MESSAGE FROM THE CHAIR

As you know we recently finished interviewing three excellent candidates for the chair position in Plant Agriculture. I want to thank everyone for their tremendous support for this process and in particular the great work of the search committee which included Dean Pearson, Dave Wolyn, Dan McLean, Jen Kingswell, Ann Clark, Steve Rothstein, Stew Hilts and Al Sullivan. Now comes the tough part in selecting the next chair from these terrific choices. I am confident that the comments you provided on these candidates would have been very helpful to this committee. This is one of the truly wonderful aspects of working at a University, everyone has a voice and those voices are heard. By the time you read this note, I suspect the decision by the committee has been made and perhaps the offer is already being considered. Whoever gets the position will be moving into a first-rate department with quality faculty, staff and students throughout. There will be challenges, but I am confident that you will provide whoever it is with all the support that they need.

As we finish the year, there are some new positive developments to get excited about. We are advertising for two Senior Chair positions - one in Post-Harvest Physiology and the other in BioMaterials and Transportation. We continue to have encouraging discussions with Agriculture and Agri-Food Canada regarding some really interesting partnerships for the future. As a Department we have or will submit two very large proposals in the area of bioproducts, one to the Ontario Research Fund (already in) and the other to the Canadian Foundation for Innovation (due Jan. 31). We are seeking ways to further develop turf sciences as an area of strength for the Department and have entered into discussions regarding the transfer of the Guelph Turfgrass Institute to sit administratively in Plant Agriculture. We are undergoing a graduate student program review to be finalized by the summer of 2006. The review is a challenge and a lot of work, but also an opportunity to take the external review recommendations to develop an even stronger program. All of these initiatives and many others are important. They help to provide stability to the Department. It is clear that our traditional sources of funding through OMAFRA and MTCU will at best remain stable but more likely will continue to decline. And thus it is very important that we continue

Continued on Page 24...
GRADS

WELCOME
NEW GRADUATE STUDENTS TO THE
DEPARTMENT OF PLANT AGRICULTURE

Mahsa Golbabaie, MSc (L. Erickson)
Allan Kaastra, MSc (P. Sikkema/C. Swanton)
Ivan Malchev, MSc (L. Kott)
Eric Shaw, MSc (L. Kott)
David van Dam, MSc (C. Swanton)
John Watson, MSc (K. Jordan)
Sarathi Weraduwage, MSc (J. Subramanian/B. Micallef)

Eric Page

I grew up in the town of Kingsville, Ontario which is located approximately 40 km southeast of Windsor. Although Kingsville is surrounded by farming and greenhouse operations, I had little exposure to these industries while growing up. It was during the first year of my bachelors of science at the University of Western Ontario that I first became interested in agriculture. As part of the Federal Student Work Experience Program, I had the opportunity to work as a summer research assistant for three years at Agriculture and Agri-Food Canada’s Greenhouse and Processing Crops Research Centre in Harrow. It was this introduction to agriculture in Essex county that truly sparked my interest in research.

Following the completion of my H.BSc in ecology and evolution, I decided to pursue my interest in agriculture as a masters’ student in the Department of Crop and Soil Sciences at Washington State University (WSU). The main campus of WSU is located in Pullman, which is about 75 miles south of Spokane and nine miles west of the Idaho border. This region of eastern Washington State is known as the Palouse and is characterized by its large rolling hills and emphasis on cereal production. My thesis at WSU focused on modeling the spatial and temporal variability in wild oat emergence caused by the regional topography. After completing my degree in November ’04, I spent a chilly winter in Quebec City, practicing my French and actively searching for a way to get back to the sunny south.

I arrived in Guelph in May and worked for Kevin Chandler during the summer. This fall I started my PhD under the supervision of Dr. Clarence Swanton. I am happy to be back in southwestern Ontario and I look forward to getting to know the department over the coming years.
Andrea Chambers

I was born and raised outside the small town of Teeswater, Ontario. My family has strong ties to agriculture and a tradition of continued education at the University of Guelph. I earned a BSc in Plant Biology at Guelph in April 2001 and completed my MSc in Crop Physiology supervised by Dr. Tollenaar in April 2004. My MSc thesis focused on the physiological basis of heterosis in maize.

After completion of my MSc, I took advantage of a year away from formal education. I got married, bought a home with my husband and worked. I was employed as a research assistant in the pathology team of a canola breeding program.

I started a PhD program in September 2005, supervised by Dr. Liz Lee. My project will be to define genomic regions associated with maize grain yield in terms of the underlying physiological processes.

When I’m not studying I enjoy spending time with my husband, family and friends. I also play recreational slow-pitch, garden and take care of my dog.

Eric Roesler

I was born and raised in Scarborough (now amalgamated with Toronto), Ontario.

Upon completion of high school, I attended George Brown College for their cooking program. In the following five years, I worked as a line cook, pastry chef and sous chef of various restaurants in Toronto. I then moved to Halifax with my fiancé, Crystal, while she completed her MFA. During this time, I started a BA degree at Dalhousie. When Crystal completed her degree, I transferred into the BSc Agriculture program at Guelph. I finished that degree in April and I am now beginning my MSc in Plant Agriculture/Toxicology under Dr. Calvin Chong. My project will examine the effects of humic substances isolated from composts on plant growth. My other interests include the blues, woodworking, bonsai, and hats.
Cynthia A. Rougoor

My story begins in the beautiful town of Niagara-on-the-Lake (NOTL) where I have lived for 23 years. I was raised on a small farm (sorry no grapes) with my horse Cody. My two younger sisters and I were fortunate to live in such a beautiful area with such nurturing and supportive parents. Growing up around tractors, pick up trucks, dirt bikes and ATVs; my sisters and I would not grow up to be your average girls. I spent my days playing on ATVs and catching insects, to my mother’s dismay. My dad grew up on a dairy farm and my mom on a cash crop farm both of which were in NOTL. Coming from such an agricultural background I was never really interested in farming, this would soon change.

I completed my undergraduate degree at Brock University majoring in Biological Sciences. I was mostly interested in animal behaviour but met Dr. Wendy McFadden-Smith who introduced me to the world of integrative pest management and most importantly to strawberries. I had the opportunity to work with Wendy as a research assistant completing efficacy trials on a number of fruit crops and becoming a berry scout. Being able to work with such a great teacher, I jumped at the chance to do my thesis project under her supervision. My project was to determine the effective concentration of entomopathogenic nematodes and the effect of temperature on control of black vine weevil in strawberry fields. The experience and knowledge I gained from working with Wendy changed my life forever and ignited a passion for agriculture and environmental biology. I enjoyed my time at Brock making many friends and even graduating with the honour of being on the Dean’s list.

Although I learned a lot at Brock I had always wanted to go to Guelph. My dream had finally come true as I was accepted to do my Masters in Plant Agriculture with Dr. Adam Dale at the Simcoe Research Station and Dr. Rebecca Hallett in Environmental Biology. In a previous field trail Dr. Dale found that wild type strawberries have a method of resistance to the pest Tarnished Plant Bug. He then did a hybrid experiment with dayneutral cultivars, producing genotypes which also exhibited resistance. The focus of my MSc project is to determine the mechanisms of resistance found in the wild type and dayneutral hybrid strawberry plants to Tarnished Plant Bug. I will be exploring morphological and phytochemical properties of the strawberry plants in the laboratory, and will be examining the possibility of different biotypes of Tarnished Plant Bug in the field. I am very excited about the project since it could have many agricultural implications, possibly producing a new commercial cultivar that could double the value of strawberry production in Ontario.

The University of Guelph has much to offer and provides students the opportunity to become specialized in so many disciplines, whether it is Plant Agriculture, Environmental Biology or Animal and Poultry Science. I couldn’t be more proud to be a part of such a great academic community and look forward to the challenges and rewards of graduate school.
Alison Sinclair

I was born and raised in Nepean, Ontario, which is a suburb of Ottawa. Although I was not far from the farm land of the Ottawa valley, the closest I ever came to a farm during my childhood was driving past the corn that separated Ottawa from Kanata.

In 2005, I completed my undergrad at the University of Waterloo, studying molecular biology. It was during a co-op term, working for Heinz, that I developed an interest in plants. Somewhere between driving a tractor and grinding up tomatoes, plants won me over. I tried to include plant-focused courses in my degree, and when I decided to pursue my MSc, I wanted it to be in an area that would involve plants or agriculture.

I am currently in the first semester of my MSc, where I am investigating the movement and behaviour of organelles, using fluorescent probes and real-time tracking software – I’ve managed to mix my molecular education with my interest in plants! I hope to develop a model of peroxisomal responses to different stimuli.

Outside of school, I enjoy slightly dorky hobbies such as reading, sewing, playing Scrabble, camping and hiking.

GRADS

For the low price of only $16 for a dinner and dance, students may purchase a ticket to the:

Department of Plant Agriculture
Christmas Dinner and Dance
Friday, December 16, 2005
Cuttin Club, Guelph
Cocktails at 6:30 p.m.
Dinner at 7:30 p.m.

Hope to see you there!
STUDENT AWARDS RECIPIENTS

Aaron Bowman - McConkey Scholarship
Andrew Burt - Mary Edmunds Williams Scholarship
Rachel Campbell - Ball Farm Services Ltd. & Agrico Canada Ltd. Scholarship & Kasha Scientific Travel Fund
Mary Jane Clark - Soden Memorial Scholarship
Shawn Clark - Mrs. Fred Ball Scholarship & H.L. Hutt Memorial Scholarship & Kenneth G. Murray Scholarship
Jane Coventry - Canadian Vintners Association Scholarship
Evan Elford - Monsanto Turfgrass Research Scholarship
Adam Foster - Hoskins Scholarship
Marie Hamel - Ted McGrail Memorial Scholarship
Andrew Jones - Jack Atkin Graduate Scholarship in Horticultural Science
Julie LaPlante - John Bandeen Memorial Scholarship
Jamie Larsen - Bullick Scholarship in Food Grain Research
Shuping Li - Mrs. Fred Ball Scholarship & Bullick Scholarship in Food Grain Research
Weidong Liu - Pride Brand Seeds (Pride 5) Scholarship
Kris Mahoney - Gerlad Stephenson Scholarship
Jason McCallum - Ronald C. Moyer Scholarship & Mary Edmund Williams Scholarship
Darragh McGowan - Mrs. Fred Ball Scholarship
Andrew Montague - Major General LaFleche Memorial Scholarship
Eric Roesler - Marion Brennan Scholarship & Soden Memorial Scholarship
Asheesh Singh - Pioneer Hi-Bred Plant Breeding Scholarship
Susan Slater - Mrs. Fred Ball Scholarship
Brae Surgeon - Mrs. Fred Ball Scholarship
Ali Taheri - Hoskins Scholarship
Krishnaraj Tiwari - Keith R. Collver Scholarship
Cheryl Trueman - F.L. McEwen Scholarship & Silas Smith Memorial Graduate Scholarship
Tina Wambach - Manton Memorial Scholarship
Heinrich Wohleser - Soybean Research Scholarship
CONGRATULATIONS

HEINRICH WOHLESER

The Annual Meeting of the Crop Science Society of America (CSSA) was held in Salt Lake City, Utah, from November 6th to 10th, 2005. At the meeting PhD student, Heinrich Wohleser won the third prize in the graduate student poster competition for the "C-1 Crop Breeding & Genetics" Section of the CSSA. There were more than 40 entries from across the U.S. and Canada. The first and second places were taken by U.S. students.
For as long as I can remember, I wanted to be a scientist. My father was a physicist, my mother a math teacher and computer programmer. My marks in arts and literature were average from the beginning, but science and math always held my interest. My parents bought me a microscope when I was in grade school, and I used it to look at everything I could find. When I attended the University of Maryland I chose to major in Microbiology as it was a good pre-med degree that had possibilities on its own. When I was a junior, two classes changed the course of my career. The first was Microbial Pathogenesis – a study of human diseases and their causes. I became fascinated with pathogens and interactions between disease organisms and their hosts. At that point I decided I wanted to be a medical researcher. Later that year, I had Immunology and was excited about learning how hosts defend themselves. When I got to lab however, I realized that all of our experiments would be performed on live animals. Although I was not morally opposed to animal experimentation, I knew that I could not do it myself. So, here I was a year from graduating and pretty much had no idea what I wanted to do.

Around the same time, I saw an advertisement for a research assistant in a plant pathology lab at the U.S. Department of Agriculture. The scientist in the lab was working on the causal agent of late blight in potatoes. It sounded interesting so I worked there through my last years of college. When I graduated I was offered a contract position with a horticulturalist to work on the development of transgenic gladiolus plants for resistance to a viral disease. It was great getting the opportunity to work for a physiologist while still researching plant diseases. My next position was with a plant virologist, again developing transgenic plants for disease resistance. After a few years at the USDA, I realized that in order to perform the level of research I wanted to, I would need to attend graduate school.

I again attended the University of Maryland, this time to work on my master’s degree, where I researched the effects of narrow-row spacing on the development of gray leaf spot on corn. When I was nearly finished with the project, my major professor and I discussed where I should go from there. I knew I wanted to continue with my graduate schooling, but just wasn’t sure of my focus. My advisor suggested that since I was so into golf and sports, I should consider turfgrass pathology. I think my response was “is there really such a thing?” I met with the turf pathologist on campus and after a long discussion about the opportunities in the field decided that turfgrasses were the host plants for me. I worked at Penn State for two years performing a study on

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the epidemiology of gray leaf spot of perennial ryegrass (different organism than on corn), and then in 2002, I began working on my doctorate at the University of Rhode Island. My research focus was on plant-parasitic nematodes, looking at their population dynamics on golf course greens and the factors that affected their levels in soils. During the course of my study, I also worked with a number of fungal pathogens of turf, a bacterial disease, and was heavily involved in the turfgrass disease diagnostic clinic. Through my research and my work in the clinic, I was exposed to numerous diseases that were common in the northeastern U.S. and had a good bit of contact with turfgrass managers of golf courses, sod farms, and athletic fields. That allowed me to learn a lot about not only turfgrass pathology, but management as well. The fact that my husband Sean is a golf course superintendent didn’t hurt either.

When the position here at Guelph opened up, I was thrilled to find a job that held so many opportunities for me from turfgrass management research to nematology and applied pathology, all within a department dedicated to plant agriculture. I was also excited about teaching what I love so much and continuing my service work in the diagnostic laboratory. Of course much of that excitement was put on hold when I found out I was pregnant last winter. That said, since my arrival in Guelph, I have been spending the majority of my time caring for my newborn son Vincent. However, I will continue my position with the university full-time the first week of January, and am looking forward to enjoying both raising a child in this wonderful family oriented community, and embarking on a promising career doing exactly what I have dreamed of since the last semester of my master’s work.

Katerina’s office is located in the Bovey building, room 1237. She can be reached by telephone at 519-824-4120 ext. 56615 or by e-mail at kjordan@uoguelph.ca
**Publications**


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**Prof. Jayasankar Subramanian** - Assistant Professor, Tree Fruit Breeding, Genetics and Biotechnology - has just been awarded $100,000 from the Ontario Ministry of Research and Innovation. Jay is isolating the antioxidants found in plums and other stone fruits, and testing them to see how they can improve human health. Dr. Subramanian also received a New Opportunities research grant from the Canada Foundation for Innovation in 2004.

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**Seed of the Year**

Left to right: Peter Pauls (U of G), Tom Smith (U of G), Rob McLaughlin (U of G), Dave Wolyn (U of G), Martin Harry (SeCan), and Istvan Rajcan (U of G) (Story on following page.)

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SEED OF THE YEAR WINNER NAMED
AT THE ROYAL AGRICULTURAL WINTER FAIR
Kim Waalderbos, SPARK writer, Office of Research

An asparagus variety with outstanding performance, sustainability, market-ability and industry impact topped entries in the inaugural “Seed of the Year” competition.

Guelph Millennium asparagus was recognized in the competition’s inaugural year, at an announcement Friday, November 4, 2005 at the Royal Agricultural Winter Fair in Toronto.

Guelph Millennium asparagus has been on the market for eight years and has proven itself as a high-yielding, high quality hybrid. Developed by Prof. David Wolyn, University of Guelph, the variety has become a major contributor to the current competitiveness of the asparagus industry and accounts for 70 per cent of all seed sold in Ontario.

Guelph Millennium is known for its ability to sustain high yields over many years in the lifetime of a plantation, a trait not typical of other varieties on the market.

Two other finalists for Seed of the Year were also recognized at the event. OAC Kent, a soybean variety developed by University of Guelph Prof. Istvan Rajcan and OAC Rex, a white bean variety developed by University of Guelph Prof. Peter Pauls and former professor Tom Michaels were also honoured.

Through the Seed of the Year application process, public breeders were encouraged to highlight their research accomplishments in developing a new variety of fruit, vegetables or field crops. In this, its inaugural year, Seed of the Year focused on attracting submissions from public seed breeders in Eastern Canada.

The competition was designed by representatives from SeCan, the Ontario Ministry of Agriculture, Food and Rural Affairs, Agriculture and Agri-Food Canada, and the University of Guelph. Additional sponsorship has been provided by the Ontario Asparagus Growers’ Marketing Board, Ontario Bean Producers’ Marketing Board and the Ontario Soybean Growers.

(Printed with the permission of Owen Roberts, Director, Research Communications, University of Guelph.)
What’s a “blog?” by Jim Hoare, IT Tech.

(Portions of this article have been taken from “Blogs Will Change Your Business” BusinessWeek Online article May 2, 2005)

Definition

blog

A frequent, chronological publication of personal thoughts and Web links.

Information

A blog is often a mixture of what is happening in a person’s life and what is happening on the Web, a kind of hybrid diary/guide site, although there are as many unique types of blogs as there are people.

People maintained blogs long before the term was coined, but the trend gained momentum with the introduction of automated published systems, most notably Blogger at blogger.com or myspace.com. Thousands of people use services such as Blogger to simplify and accelerate the publishing process.

Now, instead of just speaking through listservs (i.e. pa-all@listserv.uoguelph.ca), or the old fashioned “letters to the editor” and hoping to get printed, individuals can “blog.” And if they master the ins and outs of this new art – like how to get other bloggers to link to them – they reach a huge audience. Check out our own Food Safety Network Blog (http://blog.foodsafetynetwork.ca/) Blogs @ Guelph is a new service that will provide blogs for the University of Guelph campus community. Refer to: http://blog.uoguelph.ca

This is just the beginning. Many of the same folks who developed blogs are busy adding features so that bloggers can start up music and video channels and team up on editorial projects. The divide between the publishers and the public is collapsing. This turns mass media upside down. It creates media of the masses. There are some 9 million blogs out there, with 40,000 new ones popping up each day.

Let’s face it, the overwhelming majority of the information the world spews out every day is digital – photos from camera phones, PowerPoint presentations, government filings, billions and billions of e-mails, even digital phone messages. With a couple of clicks, every one of these items can be broadcast into the blogosphere by anyone with an Internet hookup – or even a cell phone. If it’s scandalous, a poisonous e-mail from a CEO, for example others link to it in a flash. And here’s the killer: Blog posts linger on the Web forever.

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E-mail has carried on billions of conversations over the past decade. But those exchanges were private. Most blogs are open to the world. As the bloggers read each other’s messages, comment, and link from one page to the next, they create a global conversation. Picture the blog world as the biggest coffeehouse on Earth. Hunched over their laptops at one table sit six or seven experts in nanotechnology. Right across from them are teenage goths dressed in black and thoroughly pierced. Not too many links between those two tables. But the café goes on and on.

The innovation that sends blogs zinging into the mainstream is RSS, or Really Simple Syndication. Five years ago, a blogger named Dave Winer, working with software originally developed by Netscape, created an easy-to-use system to turn blogs, or even specific postings, into Web feeds. With this system, a user could subscribe to certain blogs, or to key words, and then have all the relevant items land at a single destination. These personalized Web pages bring together the music and video the user signs up for, in addition to news. They're called "aggregators." For now, only about 5% of Internet users have set them up. But that number's sure to rise as Yahoo and Microsoft plug them.

Winer also ushered in a second tech breakthrough, podcasting. A back-and-forth between Winer and Adam Curry, a blogger and former MTV host, led last year to a system that easily distributes audio files. Looking for National Public Radio's On the Media or the latest ska compilations from a disk jockey in Trinidad? Sign up on a Web page, and the program gets automatically delivered to you – as an audio feed. Last summer, Curry created software called iPodder so these MP3s could hitch a ride on an iPod (AAPL). That was the birth of podcasting: radio programming whenever and wherever you want it. Since then, some 5,000 podcasting shows have sprouted up.

Now Google has got into the business of tracking blogs. Blog Search (http://www.blogsearch.google.com) is Google search technology focused on blogs.

References
Blogs Will Change Your Business, Stephen Baker and Heather Green, BusinessWeek Online, May 2, 2005 (http://www.businessweek.com/magazine/content/05_18/b3931001_mz001.htm)
Definition: http://www.marketingterms.com/dictionary/blog/
Tuesday, July 26, 2005 was a hot and muggy day at Penn State University’s Southeast Research and Extension Center near Landisville, Pennsylvania. Coached by Dr. Clarence Swanton and Kris Mahoney, two undergraduate and two graduate teams from the University of Guelph competed in the 2005 Northeastern Collegiate Weed Science Contest. The purpose of this contest was to provide an applied educational experience for students studying weed science and agronomy from universities in Canada and the United States. A total of 45 graduate and undergraduate students participated from eight universities. The universities represented were Guelph, Nova Scotia Agricultural College, Clemson, Cornell, North Carolina State, Penn State, State University of New York (SUNY) at Cobleskill, and Virginia Tech. All students participated in weed identification, herbicide identification, farmer problem solving, and sprayer calibration.

For the second year in a row, Guelph’s undergraduates won the Weed Science Contest and, for the first time, swept the top individual undergraduate awards. The first place OAC Weeds Team members were Andrew Chisholm, Brian Gowan, and Chrissie Schill. The second place team consisted of Phil Aitken, Jim Burns, and Gerard Pynenburg. Pynenburg, Burns, and Gowan swept the top undergraduate awards winning first, second and third, respectively. In addition, Gowan received top marks in herbicide injury identification, Burns for sprayer calibration and Schill earned the highest marks for

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her efforts in farmer problem solving. The graduate student teams performed well, but did not place in the top three this year. Graduate student OAC Weeds Team members were Joanne Liu, Kris Mahoney, Eric Page, Jeff Powell, Rachel Riddle, and Daryl Vermey.

The president of the Northeastern Weed Science Society referred to Guelph as “the Yankees of the Northeastern Weeds Competition.” The University of Guelph’s OAC Weeds Team has won this event more times than any other university during the contest’s 23-year history. Guelph teams have dominated the undergraduate division with 11 wins since 1983 followed by SUNY-Cobleskill with four wins. In the graduate student division, Virginia Tech has won eight times, North Carolina State has won six times, and Guelph has won three times.

Next year DuPont will host the contest at Chesapeake Bay Farms near Chestertown, Maryland. Most of the Guelph undergrads will return to compete and will be the team to beat as they try for a “threepeat.” Special thanks go to research technicians Peter Smith and Rob Grohs for their contributions to the success of the 2005 OAC Weeds Team. Congratulations and good luck in 2006!

CONGRATULATIONS to Chris Grainger (technician with Lee/Rajcan) on his marriage to Erin on Saturday, October 1, 2005 at the Grey Silo Golf & Country Club.

We wish you both many years of happiness together!

VINELAND CENTENNIAL 1906-2006

The Vineland Centennial is more than a celebration of 100 years of research, it is also an investment in the future of research within the Department of Plant Agriculture.

A significant portion of all donations received for the Vineland Centennial Celebrations will fund graduate scholarships within the Department of Plant Agriculture.

A gift of $100 or more received before the end of December 2005 will be acknowledged in the publication of the 100 Year History of Vineland.

Donation forms will be available soon on the web at: http://www.uoguelph.ca/vcc2006 (or by e-mailing vcc2006@uoguelph.ca)
Arani Kajenthira, a 2005 engineering graduate of the University of Guelph, has won a prestigious Rhodes Scholarship to pursue graduate studies in earth sciences at the University of Oxford.

She is one of two students from Ontario — and 11 nationwide — to receive a Rhodes Scholarship this year. The award, which covers tuition, fees and provides a living allowance, is worth about $25,000 US per year.

“I have always wanted to go to Oxford; it’s been a dream of mine since high school,” Kajenthira said. “I just didn’t think it would ever be financially feasible.”

President Alastair Summerlee said he is “delighted for Arani. This will make her dream of studying at Oxford a reality. She will be an excellent ambassador for the Rhodes Scholarship program, the University of Guelph and Canada. The Rhodes Scholarship committee has recognized and rewarded the talents of a remarkable young person.”

Kajenthira hopes her graduate work in earth sciences will lead to her developing cost-effective remediation technology to remove contaminants from soil and groundwater in Third-World countries. She became interested in the subject while conducting a research project as a U of G student with Engineers Without Borders. “I was working on introducing a clean water supply to a rural community in Tanzania,” she said. “It really opened my eyes.”

Her long-term career goal is to work as a liaison between industry and non-governmental organizations. “I’d like to connect the experience of people in industry with the passion and contacts that NGOs have. We need to bring them together to create a greater impact.”

Kajenthira is currently a staff scientist with GeoSyntec Consultants, performing environmental field sampling, data analysis and engineering and earth science calculations.

While a U of G student, she won prestigious Natural Sciences and Engineering Research Council awards in 2004 and 2005 that allowed her to work in research laboratories in the Department of Plant Agriculture. There she collaborated with scientists from the California Institute of Technology to study the behaviour of E. Coli bacteria. She also expanded on research she began in 2002 on the role of hormones in wound-induced stem cell regeneration.

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In 2003, she worked at Mount Sinai Hospital as a Samuel Lunenfeld Research Institute summer intern conducting research on the effect of antibiotics on the development of osteoarthritis.

The recipient of a U of G entrance scholarship and an Ontario Aiming for the Top Tuition Scholarship, Kajenthira was on the dean’s list her entire career at Guelph. She was an active member of Women in Science and Engineering, Engineers Without Borders, the National Agriculture and Biotechnology Council, and Professional Engineers of Ontario. She also served as an academic cluster leader, mentoring a group of 20 first-year engineering students, and volunteered for Habitat for Humanity, the YWCA, Relay for Life, the Dunara Dufferin-Wellington Homes for Psychiatric Rehabilitation and the Onward Willow Centre.

Students from about 20 countries compete annually for 90 Rhodes Scholarships. Created in 1902 and named for Cecil Rhodes, the scholarships recognize “high academic achievement, integrity of character, a spirit of unselfishness, respect for others, potential leadership and physical vigour.”

Past recipients have included country presidents, Supreme Court justices, poets, writers, scholars, politicians, Olympic athletics and Nobel Peace Prize winners. Among them are former Canadian governor general Roland Michener; astronomer Edwin Hubble; Fulbright Fellowship founder J. William Fulbright; actor Kris Kristofferson; former U.S. president Bill Clinton; feminist social critic Naomi Wolf; Canadian commentator Rex Murphy; and former Ontario premier Bob Rae.

For media questions, contact Communications and Public Affairs: Lori Bona Hunt, (519) 824-4120, Ext. 53338, or Rebecca Kendall, (519) 824-4120, Ext. 56982.

More on Arani’s link to the Department of Plant Agriculture in the following story (pages 18 and 19).
My entire lab is thrilled and proud of Arani Kajenthira, Guelph's newest Rhodes Scholar. Arani was in my lab for three years, joining my lab after her first year at Guelph, twice receiving an NSERC Summer Scholarship.

What did Arani do while in Plant Agriculture? Briefly:

1. My lab is interested in isolating key genes responsible for adventitious (wound-induced, de novo) stem cells (meristems) in plants. There are a number of horticultural and agricultural applications of our research. We use Arabidopsis as a model system. Arani characterized the hormone responses of 60 ecotypes of Arabidopsis for stem cell regeneration. Her careful analysis contributed to a large mutant screen where we mutagenized 20,000 Arabidopsis seedlings, and isolated 10 "Shooting up" mutants that have enhanced stem cell regeneration capability. Arani has more characterized these mutants in terms of their responses to age, light levels and hormone levels. Based on our more recent analysis, we have now begun the process required to map these novel mutants in Arabidopsis.

2. My lab is interested in developing low-cost, effective technologies to assist breeders in Canada and the Developing World. Arani has contributed to the bioengineering of a bacterial biosensor, a tool to detect small metabolites quantitatively. This work was in collaboration with scientists at Princeton and Caltech, and employs a technology called directed evolution. The goal of this project is to develop a low-cost tool for breeders, to detect key primary and secondary metabolites by making simple plant extracts and exposing them to bacterial biosensors that emit a quantitative fluorescence in 96-well plates. If successful, this technology would be complementary to current approaches that require GC-MS or other expensive technologies.

3. Finally, Arani has been a Curator on the CropLink Global Database project, an initiative by my lab to link all of the world's agricultural researchers. The first module is now online at www.MaizeLink.org

"Arani has not only opened doors for herself, but the best quality she possesses is that she has the skill and goodwill to open doors for others. Arani possesses the dedication, intelligence and motivational skills to accomplish great things. This scholarship will give Arani the stature to help change the world, which she will. I am so tremendously proud of Arani, as I am of all the past and current members of my lab."

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Arani Kajenthira said in regards to her time in the Department of Plant Agriculture:

“In terms of my time with the Department of Plant Agriculture, I can honestly say that without the mentorship and encouragement I received from Manish throughout my university career I wouldn't have come this far. The Raizada-Kasha lab was also phenomenal in their constant friendliness and support during my time there. From a research perspective, I originally began working in the Raizada lab on the role of hormones in wound-induced stem cell regeneration in Arabidopsis thaliana. Later on, I switched gears and moved into the field of protein engineering, spending some time working on the characterization of E. coli bacteria following specific induced mutation. My last project was a continuation of my previous work in hormones and involved the characterization of different Arabidopsis mutants under varying light, hormone and age conditions. My thanks go to the Plant Agriculture Department for their heartfelt welcome of an engineer, and for greatly enriching my time at Guelph.”
Foodland Ontario Mushroom Ad filmed at Vineland Campus

Just how fast do mushrooms grow? If you have seen the Foodland Ontario mushroom promotion, the answer is measured in seconds right before your eyes.

In cooperation with Foodland Ontario, footage for this mushroom commercial was filmed under the direction of Shin Sugino at the Mushroom Research Facility of the Vineland Campus. Lights, two still cameras and one video camera were placed over the actors. All computer hardware was positioned on the mezzanine floor above the growth chambers. Pictures were taken every five minutes for up to 10 days from the initial knitting together of the mycelium into the mushroom precursors until the mushrooms were market mature.

In the movies, you have heard ‘take two,’ ‘action’ and ‘roll them.’ Well, in developing this mushroom footage, there were four ‘takes’ with lots of action. Two mushroom crops were started and filmed which occurred over each of two mushroom cycles (a.k.a. breaks or flushes). If the ‘actors’ could talk to us they would have complained of being too hot, too dry, too dirty, too dull, too scaly and too breezy. But, despite the challenges and after four takes decent footage was available for the ad. Just for your information, the farm at the beginning of the commercial is a family mushroom farm near Putnam, Ontario.

(Foodland Ontario commercials were also done at Vineland and Simcoe for potatoes, apples and tomatoes.)
UPCOMING EVENTS

2005 PLANT AGRICULTURE CHRISTMAS
DINNER & DANCE
Cutten Club, Guelph
Friday, December 16, 2005
Drinks at 6:30 pm ~ Dinner at 7:30 pm
Tickets:
Faculty ~ $30        Staff ~ $20        Students ~ $16

2006

Landscape Ontario Congress - January 10 to 12, 2006, will be held at the Toronto Congress Centre, Toronto, Ontario. For more information go to: http://www.locongress.com/

Guelph Organic Conference - January 26 to 29, 2006, will be held at the University of Guelph, Guelph, Ontario. For more information go to: http://www.guelphorganicconf.ca/

International Cool Climate Symposium for Viticulture and Oenology - February 6 to 10, 2006 in Christchurch, New Zealand. For more information go to: http://www.iccs2006.org.nz/

Canadian International Farm Equipment Show - February 7 to 9, 2006, will be held at the International Centre, Mississauga, Ontario. For more information go to: http://www.torontofarmshow.com/

Haploids in Higher Plants, III - An international conference on this topic is being held in Vienna, Austria from February 12-15, 2006. The first such conference was held at the University of Guelph in 1974 (this date is not an error) to mark the 100th centennial of OAC. The details of the conference in Vienna can be found at: http://www.unvie.ac.at./gen/conference/haploids/

As part of the International Organizing Committee Ken Kasha said that he has never been asked to do anything for it so it seems to be primarily honorary. Ken still has a few copies of the proceedings of 1974 if anyone is interested in having them for free. Contact Ken at kkasha@uoguelph.ca

Ontario Fruit & Vegetable Conference - February 15 & 16, 2006, will be held at Brock University, St. Catharines. For more information go to: http://www.fruitandveggie.com

Canada Blooms “Garden Party” - March 8 to 12, 2006, will be held at the Metro Toronto Convention Centre, South Building, Toronto, Ontario. For more information go to: http://www.canadablooms.com/

27th International Horticultural Congress - August 13 to 19, 2006, COEX Convention Center, Seoul, Korea. For more information go to: http://www.ishs.org/
Learning in the Library

One of the major improvements to the first floor of the library this summer was increased space and visibility for the Learning Commons. The successful partnership of the Library and Learning Commons has created a great support service for learning, writing, study skills, scholarship, and information literacy, through a variety of innovative online and one on one access points. Everyone is welcome to use these services and encouraged to take advantage of the courses offered. Drop in or book an appointment http://www.learningcommons.uoguelph.ca/ByFormat/IndividualAssistance/DropIn.html

Services offered in the library through the Learning Commons include workshops on learning, studying, time management, writing and referencing, IT workshops on software, and library tours. Consultations with Learning and Writing Peer Helpers or staff are free and confidential. A new tool is Learning Time: Problem-Solving Strategies for Managing Your Time, Your Workload, and Yourself. This is a Web-based workshop which covers a range of time management topics and includes a section for entering students. http://www.webshops.uoguelph.ca/LearningTime/index.html

iU An Introduction to University Learning - This workshop using psychology examples is intended to show what it's like to take lecture notes, process academic text, create integrated study notes, and take a multiple choice test in a university learning environment. http://www.webshops.uoguelph.ca/iU/index.html

The Learning Commons Learning and Studying Fast Facts provide quick hints for effectively dealing with study and writing issues such as: concentration, collaborative group work, managing nervousness during oral presentations, controlling procrastination, exam strategies, and writing essays and lab reports. There are now 30 fact sheets to help students successfully navigate course requirements. Check out the complete list at http://www.learningcommons.uoguelph.ca/ByFormat/OnlineResources/Fastfacts/index.html

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The Learning Commons and the Library also provide Information Technology Workshops with sessions on RefWorks, Word, Excel, OneNote, PowerPoint, Computer Security, and more. CCS now offers Lunch n’ Learn quick technology sessions in the Library Computer Lab. Check out the schedule and complete list at http://www.learningcommons.uoguelph.ca/FallWorkshops.html and http://www.lib.uoguelph.ca/help/research/events.htm#ccs

The Library also works in partnership with Computing and Communications Services through the Data Resource Centre (library lower level near the government documents) to provide training and assistance for users of statistics, large data sets, and Graphical Information Systems programs. Contact DRC staff at http://tdr.tug-libraries.on.ca/Dnotes/drcindex.htm. Explore library GIS service and data at http://www.lib.uoguelph.ca/resources/gis/

2006 New Year’s Resolution #1 - Explore Library Learning Opportunities.

Workshops, library tours, and learning support are available year round. Check the Library and Learning Commons home pages for program schedules and news.

Christmas Comes Early to Vineland

Wayne Brown (OMAFRA-Vineland) seen with just some of the poinsettias he had on display for his Industry/Grower Open House that was held on Friday, December 2nd.
WEB SIGHTS

by Judy Wanner, Liaison Librarian

Biomass Web Sites

A timely website given the high fuel prices of today is the gateway to biomass information at Oak Ridge National Laboratory, the Bioenergy Information Network http://bioenergy.ornl.gov/ sponsored by the United States Department of Energy. This site contains information from the U.S. Departments of Energy and Agriculture and discusses biopower, biofuels, and bioproducts, and has links to other bioenergy/biomass topics, research, and web pages. There is also an image database that includes detailed pictures of trees, herbaceous plants and other “bioenergy crops” used for fuel and fodder. A topical 60 page report is featured on this site: “Biomass as Feedstock for a Bioenergy and Bioproducts Industry: The Technical Feasibility of a Billion-Ton Annual Supply” http://feedstockreview.ornl.gov/pdf/billion_ton_vision.pdf


Finally there is the “Chicken Coupe” or chicken manure powered car described at http://journeytoforever.org/biofuel_library/methane_bate.html

Message from the Chair
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to seek out new and innovative opportunities and funding sources.

Let me end by saying, on behalf of my wife Jane and my sons, Jeff and Greg, I wish you all the very best for the holiday season. May it be a time of peace and enjoyment for you all.