



# **ANNUAL REPORT FOR FISCAL YEAR 1997-98**

## **OMAFRA-FUNDED EDUCATION, RESEARCH AND LABORATORIES PROGRAMS**

**Integrated Education, Research and Laboratories Programs**

**Serving Ontario's Agriculture and Food Industries**

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# **EXECUTIVE SUMMARY**

## **Background**

This is the first Annual Report on the Enhanced Partnership submitted to the Ontario Ministry of Agriculture, Food and Rural Affairs by the University of Guelph under the new Memorandum of Understanding that was effective April 1, 1997.

This report covers the activities, expenditures and performance measures for all of the programs covered by the MOU for the fiscal year May 1, 1997 to April 30, 1998. The program areas are education, research and laboratory services and each area has individual reports in this document.

The 1997-98 Operational Plan originally detailed the visions, goals, activity plans and budgets of the three program areas and their components. In this report, original budget figures are included with actual expenditures, to facilitate easier comparison.

## **Summary of Activities and Results**

The University of Guelph is contracted by OMAFRA to deliver research, education and laboratory services to the agriculture and food industry and to the people of Ontario. Some of these services were delivered directly by OMAFRA until April 1997 when staff, programs and facilities were transferred to the University.

In the first year of the new contract the University has fulfilled all aspects of its obligations in terms of program delivery. Furthermore, the University has generated substantially higher levels of activity in all program areas, and has generated higher revenue flows than expected.

The transition of employees and programs was accomplished with minimum program disruption and remarkable professionalism from the over four hundred employees transferred to the University. These new employees have been warmly accepted by the University community and have been given every support and assistance to facilitate a rapid adjustment to their new environment. Most of the new university employees were absorbed into three existing employee groups for employment contract purposes: namely, the Professional Staff Association (PSA), the University of Guelph Staff Association (UGSA) or the Exempt Group.

The College Academic/Research Group (CARG), representing approximately eighty lecturers and instructors, is currently negotiating a first contract with the University. Research scientists at the Horticultural Research Institute of Ontario (HRIO) in Vineland are expected to join the University of Guelph Faculty Association (UGFA).

## **Research**

Considerable progress has been made in defining the roles of Research Program Leaders, their budget responsibilities, and their relationships with Department chairs, College Directors and College Research Coordinators. The OASIS (spell out?) data base development will facilitate improved record-keeping, analysis and reporting of research projects and results.

The HRIO has become a division of the new Department of Plant Agriculture within the University. HRIO will operate under the direction of the Chair, Plant Agriculture and the OMAFRA funding for HRIO will be tracked as a separate budget item of the new Department.

## **Education**

Existing diploma and certificate programs have maintained enrolment despite a considerable increase in tuition fees. New initiatives are underway in Veterinary Technology and Food Technology training to meet demand.

Continuing Education initiatives have increased revenues by up to 15% over those anticipated for the year.

It is important to note that the three regional Colleges entered the new partnership with a completely new slate of Directors and Associate Directors. Co-ordinators of research and continuing education are new, or charged with new responsibilities for revenue generation and for delivering fully cost-recoverable programming.

## **Laboratory Services**

The remarkable performance of Laboratory Services (LS) is highlighted by the large internal and external revenue flow (\$4.7 M actual vs. \$1.9 M target).

ISO 9002 accreditation has greatly improved recognition of the quality of the laboratory services, both nationally and internationally.

LS has continued to meet OMAFRA and the Agri-food industry's requirements for regulatory testing of a broad range of products, in a competitive fashion.

Enhanced academic enterprise is a priority in support of OVC teaching responsibilities. LS plans to develop joint projects with faculty and to increase access and service to University researchers.

# 1. INTRODUCTION

Under the Memorandum of Agreement (MOA) between OMAFRA and the University of Guelph, effective April 1, 1997, the transfer payment to the University totalled \$54.0 million for the 1997-98 fiscal year.

The figures in this report are for the University of Guelph fiscal year from May 1, 1997 to April 31, 1998.

The total budget for fiscal 1997-98 was \$59.9 million. This figure included \$5.9 million in expected revenues from produce sales, and fees for educational, research and laboratory services in addition to the \$54 million transfer payment.

Budget estimates by program/institution are detailed in Figure 1-1. Actual total expenditures are listed beside the estimates for comparison purposes.

**Figure 1-1: 1997-98 Estimates and Actual Expenditures (\$ M)**

|                    | OMAFRA Transfer Funds |        | Revenues (non-OMAFRA) |        | Total Expenditures (OMAFRA & Revenues) |        |
|--------------------|-----------------------|--------|-----------------------|--------|----------------------------------------|--------|
|                    | Est.                  | Actual | Est.                  | Actual | Est.                                   | Actual |
| Guelph Research    | 25.1                  | 25.1   | 1.1                   | 5.1    | 26.2                                   | 30.2   |
| OAC Diploma        | 0.6                   | 0.7    | 1.0                   | 1.5    | 1.6                                    | 2.3    |
| OVC - VCEP         | 4.7                   | 4.7    | —                     | —      | 4.7                                    | 4.7    |
| Alfred College     | 2.3                   | 2.3    | 0.4                   | 0.9    | 2.7                                    | 3.2    |
| Kemptville College | 4.1                   | 4.0    | 0.75                  | 2.8    | 4.85                                   | 6.8    |
| Ridgetown College  | 4.2                   | 4.2    | 0.75                  | 2.7    | 4.95                                   | 6.9    |
| HRIO (Research)    | 4.0                   | 4.0    | —                     | 0.1    | 4.0                                    | 4.1    |
| Lab Services       | 9.0                   | 9.0    | 1.9                   | 2.8    | 10.9                                   | 11.8   |
| TOTALS             | 54.0                  | 54.0   | 5.9                   | 15.9   | 59.9                                   | 69.9   |

Actual expenditures (and total revenues) were \$10 million higher than forecast and the differences are explained in the following Program Sections 2, 3 and 4.

The Colleges at Alfred, Kemptville and Ridgetown are funded for three primary functions: namely, diploma education, applied research and continuing education and service. Figure 1-2 breaks down the expenditures by program.

**Figure 1-2: 1997-98 Colleges Expenditures (\$ '000)**

|                                  | <b>Alfred</b> | <b>Kemptville</b> | <b>Ridgetown</b> |
|----------------------------------|---------------|-------------------|------------------|
| Diploma Education                | 1,994         | 2,258             | 2,637            |
| Research                         | 143           | 2,922             | 2,946            |
| Continuing Education & Services  | 517           | 1,282             | 857              |
| Other:<br>(flow through funds)   |               |                   |                  |
| - cafeteria                      | 85            | 365               | 316              |
| - utilities                      | 495           | 0*                | 0*               |
| Totals                           | 3,234         | 6,827             | 6,756            |
| OMAFRA base funding              | 2,300         | 4,100             | 4,200            |
| Expenditures covered by revenues | 934           | 2,727             | 2,556            |

\* Utility costs paid by Ontario Realty Corporation

Note: Program costs **include** allocated administrative costs.

## 2. RESEARCH PROGRAM

### 2.1 Budget

Funds for research were allocated to six commodity/discipline areas in the 1997/98 budget. All research expenditures at all locations are included in Figure 2-1.

**Figure 2-1: 1997/98 Research Budget Estimates and Actual Expenditures (\$'000)**

| Program        | HRIO & Colleges |        | Guelph |        | TOTAL  |        |
|----------------|-----------------|--------|--------|--------|--------|--------|
|                | Budget          | Actual | Budget | Actual | Budget | Actual |
| Plants         | 3,701           | 3,707  | 5,135  | 5,446  | 8,836  | 9,153  |
| Animals        | 553             | 575    | 5,598  | 5,810  | 6,151  | 6,385  |
| Food           | 71              | 45     | 1,073  | 1,220  | 1,144  | 1,265  |
| Environment    | 331             | 323    | 1,648  | 1,832  | 1,979  | 2,155  |
| Systems        | 129             | 129    | 725    | 799    | 854    | 928    |
| Rural          | 10              | 0      | 60     | 134    | 70     | 134    |
| RSO            | 2,679           | 3,187  | 5,608  | 6,685  | 8,287  | 9,872  |
| Research I & S | 282             | 307    | 28     | 2,110  | 310    | 2,417  |
| Totals         | 7,756           | 8,273  | 19,875 | 24,036 | 27,631 | 32,309 |
| Overhead       | 1,975           | 1,838  | 6,125  | 6,125  | 7,100  | 7,963  |
| Grand Totals   | 9,731           | 10,111 | 26,000 | 30,161 | 34,731 | 40,272 |

RSO: Research Station Operations

Research I & S: Research program infrastructure and support

Actual expenditures exceeded budget estimates. This is due to various factors:

- 1) budgets were composed of base funding (OMAFRA) and estimates of revenues generated from produce sales. Sales exceeded expectations and were reinvested in research programs at all locations;
- 2) expenditures at Guelph exceeded budget by \$4.0 million due to the following factors:
  - one-time transition costs (legal, consulting, etc.) and unallocated central service costs ..... \$2.2 million
  - increased revenues from sales, rentals and flow-through funds (livestock revolving fund, BIO and AAFC) ..... \$1.4 million

- matching funds from 1996-97 investment  
(Adaptation Council) ..... \$0.4 million



## 2.2 Accomplishments in 1997/98

- ✂ Office facilities have been established for the Director of OMAFRA Research Programs, Research Program Directors, Research Station Operations (RSO) Manager and office staff in the Government of Ontario Complex at 1 Stone Road West adjacent to the ERLD of OMAFRA.
- ✂ The process for requesting, evaluating and approving project proposals to build individual programs have been established.

### Research Projects Conducted in 1997/98 and Approved for 1998/99

|                     | 1997/98           |                     | 1998/99              |                      |                   |
|---------------------|-------------------|---------------------|----------------------|----------------------|-------------------|
|                     | # Projects Active | #Projects Completed | # Proposals Received | # Proposals Approved | # Projects Active |
| <b>Animals</b>      | 169               | 71                  | 72                   | 54                   | 180               |
| <b>Plants</b>       | 65                | 61                  | 118                  | 98                   | 102               |
| <b>Environment</b>  | 33                | 9                   | 15                   | 6                    | 30                |
| <b>Food</b>         | 42                | 3                   | 3                    | 0                    | 39                |
| <b>Agri-Systems</b> | 18                | 4                   | 9                    | 4                    | 18                |
| <b>Rural</b>        | 5                 | 3                   | 7                    | 6                    | 8                 |
| <b>TOTAL</b>        | <b>332</b>        | <b>151</b>          | <b>224</b>           | <b>168</b>           | <b>377</b>        |

**Note:** In 1997/98, many of the research projects at the Colleges and HRIO were not registered on the OASIS database.

- ✂ The process for requesting project proposals has been streamlined by replacing the OASIS data form with an “open format” outline that has been made available on the Internet. The annual and final report formats were updated and placed on a new University web site devoted to the research program. The current objectives and goals for each program were also added to the University web site.
- ✂ The procedures and responsibilities required to meet the 4-year ARIO program review process have been approved.
- ✂ Co-operative and co-ordinated leasing/purchasing of equipment and purchasing of seeds, fertilizer and chemicals has led to increased savings as companies compete to have their brand of equipment in use and apply volume discounts.
- ✂ Research stations are co-ordinating operations: e.g. movement and loaning of equipment between locations; surplus equipment has been sold between stations; straw has been purchased by the Guelph RSO from the Simcoe station; Guelph RSO has provided trucking between stations at a reduced cost relative to commercial trucking.
- ✂ Stations have used a new Farm Safety Manual to develop a safety program specific to their needs.

## 2.3 Performance Measures

| Objective                                                                              | Measure/Activity                                                                                                                      | Result (\$)                                                                                                                                                                                                                         |                                                                                                              |
|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Increase funding in support of research under the OMAFRA contract from outside sources | Increase total funding from outside sources relative to the base funding from OMAFRA.                                                 | Granting Councils<br>Federal Gov't<br>Ont. Gov't (non-MOA)<br>Business & Industry<br>Charitable Organizations<br>Other Gov'ts<br>Private donors<br><b>Total</b>                                                                     | \$13,405,896<br>7,394,891<br>5,030,282<br>9,935,457<br>4,659,933<br>324,140<br>63,840<br><b>\$40,814,674</b> |
|                                                                                        | Increase total number of organizations providing funding.                                                                             | 562 organizations provided funding, including 360 in the business and industry category.                                                                                                                                            |                                                                                                              |
|                                                                                        | Increase the number of repeat contributors.                                                                                           | N/A                                                                                                                                                                                                                                 |                                                                                                              |
|                                                                                        | Increase funding from business and industry, in particular.                                                                           | See above.                                                                                                                                                                                                                          |                                                                                                              |
| Licenses and Patents, Royalties                                                        | Increase from 70 agreements in 1997/98 to 80 in 1998/99                                                                               | There were 70 agreements in place in 1997/98.                                                                                                                                                                                       |                                                                                                              |
|                                                                                        | Increase royalties from approximately \$600,000 in 1997/98 to \$800,000 in 1998/99 (target is to reach \$1 million per year by 2002). | Seed royalties in 1997/98 were \$589,975 and technology royalties were \$68,787, totalling \$658,762.                                                                                                                               |                                                                                                              |
| Technology Transfer                                                                    | Number of peer reviewed journal publications (target approximately 350 papers per year; one paper per \$25,000 of operating funds)    | The OASIS program has not yet been upgraded sufficiently to accept and analyze data from the project annual reports and final reports. This technology transfer information is included in the 4-year ARIIO Program Review reports. |                                                                                                              |
|                                                                                        | Number of scientific conference papers.                                                                                               |                                                                                                                                                                                                                                     |                                                                                                              |
|                                                                                        | Number of reports.                                                                                                                    |                                                                                                                                                                                                                                     |                                                                                                              |
|                                                                                        | Number of software products.                                                                                                          |                                                                                                                                                                                                                                     |                                                                                                              |
|                                                                                        | Number of presentations in media.                                                                                                     |                                                                                                                                                                                                                                     |                                                                                                              |
|                                                                                        | Number of presentations at meetings and conferences.                                                                                  |                                                                                                                                                                                                                                     |                                                                                                              |

|                              |                                                                                                                      |                                                                                                                                                                                                                          |
|------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              | Number of provincial/national agri-food committees on which UofG faculty participate                                 |                                                                                                                                                                                                                          |
| Client (OMAFRA) Satisfaction | Percent of projects completed on time and budget and project milestones delivered (target is 95% or more complying). | Detailed data on a project basis not available at this time.                                                                                                                                                             |
|                              | Deliverables identified in MOA available on time and deadlines met.                                                  | Achieved.                                                                                                                                                                                                                |
| Program Review               | Programs to conform to goals and objectives as outlined by ARIO.                                                     | In 1997, the entire Animal Research Program was reviewed by ARIO. OMAFRA approved the 1997-2001 program with the noted changes and amendments. The Field Crop Plant Research Program was reviewed by ARIO in early 1998. |
|                              | Delivery of project/program milestones.                                                                              | Accepted.                                                                                                                                                                                                                |
|                              | Impact and significance of research programs.                                                                        | N/A                                                                                                                                                                                                                      |
| Impact of Research           | Number of studies conducted (target is to review five projects conducted in 1998/99)                                 | Scheduled to begin in 1998/99.                                                                                                                                                                                           |
|                              | Develop tools to measure impact of research.                                                                         | Ongoing.                                                                                                                                                                                                                 |

### 3. EDUCATION PROGRAM

Three educational components are included in the Contract:

- Diploma programs at Alfred, Kemptville, Ridgetown and OAC
- Continuing Education programs at the Colleges
- the Veterinary Clinical Education Program (VCEP) at OVC

Details of the VCEP are provided in the VCEP Annual Report including expenditures and performance measures. The Diploma and Continuing Education programs are covered in this report.

#### 3.1 Diploma Programs

In the 1997/98 Operating Plan, funding was allocated by diploma programs and overhead (including infrastructure and support). The budget figures were comprised of OMAFRA funding and revenues generated through tuition and other program fees and produce sales from educational components of farm operations.

##### 3.1.1 Financial

Diploma budgets and actual expenditures for 1997/98 are shown in Figure 3.1-1.

**Figure 3.1-1: Diploma program budgets and actual expenditures, 1997/98 (\$'000)**

| Program                     | Alfred |        | Kemptville |      | Ridgetown |      | OAC     |      | Totals |      |
|-----------------------------|--------|--------|------------|------|-----------|------|---------|------|--------|------|
|                             | Est.   | Act.   | Est.       | Act. | Est.      | Act. | Est.    | Act. | Est.   | Act. |
| Agriculture                 | 410    | 653.0  | 330        | 298  | 760.4     | 1014 | 960     | 1051 | 2460.4 | 3016 |
| Horticulture                | 300    | 228.0  | 263.2      | 238  | 265.3     | 493  | 640     | 701  | 1468.5 | 1660 |
| Food & Nutrition Management | 300    | 257.0  | 469.7      | 379  | —         | —    | —       | —    | 769.7  | 636  |
| Equine                      | —      | —      | 232.4      | 315  | —         | —    | —       | —    | 232.4  | 315  |
| Vet. Tech.                  | —      | —      | —          | —    | 443.5     | 690  | —       | —    | 443.5  | 690  |
| Overhead                    | 1110   | 856.0  | 798.8      | 1028 | 606.4     | 440  | —       | 525  | 2515.2 | 2849 |
| Totals                      | 2120   | 1994.0 | 2094.1     | 2258 | 2075.6    | 2637 | 1,600.0 | 2277 | 7889.7 | 9166 |

### 3.1.2 Performance Measures

#### *Enrolments*

Figure 3.1- 2: Diploma Program Enrolments 1995 - 1998 (F-T students)

|                | Alfred | Kemptville | Ridgetown | OAC | Total | Change |
|----------------|--------|------------|-----------|-----|-------|--------|
| <b>1998/99</b> | 94     | 293        | *311      | 392 | 1090  | - 3%   |
| <b>1997/98</b> | 112    | 272        | 316       | 424 | 1124  | 1.8%   |
| <b>1996/97</b> | 111    | 295        | 297       | 401 | 1104  | 8.2%   |
| <b>1995/96</b> | 127    | 280        | 233       | 380 | 1020  | —      |

\* Total does **not** include 36 students registered for Summer Vet. Tech. option (*new in 1998*).

#### *Graduation Statistics*

Figure 3.1-3: 1997/98 Graduates

|                   | Alfred | Kemptville | Ridgetown | OAC  | Total |
|-------------------|--------|------------|-----------|------|-------|
| <b>Agric.</b>     | 24     | 30         | 71        | 130* | 255   |
| <b>Hort.</b>      | 1      | 19         | 21        | —    | 41    |
| <b>Food</b>       | 9      | 17         | —         | —    | 26    |
| <b>Equine</b>     | —      | 18         | —         | —    | 18    |
| <b>Vet. Tech.</b> | —      | —          | 34        | —    | 34    |
| <b>Total</b>      | 34     | 84         | 126       | 130  | 374   |

\* Guelph graduates are the final cohort under the single diploma program (agriculture) offered at OAC prior to the Enhanced Partnership. OAC now offers diplomas in Agriculture and Horticulture.

### *Attrition Rates for 1996 and 1997 Cohorts*

**Figure 3.1-4: 1996 Cohort**

|                        | <b>Alfred</b> | <b>Kemptville</b> | <b>Ridgetown</b> | <b>OAC</b> | <b>Average</b> |
|------------------------|---------------|-------------------|------------------|------------|----------------|
| # enrolled in Fall '96 | 62            | 184               | 180              | 204        | —              |
| # enrolled in Fall '97 | 45            | 115               | 136              | 188        | —              |
| # graduated            | 34            | 84                | 126              | 130        | —              |
| Attrition in Year 1    | 27%           | 37%               | 24%              | 8%         | 23%            |
| Attrition in Year 2    | 24%           | 27%               | 7%               | 31%        | 21%            |
| <b>Total Attrition</b> | <b>45%</b>    | <b>54%</b>        | <b>30%</b>       | <b>36%</b> | <b>41%</b>     |

**Figure 3.1-5: 1997 Cohort**

|                        | <b>Alfred</b> | <b>Kemptville</b> | <b>Ridgetown</b> | <b>OAC</b> | <b>Average</b> |
|------------------------|---------------|-------------------|------------------|------------|----------------|
| # enrolled in Fall '97 | 69            | 171               | 180              | 224        | —              |
| # enrolled in Fall '98 | 51            | 124               | 149              | 188        | —              |
| Attrition in Year 1    | 26%           | 27%               | 17%              | 16%        | 20%            |

- Attrition rates were higher than expected in the 1996 cohort and may be explained in part by the upheaval affecting all employees of the three Colleges, due to the termination of employment from the Ontario Ministry of Agriculture, Food and Rural Affairs. Formal layoff notices were issued at the first of October 1996, accompanied by job offers from the University of Guelph to most staff, but some layoffs did occur.
- Students were affected by this process, and both the 1996 and 1997 cohorts were affected by a substantial reorganization of all diploma programs to a more uniform, cost-effective delivery format that was initiated in 1997-98 and is now nearing completion in 1998-99.
- Attrition rates were lower at 20% in Year 1 for the 1997 cohort as compared to 23% for the previous year. All of the Colleges will continue to seek ways to reduce the loss of students to more acceptable levels. Note, however, that employment availability is high and this factor also contributes to a loss of students in both years of the programs.

### ***Financial Efficiency***

- Figure 3.1-6 details costs per student at the four Colleges. Total cost figures at each location were calculated on the same basis, however the allocation of costs by diploma programs was not consistent and the resulting figures were not comparable and were, therefore, not used in this report.
- The figures presented here will provide a benchmark for future comparisons.

**Figure 3.1-6: Diploma Program Costs**

|                               | <b>Alfred</b> | <b>Kemptville</b> | <b>Ridgetown</b> | <b>OAC**</b> | <b>Total</b> | <b>Average (\$)</b> |
|-------------------------------|---------------|-------------------|------------------|--------------|--------------|---------------------|
| Total Cost/College (\$ '000)* | 1994          | 2258              | 2637             | 2277         | 9166         | —                   |
| # students                    | 112           | 272               | 316              | 424          | 1124         | —                   |
| Total cost/student (\$)       | 17803         | 8301              | 8345             | 5370         | —            | 8162                |
| Student fees paid             | 280           | 815               | 857              | 1577         | 3529         | 3139                |
| OMAFRA cost/College (\$ '000) | 1714          | 1443              | 1780             | 700          | 5637         | —                   |
| OMAFRA cost/student (\$)      | 15304         | 5305              | 5633             | 1651         |              | 5015                |

\* Costs do not include utilities, or other building costs covered by OMAFRA or Ontario Realty Corporation.

\*\* Program at capacity enrolment.

**Figure 3.1-7: 1997- 98 Value of Diploma Student Awards**

|                                  | <b>Alfred</b> | <b>Kemptville</b> | <b>Ridgetown</b> | <b>OAC</b> |
|----------------------------------|---------------|-------------------|------------------|------------|
| Total Awards (\$)                | 11725         | 21000             | 37000            | 44600      |
| Value of Awards (\$) per student | 104           | 77                | 117              | 105        |

- The amounts in Figure 3.1-7 do not include substantial amounts of ACCESS awards for needy students that will begin in 1998-99 when amounts are finalized and interest accumulated. These funds were generated by local and corporate support for all Colleges and matched through the Government of Ontario Student Opportunity Trust Fund.

### ***Quality of Programs***

- Uniform course and instructor evaluation were started on a pilot basis using an evaluation system developed by OAC faculty. Results could not be analysed across institutions, however, the system will be refined and used again in 1998/99. Evaluations to date indicated a high level of

student satisfaction with courses and instructors. Problems were identified and are being remedied.

- Graduate surveys are due in 1999 as per the University's current process — diploma graduates at all locations will be surveyed via this process, in alternate years.
- Ridgetown Vet. Tech. students graduating ranked very high in North American Veterinary Technician National Examination, June 1998.

**Figure 3.1- 8: Employment statistics for graduates in 1998 (April - May survey)  
(percentage of graduates employed)**

|                   | Alfred | Kemptville | Ridgetown | OAC |
|-------------------|--------|------------|-----------|-----|
| <b>Agric.</b>     | 100    | 99         | 92        | 93  |
| <b>Hort.</b>      | 100    | 100        | 86        | 79  |
| <b>Food</b>       | 95     | 50*        | —         | —   |
| <b>Equine</b>     | —      | 92         | —         | —   |
| <b>Vet. Tech.</b> | —      | —          | 80        | —   |

\* Students had just completed in-service training and many had not yet accepted positions.

- The overall employment picture was very positive at all locations. All available positions were not filled (due to a lack of graduates) at the end of the academic year.
- Employment statistics will be used to encourage high school graduates to seek careers in the agriculture and food industry.

### ***Accreditation***

- The Food and Nutrition Management Program at Alfred College was accredited in May 1998 for a five year period by the Canadian Society of Nutrition Management.

### ***Recruitment***

- A corporate recruitment program is employed to ensure co-ordination and efficiency in the use of limited resources. School visits are co-ordinated to ensure good coverage across all rural schools and targeted schools in cities. The College Information Program (CIP) tour across Ontario is being supported by College liaison staff at almost all locations. The diploma calendar and the diploma/certificate brochure were both revised and updated in early 1998.

### ***New Programs***



- A Summer Vet Technology Diploma option was approved by the University of Guelph Senate. The option started in Fall 1998, with 36 students registered. These students take independent study courses (Fall and Winter) before starting on-campus classes in May 1999 at Ridgetown College. This program should be self-funding after the initial class.
- A Food Technology Diploma program is being considered at Alfred and Kemptville.
- A Turf Management option in the Horticulture Diploma program is being considered at Guelph to meet industry demands.

## 3.2 Continuing Education

- Activities for Continuing Education are almost entirely self-funded through contracts and certificate courses (including residential programs of up to one academic year).
- The financial activity for each of the three colleges is shown in Figure 3.2-1.

**Figure 3.2-1: 1997/98 Estimates and Actual Expenditures for C.E. (\$ '000)**

|                            | Alfred* |            | Kemptville* |           | Ridgetown |           | Total |           |
|----------------------------|---------|------------|-------------|-----------|-----------|-----------|-------|-----------|
|                            | Est.    | Act.       | Est.        | Act.      | Est.      | Act.      | Est.  | Act.      |
| <b>Total Expenditures</b>  | 450     | 517        | 1100        | 1282      | 800       | 857       | 2350  | 2784      |
| <b>Components:</b>         |         |            |             |           |           |           |       |           |
| C.E. Expenditures          | —       | 360        | —           | 1081      | —         | 648       | —     | 2217      |
| Conference/facility rental | —       | 23         | —           | 168       | —         | 216       | —     | 407       |
| Base funding               | —       | 75         | —           | 75        | —         | 75        | —     | 225       |
| Total                      |         | 458        |             | 1324      |           | 939       |       | 2849      |
| <b>Surplus (deficit)</b>   |         | <b>-59</b> |             | <b>42</b> |           | <b>82</b> |       | <b>65</b> |

\* Ice storm in Eastern Ontario forced cancellation of numerous courses.

**Figure 3.2-2: Student Days and Range of Fees/Student Day, 1997-98**

|                               | <b>Alfred</b> | <b>Kemptville</b> | <b>Ridgetown</b> | <b>Total</b> |
|-------------------------------|---------------|-------------------|------------------|--------------|
| # of Student Days (6 hrs/day) | 5500          | 17990             | 17068            | 40558        |
| Fees/day (\$)                 | 35-110        | 30-191            | 57.71(average)   | —            |

### **3.2.1 Quality Evaluation**

- All training programs have participant evaluations for completion at the program conclusion.
- Standardized course assessments for similar programs.
- Needs assessment — input from agrifood sector and C.E. council, community councils.
- New programs in 1997-98:

**Alfred:** Provigo (LOEB) employee training (Ontario & Quebec) in food handling  
 Golf certificate courses (3 levels)  
 Vet receptionist program under development  
 International initiatives: Morocco & Romania

**Kemptville:** Landscape Ontario courses  
 Health care food service courses  
 Motive power courses  
 Dairy Herdsman Apprenticeship (offered)  
 Golf equipment mechanic course

**Ridgetown:** Excellence in Weed Management  
 BT Corn Day  
 Employee Swine Excellence Certificate  
 Crop Input Operations Certificate

### **3.2.2 Effectiveness of Program Delivery**

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## 4. LABORATORY SERVICES DIVISION

### 4.1 Budget

The Laboratory Services Division provides government and industry with a one-window approach for its services. These services are provided through four units:

- Analytical Services
- Regulatory Services
- Research Coordination, and
- Animal Health Laboratories at Guelph, Kemptville and Ridgetown.

Laboratory Services achieved financial performance that far exceeded original estimates, as seen in Figure 4.1-1. Considerable business was developed within the University as well as with external clients.

**Figure 4.1-1 Comparison of Budgeted and Actual Revenue and Expenses (\$ M)**

|                                | <b>Budget</b> | <b>Actual</b> |
|--------------------------------|---------------|---------------|
| <b>TOTAL EXPENDITURES</b>      | 10.9          | 13.7          |
| <i><b>Components:</b></i>      |               |               |
| OMAFRA (transfer)              | 9.0           | 9.0*          |
| External Product Sales         | 1.9           | 2.8*          |
| Internal Transfers (OMAFRA \$) | —             | 1.1**         |
| Internal Funds (MET \$)        | —             | 0.5**         |
| Internal Transfers (MET \$)    | —             | 0.2**         |
| External Revenue (MET \$)      | —             | 0.1**         |
| <b>TOTAL REVENUES</b>          | 10.9          | 13.7**        |

11.8 shown as Total in Figure 1-1.

\* Internal U. of G. transactions not included in Totals in Figure 1-1.

## 4.2 Performance Measures

**Objective:** Increase revenue by increasing the client base

**Goal:** Establish a Marketing Unit with an interim team

*Result:* Marketing Unit was established and staffed by part-time staff and consultants.

**Goal:** Service promotion.

*Results:* Web site established.

Price lists established.

Program and staff profiles completed.

Signed 25 service contracts.

Participate in the University of Guelph communication/PR committees.

28 articles provided to University and public media.

**Objective:** Achieve external accreditations.

**Goal:** Extend ISO 9002 registration extended to 3 additional lab working groups. Expand SCC lab accreditation to include 43 environmental tests and 4 additional milk tests.

*Results:* Expanded scope of ISO 9002 registration to four additional lab working groups.

Achieved SCC recognition as a GLP compliant testing facility.

**Goal:** Form strategic alliances.

*Results:* New alliances formed with: The Guelph Food Technology Centre (training, marketing, research, unique testing), Maxxam Laboratory (analytical services), Ontario Agri-Food Technologies (marketing), VMD (animal health services).

**Goal:** Increase non-OMAFRA revenues. Target: \$2.1 million

*Result:* Target surpassed: \$4.9 million achieved in non-OMAFRA gross revenue.

**Objective:** Improve quality of service.

**Goal:** Establish a Quality Assurance Unit

*Result:* Unit established and staffed.

**Objective:** Meet national and international quality standards.

**Goal:** Successfully complete ISO 9002 surveillance audit, SCC lab accreditation audit for two programs (CAEAL and milk) and two CFIA accreditation audits.

*Result:* Participated in ISO 9002 surveillance audit.

**Goal:** Develop action plans to obtain ISO registrations for specific lab sections.

*Result:* Registration to ISO 9002 standards achieved for Pest Diagnostic Clinic. Molecular Biology, Mass Spectrometry.

**Objective:** Ensure confidentiality to clients.

*Result:* Confidentiality agreements in place with all staff and included in recruitment/orientation protocol.

**Objective:** Health and Safety - Risk Management.



**Goal:** Meet OMAFRA testing and service requirements including emergency response.

*Results:* Met expectations. Responded to RFP to develop and provide program design and lab services to meet pathogen reduction study.

**Objective:** Meet performance measures for Ontario Animal Health Surveillance Network. **Goal:** Specific performance targets and measures set. Results are reported in the AHL Annual report.

*Result:* Established performance targets and measures and report in AHL Annual Report.

*Result:* Collected base-line service data. Established base numbers for various regulatory tests covered in the OMAFRA agreement.

**Objective:** Enhance economic value of Ontario's agriculture and agri-food sector.

**Goal:** Assess impact of test results on industry clients.

*Result:* Results of client survey show that 94% of clients are satisfied or very satisfied with services received or products purchased.

*Result:* Five client complaints were addressed to the satisfaction of the client.

*Result:* One client complaint was not addressed to the satisfaction of the client.

**Objective:** Enhance service productivity and efficiency.

**Goal:** Improve facility utilization.

*Result:* Extended hours and weekend services provided by the Animal Health Laboratory.

**Objective:** Continue to identify duplication in LSD services.

**Goal:** Identify potential duplication with the Animal Health Laboratory and OVC.

*Result:* Reviewed and reported on improving effectiveness and efficiencies in animal health services.

**Goal:** Undertake a full review of dairy testing services agreement.

*Result:* Continue program reviews.

**Objective:** Establish University of Guelph linkages.

**Goal:** Establish AHL as a joint OVC/LSD initiative.

**Goal:** Establish Molecular Supercentre (Dept. of Molecular Biology).

**Goal:** Establish a centre for functional foods (Dept. of Human Biology and Nutrition, Dept. of Food Science, University of Toronto, and The University of Western Ontario.)

*Result:* Relocated soil testing laboratory from Land Resource Science and consolidated with Pest Diagnostic Clinic.

**Objective:** Reduce unit costs - establish targets.

**Goal:** Establish service and test costs and reflect in price lists and pricing strategy.

**Goal:** Out source milk sample collection.

**Goal:** Implement direct download of data to client's system (DFO).

*Result:* Identified services and tests that can be provided cheaper by others. Utilize others and eliminate such services/ tests from lists.

*Result:* Increased fees to reflect full costs.

*Result:* Established minimum fee.

**Objective:** Identify data management efficiencies.

**Goal:** Standardize I/T system (Software). LIMS tracking system improved. Work in progress to improve VADDS.

**Result:** Ongoing. Continuing to improve LIMS, Network and VADDS systems.

**Objective:** Costing of services.

**Goal:** Establish service costing/pricing protocols.

**Result:** Revised price lists.

**Result:** Fully trained staff.

**Goal:** Assign responsibility to Finance and Admin. Manager.

**Objective:** Develop a superior workforce (human resources).

**Goal:** Establish rewards and incentives.

**Result:** Proposal developed and submitted for approval.

**Objective:** Establish performance contracts.

**Goal:** Develop performance contract proposal.

**Result:** Completed proposal. Submitted for approval. Implement.

**Objective:** Enhance academic enterprise of the University of Guelph.

**Goal:** Support OVC teaching activities:

·AHL to provide a superior environment for experimental learning of students.

·AHL to participate in collaborative research and disease investigation activities.

·AHL to develop and contribute to dissemination of knowledge in veterinary lab medicine.

**Result:** Developed joint OVC and LSD agreement.

**Goal:** Support the University of Guelph Researchers with high quality analytical programs or access to equipment. Participate in the development of UofG submissions to the Challenge Fund and the Canadian Foundation for Innovation (CFI) fund.

**Result:** Participated in four joint project with UofG Faculty.

**Objective:** Improve Customer Service.

**Goal:** Set service standards (e.g. turn-around time).

**Result:** Set and published service standards for Urolith Centre.

**Objective:** Client survey.

**Goal:** Undertake client survey focussing on client satisfaction.

**Result:** One client survey completed. Client surveys will continue to be used to identify opportunities for service improvement.

**Objective:** Follow recommendations of Laboratory Advisory Committee.

**Note:** The committee was not established.

*Result:* Review need for such a committee as well as alternatives to achieve the intended purpose.

*Result:* Decision to establish mandatory “customer service” training program for staff and provide to all staff by November, 1998.

*Result:* Decision to establish “customer training” as part of mandatory new staff orientation program.

**Objective:** Enhance knowledge of Agri-food issues and topics.

**Goal:** Communicate results to industry.

*Result:* Results of LSD activities are communicated to industry through a number of vehicles: the general press; scientific publications; industry newsletters; presentations at annual meetings, industry workshops; etc. Details of communication activities will be reported in the Annual Report.

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## 5. EQUIPMENT INVENTORIES (INCLUDING LIBRARY HOLDINGS)

The following summary of estimated equipment replacement values is submitted in compliance with the requirements of the Memorandum of Agreement (1996) and includes the following institutions which became part of the University of Guelph as of 1 April, 1997.

### Laboratory Services Division

(including the Ag. & Food Lab, and Veterinary Services Lab in Guelph and Vet Labs in Kemptville and Ridgetown)

Alfred College

Kemptville College

Ridgetown College

Horticultural Research Institute of Ontario.

|                                                       | <u>Cost Value</u> | <u>Estimated<br/>Market Value</u> | <u>Estimated<br/>Replacement Value</u><br>(Cost x 2) (Market x 3) |
|-------------------------------------------------------|-------------------|-----------------------------------|-------------------------------------------------------------------|
| <b>Alfred College</b><br>(incl. some fixed equipment) | -----             | 1,500,000                         | 4.5 m                                                             |
| <b>Kemptville College</b>                             | -----             | 1,634,150                         | 5.0 m                                                             |
| <b>Ridgetown College</b>                              | -----             | 1,721,150                         | 5.1 m                                                             |
| <b>Horticultural Research Inst.</b>                   | -----             | 1,851,435                         | <u>5.5</u> m                                                      |
|                                                       |                   |                                   | 20.1 m                                                            |

### Lab Services Division

|                           |                |       |              |
|---------------------------|----------------|-------|--------------|
| * Agric. & Food Lab       | 9,227,293      | ----- | 18.0 m       |
| (plus 2.5 m fixed equip.) |                |       |              |
| Guelph Vet Lab Services   | 1,584,000      | ----- | 3.0 m        |
| Kemptville Lab Services   | 450,000        | ----- | 0.9 m        |
| Ridgetown Lab Services    | 400,000 (est.) | ----- | <u>0.8</u> m |
|                           |                | TOTAL | 22.7 m       |

### Research Station Operations - Guelph

|                          |        |
|--------------------------|--------|
| - Owned equipment .....  | 16.0 m |
| - Leased equipment ..... | 2.4 m  |

**Grand Total (Estimated) 61.2 m**

\* This equipment was purchased in the past 4 years. (Used cost x 1.5)

**NOTE:** Detailed Inventories are filed in the Office of the Assistant Deputy Minister, Education, Research and Laboratories Division, OMAFRA.

**APRIL 1998**

**6. INVENTORY OF DWELLING HOUSES, RENTS AND ACCOUNTS' STATUS**

|                                              | # | Units    | Revenues         |                   |
|----------------------------------------------|---|----------|------------------|-------------------|
| <b>Kemptville College</b>                    |   |          |                  |                   |
| Kemptville                                   | 1 |          | 4,917.38         |                   |
| New Liskeard                                 |   | <u>2</u> | <u>9,387.04</u>  |                   |
| TOTAL                                        |   | 3        | 14,304.42        |                   |
| Expenses - estimate                          |   |          |                  | <u>3,060.00</u>   |
| <b>Account balance</b>                       |   |          |                  | <b>11,244.42</b>  |
| <b>Ridgetown College</b>                     |   |          |                  |                   |
| Ridgetown                                    | 2 |          |                  |                   |
| Cedar Springs                                |   | <u>1</u> |                  |                   |
| TOTAL                                        |   | 3        | 19,795.00        |                   |
| Expenses                                     |   |          | <u>82.00</u>     |                   |
| <b>Account balance</b>                       |   |          |                  | <b>19,713.00</b>  |
| <b>Guelph Stations</b>                       |   |          |                  |                   |
| Ariss                                        |   | 3        |                  |                   |
| Cambridge                                    | 1 |          |                  |                   |
| Alma                                         |   | 1        |                  |                   |
| Hall House                                   |   | 1        |                  |                   |
| Ponsonby                                     |   | 1        |                  |                   |
| Arkell                                       |   | 3        |                  |                   |
| Simcoe                                       |   | 1        |                  |                   |
| Vineland                                     |   | <u>2</u> |                  |                   |
| TOTAL                                        |   | 13       | 72,480.00        |                   |
| Expenses                                     |   |          | <u>62,527.00</u> |                   |
| <b>Account balance</b>                       |   |          |                  |                   |
| <b>(including carryforward from 1996/97)</b> |   |          |                  | <b>163,136.00</b> |

**APRIL 30, 1998**

## 7. LIVESTOCK INVENTORIES

|                | Opening<br>April 1, 1997 | Sold | Died | Transferred |     | Born or<br>Aquired | Closing<br>April 30, 1998 |
|----------------|--------------------------|------|------|-------------|-----|--------------------|---------------------------|
|                |                          |      |      | In          | Out |                    |                           |
| ALFRED         |                          |      |      |             |     |                    |                           |
| Dairy Herd     |                          |      |      |             |     |                    |                           |
| Cows           | 41                       | 15   | 2    | 19          | 0   | 0                  | 43                        |
| Calves         | 26                       | 20   | 5    | 0           | 19  | 42                 | 24                        |
| Totals         | 67                       | 35   | 7    | 19          | 19  | 42                 | 67                        |
| KEMPTVILLE     |                          |      |      |             |     |                    |                           |
| Dairy Herd     |                          |      |      |             |     |                    |                           |
| Cows           | 42                       | 26   | 2    | 18          | 0   | 0                  | 32                        |
| Heifers        | 14                       | 1    | 0    | 24          | 18  | 0                  | 19                        |
| Calves         | 24                       | 27   | 7    | 0           | 24  | 55                 | 21                        |
| Totals         | 80                       | 54   | 9    | 42          | 42  | 55                 | 72                        |
| Dairy Research |                          |      |      |             |     |                    |                           |
| Steers         | 19                       | 19   | 0    | 0           | 0   | 0                  | 0                         |
| Bull Calves    | 0                        | 48   | 5    | 0           | 0   | 53                 | 0                         |
| LRF Cows       | 37                       | 60   | 0    | 0           | 0   | 48                 | 25                        |
| Totals         | 56                       | 127  | 5    | 0           | 0   | 101                | 25                        |
| NEW LISKEARD   |                          |      |      |             |     |                    |                           |
| Beef Herd      |                          |      |      |             |     |                    |                           |
| Cows           | 103                      | 43   | 0    | 86          | 0   | 0                  | 146                       |
| Calves         | 86                       | 77   | 0    | 0           | 49  | 124                | 84                        |
| Totals         | 189                      | 120  | 0    | 86          | 49  | 124                | 84                        |
| Sheep Flock    |                          |      |      |             |     |                    |                           |
| Rams           | 12                       | 12   | 0    | 10          | 0   | 4                  | 14                        |
| Ewes           | 165                      | 47   | 8    | 94          | 0   | 55                 | 259                       |

|                                       | Opening<br>April 1, 1997 | Sold  | Died   | Transferred |     | Born or<br>Aquired | Closing<br>April 30, 1998 |
|---------------------------------------|--------------------------|-------|--------|-------------|-----|--------------------|---------------------------|
|                                       |                          |       |        | In          | Out |                    |                           |
| Lambs                                 | 187                      | 364   | 68     | 0           | 73  | 633                | 315                       |
| Totals                                | 364                      | 423   | 76     | 104         | 73  | 692                | 588                       |
| <b>RIDGETOWN</b>                      |                          |       |        |             |     |                    |                           |
| Dairy Herd                            |                          |       |        |             |     |                    |                           |
| Cows                                  | 36                       | 20    | 0      | 13          | 0   | 10                 | 39                        |
| Heifers                               | 37                       | 2     | 2      | 0           | 13  | 20                 | 40                        |
| Bulls                                 | 4                        | 23    | 0      | 0           | 0   | 23                 | 4                         |
| Beef                                  |                          |       |        |             |     |                    |                           |
| Steers                                | 117                      | 117   | 0      | 0           | 0   | 54                 | 54                        |
| Swine                                 |                          |       |        |             |     |                    |                           |
| All classes                           | 335                      | 851   | 223    | 369         | 0   | 870                | 500                       |
| <b>GUELPH RESEARCH<br/>UNITS</b>      |                          |       |        |             |     |                    |                           |
| Arkell Equine                         | 54                       | 10    | 0      | 0           | 0   | 12                 | 56                        |
| Arkell Poultry                        | 6,814                    | 3,008 | 10,521 | 8,503       | 0   | 5,133              | 6,921                     |
| Arkell Swine                          | 1,440                    | 4,201 | 1,335  | 0           | 0   | 5,612              | 1,516                     |
| Alma Aqua ('000)                      | 97                       | 188   | 106    | 0           | 0   | 313                | 116                       |
| Clinical Research<br>(Swine)          | 0                        | 550   | 0      | 550         | 0   | 0                  | 0                         |
| Clinical Studies (Dairy)              | 49                       | 43    | 4      | 46          | 0   | 0                  | 48                        |
| Elora Dairy                           | 325                      | 192   | 11     | 15          | 0   | 178                | 315                       |
| Elora Beef                            | 453                      | 321   | 8      | 97          | 0   | 249                | 470                       |
| Ponsonby Dairy                        | 101                      | 57    | 10     | 9           | 0   | 59                 | 102                       |
| Ponsonby<br>(General Animal Facility) | 239                      | 72    | 0      | 0           | 0   | 1                  | 168                       |
| Ponsonby Sheep                        | 313                      | 10    | 0      | 0           | 0   | 0                  | 303                       |

Includes animals slaughtered for  
research studies.





## ACRONYMS

|        |                                                                |
|--------|----------------------------------------------------------------|
| AAFC   | Agriculture and Agri-Food Canada                               |
| AHL    | Animal Health Laboratory                                       |
| ARIO   | Agricultural Research Institute of Ontario                     |
| BIO    | Beef Improvement of Ontario                                    |
| CAEAL  | Canadian Association for Environmental Analytical Laboratories |
| CIP    | College Information Program                                    |
| CFI    | Canadian Foundation for Innovation                             |
| CFIA   | Canadian Food Inspection Agency                                |
| DFO    | Dairy Farmers of Ontario                                       |
| GLP    | Good Laboratory Practices                                      |
| HRIO   | Horticultural Research Institute of Ontario                    |
| ISO    | International Standards Organization                           |
| LIMS   | Laboratory Information Management System                       |
| LS     | Laboratory Services Division                                   |
| OAC    | Ontario Agricultural College                                   |
| OASIS  | OMAFRA Agreement's Information System                          |
| OMAFRA | Ontario Ministry of Agriculture, Food and Rural Affairs        |
| ORC    | Ontario Realty Corporation                                     |
| OVC    | Ontario Veterinary College                                     |
| RFP    | Request for Proposal                                           |
| RSO    | Research Station Operations                                    |
| SCC    | Standard Council of Canada                                     |
| SOP's  | Standard Operating Procedure                                   |
| VADDS  | Vetstar Animal Disease Diagnostic System                       |
| VCEP   | Veterinary Clinical Education Program                          |
| VMD    | Veterinary Medical Diets                                       |

