published an online book, Genes for Cowboys, at the suggestion of a Saskatchewan cattle breeder. "He picked up a genetics book in high school," says Schmutz, "but they only talked about fruit flies, and he wasn't interested. Why isn't there a book about cattle?" As part of her 2003 sabbatical, Schmutz filled that demand.

Schmutz shares her enthusiasm for outreach with her students, encouraging them to take part in extension activities and share their research with the larger community—thus ensuring the College's long-term legacy of community engagement.

MAKING AN IMPACT

MEAT SCIENCE BENEFITS INDUSTRY AND PUBLIC

Research at the College has wide-ranging benefits for industry and the public. Take the work of Phyllis Shand and her colleagues in meat science, who assist the community through advice, facilities and training.

When meat companies need troubleshooting advice, they often approach Shand. "They might be having a difficulty with a product not having the shelf life they expected," she says, "or it may not have the correct texture." College expertise also comes in handy when industry-wide challenges arise. "When the borders became closed during the BSE crisis," Shand says, "we had a larger supply of mature cattle in the country." In collaboration with industry and government, "we looked at adding value to tougher meat cuts."

The food and meat sciences pilot plant is a valuable resource for Saskatchewan processors. "I can't say enough about the College," says Paul Rogers, Product Development Manager of SJ Irvine Fine Foods, which has used the pilot plant to evaluate new products and techniques. "It's an awesome facility," he enthuses. "The equipment and personnel are top-notch."

Rogers speaks not only for his company, but also as a member of the Saskatchewan Meat Processors' Association. "The College, particularly Dr. Shand and her group, have been very generous," he says, "offering the facility for our workshops during our annual convention."

Shand has also worked extensively with the Saskatchewan Food Industry Development Centre, a provincially funded non-profit facility. As a highlight of that relationship, Shand cites the co-designing of a course for public meat inspectors.

Even on an informal basis, meat science at the College benefits the public. "On occasion," says Shand, "I'll get questions from consumers: 'I boiled my chicken and it's turned green—what's going on?' That kind of thing."

Whether through major collaborations or simply by answering an anxious phone call, Shand and the Meat Sciences group are making a lasting impact on the community.

CLOSE TO HOME

NEARBY FACILITIES GIVE COLLEGE UNIQUE EDGE

With the largest plant research land base in Canada, and with much of that land adjacent to campus, the College enjoys a significant advantage over similar institutions in Canada. According to Graham Scoles, Associate Dean (Research) and Professor of Plant Science, "We're unique in terms of the amount of land we have close to campus."

Field Superintendent Kirk Blomquist credits his staff with ensuring the quality of these facilities. "The staff are vital," he says. "We have 100 employees who do a fantastic job supporting the wide array of research conducted on this land." It is a wide array indeed. "We're talking about plant research, breeding studies, and all aspects of crops research that require small-plot work," explains Scoles.

Among the researchers working on that land is Associate Professor Doug Waterer, whose primary focus is vegetable crops. "To have a facility that's so close to my office, so beautifully set up in terms of shelterbelts and access to high-quality water—it's tremendous," he says. "I can take my students from the classroom and have them out there in five minutes. That's experiential education at its best."

Outside researchers and the community at large also benefit. For example, the 27-acre Horticulture Facility, used primarily for domestic fruit and vegetable research—recent highlights have included the development of new breeds of cherry, honeysuckle and apple—is accessed by government research organizations, and tours of the facility are given to fruit and vegetable growers, horticultural groups and school groups.

For experiments that require a more customized setting, another conveniently located facility is the Phytotron, a controlled environment facility occupying two wings of AgBio building's main floor. Its 183 chambers can be adjusted for light, temperature and humidity. The facility attracts not only AgBio researchers but also scientists from the chemistry, biology and engineering.

After nearly 20 years in operation, the Phytotron presents challenges. "We consume a lot of electricity," explains Manager Adam Harrison. "So we're looking at major changes to reduce our footprint by changing the lighting so we can reduce our heat output and electrical consumption." The centralized cooling system, designed to remove that excess heat, also serves laboratories throughout the building. It too needs an upgrade. "We've got to do a major overhaul of the facility," says Scoles.

The difficulty is finding funds. "We're looking at significant budgetary implications," says Scoles. User fees, he explains, have helped defray some costs, "but we don't have anywhere near enough." As the search for funding continues, the aging Phytotron continues to play a vital role in College research.

Indoors or out, plant research facilities—in their size, quality and proximity—make the College unique. It's an extraordinary advantage to have such assets so close to home.

PATTERSON GARDEN

Established in 1966, Patterson Garden contains over 700 trees and shrubs. Field Manager Jackie Bantle says the garden is valuable as "a gene bank for rare trees and shrubs of the prairies." Located at the southeast corner of Preston Avenue and College Drive, it is open to the public seven days a week, year-round.

BUILDING FOR THE FUTURE

NEXT GENERATION AGRICULTURE AND BIORESOURCES

College of Agriculture and Bioresources

Old Stone Barn located SE corner U of S campus

THE GLOBAL CHALLENGE

During the next two decades, the world will face a number of challenges that will significantly impact agriculture and other resource sectors. By 2050, the world's population will increase from the current six billion to nine billion people (source: OECD). Global warming could lead to desertification of crop lands and loss of low-lying habitat, necessitating increased food and bioproduct production from northern temperate zones. With or without climate change, the world's population will rise, and novel renewable resources, products and management systems will be highly sought after worldwide.

Saskatchewan's rich resources, geography and proven track record in world-leading agricultural research and innovation offer enormous potential to develop the next generation of agriculture and bioresources. The University of Saskatchewan is poised to lead the evolving bio-economy as a pre-eminent provider of new knowledge and technologies to add value to crops, trees and land through environmentally responsible approaches, thereby helping our province, country and world thrive through this century and beyond.

THE SASKATCHEWAN ADVANTAGE

With an integrated approach to novel food, fibre and fuel development, the U of S is uniquely positioned to seize the concept of 'green growth' and support a sustainable and globally competitive bioeconomy. The College can lead the world, through renewed investment in research and training, in providing:

- new products—ranging from hardier, higher-producing varieties of plants and animals to crop inputs and feeds that will help farmers gain a greater return on their investment;
- a secure supply of healthy and highly nutritious food and feed;
- bioproducts including nutraceuticals, fibre products, and energy;
- sustainable production systems in agriculture and forestry that produce safe, high-quality foodstuffs and bio-based industrial and wellness products, and
- improved rural and northern economic development opportunities and quality of life through policies and systems advancing stewardship of soil, water and biotic resources.

BUILDING A SUSTAINABLE AND COMPETITIVE BIOECONOMY

To ensure the advantage of being a lead innovator in developing, growing, processing, and selling—both locally and globally—needed food, fibre and fuel products, we must:

- Ensure that scientists have a reliable, state-of-the-art tool for testing plant growth under varying environments, by upgrading the aging phytotron, Canada's largest controlled environment facility which is critical for advanced crop development and productivity improvement;
- Train tomorrow's aboriginal agronomy and agro-business leaders through enhanced programs in indigenous land and resource management studies;
- Enhance the beef industry's competitive edge and meet rapidly increasing global demands for efficiently produced high-quality animal protein by updating the out-moded Beef Cattle Research and Teaching Facility; and
- Capitalize on opportunities for new exportable technologies and products by building a new dairy research and training facility to replace the aging dairy barn on campus.

These new and upgraded facilities will support the top-calibre training, knowledge generation and commercial development expected by our students, producers, industries and public, creating an environmentally sensitive knowledge-based bioeconomy much more rapidly than can other more economically challenged locations. Saskatchewan has huge potential to help sustainably feed, clothe and fuel the world if we are only bold enough to seize the opportunities.

University of Saskatchewan
College of Agriculture and Bioresources

YOU CAN MAKE A DIFFERENCE WITH THESE GREAT MINDS.

Your donations directly impact education, research and student support.
INVEST IN KNOWLEDGE. Build a better future for our students and our College. **Give today.**

YES! I'D LIKE TO SUPPORT THE COLLEGE OF AGRICULTURE AND BIORESOURCES AT THE UNIVERSITY OF SASKATCHEWAN.

I'd like to make a gift of:
☐ $1000 ☐ $500 ☐ $250 ☐ $100 ☐ Other $ _____

Name

Address

City Province Postal Code

Telephone Email

☐ My cheque is enclosed *(payable to the University of Saskachewan)*
☐ Please charge my gift to my credit card:
☐ Visa ☐ Mastercard

To make scheduled payments by credit card or pre-authorized debit, please call 1-800-699-1907.

Is this a corporate credit card? ☐ Yes ☐ No

Name of Company

Name (as it appears on the card)

Card Number Expiry Date

Signature

To make a gift or set up a monthly donation to the College of Agriculture and Bioresources, go to: www.usask.ca/makeagift or contact Mark Wartman:
51 Campus Drive, U of S, Saskatoon, SK S7N 5A8 Phone: (306) 966-8893

Know your numbers

Make the most of the market with AgExpert Analyst

Make informed decisions with accounting software designed for Canadian agriculture – AgExpert Analyst. You'll analyze your cost of production, know your average selling price and do easy GST calculations. With AgExpert Analyst's reports, you'll see results for your whole operation. Because when you know the right numbers, it's easier to make the right decisions.

To find out more or order your software, call 1-800-667-7893 or visit www.fccsoftware.ca.

Farm Credit Canada
Advancing the business of agriculture

Canada

9 billion

people to feed. A changing climate.

NOW WHAT?

Experts say we'll need to double agricultural output by 2050 to feed a growing world. That's challenge enough. But with a changing climate, the challenge becomes even greater.

Providing abundant and accessible food means putting the latest science-based tools in farmers' hands, including advanced hybrid and biotech seeds. Monsanto's advanced seeds not only significantly increase crop yields, they use fewer key resources – like land and fuel – to do it. That's a win-win for people, and the earth itself.

Producing more. Conserving more. Improving farmers' lives. That's sustainable agriculture. And that's what Monsanto is all about.

The world's farmers will need to double food production by 2050. Biotechnology can help.

MONSANTO imagine®

Learn more at: **www.ProduceMoreConserveMore.com**

PRODUCING MORE | CONSERVING MORE | IMPROVING FARMERS' LIVES