In September, the Department of Plant Agriculture will be delighted to welcome Dr. Katerina Jordan as our newest faculty member and our second in the field of turf management. Although long associated with the Guelph Turfgrass Institute, it has only been recently that we have begun to focus research and teaching efforts in this area. It marks a change in priorities for research and education that will continue as the department evolves and as the OMAFRA contract seeks to address new priorities.

To help guide Plant Agriculture over the next several years, as you are aware we have undertaken a strategic planning and visioning process. This is the first step in a six to eight month long process to develop a strategic plan, but more importantly to develop an operational plan to achieve the benchmarks for success that we will collectively develop and agree on. To date, the process by design has mainly involved a small group (12) of faculty called the MARS team, which have worked intensively with Global Business Builders to develop a strategic vision, objectives and a BHAG (big hairy audacious goal).

This has been the background work necessary to set the stage for the department release of the draft strategic plan on September 30th at the Cutten Club to which everyone in Plant Agriculture will be invited. But this is just the beginning, the real work starts as we set those benchmarks we want to achieve in the next five years and as with everyone’s help we develop the operational and action plans to ensure success. It is these detailed plans that are critical in developing the roadmap for the department and it is here that the talents of all staff and students will be used. All of us who do the work need to be engaged in the development of those detailed plans which are required to bring the Department’s Vision to life. It will be challenging but I am sure very rewarding.

As the summer winds down, I hope everyone had a chance to get in some vacation time with friends and family. As I write this, September is just 10 days away and with that brings a new semester, new graduate, undergraduate and diploma students, the final months of another growing season and a chance to reflect on what the end of 2005 might bring to each of us. May it be good health and happiness for you all.
WELCOME
NEW GRADUATE STUDENTS TO THE
DEPARTMENT OF PLANT AGRICULTURE
(Some students may have been listed in previous newsletters but deferred to Fall of 2005.)

Aaron Bowman, MSc (S.R. Bowley)
Andrew Burt, PhD (E.A. Lee)
Andrea Chambers, PhD (E.A. Lee)
Mary Jane Clark, MSc (J.A. Sullivan)
Raja Ram Khanal, MSc (L. Lukens)
Eric Page, PhD (C.J. Swanton)
Adam Queen, MSc (W. Deen)
Eric Roesler, MSc (C. Chong)
Cynthia Rougoor, MSc (A. Dale)
Mohini Sharma, MSc (G. Paliyath)
Alison Sinclair, MSc (J. Mathur/P.K. Saxena)
Sarah Stephenson, MSc (D. Murr/J. DeEll)
Daryl Vermey, MSc (D. Robinson/C.J. Swanton)

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Raja Khanal

I was born in a small village, on the nap of the Himalayan Kingdom of Nepal. I am from a farming family so I have been connected with plants and agriculture from childhood. When I completed my high school education, I joined the Agriculture College where I obtained my BSc (Agr) degree. I completed my master's degree in sociology from Tribhuvan University, Nepal. I joined the Department of Agriculture under the Ministry of Agriculture and Co-operatives of His Majesty's Government of Nepal as a Crop Development Officer in December 1998. I worked in the field of agricultural research and extension and in close contact with Nepalese farmers. In 2003, I got an opportunity to pursue my master's degree in agriculture from the University of Bonn, Germany with financial support from the German Academic Exchange Service (DAAD).

During my master's thesis, I evaluated 32 rice cultivars in field conditions at varying thermal environments for the possibility of change in planting dates to increase cropping intensity in the mid-hills of Nepal. It was during this time that I became interested in the molecular aspect of plant physiology. This interest connected me with Dr. Lewis Lukens and I joined the University of Guelph.

I am fond of bird watching and cycling and do meditation and yoga.
I grew up in New Liskeard, Ontario, recently christened the city of Temiskaming Shores. For those of you who do not know where that is, it’s about two hours north of North Bay on the Quebec border. I developed a deep interest in science early on in high school with excellent teachers in biology, chemistry and physics. Consequently, I spent a lot of time focusing on these studies and became somewhat of a lab rat.

I applied to the University of Guelph in 2000, drawn by the microbiology co-op program. It was important to me to enroll in a co-op since the field of science is so broad I wanted to reassure myself that I was in the right branch. Working in Labatt’s experimental brewery in London and with viruses and vaccines with Aventis Pasteur (now Sanofi Aventis) in Toronto along with general course/lab work put any doubts I had to rest.

I started my MSc degree in January 2005, immediately after completing my BSc in Microbiology. I jumped at the chance to work with Dr. K. Peter Pauls in Plant Agriculture, researching the possibility of in vivo horizontal gene transfer from transgenic plants (Roundup Ready® corn and soybeans) to common soil bacteria, especially Acinetobacter calcoaceticus. Such gene transfer could have great implications in the regulations for growth of transgenic crops.

I am thrilled to join a team of skilled researchers from the departments of Plant Agriculture, Environmental Microbiology and Integrative Biology, and I look forward to contributing my research to their already extensive study. I am also excited to be working alongside plant biologists and learning more about agriculture from everyone here in the Crop Science and Bovey buildings.

**Congratulations!**

**ROSA AIELLO** for successfully defending your MSc thesis entitled “Effects of exogenous sucrose on the physiology and morphology of tomato” on Friday, August 12, 2005.
Glass Onion to be Planted in the Department, by Jamie Doran

Seven months ago I knew very little about the world of business. These days I find myself worrying about investors, market potential, accounts, lawyers, licensing, trademarks, and the media - not to mention finishing up my doctoral degree. It’s been dizzying to say the least.

Since the fall of 2000, I have been working with Professors Mary Ruth McDonald and Bernie Grodzinski, studying aspects of the photosynthesis and flavour chemistry of the alliums. The research was funded by Earth and Environmental Technology, ETech (formerly CRESTech) as well as the Ontario Ministry of Agriculture, Food and Rural Affairs and the Ontario Fruit and Vegetable Growers’ Association. In simplest terms, the work has centered on understanding the role of environmental stress on the formation of flavour precursor compounds in photosynthetic tissues.

In December of 2004, CRESTech visited our Controlled Environment Systems Research Facility (CESRF) looking for marketable technologies. On the advice of Richard Worsfold, I took a closer look at my research and tried to assess whether it contained any commercial potential. With the help of the University of Guelph Business Development Office I identified three promising technologies. But more importantly, I realized I had a shot at the Martin Walmsley Fellowship for Technological Entrepreneurship (MWF), awarded by the Ontario Centres of Excellence.

To apply for the MWF, candidates must prepare a thorough business plan that includes such things as preliminary market research, business financing plans, a company budget, marketing and advertising strategies, and business development milestones. In short order I had to learn the basics of starting a business, research the potential of each of my identified technologies and project revenues - all new skills for a scientist.

The hard work paid off this past June when I was awarded the MWF, worth $100,000 paid over a two year period. The funds will be invested into my new company, Glass Onion that officially starts September 1st, 2005. The success of my application owes many thanks to the diverse group of people who now make up the Glass Onion Advisory Council, covering areas of business development, research and industry. Special acknowledgements must go out to Jeff Huber, who has been instrumental in every aspect of...
Continued from page 4...

the business development and will soon be a member of the Board of Directors and Derek Grady who designed our outstanding company logo.

Glass Onion is built around five business streams, which will be developed over several years, and a research and development division. We will be marketing a pungency assessment tool, methods for producing highly concentrated allium extracts, high-value greenhouse-grown alliums, greenhouse production technologies and eventually clean garlic seed. Each of the business streams builds upon one another and targets specific niches in the allium industry. The research and development division will be an ongoing component of our operations.

The Glass Onion team is enthusiastic and confident about the future of the company. With the continued support of the industry, the Department of Plant Agriculture and our Advisory Council we are preparing to implement our business plan. We intend to work closely with Bioenterprise, a not-for-profit company that assists scientists in the commercialization of their innovations. For a more detailed explanation of the business potential of Glass Onion please feel free to contact myself (jadoran@uoguelph.ca) or Jeff Huber (jhuber@uoguelph.ca).

Perhaps the most important aspect of the MWF is its insistence on the participation of the sponsoring university. As a result, negotiations are already underway to establish Glass Onion as an active part of the Department of Plant Agriculture. This will open up opportunities for research collaborations, graduate positions, network grants and other industrial partnerships.

Now at the end of the summer I find myself in the netherworld between science and business. As I write the final chapter of my thesis I witness the closure of five years of research and yet the beginning of a whole new chapter. I feel more confident in my business knowledge and honoured to be this year’s only winner of the MWF. I am excited about the future of Glass Onion and would encourage anyone to explore the possibilities of business.
Benjamin Chapman

I was born in Toronto, and grew up in the agricultural town of Port Hope. My family has no roots in agriculture whatsoever, so it was a bit of a surprise to them that I have chosen to study in our department. I completed a BSc in molecular biology here at Guelph in 2001 and recently completed an MSc in our department with Dr. Doug Powell. I focused on on-farm food safety programs for the horticulture industry, evaluating effectiveness and communication tools.

I began PhD studies in May, continuing to look at food safety risk management, though examining issues further down the farm-to-fork continuum: the food service industry. I will be exploring the effects of restaurant inspection information disclosure systems on operators, inspectors and patrons. I hope to compare our systems for posting information here in Ontario to those in the United States, Ireland and New Zealand.

When I am not researching I spend much of my time immersed in hockey, either playing pick-up during lunchtime three times a week, or watching the Guelph Storm. It is very convenient to have my office located next to the arena.

I hope to stay in academia when I complete my degree. I enjoy the learning environment that has developed within the food safety network, especially the opportunities to aid in reducing food borne illness through better management and communication strategies.

Cheryl Trueman has been awarded an NSERC IPGS (Industrial Postgraduate Scholarship). Cheryl is co-supervised by Drs. Mary Ruth McDonald and Alan McKeown.

Industrial Postgraduate Scholarships provide financial support for highly qualified science and engineering graduates. The support allows them to gain research experience in industry while undertaking advanced studies in Canada. These scholarships are aimed at encouraging scholars to consider research careers in industry where they will be able to contribute to strengthening Canadian innovation.
ATTENTION ALL GRAD STUDENTS!
Time to get SOCIAL!

The OAC-GSC is the graduate social committee for the Ontario Agricultural College. This small but ambitious group of students from across the OAC meets every few weeks to plan social events for you!

Several events are being planned for the Fall semester, mark your calendars!

***These events are not limited to grad students... bring your friends, co-workers... or maybe even a few of your committee members.***

- **Grad Student Pig Roast**
  - Friday, September 23 from 7:00 pm to Midnight.
  - This is the event of the year, don’t miss out! Participants are bussed from Guelph to a ‘mystery location’ where they are welcome to de-stress by consuming beer, pork, or the vegetarian option. Did I mention the big fire?
  - More details will be sent out over email... or contact your GSC-OAC rep, Cheryl Trueman, via email: ctrueman@uoguelph.ca

- **Aggie Pub**
  - You can’t be a student at Guelph without experiencing this great cultural event! Drag your cowboy boots out of the closet and dust off that old hat!
  - Aggie Pub will be on a Wednesday night during the fall semester. Pub theme, date, and ticket sales to be announced later.

- **Bowling?!?!?!**
  - That’s right folks, the annual OAC bowling tournament! Dress up in your favourite crazy attire and head out to the bowling lanes to knock down some pins!
  - Held in November, date and time to be announced later.

The OAC-GSC needs you! I am looking for a buddy on the committee, preferably someone stationed in the Bovey building. Interested?

Contact me at ctrueman@uoguelph.ca. No experience needed, and it’s a very low time commitment!
Hello Plant Ag. I’m a research associate working with Manish Raizada in the Crop Science building.

A ‘late developer’ in plant science, I managed to make it through a bachelors in biological sciences (Lancaster, UK - very damp bit in the north west) with the minimal compulsory plant content. However, thanks to some excellent tutors, I did leave with a vague feeling that there might be more to these green things. Still, when I started applying for doctoral programs at various departments my declared interests were: cancer, antibiotic-resistance and possibly endoparasites, if pushed. Thankfully, one of my first respondents completely ignored this penchant for unworthy subject areas and suggested a meeting. So, I added Ottoline Leyser (York, UK - slightly less damp bit in the north east) to the list of grad school interviews and went off to the library to find out what auxin was.

Before Ottoline I had appreciated that plants were enormously important. You know, primary production (that “all flesh is grass” thing), food, civilization, 10s of 1000s of useful secondary metabolites and a picturesque alternative to housing sub-divisions. However, after an hour interviewing with Ottoline the green guys and developmental questions pertaining to them, had also become…. interesting. Maybe they put some secondary metabolites in my tea?

Anyway, thanks to Ottoline’s outstanding mentorship I still found plant development interesting when I finished my PhD in 2000. Doctored-up, I went straight to work in Thomas Berleth’s lab (U of T - surprisingly dry by British standards), where knowing what auxin was also proved useful. In the next two years I learnt a great deal under Thomas’ tutelage and even forayed into the world of genomics.

Next stop Guelph (late 2002), with 3000 glow-in-the-dark-plants under one arm I arrived at the lab of Manish Raizada. Fortunately, Manish proved quite susceptible to the secondary metabolites I put in his tea and I was hired to help investigate in vitro shoot-organogenesis. Thus, I find myself addressing fascinating questions in plant development for a top-notch PI situated in a really great department. If the elevators functioned properly I’d be in paradise.

Manish’s ‘Team Shoots’ is currently working on publishing our results to date, but we still try to find time to hurt plants under aseptic conditions. I am currently working on being Canadian, since my residency just came through. To date I’ve resisted the temptation to invade anyone’s country and managed to sample a quite few tasty beers while enjoying the hockey. Next year I learn to skate.
~SCIENTIFIC BULLETIN BOARD~

Publications

Boris Voigt, Antonius Timmers, Jozef Samaj, Andrej Hlavacka, Takashi Ueda, Mary Preuss, Erik Nielsen, Jaideep Mathur, Neil Emans, Harald Stenmark, Akihiko Nakano, Frantisek Baluska and Diedrik Menzel. Actin-based motility of endosomes is linked to the polar tip-growth of root hairs. EUROPEAN J. CELL BIOLOGY. 84; 609–621.2005.


► Dr. Barry Micallef, along with Tom Papadopoulos from the Agriculture Canada Research Station in Harrow, Ontario, and greenhouse vegetable extension specialist Shalin Kosla from OMAFRA received a grant from the Ontario Greenhouse Vegetable Growers worth $180,000 over three years (2006-2009). The grant is entitled "The use of hydroponic sucrose supplementation to improve greenhouse tomato production under low light and low temperatures."

► Dr. Calvin Chong will be on sabbatic leave from September 2005 to April 2006. As part of this study leave, Dr. Chong will be preparing two Best Management Practices (BMPs) manuals dealing with the following environmental issues: 1) recycling of wastes and composts, and 2) nutrient recycling and management. These manuals will be published by Landscape Ontario for the benefit of the nursery/landscape industry.
Mission to China, by Dr. Clarence Swanton

Access to educational and research opportunities within China will be limited only by our imagination and our ability to sustain lasting partnerships. These partnerships must be built upon mutual trust, a common strategic vision, and nurtured through cultural sensitivity. The objective of this trip was to explore the potential for strategic partnerships in teaching and research with selected Chinese agricultural universities located primarily in central and southeast China. From February 25 through to March 11, 2005 visitations were made to the Canadian Embassy and the Academy of Agricultural Sciences in Beijing, the Canadian Consulate in Shanghai, and four universities located in Beijing, Guangzhou, Nanjing and Hangzhou. Each of the four universities selected is recognized both nationally and internationally as outstanding universities in teaching and research. Discussions with each institution or university focused on the potential for strategic and sustainable partnerships involving undergraduate and graduate training opportunities as well as postgraduate professional certificate training.

The Food Safety Network to Establish an E-Community

The Department of Plant Agriculture’s Food Safety Network, under the direction of Dr. Doug Powell, has received project funding under the second round of the Advancing Canadian Agriculture and Agri-Food (ACAAF) Program. ACAAF is a five-year, $240-million program launched in April 2004 to replace the Canadian Adaptation and Rural Development (CARD) Fund.

The Food Safety Network will receive up to $171,500 for the project “Building a Network of Food Safety Communicators.” The project meshes with an ACAAF program objective to share information to advance the sector. Dr. Sarah Wilson of the Food Safety Network will take the lead in completing the project.

The project will build a framework to facilitate the sharing of information amongst food safety communicators across Canada and internationally. The ability to effectively communicate about food safety or any perceived risk is recognized as an integral component of a risk management strategy.

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The goal of food safety messaging is to influence behaviour, ultimately resulting in improved food handling practices and consequently a reduction in the incidence of food-borne illness. Information provided by various groups engaged in food safety communications should be harmonized, coordinated, and effective. Without an established network for sharing information, communicators risk confusing consumers through the provision of conflicting or inconsistent information.

Building from the foundation created by the National Consumer Food Safety Communications Strategy, the Food Safety Network will establish an electronic community (e-community) for communicators to discuss current and emerging food safety concerns and methods for providing information on these concerns, and will create a repository of on-line resources tailored to the needs of food and health professionals. An annual meeting of food safety communicators will provide opportunities for face-to-face discussions of current and emerging issues of relevance to food safety communicators. The ultimate goal of the project is to advance public dialogue about food hygiene, to enhance confidence in the Canadian food supply, and to encourage domestic consumption and expand international markets.

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Japanese Tree Fruit Research Team Visits Canada

A team of Japanese tree fruit researchers visited Canada on an initiative from the Nova Scotia Agricultural College. Their visit is to explore the possibilities of collaboration between Japan and Canada in tree fruit research. As a part of their tour, they spent time at our Vineland Station and the Niagara Region. A half day discussion with Drs. Jay Subramanian, John Cline and Gopi Paliyath was followed by a field tour of the Vic farm for these delegates.
When you hear “UPS” what comes to mind? United Parcel Service, the latest pin ups, cinnamon rollups, tune-ups, close-ups, runner-ups, pushups? How about **uninterrupted power supply**?

With our recent heat wave, Ontario Hydro had threatened rolling blackouts/brownouts if they could not meet demand for electricity in the province. Thunderstorms are another common source for loss of power. So how does one protect electronic equipment and even stay running during these electrical “events”?

The first line of defense for reliable electrical power is a good surge protector. This device will suppress any electrical spikes that might be introduced to the line voltage. Their ratings are usually the amount of Joules of energy they can suppress (i.e. 200 Joules) with a higher value being a better unit. Your typical power bar should always have some level of surge protection for EVERY piece of electronic gear. Power surges have also been known to travel down phone lines, so if you’re connected to the Internet via a phone line, even a digital subscriber line, the surge bar or UPS should provide ‘in’ and ‘out’ RJ-11 jacks with surge protection.

Next, a battery backup unit or uninterrupted power supply (UPS) will provide simulated AC (alternating current) power when the power coming out of the outlet becomes unstable due to low voltage (brown outs), or no power at all. A UPS with a rating of about 400VA (volt•amps\(^1\)) is about the smallest you should use for a low-powered system with a small monitor or LCD flat panel. Both APC and Tripp Lite have online guides for selecting the right size of UPS (see the links at end of article).

Make sure your unit has enough outlets to handle your needs. Some of the outlets will be backed up by the battery; use them for essentials like your PC and monitor. Others will have surge protection only; use them for nonessential peripherals like printers and scanners. (Running peripherals off the UPS, especially power-hungry laser printers, can dramatically reduce battery run time.)

\(^1\)VA = 120 VAC multiplied by the electrical current consumed. If you only know the Watts required, multiply it by 1.82 to determine the VA value. For example, if your monitor uses 2 amps (2 x 120 = 240 VA) and your computer uses 100 watts (100 x 1.82 = 182 VA) or a minimum total capacity of 422 VA.

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The running time on battery will of course be affected by the load. Typically units at full load are rated for approximately 10 minutes. Therefore, over sizing the UPS unit will get you longer running time on the battery. Under rating a unit will draw too much current and pop the unit’s breaker.

Good UPS units will have a way (USB connection and software) that the computer can monitor the status of the UPS unit. If the UPS is close to shutting itself down, it will signal the computer to begin shutdown procedures which could include saving an open Word document.

So, unless you are already using a notebook computer that runs on a battery, you should consider having your desktop computer running off a UPS.

References

APC UPS selector guide:
http://apc.com/tools/ups_selector/index.cfm

Tripplite UPS system selector:

VINELAND CENTENNIAL CELEBRATIONS - 1906 to 2006
“Celebrating a Century of Successes”

Highlights of events during our Year of Celebrations - 2006:

• Publication of the 100-year history of the Horticultural Experiment Station at Vineland Station
• Seminars for the horticultural industries and academic communities: Current Issues in Horticulture
• Tours and discussion sessions for growers: Current Research Activities
• Open House - a community celebration for all with self-guided tours of facilities, heritage varieties, the Millennium Forest including the Station’s Gardens (Saturday, August 26, 2006)
• A Homecoming, hosted at the Station, for all former and present staff members of the Experiment Station and their families (Saturday, August 26, 2006)
• The Centennial Celebration Dinner - the culmination of the Year of Celebrations, and the focus for the future (Saturday, January 27, 2007)

More details on our Year of Celebrations to come in the months ahead.
PLANT AGRICULTURE PICNIC

August 11, 2005
Guelph Turfgrass Institute
FOOD AND FUN FOR EVERYONE!
GUELPH TRIAL GARDEN

Visitors to the Guelph Trial Garden on August 4, 2005 pick out their favourites in the All-America Selections (AAS) Bedding Plant Trial display area. The ornamental pepper ‘Black Pearl’ and the zinnia ‘Zowie Yellow Flame’ were the most popular AAS entries.

BILL LAY RETIREMENT PARTY
Hernder Estate Winery - Friday, August 12, 2005

More pictures on the next page.
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CONGRATULATIONS Bill (Tree Fruit Breeding Technician-Vineland) on over 32 years of service to the tender fruit industry!

Cherry Lovers Have Good Taste!
COMING EVENTS

2005

Canada’s Outdoor Farm Show - September 13 to 15, 2005, at the University of Guelph Research Station, Woodstock, Ontario. For more information go to: http://www.outdoorfarmshow.com/

International Plowing Match 2005 - Perth County (Rural Expo) September 20 to 24, 2005. For more information go to: http://www.ipm2005/org/

Norfolk County Fair and Horse Show - October 4 to 10, 2005, at the Simcoe Fair Grounds, 172 South Drive, Simcoe, Ontario. For more information go to: http://www.norfair.com/

Royal Agricultural Winter Fair - November 4 to 13, 2005, at the National Trade Centre, Exhibition Place, Toronto, Ontario. For more information go to: http://www.royalfair.org/

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/

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/
New Doors, New Floors, and Much More at the Library This Fall

Renovations at the library are finally complete from top to bottom. After many years of planning and fundraising, the entire library is now “looking good.” Start your visit by entering through the new doors and new security system designed to speed the traffic flow. Reference, reserve, and circulation services are in the same location but surrounded by new carpet and arrangements of soft seating and tables. A new lounge for reading and quiet conversation has been created in the former AV area on the main floor. Our coffee shop is open for business as usual.

Reserve services have a new name: E-Learning Operations and Reserve Services, and a new focus on providing access to information in electronic formats and integrating electronic content directly into the learning process. This name change reflects the changing nature of the course support services that Reserve has been providing over the past few years from a primarily print collection to the present online course materials that can be accessed anytime, from anywhere.

Print reserve service, AV materials, and lap top computers, will continue to be provided at the usual service point near the circulation desk, but faculty and teaching assistants wishing to submit materials or consult with E-Learning and Reserve staff will now do so at the new location behind the oak wall to the right of the main reference desk. Look for the orange doors. Other contact options for submitting reserve materials are by phone at ext. 53621, e-mail libres2@uoguelph.ca or the online course reserve list manager. Susan Irvine is the new reserve co-ordinator.

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**E-Learning Operations and Reserve Services** will provide support and assistance with:

- Converting traditional course reserve lists to electronic formats for online use.
- Obtaining and paying for copyright permission so that book chapters, articles and other print course materials can be used in electronic formats.
- Providing electronic content that can be integrated directly into Web CT or on course web sites.
- Providing stable links to full text articles in electronic journals or e-books.
- Organizing and storing electronic course content for use in future courses.

**Learning Commons** services have expanded near their traditional location to increase service capability. Take a look at their newest online research support aid, *iU: An Introduction to University Learning* at [http://www.webshops.uoguelph.ca/iU/index.html](http://www.webshops.uoguelph.ca/iU/index.html) This five part workshop is intended to show students 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. The workshop focuses on a very small part of an introductory Psychology but can be used for a variety of classes.

**TRELLIS Catalogue** – A new look and 50,000 new agricultural records. The TRELLIS catalogue has been reformatted with a new look and also now includes 50,000 new library records reflecting material held at the three OAC College libraries in Alfred, Kemptville and Ridgetown. These developments are the result of the completion of two year long projects to improve the TRELLIS search screen and to bring the college library collections into the mainstream of the university catalogue, making them more visible and accessible to the entire university community.

As always the library welcomes your comments and feedback concerning these changes. We hope you will find the new look and the new services inviting and useful.
WEB SIGHTS

by Judy Wanner, Liaison Librarian

GOOGLE EARTH - A 3D Interface to the Planet

Google – we all use it constantly in our quest for information from the web but many users are not aware that Google is constantly adding new features and options. [http://www.google.com/intl/en/options/]

Google Earth [http://earth.google.com/] is Google’s new worldwide satellite imagery-based mapping product that combines 3D buildings and terrain, with mapping capability and Google search technology. Google Earth enables users to fly from space to street level views to find geographic information and explore places around the world from different angles. Presently there are 40 American cities that have 3D views. Beyond marking individual points of interest, Google Earth gives you over 100 available geographical and business overlays to choose from, ranging from restaurants and other businesses to weather, crime statistics, and geology.

The basic version is free. A Plus version of Google Earth ($20 per year) adds the ability to draw shapes on maps and to import data from common GPS devices. The business-oriented Pro version ($400 per year) increases resolution for printing and lets you save your fly-by tours as video files for animations.

Google Earth integrates with the Google Map service [http://maps.google.com/] to convert your map into an aerial satellite view.