



University & faculty settle

The University of Guelph Faculty Association has ratified a salary agreement with the University that provides faculty and professional librarians with a basic increase of four per cent, effective July 1.

All faculty and librarians will receive an increase equal to two per cent of their individual salaries, plus a lump sum equal to two per cent of the average salary of their respective groups. For faculty, this lump sum is \$1,016; for librarians, it's \$848.

The agreement calls for a further 0.4-per cent increase effective Jan. 1, 1987, to be paid in a lump sum — \$203 for faculty and \$170 for librarians. There will also be the usual selective increases made on the basis of performance.

The University will provide 0.1 per cent of faculty salaries, a total of \$38,000, to correct salary anomalies. This money will be disbursed on an individual basis, as cases are identified by department chairmen and college deans. The agreement also raises the professional allowance for each faculty member from \$167 to \$225 per year.

The University and the UGFA have agreed to institute an undergraduate tuition scholarship plan for dependent children of faculty and librarians. All dependent children who satisfy Guelph's entrance requirements and are full-time students will be eligible for a scholarship.

Regular faculty and librarians will contribute 0.25 per cent of their annual salary towards a scholarship fund pool, and each year the value of the scholarships will be calculated by dividing the funds available among all the eligible students. The maximum value of the scholarships will be equal to current BA program tuition fees.

The highest number of semester scholarships that can be received by any student is eight. In-course students can maintain a scholarship by satisfying the academic requirements needed to continue in their program. The scholarships are also tenable at any reciprocating university in Canada.

Anyone wishing to receive a scholarship for any semester in 1986/87 must inform the student awards office by Aug. 15.

The University has also agreed to allocate \$10,000 in 1986/87 to subsidize half the cost of using the Athletics Centre facilities for faculty and librarians. 0



Photo by John Magroosky, Illustration Services

Chris and Linda Lusty

Iron ring ritual is a "wedding" tradition

A sixty-year-old engineering tradition became a family tradition for sister and brother Linda and Chris Lusty when they joined 200 others in the annual "Ritual of the Calling of an Engineer" held recently on campus.

During the ritual, which is also known as the "Iron Ring Ceremony," graduating engineers receive iron rings from practising engineers to marry them to the profession. This year Chris Lusty, a 1982 Guelph graduate who works for Mandel Scientific Co. of Rockwood, presented a ring to his sister Linda, who graduated in February.

The uniquely Canadian ceremony, which symbolizes pride in engineering integrity, is closed to the public. Prof. John Ogilvie,

director of the School of Engineering, says engineers see it as a "quiet commitment to the calling" of their profession.

The idea for the ceremony originated with Prof. Herbert Haultain of the University of Toronto, who was looking for a way to recognize professional integrity. Reading a poem by Rudyard Kipling, he was inspired by the line: "But iron — cold iron — is master of them all." He wrote to Kipling, explaining his idea for a ritual similar to the Hippocratic oath taken by doctors, and Kipling responded by outlining the complete ceremony still in use today.

The rings, now made of stainless steel, are worn by engineers on the fourth finger of their working hand. 0

Build bigger budget: Board of Governors

"Let's all work to get a bigger budget." That's the directive Board of Governors gave last week as it approved the University's 1986/87 budgets from the Ministry of Colleges and Universities and the Ontario Ministry of Agriculture and Food.

Walter Hanbidge, acting board chairman and chairman of the finance committee, praised the University for handling the difficult past year "with great integrity and great care." And he lauded this year's budget process, which allowed the University community to explore the budget for the first time.

Noting that the 1986/87 budget has little flexibility, Hanbidge said there must be other ways besides provincial government funding to get more money. President Burt Matthews told the board that Guelph is exploring every possible way to get more non-government support.

Later in the meeting, on another matter, Matthews said he believes the government — including the premier, the treasurer and MCU — is committed to the university cause, and

that universities are in for better treatment than in the past. "Anything we can do to help the government convince the public that we are important will make its task a lot easier," he said.

Prof. Bruce Stone, dean's office, OAC, a Senate representative to the board, pointed out some of the implications of the budget, including the cancellation of eight faculty positions and a freeze on two others in OAC. He said Senate, which deals with academic matters, does not take into account the financial implications when it approves new programs. The University must have a better mechanism to ensure that before new commitments are made, there are decisions on what will be ended or cut back, he said.

Copies of the budget approved by the board, together with background information, are in the hands of every senator, including deans and department chairmen. Members of the University community can obtain a copy by contacting the University Secretariat at Ext. 2114. 0

University Centre budget approved

The University Centre's budget for the 1986/87 fiscal year received the blessing of Board of Governors last week.

The \$1.7-million budget shows an income of \$118,870 before money is spent on capital expenditures and major repairs and replacements. The budget shows a slight surplus of \$13,510, a brighter picture than anticipated because the University has agreed to share 60 per cent of the costs associated with providing meeting rooms to non-student accredited organizations, and with refurbishing the rooms.

There will be no increase in the fees charged to students or the Faculty Club, and revenue forecasts have been adjusted to reflect a campus-wide drop in the consumption of alcoholic beverages in licensed facilities. UC director Ron Collins said beverage sales in the Brass Taps are down \$20,000 from last year in spite of price increases.

Ticket sales to adult cultural events in War Memorial Hall were also off during the fall and

winter semesters. Sales for children's shows, however, were better than ever, Collins said.

If the UC programming department wants to become more active, it must be more cautious when choosing performers and shows, and look at other successful events such as the annual craft show, Fair November, Collins told Board of Governors.

In 1986/87, the UC plans to spend \$20,000 on the Brass Taps — for freezers, replacement of smoke eaters in the filter system and an interior paint job. Another \$21,000 is to be spent on computer equipment for UC administration. And \$64,360 is earmarked for building management — tables and chairs for Peter Clark Hall and Level 3 and 4 meeting rooms, tiered seating in the courtyard, replacement of a portion of the portable staging, renovation of the music practice room, replacement of the overhead sound system in Peter Clark Hall, and refurbishing of the lounges in the courtyard area. 0

Appointments

Kris Inwood of St. Mary's University, Nova Scotia, will join the Department of Economics July 1 as assistant professor in an already established position.

Jay Majithia has been reappointed chairman of the Department of Computing and Information Science for a second term of three years beginning Jan. 1, 1988.

David Holmberg of the veterinary teaching hospital at the University of Saskatchewan will join the Department of Clinical Studies in an established position as associate professor July 1.

Prof. Len Conolly, chairman, Department of Drama, will be acting dean of the College of Arts from May 1 to Aug. 31, 1987, while Dean David Murray is on administrative leave. Prof. Harry Lane will be acting chairman of the Department of Drama during that time.

Prof. Rod Gentry will be acting dean of the College of Physical Science from July 1 to June 30, 1987, while Dean Jack MacDonald is on administrative leave. Prof. Ernest Dalrymple-Alford, Psychology, will be acting dean of the College of Social Science from July 1 to June 30, 1987, while Dean John Vanderkamp is on administrative leave. 0

Tuition fees increase 4 per cent May 1

Tuition fees at Guelph for 1986/87 will rise by four per cent May 1. Board of Governors approved the increase, which is within guidelines defined by the Ministry of Colleges and Universities, last week.

Undergraduate, associate diploma and graduate tuition fees per semester are as follows:

Undergraduate

Canadian and permanent residents

Full-time: BA, general studies and unclassified, \$614; B.Sc., B.Sc.(H.K.), B.Sc.(Agri, B.A.Sc.; B. Comm. and DVM, \$631; BLA, \$636; B.Sc. (Eng.) \$685; and Associate Diploma in Agriculture, \$180.

Part-time: per course, \$126.

Auditing of courses: per course, \$75.

Co-operative education, \$115.

Visa students

Full-time Group 1 (Type A), arts and science and any other program formula weighted at 1.5 units or less, \$2,167. Full-time Group II (Type B), all other programs, \$3,532. Part-time Group I (Type A), \$436. Group II (Type B), \$704.

Associate Diploma in Agriculture: full-time, \$360; part-time, per course, \$220.

Graduate

Canadians and permanent residents:

Full-time: residency, \$464; post-residency, \$308. Part-time: \$308. Special non-degree: per course, \$154.

Visa students:

Before Sept. 1, 1982: Full-time: residency, \$1,100; post-residency, \$734. Part-time, \$734. Special non-degree: per course, \$367.

After Sept. 1, 1982: Full-time: residency, \$2,527; post-residency, \$1,684. Part-time, \$1,684. Special non-degree: per course, \$842. 0

Briefly

UNIVERSITY EMPLOYEES have received an information package from the Personnel Department providing a personal report of their employee benefits. In September, Personnel will give employees more detailed information on the University's pension plans, and will hold town meetings to discuss the plans.

THE ROTARY FOUNDATION of Rotary International offers scholarships for graduate, undergraduate, vocational and journalism students, and teachers of the handicapped. Anyone wishing to apply for a scholarship for 1987/88 should contact Prof. Tom Funk, Agricultural Economics and Business, Ext. 3427. Deadline for applications is Oct. 1.



Drawing by Guelphia, Publication Services

Fill 'er up . . . with vegetable oil

Farmers may soon be able to fuel their tractors from crops in their own fields. Prof. Peter Southwell, School of Engineering, is developing an oilseed extraction process suitable for on-farm use.

Research initiative for the project came from the Ontario energy and agriculture policy committee, which was established to find ways to help the farming industry adapt to rising fuel costs and possible future scarcities. A member of this committee, Southwell became involved in research to develop alternative fuels as part of the solution. He says oilseed fuels are the only suitable fuel substitutes for the diesel engines commonly used in agriculture.

Four tractors were operated on vegetable oil fuels for almost 2,000 hours on University farms without any serious problems, he says. Because oilseed fuels tend to be viscous, especially at cooler temperatures, they were blended with diesel fuel.

Southwell says the experiment was a good example of a co-operative effort — the University provided the initial funding, as well as tractor drivers through Research Station Services, the Ontario ministries of Energy and Agriculture and Food provided additional funding, and Massey Ferguson Ltd. lent a tractor.

The prime oilseed fuels for use in diesel engines are sunflower, soybean and rapeseed. Southwell is concentrating on rapeseed and soybean, both grown in Ontario. An advantage

of rapeseed is that it can be grown in northern Ontario, away from prime food production areas. Researchers in South Africa, North Dakota and New Zealand are working on sunflower oil as an alternative fuel.

Southwell hopes to soon provide Ontario farmers with an economical and efficient small-scale extraction system. They will then be able to process their own crops to produce oil to fuel their equipment and a high-protein meal to feed their livestock. This fuel should be cheaper than petroleum fuels, he says.

"Some people argue that we shouldn't be using farmland to grow fuel when there are people starving," he says, "but this argument is out of date, especially with regard to oilseed fuels, because the co-product is a high-protein feed for animals — or for humans." O

● Our people

The Department of Financial Services is hosting a wine and cheese reception May 6 for Bob McEwen, policy, procedures and contracts officer, who is retiring May 1. The reception is from 4 to 6:30 p.m. in Room 442, University Centre. Anyone wishing to attend should contact Patricia Mennie, Ext. 3836.

Campus look important to BofG

Board of Governors wants to have a say in how the campus will look in the future. President Burt Matthews assured board members last week that they would see any proposed changes to the University's master plan.

The board was dealing with a letter from the Local Architectural Conservation Advisory Committee that said a delegation of Guelph students has brought to its attention that there is a schedule of demolition for five buildings on campus. LACAC said the students have asked the committee to look into plans to demolish Zavitz Hall because they care about the building and believe it is ideally suited to the needs of the Department of Fine Art.

LACAC said the University has a responsibility to society to preserve its past, and it asked that plans be made to allow for the retention, renovation and use of Zavitz as well as Day and Blackwood halls.

Matthews said no immediate action is planned to tear down Zavitz Hall, and that it is premature by at least one year to talk about plans. He said there is the prospect of several new capital projects, and that the master plan, last revised 10 years ago, will be reviewed in the near future.

Guelph is blessed with beautiful old buildings, said Matthews, but there is extra cost involved in preserving their heritage aspects. There have been some suggestions that a restoration fund be part of the the on-campus fund-raising campaign, he said, but this is still at the discussion stage.

Board member Walter Hanbidge said BofG is concerned about the look of the campus, and that any changes will be well reviewed by its members. He said the board should see plans before any old buildings are torn down. O

Chemistry education award to Lange

Prof. Gordon Lange, Chemistry and Biochemistry, has won the 1986 Union Carbide Award for Chemical Education. The award, sponsored by Union Carbide Canada Ltd., is for outstanding contributions to chemical education.

"Get some Lange clones and let them teach every subject," is how one of his students has described his teaching ability. Lange teaches undergraduate and graduate students, develops courses and teaches a course on chemistry and society to non-science students.

The award consists of a \$750 honorarium and scroll. The presentation will be made at the 69th Canadian Chemical Conference of the Chemical Institute of Canada in Saskatoon in June, where Lange will deliver the award lecture.

The CIC is the 9,500-member national scientific, educational and professional organization of chemists, chemical engineers and chemical technologists. O

Math & Stats has role in Sierra Leone health program

Two Guelph professors have become involved in improving community health care in West Africa, by supervising the studies of Sierra Leone zoologist Dr. Reginald Basimi. Basimi, who arrived at the beginning of February, is here until the end of June, working under Profs. John Hubert and Ed Carter, Mathematics and Statistics.

Basimi is studying statistics, which he, in turn, will teach to West African paramedics at the University of Sierra Leone Community Health Centre, beginning this fall.

Paramedics in Africa often run clinics on their own and are primary care-givers for remote areas, says Basimi. They are responsible for collecting community health information in their areas, but are hampered in their efforts because they are generally not well-versed in statistics. A knowledge of statistics will help them in designing preventive health care programs, he says.

The new curriculum at Sierra Leone will teach basic statistical concepts and their appli-

cations — to help paramedics recognize and record significant data in the field.

Hubert and Carter have designed an immersion program in statistical methodology for Basimi to follow. Basimi says the Department of Mathematics and Statistics's innovative teaching manuals make learning statistics easier than traditional methods of instruction. He plans to use methods developed at Guelph to teach statistics both to the paramedics and to his own zoology students.

Basimi is one of four Sierra Leone academics now training in Canada who will form part of the teaching staff of the department of community health at the University of Sierra Leone. Founded in 1979, the department has been assisted by World University Services Canada and the Canadian International Development Corp. Through these agencies, Canada has provided Sierra Leone with research equipment, teaching resources and professional training for faculty members involved in the project.

Basimi's study period at Guelph has been made possible through a WUSC fellowship. 0

Ontario racing industry contributes to equine centre

The Ontario racing industry has voted to contribute an estimated \$750,000 over the next five years towards construction of the Guelph Centre for Equine Research.

The thoroughbred and standardbred industries voted unanimously to allocate one-half of one per cent of the rebate they receive from the provincial government's tax on pari-mutuel wagering to the centre. This year, the standardbred industry will contribute \$148,000 through the assessment; the thoroughbred industry will contribute \$101,000.

The racing industry will continue its allocation of \$80,000 a year towards equine research at Guelph, and will also give the centre \$300,000 in rebate funds that have accumulated in recent years.

Frank Drea, chairman of the Ontario Racing Commission, says this unanimous decision "means every person employed in the racing industry in Ontario will be putting money into the centre. This is an outstanding demonstration of the responsibility and leadership within the racing industry." 0

Briefly

THE GUELPH and District Multicultural Centre Inc. is sponsoring citizenship development classes for people preparing to become Canadian citizens. Classes run from 7:30 to 9:30 p.m., May 13 to June 3 at the centre, 128 Woolwich St., Suite 203. To register, telephone 836-2222. Registration fee is \$10.

THE ARBORETUM and the Department of Music present Spring at the Arboretum May 4. There will be guided walks in the spring woods at 1 and 3:30 p.m., and a free concert in the Arboretum Centre at 2:30 p.m. The concert features the Classical Trio, with Jean Lamon on violin, Christina Mahler on cello and Boyd McDonald on fortepiano. Lamon is concertmaster of the Tafelmusik Baroque Orchestra in Toronto, Mahler is principal cellist with that orchestra, and McDonald teaches at Wilfrid Laurier University. Their program will consist of "Trio in E minor XV:12" by Haydn, "Trio in E flat, Opus 1" by Beethoven, and the premiere performance of "Dompe," which was written for the trio by Owen Underhill.

THE UNIVERSITY OF GUELPH received credit for its footage on seals in a prize-winning BBC series, "Kingdom of the Ice Bear." The film on harp and hooded seals was shot by Norm Lightfoot of Media Production Services when he was working on the films "The Hooded Seal" and "The Harp Seal" for the College of Biological Science. The three-part series was recently shown on the American Public Broadcasting System program "Nature," and is expected to appear on Canadian television in the near future.

A RETROSPECTIVE exhibition of the work of Guelph artist Evan Macdonald will run at the Macdonald Stewart Art Centre until June 22. The exhibition presents a survey of Macdonald's works through the 1940s and 1960s, including items from the University's collection, the artist's estate and private loans. Macdonald was awarded an honorary LLD by Guelph in 1970.

THE MACDONALD STEWART Art Centre is organizing a juried exhibition of contemporary overshot weaving open to artisans in Wellington County and an exhibition of historical coverlets. Weavers producing textiles in overshot weave are invited to submit up to three pieces for consideration for the exhibition by juror Adrienne Hood, a textile specialist with the Royal Ontario Museum. Entries will be accepted at the art centre from noon to 5 p.m. June 10, 11 and 12. There is a \$2 entry fee per item. An opening reception for the exhibition will be held June 28 at 3 p.m., with demonstrations of weaving by members of the Guelph Handspinners and Weavers Guild. For more information, telephone 837-0010.

OPEN HOURS for the veterinary science section of the Library from May 5 to Aug. 10 are as follows: Monday to Thursday (except holidays), 8:30 a.m. to 10 p.m.; Friday, 8:30 a.m. to 5 p.m.; Saturday and Sunday, 1 p.m. to 5 p.m. The section is closed on Victoria Day, Canada Day and the civic holiday. From Aug. 11 to Sept. 7, hours are as follows: Monday to Friday (except Labor Day), 8:30 a.m. to 5 p.m. The section is closed Saturdays, Sundays and Labor Day. Regular semester hours resume Sept. 8.

Job opportunities

As of *at Guelph* deadline April 25, the following opportunities were available:

Stenographer, Division of Continuing Education; temporary full-time from May 26, 1986, to May 22, 1987. Hiring range: \$244.42 to \$265.59.

Technician, Veterinary Microbiology and Immunology; grant position. Hiring range: \$312.58 to \$338.65.

Mail Room Clerk, Continuing Education; temporary full-time from May 26, 1986, to May 22, 1987. Hiring range: \$236.66 to \$256.64.

Treasury Clerk, Alumni Affairs and Development; temporary full-time from May 1, 1986, to April 29, 1987. Hiring range: \$236.66 to \$256.64.

Assistant to the Director, Annual Giving, Alumni Affairs and Development; two-year contractually limited position. Normal hiring range: \$22,488 to \$26,423.

The following positions were available to on-campus employees only:

Custodian 4, Housekeeping Department; two positions; consequential vacancy; night shift. Job rate: \$10.20 per hour; probation rate: \$.20 per hour lower than job rate.

Technician, Veterinary Microbiology and Immunology. Salary range: \$429.68 minimum; \$497.70 job rate (level 5); \$618.05 maximum. **Groundskeeper**, Grounds Department; original vacancy. Job rate: \$9.75 per hour; probation rate \$.20 per hour lower than job rate.

It is the University's policy to give prior consideration to on-campus applicants. To determine the availability of University employment opportunities, contact employment services and training, Level 5, University Centre, or telephone 836-4900.

Endless business opportunities, says Shaver entrepreneur

by Ian Sloan

Environmentalists will find an ally in Steven Twynstra, the top prize winner in the first Donald McQueen Shaver Entrepreneurial Awards competition.

Twynstra proposed a gypsy moth and jack pine budworm insecticide service for woodlot and cottage owners in the Tweed-Perth and the Muskoka-Parry Sound areas to win the prize. The service would involve travelling to infected areas in a pick-up truck, and killing the pests in the larva stage with a non-chemical spray called BT.

"Chemicals are way more effective," he says, "but I understand the environmentalists' concern."

A fourth-year agricultural economics student and a 1985/86 member of Board of Governors, Twynstra won the prize because he had a good grip on logistical problems, says entrepreneur-in-residence Donald Shaver. And Twynstra's proposal was both timely and unique — two factors improving the chances of success in business, Shaver says.

Gypsy moth and jack pine budworm have been creating problems in Ontario for about five years, says Twynstra, but cottage and woodlot owners haven't paid much attention to them. In 1982, less than 2,000 acres of trees in Ontario were infected by the two pests. But today's estimates put the number at 600,000

acres, and now "a lot of people are upset," he says.

"If we don't move more effectively in Ontario to confront this problem, our forests will be in trouble two years down the line."

Twynstra says air-service insecticide companies are tied up by government and lumber company contracts. They are not in a position to meet, or are often not interested in meeting, the new demands for service.

Twynstra won't actually have a chance to put his proposal for an insecticide service into action. This summer he plans to do some computer consulting for farmers in the Ailsa Craig area, where he was born and raised. And come fall, he is heading off to Purdue University in Indiana to work on a master's degree in agricultural economics.

After he graduates, Twynstra hopes to specialize in international marketing, using a bean marketing company his family owns as a base. "There are so many opportunities out there" in business, he says. "It's just amazing, if you have the right frame of mind."

Twynstra says he's grateful for receiving the Shaver award, and he attributes his success to "getting out, getting involved with people, getting things done." His extra-curricular record bears witness: in addition to serving on Board



Steven Twynstra

Photo by Barbara Chance, PR/

of Governors, he was vice-president of his class and was responsible for rejuvenating the flying club on campus and organizing the "Fly Days" program that is now part of College Royal.

Second-prize winner in the Shaver competition is Bill Maclean of St. Ann, who proposed contracting to harvest fruit farms in the Niagara area. He's been so successful at it already that the government has approached him to set up a government program similar to his. 0

LA students place in New Orleans arboretum design competition



The Arboretum planning team, left to right: James Taylor, Jean Anne Wightman, Shane O'Neill and Brooks Wickett. Photo by John Magness

The Arboretum's planning team has received international recognition in a design competition for the New Orleans City Park Arboretum. The team, under the direction of Prof. James Taylor, Landscape Architecture, was awarded third prize of \$1,000.

Of the 65 entries, Guelph's was the only Canadian one; 63 were from the United States and one was from Saudi Arabia. Guelph was also the only school represented in the competition.

The team consists of Taylor, MLA graduate Jean Anne Wightman, BLA graduate Brooks Wickett and Shane O'Neill, an architect now working towards an MLA degree. They were at some disadvantage, says Taylor, because none of them had actually seen the site. They had to rely on maps and photographs for all their information.

In contrast to Guelph's 400 acres, the New Orleans arboretum is 38 acres and must accommodate about three times as many people, Taylor

says. It is also in a different climate zone, which means it can support a wider variety of trees and shrubs. The first and second prize winners in the competition were from Texas and California respectively, so they were more familiar with the climatic conditions they had to deal with, he says.

The competition required comprehensive designs that had to include not only areas for species collections and an aquatic plant collection, but an outdoor gathering area, horticultural centre and maintenance building. In addition, entrants were asked to maintain and enhance the area for wildlife habitats, conserve major site vegetation and respond to and enhance the natural state of the site. And they had to do all that within a limited budget for construction and maintenance.

An exhibition of the winning designs will tour throughout the United States and into Canada, and Taylor hopes to bring it to Guelph at some point. 0

Teenage mothers

Pregnancies are symptoms of deeper distress: FACS study

by Pamela Healey

Sarah, 18-year-old mother of baby Melissa, was physically abused as a child by her alcoholic father, and spent part of her childhood in foster homes. She dropped out of school at age 16 and became pregnant soon afterwards, to a boyfriend who is now serving time in jail. Despite her difficult situation, however, Sarah remains optimistic about providing a happier future for herself and her baby.

Sarah, not her real name, is fairly typical of the teenage mothers involved in a study carried out by Sheri Burns as part of her master's degree in the family therapy program in the Department of Family Studies.

After surveying the literature on teen mothers, Burns realized there was a need for research on the relationship between the young mothers and their families, and a comparison with childless teenagers and their families. She disagreed with past studies that describe a cyclical pattern of teen mothers begetting teen mothers.

The study was largely an exploration of the characteristics of girls who become teenage parents. Burns interviewed 39 teen mothers and 34 childless teens about their demographic backgrounds, in an attempt to find factors predisposing girls to early motherhood. Participants were given tests to determine their maturity or ability to understand life's complexities, and to measure various psychological factors such as the kinds of environmental pressures the girls perceive and their responses to them.

Burns also had the teens complete a family relations inventory that indicates how they feel about their families and their positions in them. By composing a family map, the participants demonstrated how they saw relationships among family members. For example, a teen might see herself as being close to one parent, but distant from the other.

Burns found that 87 per cent of the teen mothers had experienced "home instability" in childhood, which may have included foster care or abuse. Of the childless group, more than 50 per cent lived in stable home situations and the rest experienced less intense instability than the mothers. Foster care figured in the backgrounds of 44 per cent of the mothers and two per cent of the childless girls.

There were some similarities between the two groups — half the girls in each group came from broken homes and half had mothers who were teen mothers. This latter finding supports Burns's hypothesis that teenage motherhood is not a cyclical pattern.

Teen mothers were much more likely to have fathers who were violent or alcoholic, and boyfriends and brothers who were alcoholic or in jail. In addition, a significant number of teen mothers in the study dropped out of high school before graduation. Burns speculates that an unstable childhood is an important factor here. Because school is a stress that can easily be eliminated, the girls tended to drop out.

The psychological tests revealed the teen mothers were more mature than the other girls in the study, perhaps as a result of their pregnancies. They see their parenthood as an opportunity to take responsibility, so they grow up more quickly to meet the challenge. Teen mothers show their maturity by their efforts to become independent and their struggle to cope with change and stress. These young women also seem to have greater self-esteem than other teens although they realize society does not value them highly as individuals. Burns found, however, that more mothers than non-mothers resign themselves to unbearable life situations. Their hopes of becoming independent and more successful than their parents are diminished when they find they must turn to social services to support themselves and their babies.

Statistically significant differences were revealed in the area of family relationships. Burns found teen mothers were close to their own mothers, but less willing to admit any positive feelings for their fathers, regardless of whether they

came from intact or broken homes. In contrast, the other teenage girls tended to feel equally positive about both parents. They saw their mothers and fathers as having friendly relationships even if they were separated.

Because childless teenage girls tend to be closer to their fathers, they don't rely on their mothers as the sole source of parental nurturing. "What disturbs me most," says Burns, "is realizing the importance of the father." Teen mothers haven't learned how to have a healthy relationship with men, so their babies will likely grow up fatherless. She speculates that the cyclical pattern is not teen mother begetting teen mother, but rather alienated father leading to troubled teenager and adolescent pregnancy.

Burns concludes that teen pregnancies are symptoms of deeper distress. Better instruction in birth control is not the answer to this problem when there is evidence of troubled background, she says. Instead, these young mothers need support to help them become more successful than their own mothers and to raise their children in a positive way. 0

What's as good as home cooking to an international student?

by Pamela Healey

International students get homesick for satay and couscous and other treats not available in the University's cafeterias. Consumer Studies professor Karen Madeira says she found that just asking students to talk about their favorite foods for her study on food habits and attitudes of international students put them at ease.

With funding from the Research Advisory Board and the assistance of graduate students Kathy Ellis and Wendy Bernal and undergraduate student Linda Yee, Madeira is surveying Guelph's international students to learn more about the assimilation of immigrants into Canadian culture. She says attitudes about food and food practices "reflect personal belief systems and cultural values and these in turn contribute to the acceptance of food and to changes in food habits."

By looking at changes in food habits and attitudes, she says, she can gain insight into the cultural adaptation of international students, a transient immigrant group. She can relate this to the larger question of acculturation of "permanent" immigrant groups.

In the fall of 1985, some 900 international students from at least 75 countries were enrolled at Guelph, with Southeast Asia and Malaysia as the predominant places of origin. Madeira says the cultural diversity on campus makes it a good population to sample for this study.

The researchers questioned first-semester

students from all countries represented on campus to see how length of stay influences food habits and attitudes. Madeira is now surveying students of specific cultural backgrounds, beginning with the Caribbean and Malaysia, to do comparative analyses. A North American group is also being studied for comparative purposes.

Most students are eager to participate in the study, says Madeira. Because food is so important in people's lives, they enjoy getting together with others from different and similar backgrounds to talk about it. The questionnaires cover such variables as length of stay, religious beliefs, health- and food-related beliefs, proficiency in English, social contacts and experience with other cultures.

Madeira is still in the data-collecting stage of the study but predicts some important applications of her results. "As Canadian society continues to be culturally diverse and concerned with multiculturalism, it is important to understand the food habits and attitudes of immigrants as consumers," she says. This knowledge is useful to those involved in marketing, food product development and international administration, as well as to those who help foreign students adjust to life on campus. Food Services already holds weekly international nights at campus cafeterias to give various foreign student groups a taste of home. 0

Residences wants meeting on rental options

by Ian Sloan

The impact of the City of Guelph's population growth on the cost and availability of off-campus student housing needs study, says Residences director Al McInnis.

He is concerned that increased demand for rental housing in Guelph will create a crisis for students seeking accommodation. Students living off campus may have to pay more, or live in less desirable circumstances than they do now, he says. "Our concern is that all students who want to live off campus are not precluded from it by a lack of reasonable housing."

Growth in rental accommodation in the city has not kept up to rates predicted in Guelph's *Municipal Housing Statement* of 1982, says Matt Reniers of the city's planning and development office. But industrial growth has, with American Motors and Magna Industries recently announcing plans to build factories in Guelph. Last October, Guelph's rental vacancy rate stood at 0.1 per cent, he says, and the rental market could get even tighter.

Although Guelph is now experiencing record growth in single family homes, says Reniers, the rental market is stagnant, with the exception of government-assisted programs and the conversion of downtown houses into apartments. Downtown home owners have expressed concern for the quality of neighborhoods as these

conversions go forward, says Reniers, who suggests the city may look into zoning changes.

City planners also expect the Toyota plant in Cambridge to affect the Guelph housing market.

According to a recent survey conducted by the Department of Residences, most students prefer a single room in an apartment to other forms of accommodation; their second choice is a single room in residence. McInnis says that over the last 10 years his department has been able to strike a "delicate balance" between the residence and off-campus housing supply, to the satisfaction of most students. The survey found that the most dissatisfied students are those who live in rooming situations. More students may be forced into these situations if current trends in Guelph continue, he says.

McInnis says that all these factors need to be considered in planning for student accommodation, and that some action may need to be taken. One option he wants the University to look at is building more residences on campus. But he also wants to meet with city officials to discuss other options. "The University residence supply does not exist in isolation from the rest of the market," he says. "We have to deal on an integrated basis" in housing students.

Guelph houses 30 per cent of its student population on campus, the highest percentage among Canadian universities. 0

Food and residence rates set

Food and residence rates for Guelph students in 1986/87 were approved by Board of Governors last week. Food Services rates will increase by 5.8 per cent. Residence rates for single and double rooms in North, South and East residences will rise between 5.4 per cent and 5.9 per cent. And rates for family accommodation will go up by 2.6 per cent.

Effective May 1, the following rates will apply:

Food Services

Spring semester, 1986: Plan A (six weeks), \$130; Plan B (13 weeks), \$260.

Fall semester, 1986: Plan A, \$610; Plan B, \$670.

Winter semester, 1987, Plan A, \$620; Plan B, \$680.

Food Services supplies some 20,000 meals per day for 4,000 in-residence students and 11,000 off-campus students, faculty and staff. It also caters to about 1,000 special events and banquets. Services are provided from 16 separate cafeteria-style and fast food units that operate 19 hours per day. During 1986/87, Food Services plans to renovate the dining room of Prairie Cafeteria and make changes to the Centre Six fast food area in the University Centre.

Meal contract revenue represents about 55 per cent of Food Services's \$7.6-million operating budget for 1986/87.

Residences

Single student residences:

East Residence, apartment style: spring — singles, \$815 per semester; fall and winter — singles, \$930 per semester, doubles, \$860 per semester. North and South residences, fall and winter — singles, \$875 per semester, doubles, \$805 per semester, apartments, \$330 per month.

Student family accommodation:

Spring, fall and winter — furnished, \$390 per month, unfurnished, \$380 per month. 0

Sensory realities of elderly under study

When seniors go grocery shopping, do they choose foods that look and smell good or are factors like price and ease of preparation more important? These are some of the questions Prof. Karen Madeira, Department of Consumer Studies, and Anne Goldman, a former instructor in the department, hope to answer in a study funded by the Gerontology Research Centre.

"Although seniors are a growing part of the population," says Madeira, "not much research has been done on them as a unique consumer group." She wants to investigate the importance of sensory properties — appearance, smell, texture and taste — in food acceptance, to increase knowledge about such food practices as shopping, eating alone and the social use of food.

Madeira and Goldman surveyed about 30 Guelph residents over 65 to learn how they related to sensory properties of food. For example, the seniors were asked "Does food taste as flavorful now as it did when you were young?" and "Is the appearance of food as important to you now as it was when you were in your 30s?" Other questions involved personal eating habits, food-related health problems and food purchasing practices.

"People aren't aware of how important sensory properties are," says Madeira. People's preference or acceptance of smell, taste and texture is primarily learned as they grow up in a culture and it becomes part of their subconscious. In North America, where the quality of food is good, consumers expect high sensory appeal. Anything less than what people are accustomed to, such as soggy potato chips, is noticed immediately.

Although sensory properties of food are a complex group of characteristics, smell and appearance are the first to be noticed, she says. Good and bad experiences with food become part of a person's "food memory," influencing acceptance of those foods for years.

Madeira's study was primarily qualitative, but she hopes it will lead to identification of more specific food consumption problems of elderly consumers. One practical application involves advising food manufacturers how to develop products that meet seniors' specific needs — for example, small quantities of foods that are visually appealing and nutritious, but not highly seasoned. Meal planning guidelines might also be developed for food preparation for seniors in institutions or for special restaurant meals. 0

A DISTINGUISHED LECTURER in the Guelph-Waterloo Centre for Graduate Work in Chemistry, Prof. Roger Parsons, University of Southampton, will deliver two lectures this month in the Chemistry-Microbiology building. On May 12, he will speak on "Electrified Interfaces" at 3:30 p.m. in Room 160; on May 16, he discusses "Electrocatalysis" at 3:30 p.m. in Room 260. An informal reception in the Faculty Club, Level 5, University Centre, follows the May 12 lecture. Parsons will also speak at the University of Waterloo, discussing "Adsorption on Solid Electrodes" May 14 at 3:30 p.m. in C2-171. Parsons, who heads the electrochemistry group at Southampton, is editor in chief of the *Journal of Electroanalytical Chemistry*.

Graduate news

The final oral examination of Mohan Viswanathan, Zoology, a candidate for a doctor of philosophy degree, is May 1 at 2 p.m. in Room 168, Botany & Genetics/Zoology building. The thesis is: "Studies on Certain Factors That Influence the Sympathetic Nervous System and Thermoregulation in Representative Higher Vertebrates." Viswanathan's supervisor is Prof. John George.

Interested members of the University community are invited to attend. 0

Well Said

Dr. Herb Armstrong, special assistant to the president, after participating in a training session on how to use the new desk-top telephone units: "I have come to the conclusion that ROLM wasn't built in a day."

Next Week at Guelph

THURSDAY, May 1

Guelph Spring Festival - EINSTEIN, 1:30 and 8 p.m., Inner Stage, \$10.

FRIDAY, May 2, 1986

Schedule of Dates - EXAMINATION RESULTS to be submitted by noon.

Guelph Spring Festival - EINSTEIN, 1:30 and 8 p.m., Inner Stage, \$10; THE LIGHTHOUSE, 8 p.m., Ross Hall, \$17.

SATURDAY, May 3, 1986

Guelph Field Naturalists - BAILLIE BIRDATHON, in support of Long Point Bird Observatory, Larry Hubble, 836-3858, for details.

Arboretum - THE SPRING WOODS WALK, 1 p.m., Nature Centre.

Guelph Spring Festival - EINSTEIN, 1:30 and 8 p.m., Inner Stage, \$10; DA CAMERA, 8 p.m., WMH, \$12/\$14.

SUNDAY, May 4, 1986

Worship - ECUMENICAL CAMPUS MINISTRY, Sunday services are available at St. Matthias (Anglican), Kortright and Edinburgh, Kortright Presbyterian, Scottsdale, and Harcourt United Church, 87 Dean Ave.

Cycling Club - CAMPBELLVILLE, 50 miles, 10 a.m., UC south doors.

Guelph Spring Festival - JUDY LOMAN, harp, Elora Mill Inn, 11 a.m. brunch, \$17, 3 p.m. tea, \$14; THE LIGHTHOUSE, 8 p.m., Ross Hall, \$17.

Concert - SPRING AT THE ARBORETUM, the Classical Trio, violin, cello and fortepiano, 2:30 p.m., Arboretum Centre.

Concert - GUELPH YOUTH ORCHESTRA, conducted by Victor Sawa; soloist, Chris Sharpe, cello, 3 p.m., Harcourt United Church, \$3.50.

MONDAY, May 5, 1986

Schedule of Dates - ACADEMIC REVIEW; CLASSES COMMENCE.

Worship - CATHOLIC MASS, 5:10 p.m., Chapel, UC Level 5.

Guelph Spring Festival - WINNERS IN CONCERT, 8 p.m., MacK 107, free.

TUESDAY, May 6, 1986

Worship - CATHOLIC MASS, 12:10 p.m., Chapel, UC Level 5.

College Women's Club - DESSERT PARTY AND ANNUAL MEETING, Erik Jorgensen, 7:30 p.m., Arboretum Centre, 823-5846 for more information.

Cycling Club - MEETING, 7:30 p.m., AC 203.

Guelph Spring Festival - THE LIGHTHOUSE, 8 p.m., Ross Hall, \$17.

WEDNESDAY, May 7, 1986

Cycling Club - MARYHILL (novice ride), 5 p.m., UC south doors.

Guelph Spring Festival - 1986 EDWARD JOHNSON MUSIC COMPETITION, 7 p.m., MacK 107, free.

Arboretum - WEDNESDAY EVENING EXCURSION, Spring Wildflowers, 7 p.m., Nature Centre, cancelled if raining at 5 p.m.

THURSDAY, May 8, 1986

Guelph Spring Festival — LA TROUPE CIRCUS, 1:30 and 7:30 p.m., Ross Hall, \$10, children \$5; 1986 EDWARD JOHNSON MUSIC COMPETITION, 7 p.m., MacK 107, free.

Personals

For Sale: Scandinavian-style sofa, custom-made of solid red elm, 821-2103, evenings. **Bateman prints**, 824-5865, after 4:30 p.m. Kitchen corner nook; fireplace insert; refrigerator; washer; oak dining table and antique chairs, 822-8204. Sofa and matching chair, 824-2161, after 6 p.m. Four-bedroom split level home, College-Edinburgh area, 836-8028. 1978 Ford Fairmont, 824-3088. 1981 Toyota Celica, automatic, 836-7604, after 6 p.m. Three-bedroom bungalow, near campus, 836-6895, after 5 p.m. Fourteen-foot turbo Hobie Cat with trailer, 821-5502, after 5 p.m. 75 cc motorcycle, 822-8053. 1920s Heintzman upright piano, sound board and action in good condition, Ian, Ext. 6581. Hard top Sun Camper with propane tank and stove, 824-4984, after 5 p.m. York River 14-foot fibreglass canoe, 836-5173, after 6 p.m. Double bed, pull-out sofa, 836-0295, after 9 p.m. 1980 Mini, 837-1937, after 6:30 p.m. 1977 GMC "Jimmy," 853-1764. Four vinyl strap patio chairs; large wooden coffee table; woodstove; recliner; 26-inch color TV (not working); iron three-quarter bed, 846-0163. Four-bedroom house, close to University, 837-3900, Ext. 2921. 1976 Capri, four-speed, 822-6062, after 6 p.m. Seeburg jukebox; 10 years of *National Geographic* magazines; 1959 Westinghouse stereo, 824-5719.

Wanted: Energetic, mature person to care for three preschool children, part time, references required, 824-2256. One- or two-bedroom apartment for June 1, central, Tom, Ext. 8301. Room in farmhouse with option to keep horse and goats, call Michael or Audrey collect, 1-599-6724. Washer/spin dryer in good condition, 837-3762, after 5:30 p.m.

Available: House-sitter throughout the summer, ground and house maintenance, experienced, references available, 763-0476. Outdoor storage for boats, trailers, etc., 822-0542. Professional word processing, high quality, fast turnaround. 837-1410. Word processing on IBM computer, reasonable rates, delivery on campus, 824-8758, after 5 p.m.

For Rent: Roomy box stalls in private barn, monthly board negotiable with shared duties, 846-0163. Apartment to sublet, fall option available, 763-0209, Ext. 31. Three-bedroom cottage, Miller Lake, Bruce Peninsula, 824-9579. Three-bedroom furnished house, Dean Avenue, July 1 to Dec. 31, while owner on leave, 822-8891.

The following abbreviations are used in "Next Week at Guelph": APS=Animal and Poultry Science; UC=University Centre; LA=Lennox/Addington; CM=Chemistry-Microbiology; PS=Physical Sciences; PCH=Peter Clark Hall; WMFI=War Memorial Hall; MacK-MacKinnon building; ANNU=Animal Science Nutrition; FS=Food Science; CSRC=Counselling and Student Resource Centre; JH=Johnston Hall; HB=Human Biology; AC=Athletics Centre; Lib-McLaughlin Library; B&Z=Botany-Genetics-Zoology.



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