

**FACULTY OF AGRICULTURE,
FOOD AND NATURAL RESOURCES**

**ACADEMIC BOARD VISIT TO REVIEW
TEACHING, LEARNING AND
RESEARCH TRAINING**

WEDNESDAY 8 MAY 2002

**FINAL REPORT AND
RECOMMENDATIONS**

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1 Introduction

- 1.1 The following Academic Board Review Team visited the Faculty of Agriculture, Food and Natural Resources on Wednesday 8 May 2002 as part of the review and evaluation of teaching, learning and research training in all faculties within the University.

Chair

Associate Professor Russell Ross *Deputy Chair, Academic Board*

Team Members

Professor Les Field *Pro-Vice-Chancellor (Research)*
Associate Professor Mike Prosser *Director, Institute for Teaching and Learning*
Associate Professor Tony Masters *Deputy Chair, Academic Board*
Dr Elizabeth Ellis *Faculty of Health Sciences*

Administrative Officer

Rachel Symons *Quality Assurance Officer (Teaching and Learning)*

Observers

Mr David Roberts *Faculty of Rural Management*
Professor Michael Jackson *Faculty of Economics and Business*

- 1.2 During the visit the Team interviewed the following groups of staff and students:

- Dean Professor Les Copeland and senior Faculty staff¹:
 - Assoc Professor Harley Rose, Head, School of Land Water and Crop Sciences
 - Prof T Gordon MacAulay, Head, Department of Agricultural and Resource Economics
 - Mrs Carolyn Tanner, Assoc Dean, Undergraduate Studies – BAgrEc, BResEc
 - Dr Stephen Cattle, Assoc Dean, Undergraduate Studies – BSAgr, BLWSc, BHortSc, BAnimSc
- Undergraduate students (10) and Postgraduate Coursework students (2)
- Postgraduate Research students (10)
- Academic and general staff ²(10) (*This group also included Dr Balwant Singh, Assoc. Dean, Postgraduate Studies*)
- Open session (individual appointments with staff and students)

- 1.3 In preparation for a visit by the Academic Board Review Team, each Faculty is asked to prepare a self-evaluation report on their teaching and learning and research training activities. The findings of the Review Team in relation to these activities are included in the following report.

2 Achievements and hallmarks of the Faculty

2.1 Achievements

- 2.1.1 The Faculty reported to the Review Team that it occupies a niche in training in the broader agricultural area, recognising that agricultural training covers not only crops and animals, but also off-farm activities, processing, marketing, finance, natural resources and management and that it

¹ Referred to as senior staff within the report

² Referred to as staff within the report

provides these programs accordingly. The Review Team was informed that most other agriculture degree programs in Australian universities have been absorbed into other faculties; the University of Sydney is one of the few that has a separate Faculty of Agriculture, Food and Natural Resources. It has also maintained its position of being a research active Faculty. Four new degrees have been developed in recent two years (BHortSc introduced in 1996, BResEc introduced in 2000, BAnimSc introduced in 2002).

- 2.1.2 Whereas the national and international trend is for a reduction in the number of agricultural undergraduate students being recruited by universities, the Faculty has managed to maintain a high recruitment rate, with more students applying than places available. Ninety five percent of University of Sydney agriculture graduates find employment within a year of leaving university. The high salary rates offered to undergraduates makes it very difficult to attract new postgraduate research students, as evidenced by the decline in enrolment rates by 15-20% in recent years.
- 2.1.3 The small size of the Faculty is conducive to maintaining good internal networks of staff and students, with good interaction between all groups as well as the alumni.

2.2 Hallmarks

- 2.2.1 The Review Team was told that a number of mechanisms built up the ethos and spirit prevalent amongst staff and students. Student excursions provided bonding and a support mechanism for students and staff. The small size of the Faculty was conducive to producing a close-knit community.
- 2.2.2 The close link between teaching and research, advice on professional placements and project work were also mentioned as hallmarks by the Faculty.
- 2.2.3 The Review Team was told that the Faculty aims to produce graduates who are knowledgeable about their discipline but who also have a broader view of life in general and are seen as citizens of the world.

3 Communication

- 3.1 Communication was not seen to be a major issue by the senior staff. Their small size in terms of staff meant that informal mechanisms were utilised in addition to more formal ones such as committees. Electronic forms of communication were widely used. The Team felt that it would be hard for new staff to access the informal mechanisms of communication present in the Faculty. Some staff expressed the desire for a formal Faculty forum at which the Dean could interact with staff at all levels; other staff felt that formal Faculty meetings were not conducive to informal discussion.
- 3.2 Staff told the Team that information about the recent restructure had not been well communicated by Faculty executive. In response, the Dean said that he had made it clear to all staff that the changes would take at least three years to complete and that he understood the unease and anxiety of the staff on this matter.
- 3.3 Students felt that although there was not formal contact with staff other than during class, it was possible to see them informally in their offices to discuss matters of concern. Some postgraduate coursework students felt that communication broke down once they left the main campus after the formal lecture component of their course. Students suggested that a Faculty news bulletin would enhance communication.

Recommendation 1

The Review Team recommends that although informal mechanisms are working well, due mainly to the small size of the Faculty, more effective formal mechanisms should be introduced. This would aid in the dissemination of information to all staff.

4 Implementation of Academic Board policies and guidelines

4.1 There are a number of Academic Board policies and guidelines that faculties are required to promulgate. The Review Team was interested in ascertaining how the Faculty communicated information about policies and guidelines to staff and students. It was particularly interested in the Academic Honesty policy, the Intellectual Property rule and communication of improvements in courses relating to student evaluations.

4.2 Communication of policies within the Faculty

4.2.1 Academic Board policies are promulgated and discussed informally and at Faculty committee meetings; however no formal compliance mechanism existed. Response to each policy was left up to the individual staff member. Policies are included in Faculty handbooks. Staff receive emails about all Academic Board policies but only examine those that are relevant to their duties.

4.3 Academic Honesty (Plagiarism) in coursework

4.3.1 The Academic Honesty (Plagiarism) in coursework policy is discussed with, and explained to, students at introductory lectures. It is a Faculty requirement that the policy be included in all handbooks.

4.4 Intellectual Property Rule

4.4.1 The Faculty has many students working on research projects with external support, who are involved in preparing and presenting reports to an external funding agency, such as a CRC. The Review Team was concerned about staff and students' understandings of the University Intellectual Property (IP) rule in these circumstances. They found that knowledge of the IP rule varied greatly amongst staff and students.

4.4.2 The Faculty reported that it advised individual students about IP issues as necessary, but did not provide general advice to the group as a whole. The University Business Liaison Office had been contacted by staff for information regarding issues relating to the IP rule; in particular those relating to the examination of theses by external funding agencies. Staff told the Team that it is not always possible to ascertain if IP will be an issue in individual proposals.

4.4.3 RHD students who were 100% funded by industry informed the Review Team that they felt they were under pressure from both the IP and the commercial angle. Although they were free to read the contract before signing, and were informed that legal advice could be sought, no explanation or information relating to IP issues was provided to them by the Faculty.

4.4.4 The Review Team found that IP issues had an impact on PhD students, and CRC and industry funded programs. Students had not received adequate explanation about their rights, particularly in relation to the confidentiality of their theses.

Recommendation 2

The Team recommends that the Faculty introduce systemic ways of informing research higher degree students of their rights and responsibilities under the University Intellectual Property rule.

4.5 Evaluation process

- 4.5.1 It is Academic Board policy that information concerning the way in which the evaluation process has led to improvements in units of study shall be made available to students in written form. The Faculty was asked to describe what they were doing in relation to this policy.
- 4.5.2 The Faculty Teaching and Learning Committee is currently discussing this issue. Currently evaluations are discussed in staff-student liaison committee and formally recorded. Students informed the Team that they had seen written summaries from Soil Science 2, and that in Animal Science the lecturer had provided verbal information. Otherwise, formal written feedback was not generally provided to students.

5 Aims and outcomes of courses and units

- 5.1 The Faculty reported that students are provided with written information for each course. This includes an outline of the course, its relationship with other units, and the aims and outcomes of the course. Information is also provided in the Faculty handbook. Staff acknowledged that there was a varying degree of knowledge and understanding of the unit aims and outcomes amongst the student cohort.
- 5.2 Students confirmed that most lecturers provided them with written information about the learning objectives of units of study; although there was sometimes disparity between this and what happened in practice. Agronomy students reported that course information was only available through the Faculty website, making it difficult to ascertain requirements of the course, particularly in relation to assignments.

6 Generic and disciplinary skills

- 6.1 The University expects all its graduates to possess specific attributes on graduating. These include knowledge skills, thinking skills, personal skills, personal attributes and practical skills. The Review Team asked the Faculty how they mapped these skills to their curriculum, and how they were communicated to students. They were informed that generic attributes were embedded into the teaching in the lower years rather than being explicitly written down. Fourth year students attended formal workshop training in oral, written and presentation skills. The Faculty suggested that time management should be included in the University's generic skills.
- 6.2 Students thought that they developed these skills indirectly through the course of their degree program. However they would appreciate more explicit reference made by their lecturer, similar to that provided in courses taken outside the Faculty, so that they ascertain their level of achievement in these areas.

Commendation 1

The Review Team found that the Faculty was doing a good job in equipping students with generic skills as reflected by the high employment rate of graduates.

Recommendation 3

The Team recommends that the staff communicate the University generic skills to the students more clearly, and that the skills should be more carefully mapped to the curriculum in order to ensure consistent outcomes.

7 Teaching and learning quality

- 7.1 Throughout the visit the Review Team received a clear message from both staff and students that the Faculty has a strongly committed staff who are very approachable and responsive to student questions. They learnt of some good initiatives in teaching and learning. One unit in particular, Soil Science 2, received praise from many people interviewed.
- 7.2 Students expressed concern about the quality of teaching, especially compared to that in other faculties. They commented on the variation in teaching skills amongst Faculty staff, and suggested that all staff should be required to undertake training at the Institute of Teaching and Learning. Students from the Plant Breeding Institute appreciated the high quality of teaching that they received. Of the courses provided to agricultural students by other faculties, the high standard of teaching received in Animal Science units taught by the Faculty of Veterinary Science was particularly praised.

Commendation 2

The Review Team commends the Faculty on its strongly committed, approachable and responsive staff. It also commends the Faculty for the good initiatives evident in teaching and learning across the Faculty.

Recommendation 4

The Review Team recommends that further efforts are needed to improve the quality of teaching across the Faculty.

7.3 Staff turnover

- 7.3.1 The high turnover of staff in the Faculty is an ongoing issue resulting from the fact that a high proportion of staff were at or near retirement age. The problem had been exacerbated by a number of retirements and a resignation during 2001. Budget constraints have impeded the filling of new positions. Of particular concern was the Agronomy Department since there were few academic agronomists in Australia, and few professional agronomists willing to undertake a PhD program and enter academia. Some students expressed unrest at the number of lecturers who were leaving and being replaced by inexperienced staff.
- 7.3.2 The Team was also informed by the Faculty that the combination of staff contraction and its diversity of disciplines meant that it was not always possible to have expert staff. External lecturers were often invited to lecture in arenas of need, especially when it was difficult to justify a full appointment. One example given was that of a lecturer in post harvest horticulture. The Faculty saw the use of visiting expert lecturers as a positive move in the exposure of students to life as a professional agriculturalist.

7.4 Induction and orientation of new and casual staff

- 7.4.1 Induction and orientation processes for new, casual and part-time staff processes vary across departments. The Agronomy group in the School of Land, Water and Crop Sciences has extensive discussions with, and sat in on lectures taken by, visiting lecturers. The Department of Agricultural Economics met weekly with their part-time and casual staff to ensure a consistent viewpoint in tutorials/ workshops conducted in the department. Other departments had no coordination process in place, saying that most of their part-time casual staff and tutors were experienced and discussed matters with the relevant coordinators. It was thought that PhD students used as lab technicians, and who had been through the undergraduate program, should know what was required. The Team found that the informal communication processes within the Faculty made it difficult for new and part-time staff and visiting lecturers to know what was expected of them in teaching practices. (*see also Section 3 Communication*)

Recommendation 5

The Review Team recommends that the Faculty introduce a more consistent induction process for new and casual staff.

7.5 Acknowledgement of good teaching

- 7.5.1 The Faculty has no formal mechanism at present to acknowledge good teaching. It acknowledges that this is an area which needs to be developed. The Team was interested in ascertaining how staff and students saw good teaching being rewarded.
- 7.5.2 Staff confirmed that there was no formal recognition of good teaching; however, acknowledgement by their peers was sufficient recognition. Informal recognition was also apparent when good teachers were called upon to take additional classes. Students did not see evidence that good teaching was being rewarded within the Faculty. One Unit of Study, Soil Science 2, is highlighted by many participants as a benchmark for other units. (*see also Section 7.1*)

Recommendation 6

The Team recommends that the Faculty consider the development of a Faculty level teaching excellence award.

Recommendation 7

The Review Team recommends that the Faculty nominate lecturers from Soil Science 2 for a University excellence in teaching award.

7.6 Benchmarking agricultural education

- 7.6.1 The Review Team was interested in finding about any benchmarking activities carried out by the Faculty with industry professional groups or institutions offering similar courses, particularly in relation to assessment processes. The Faculty informed them that discussions were held with industry contacts but no formal mechanisms were in place. They told the Team that due to the lack of similarly structured faculties within Australia, and the uniqueness of the units taught by Sydney, there was limited scope for benchmarking. However, some benchmarking takes place

during discussions between the Department of Agricultural and Resource Economics and the University of New England, and in the monitoring of the performance of graduates with employers.

7.7 Service teaching

- 7.7.1 The Faculty highlighted that there were a number of problems with courses provided by departments of other faculties, mainly in relation to course content and its applicability to agricultural students. To some extent the Faculty relied on what happened in the larger service providers – the faculties of Science and Economics and Business - since agriculture students form a small part of larger classes in courses provided by these faculties. Changes made in these often mean that agriculture students are missing out on content or skills previously agreed to between faculties. The Faculty constantly monitored this situation and resulting gaps in student knowledge and skills were remedied. As a rule, staff use the handbooks from the service departments to ascertain what is being taught.
- 7.7.2 Discussions take place between the service providers and the Faculty, and the Dean has input into development of service courses. However, the Faculty is no longer involved in for example the Economics Curriculum Committee.
- 7.7.3 Collaborative teaching links were being developed by the Faculty. The teaching of Animal Science by the Faculty of Veterinary Science was mentioned as a good example of collaborative teaching.
- 7.7.4 The Review Team was concerned about the extent to which the Faculty relies on other faculties in courses, and found that the Faculty had little input on curricula service units.

Recommendation 8

The Review Team recommends that the Faculty investigate ways of providing more input into the curricula of teaching provided by other faculties.

7.8 Curriculum review

- 7.8.1 Staff are eager for a significant curriculum review to be undertaken by the Faculty, but were aware that the development of collaborative teaching links was slowing down the process. Concern was expressed to the Team that the new degrees offered by the Faculty might be considered by some to be re-badging of the old degrees.

8 Research-led teaching

- 8.1 Many staff informed the Review Team that although they utilised their own research material during lectures, it was not specifically referred to as such. Involvement with CRCs meant that staff were required to undertake research in their teaching. Students would appreciate being shown the practical application between their studies and the research undertaken by the Faculty. Knowledge about research activities of the Faculty was often obtained when students were considering the subject of their thesis.
- 8.2 The students told the Team that the compulsory fourth year research project or exercise involved a small amount of practical work, laboratory analysis, a literature review and a thesis, which they found helped with skills development. Students are able to focus on an area of interest and learn

about research requirements for further studies. The tardiness of the Faculty in appointing a supervisor to some current fourth year students was mentioned during the interviews.

- 8.3 Opportunities for first to third year undergraduate students to undertake research projects included summer scholarship schemes with CRCs and ABARE at the end of third year, and working with fourth years on their projects. The Faculty has a formal requirement for undergraduate students to undertake eighteen weeks professional experience during their program. This includes a compulsory six weeks placement on a farm, with the remainder in a relevant approved area, including research environments. Students reported that the placement database maintained by the Faculty did not always include current information. Resource Economics students were concerned about their professional experience as they were not required on farms and were receiving no direction on alternative placements.

Commendation 3

The Review Team commends the Faculty on the integration of research into their teaching.

Recommendation 9

The Review Team recommends that the Faculty considers ways of stressing the link between research and teaching to students.

9 Research supervision and training

- 9.1 Both local and international postgraduate students were reportedly being attracted to the Faculty due to the reputation of the Faculty, its staff, potential research supervisors, and the Plant Breeding Institute, and, in the case of international students from Asia, its links with their home university. It was apparent that some of the student cohort interviewed had not met beforehand, and they expressed the desire for a formal postgraduate induction program.

Commendation 4

The Review Team commends the Faculty on its ability to attract local and international postgraduate students because of its reputation as a Faculty, a research institution and its supervisors.

Recommendation 10

The Team recommends that a formal induction program for research students be implemented and other opportunities for peer review and support be considered.

9.2 Completion rate

- 9.2.1 The Faculty is at the high end of the ratio of enrolments to completions within the University; and a high number of students fail to finish their candidature. Senior staff informed the Review Team that there were a couple of known reasons behind their low completion rate.
- 9.2.2 One reason related to the fact that students from the Faculty were highly sought by employers. These students often left soon after collecting data and handing in the first draft of their thesis, but were still counted in Faculty statistics. The Faculty found it difficult to prevent students from accepting lucrative offers of employment, whilst waiting for their thesis to be examined. They

associated this with the lack of a University mechanism for ensuring that students completed and handed in their thesis before commencing employment, and for the length of the examination process.

- 9.2.3 The Faculty reported that some candidates left after three to four years after realising that the task was too big.

9.3 Research training

9.3.1 The research students considered research training within the Faculty to be fairly segmented. Whereas some students were provided with a good research plan and framework at the onset of the program, others experienced a lack of guidance and a lack of foresight to predict failures. They would appreciate more input from their supervisors in terms of planning projects and setting realistic timeframes.

9.3.2 Not all students were able to attend and present at local and international conferences. Information about these conferences was often obtained through sources other than the Faculty. Funding provided through travelling scholarships and postgraduate schemes did not cover international conferences. International students received no component for conferences.

9.4 Postgraduate supervision

9.4.1 The Faculty informed the Review Team that Heads of Departments monitor postgraduate supervision informally, and that there is no formal monitoring process. There is no formal recognition of excellence in RHD supervision by the Faculty.

9.4.2 Relationships between students and their supervisors varied across the Faculty. Some students had good relationships with their supervisors, and worked collaboratively with them. Students at the Plant Breeding Institute told the Team that they had more interaction with their fellow PhDs than with their supervisors, and that they worked as a team to share ideas. Externally funded students felt it was difficult to have a close relationship with their supervisors.

9.4.3 There were varying degrees of understanding among the group about the procedure for resolving problems. Academic problems could be solved by either the supervisor or associate supervisor; non-academic problems might require assistance from outside the Faculty. Students were unaware of the name of the recently appointed postgraduate coordinator.

9.4.4 Students are concerned about the quality of supervision, and suggested that supervisors should undertake the Institute of Teaching and Learning Postgraduate Supervision Development Program.

9.5 Monitoring of student progress

9.5.1 The Faculty reported that their postgraduate database was used to monitor student progress and to provide annual reports; but that its management was time consuming and it had not been updated recently. They had hoped to take advantage of the Flexible Student Information System (FlexSIS) for centralised control of records. However both systems were being used concurrently.

9.5.2 Students were concerned about the quality of their feedback in the annual progress report. They felt that the comments were usually not informative, and did not address all issues of importance to them.

Recommendation 11

The Review Team recommends that the Faculty consider ways in which the annual progress reports could be made more informative for students.

9.6 Resources

- 9.6.1 The morale of the postgraduate research student cohort interviewed was demonstrably lower than that of the undergraduate student group. The Review Team found that although students really cared about their degrees and had chosen Sydney as a place to undertake their research above other universities, resource issues were adversely affecting them.
- 9.6.2 Students reported cramped laboratory space at the Plant Breeding Institute, overcrowded office space on Camperdown, accommodation that needed repairs, and old computers which often had reliability problems. They also told the Team that facilities for industry funded (APAI) students were often better than those who were Faculty APA funded. Equipment was more often repaired than replaced. On being informed about the students' concerns, the Dean said that he supported the students in their request for better resources.
- 9.6.3 However, all students were appreciative of the resources available at Badham, Camden and Fisher libraries. They had access to electronic resources, journals and databases and library staff were able to obtain documents from other libraries for their use.

Recommendation 12

The Review Team recommends that the Faculty consider making improvements in the resources and accommodation for research students.

10 Assessment

- 10.1 In this area of the evaluation, the Review Team explored issues relating to student knowledge of assessment processes and standards, and student dissatisfaction in the amount of feedback given on formative assessment. They discovered that there was a considerable variation in knowledge about assessment requirements and standards amongst staff and students and that feedback to students on formative assessment depended on the unit.
- 10.2 The staff told the Review Team that course notes contained information on the timing of assessment tasks, processes and standards, and marking scheme allocation. Students were reminded about these during the course. Students, however, reported that they would appreciate guidelines on what was expected in this area. They considered that notes provided in some courses taught by other faculties were of a higher standard, for example Animal Science taught by the Faculty of Veterinary Science.
- 10.2 The Faculty reported that assessment varied across all units, and that at the end of the course scaling and judgement was used. Students were informed if scaling was applied. A learning contract was used by the Department of Agricultural and Resource Economics for one unit of study. Information about dates and content of assignments is included in the handbook.
- 10.3 Feedback on formative assessment depended on the unit. Resource issues made it difficult to provide students with individual feedback though students were welcome to come to talk to

individual lecturers. Students appreciated this open door policy. Staff felt that although feedback was valuable, the open door policy was becoming exceedingly difficult to maintain in the light of decreasing resources and extra workloads.

- 10.4 Soil Science 2 lecturers provided an example of how the Faculty was trying to address the dissatisfaction of students with feedback. This subject incorporates quizzes into lectures on a fortnightly basis, with answers available on the website. This is resource demanding, and other means of providing feedback are being investigated.

Recommendation 13

The Review Team recommends that staff consider providing feedback in class, as it would save time taken in individual feedback through their open door policy, and relieve pressure on staff.

Recommendation 14

The Review Team recommends that the Faculty undertake more work in the articulation and communication of assessment standards to students.

11 Evaluation and quality improvement

11.1 Improvements to units of study

- 11.1.1 Staff informed the Review Team that although information on improvements was not provided to students in written form, as required by Academic Board policy³, they were told verbally what changes had been made as a result of evaluation comments from the previous student cohort.
- 11.1.2 Horticulture staff provided the Team with an example of how an exit survey of fourth years had indicated problems in the first two years of the program relating to the amount of horticulture units. Changes had been made to the course content, resulting in positive feedback from students.
- 11.1.3 The staff pointed out that the small size of the Faculty facilitated immediate resolving of grievances and consequent improvements.

11.2 Core and elective subjects

- 11.2.1 The Faculty Self-Evaluation Report mentioned that students tended to express a higher degree of satisfaction with elective units in their area of interest than in some of the essential core units of the curriculum. The Review Team felt that this was counter intuitive and different from other vocational programs where core subjects are deemed more satisfying because of their perceived relevance, and explored the reasons behind this finding with both staff and students.
- 11.2.2 Staff told the Team that students were exposed to a whole range of disciplines, all different to one another. All subjects taken in first and second years were core subjects for the science based degrees. They also told the Team that in agriculture the concept of systems and their interdependence was important and students were required to have knowledge of all aspects.
- 11.2.3 Students preferred elective subjects over core subjects because the large size of classes in core subjects, and the way material was presented by lecturers, made it difficult to maintain interest in

³ see Section 4.5: Implementation of Academic Board policies: Evaluation process

the some core subjects. They told the Team that they could see the relationship of some core subjects to agriculture, but they would like more applied examples of how the subjects related to agriculture.

11.3 Staff- student liaison committee

- 11.3.1 The Review Team found that although the staff thought the staff-student liaison meeting process was working well, the students were of a different opinion.
- 11.3.2 Staff indicated that all problems brought before the meeting were dealt with and a formal response supplied to the student representative. They felt that the process was being used by some students to ask for changes that could not reasonably be met.
- 11.3.3 Students reported that although some issues raised during the past year had been dealt with satisfactorily, they often did not receive formal notification that the committee had discussed and dealt with matters of concern. They felt that the process whereby staff and student representatives met before the meeting to discuss written and signed concerns may influence student involvement. The student representative mentioned the short time frame in which he had available to collect concerns, contact relevant staff, and present in written form to the staff representative.

Recommendation 15

The Review Team recommends that the Faculty instigate a process which acknowledges the problems raised and addresses the answers to them. The current process discourages students from coming forward with issues.

12 Student progression

- 12.1 The Team was interested in finding out how students at risk were identified across the whole Faculty. They noted that the Faculty mentioned in its evaluation report that until recently advice on the progress of students in first year Chemistry and Econometrics had enabled them to identify students at risk in these units but that the provision of this information had been curtailed due to pressure on the staff in the relevant faculties. The Review Team wished to know if alternate methods of obtaining this information had been explored.
- 12.2 The Review Team were told by the staff that progress of Agriculture students was comparable to Science and Economics. They thought this was a good sign because of the lower cut-off rate in Agriculture. They also said that feedback could be addressed by talking to the first year coordinator. Feedback from the School of Chemistry had ceased a number of years previously.
- 12.3 Processes for identifying students at risk varied between departments. In Agricultural Economics all students are interviewed upon enrolment, and problems identified. All first year students are tested for literacy and provided with remedial help if necessary. Additionally, since all first years tutorials have the same tutor it is easy for students to be monitored and other problems identified. After the first set of examinations all students with problems are interviewed again, and those with ongoing problems are seen on a regular basis.
- 12.4 In Agricultural Science students are seen at the end of first semester and are seen on field trips. Students are free to come and see the lecturer on a personal basis. Early quizzes identify students who may have problems and these are interviewed.

Commendation 5

The Review Team commends the Faculty on the early identification of students at risk where it occurs. The Department of Agricultural and Resource Economics is to be commended for its good first year experience program. The Review Team found that this was patchy across the rest of the Faculty.

13 Concluding comments

- 13.1 The Review Team considered the results of the interviews, the Self-Evaluation Report and the Teaching and Learning Plan and concluded that the Faculty of Agriculture, Food and Natural Resources was following good practices in the areas of equipping students with generic skills, attracting local and international postgraduate students and research led teaching. Students consider staff approachable, and there are some good initiatives in teaching and learning. The Review Team recommends that the Faculty give consideration to improving practices in the areas of rewarding good teachers, communication, input into the curricula of service units, staff-student liaison committee, induction and orientation of new staff, resources for research students, student feedback, and alerting students to their IP rights and responsibilities.
- 13.2 These findings were communicated to the Dean of the Faculty of Agriculture, Food and Natural Resources at the conclusion of the visit and through the *Summary Report of the Findings of the Review Team* which was sent to the Faculty on 5 June 2002.

14 Areas of good practice (Commendations)

Based on the Self Evaluation Report, the Teaching and Learning Plan and the findings of the Review Visit, the following areas of good practice in teaching, learning and research training have been identified within the Faculty of Agriculture, Food and Natural Resources.

Commendation 1

The Review Team found that the Faculty was doing a good job in equipping students with generic skills as reflected by the high employment rate of graduates. (*See Section 6*)

Commendation 2

The Review Team commends the Faculty on its strongly committed, approachable and responsive staff. It also commends the Faculty for the good initiatives evident in teaching and learning across the Faculty. (*See Section 7.1 and 7.2*)

Commendation 3

The Review Team commends the Faculty on the integration of research into their teaching. (*See Section 8*)

Commendation 4

The Review Team commends the Faculty on its ability to attract local and international postgraduate students because of its reputation as a Faculty, a research institution and its supervisors. (*See Section 9.1*)

Commendation 5

The Review Team commends the Faculty on the early identification of students at risk where it occurs. The Department of Agricultural and Resource Economics is to be commended for its good first year experience program. The Review Team found that this was patchy across the rest of the Faculty. *(See Section 12)*

15 Areas of consideration for improvement (Recommendations)

The Review Team identified a number of areas for consideration for improvements, and makes the following recommendations to the Faculty.

Recommendation 1

The Review Team recommends that although informal mechanisms are working well, due mainly to the small size of the Faculty, more effective formal mechanisms should be introduced. This would aid in the dissemination of information to all staff. *(See Section 3)*

Recommendation 2

The Team recommends that the Faculty consider ways of informing research higher degree students of their rights and responsibilities under the University Intellectual Property rule. *(See Section 4.4)*

Recommendation 3

The Team recommends that the staff communicate the University generic skills to the students more clearly, and that these skills should be more carefully mapped to the curriculum in order to ensure consistent outcomes. *(See Section 6)*

Recommendation 4

The Review Team recommends that further efforts are needed to improve the quality of teaching across the Faculty. *(See Section 7.1 and 7.2)*

Recommendation 5

The Review Team recommends that the Faculty consider introducing a more consistent induction process for new and casual staff. *(See Section 7.4)*

Recommendation 6

The Team recommends that the Faculty consider the development of a Faculty level teaching excellence award. *(See Section 7.5)*

Recommendation 7

The Review Team recommends that the Faculty nominate lecturers from Soil Science 2 for a University excellence in teaching award. *(See Section 7.5)*

Recommendation 8

The Review Team recommends that the Faculty investigate ways of providing more input into the curricula of teaching provided by other faculties. *(See Section 7.7)*

Recommendation 9

The Review Team recommends that the Faculty considers ways of stressing the link between research and teaching to students. *(See Section 8)*

Recommendation 10

The Team recommends that the introduction of a formal induction program for research students and opportunities for peer review and support be considered. *(See Section 9.1)*

Recommendation 11

The Review Team recommends that the Faculty consider ways in which the annual progress reports could be made more informative for students. *(See Section 9.5)*

Recommendation 12

The Review Team recommends that the Faculty consider making improvements in the resources and accommodation for research students. *(See Section 9.6)*

Recommendation 13

The Review Team recommends that staff consider providing feedback in class, as it would save time taken in individual feedback through their open door policy, and relieve pressure on staff. *(See Section 10)*

Recommendation 14

The Review Team recommends that the Faculty undertake more work in the articulation and communication of assessment standards to students. *(See Section 10)*

Recommendation 15

The Review Team recommends that the Faculty instigate a process which acknowledges the problems raised and addresses the answers to them. The current process discourages students from coming forward with issues. *(See Section 11.3)*

**FACULTY OF AGRICULTURE, FOOD AND NATURAL RESOURCES
ACADEMIC BOARD FACULTY REVIEW VISIT****WEDNESDAY 8 MAY 2002****BRIEF REPORT OF THE FINDINGS OF THE REVIEW TEAM**

The Academic Board Review Team visited the Faculty of Agriculture, Food and Natural Resources on Wednesday 8 May 2002 to review and evaluate academic planning and quality assurance systems within the Faculty. Interviews were held with the following groups:

- Dean Professor Les Copeland and senior academic staff
- Undergraduate and postgraduate coursework students
- Postgraduate research students
- Faculty academic and general staff

There was also an open session at the end of the visit at which staff and students were invited to come and speak to the Review Team individually.

This report is a short summary of the main findings of the Review Team as reported to the Dean of the Faculty, Professor Les Copeland, at the end of the visit.

AREAS OF GOOD PRACTICE

- Clear message from both staff and students that the faculty has a strong committed staff who are very approachable and responsive to student questions. However, both staff and students thought that staff were feeling very overstretched. Students thought it great to be able to go to the lecturer and get an answer. However if the lecturer was pre-emptive and did a lot of work up front it would save time in the long run.
- The Faculty is doing a good job equipping students with generic skills. This is reflected by higher employment rate. However students are blissfully unaware that they are acquiring them until said they were told what they were. Staff need to let students know what is happening.
- Ability of faculty to attract local and international postgraduate students is because of its reputation as a faculty, a research institution and its supervisors.
- It is clear that the faculty is doing research led teaching from the staff but students didn't realise was happening. Staff are not getting message across that they are doing research. Students

thought that it was something the staff did in their holidays. One way of motivating students might be to stress the link that happens between research and teaching in the faculty

- First year experience good in Agricultural Economics but patchy across the rest of the Faculty.
- There are some good initiatives in teaching and learning. Soil Science 2 got universal unsolicited applause. The faculty should consider nominating the course for an excellence in teaching award.

AREAS OF CONSIDERATION FOR IMPROVEMENT

- The Faculty might like to think about ways of rewarding good teachers. Staff are unaware of faculty level teaching awards.
- Confusion about outcomes of restructure of the faculty. This is a communication issue. Staff are not sure where things are going.
- Stressed out staff from lack of time to do everything required. Students recognised that staff were stressed. Staff indicated that since they were on so many committees communication was not an issue.
- Concern about quality of teaching if staff overstretched. Rebadging of degrees was mentioned in that it is not clear how the new degree is distinguishable from the old
- The extent to which faculty relies on others is a problem. There is less input from Agriculture on curricula service units.
- Staff turnover has implications for the quality of teaching. It was unclear why staff are leaving.
- There are a lot of informal communication mechanisms between staff which are very effective and which they rely on. There are fewer formal mechanisms to inform staff about policies etc. Informal mechanisms mean that it is harder for new staff to access them. There should be more formal mechanisms in place within the faculty.
- Staff student liaison committee has problems. The staff thought it was working but students felt differently. The processes in place discourage students from coming forward with questions. Students do not feel closure for the issues raised. The Faculty needs to put a process in place which acknowledges the problems raised and addresses the answers to them.
- Students did not understand what was required in assessment, or the standards. There was also some variation among the staff of the requirements and standards – some much more norm referenced, other more standards referenced.
- There is a major issue with research training in the faculty. Students commented on the lack of resources, the cramped accommodation, and the lack of access to IT compared to other faculties. Morale is low in the postgraduate research student cohort. They did not know who their postgraduate coordinator was or who they could go to if they had a problem with their supervisor. They really cared about their degrees but are being adversely affected by resource issues. It is suggested that the Faculty have a formal induction program for research students.

- Intellectual property has an impact on PhD and CRC and industry funded programs. Students were unclear about their rights, and had not had them adequately explained, especially in the confidentiality of their thesis.
- Research students were concerned about the quality of their feedback in the annual progress reports. They felt that the comments were not informative.

Professor Russell Ross
Chair, Review Team
Deputy Chair, Academic Board

5 June 2002

Faculty of Agriculture: Self-evaluation report on teaching and learning

July 2001

Background to the Faculty's teaching programs

The Faculty of Agriculture offers a diverse range of courses in which there are widely differing styles of teaching and learning. Undergraduate degree programs offered are the Bachelor of Science in Agriculture, Bachelor of Agricultural Economics, Bachelor of Horticultural Science, Bachelor of Land and Water Science, and Bachelor of Resource Economics. A new Bachelor of Animal Science will be offered from 2002. All degrees are 4-year programs, which include approximately 50% core units and 50% elective units. Honours are awarded on the basis of weighted performance in Years 2, 3 and 4, with performance in Year 4 accounting for half of that weighting.

The BScAgr and BAgEc degrees have first-year intake targets of 65 and 75, respectively, whereas the other degrees, all of which were established relatively recently (BHortSc in 1996, BLWSc and BResEc in 2000), each have intake targets of 15. The great majority of the intake are recent school leavers, from diverse geographical regions and backgrounds (urban, regional, rural, remote) and covering a broad spectrum of academic achievement (UAI from about 70 to over 95).

All of the degrees aim to give students some appreciation of both the technical and socio-economic framework of the agricultural and natural resources sectors – production of commodities, adding value through processing and marketing, and management of natural resources - while affording students opportunities for specialisation in particular disciplines. These objectives are achieved through curricula based on a mixture of core and elective units, and requiring all students to participate in at least one extended rural field trip and to complete a program of professional experience, which puts the teaching into a practical context. Excursions and field-based teaching help students to get to know each other, establish an esprit de corps in the Faculty, and build a good rapport between students and staff.

Teaching in the science-based degrees (BScAgr, BHortSc, BLWSc) is conducted in lectures, tutorials, computing laboratories, wet laboratories and fieldwork. Students elect to specialise in one discipline in Year 4 (eg, Agronomy, Animal Science, Horticulture, Soil Science, Agricultural Genetics, Agricultural Chemistry, etc). Foundation science units in Year 1 are taken as service teaching from the Faculty of Science, and units related to animal production are offered through the Faculty of Veterinary Science.

Students in the economics-based degrees (BAgEc, BResEc) take core and optional units in Year 1 and higher years from the Faculty of Economics and Business and optional units from the Faculty of Science. Students complete major studies in two or three disciplines, including majors offered through the Faculty of Economics and Business. Teaching is conducted mainly in lectures, tutorials and computing laboratories.

The Faculty has opportunities for input into the teaching of its students provided by departments of other faculties, but has limited control over quality assurance of that teaching, which is not always recognised by students.

The Faculty is currently engaged in a major restructuring of its academic and administrative functions, including the determination of its future staffing profile for teaching and research. Substantial curriculum changes are likely to be introduced in 2003, particularly in the BScAgr and BHortSc degrees. Seven academic and five general staff have left in recent months through retirements, resignations and the implementation of a Voluntary Early Retirement Scheme. These staff departures have impacted on teaching in 2001, and have meant an increased reliance on part-time and casual staff. It is anticipated that the completion of restructuring and appointment of new staff will resolve the present difficulties.

How does the Faculty ensure that each course and unit has an appropriate set of aims and outcomes, clearly communicated to and understood by students, and including generic as well as disciplinary skills?

Extensive documentation on course expectations is provided to students at enrolment, and a substantial amount of information on courses and units is available on the Faculty's website. The Faculty conducts a formal orientation program 'Bridging the Gap' for 1st Year undergraduate students in Orientation Week (not compulsory, but the majority attend), in which an overview is provided of what the courses are to cover, generic skills that students are expected to develop, processes for seeking assistance for learning and remedial help, and grievance procedures. Representatives of the SRC and the Union and other support groups and student societies are introduced and students are made aware of services provided by the Health Service, Counselling Service, the Learning Centre and the Mathematics Learning Centre. Students are shown the Faculty's facilities, including the Camden/Cobbitty Campus, and can also meet large numbers of their fellow students informally prior to the commencement of classes, thus easing the trauma of the transition from high school to university. These arrangements have worked well over the years, and seem to be appropriate for the size of the student intake.

The Faculty participates in the Orientation program for International students (both undergraduate and postgraduate). New postgraduate students participate in departmental induction programs, in which aims, outcomes and skills (discipline and generic) are discussed.

Students are provided with printed material, often in the form of handbooks, in all units on aims, expected outcomes, generic skills (where relevant) and assessment procedures at the start of each unit. This information is reinforced in early classes, particularly in laboratory classes and tutorials. In higher years, class sizes are generally small enough for aims and outcomes to be discussed in depth among students and staff. Discussions on generic skills often take place in a less formal setting during excursions and field trips.

The Faculty has for many years had a formally constituted Staff /Student Liaison Committee, which meets at least once during each semester and provides a mechanism for students to further clarify aims and expected outcomes (and to discuss concerns about a wide range of other relevant issues).

A program developed by Badham Library will help to improve the information literacy skills of students.

How does the Faculty ensure integration of research, including both disciplinary research and evidence about effective learning and teaching, into its undergraduate and postgraduate courses

The majority of staff in the Faculty who teach are research active, with most staff having research interests in areas directly relevant to curricula. This provides a direct path for the transfer of conceptual and methodological advances in disciplines into undergraduate and postgraduate teaching programs. Most units in higher years include learning exercises that involve the use of printed and electronic research materials. Postgraduate students are strongly encouraged to attend professional conferences, often with financial support from external funding agencies.

Students in all undergraduate degrees complete a research project or research exercise in Year 4 under the supervision of a member of the academic staff. The project is usually in an area of research interest of the staff member, who provides direction for the conduct of the project/exercise and the preparation of oral and written reports, including a thesis for many students.

All students receive formal training in generic skills related to research in the context of a discipline. This training includes: using print and electronic research media; acquiring, analysing and presenting data; oral and written communication and the use of visual aids in making presentations. Experts from outside the University are often invited to contribute in these programs. The Faculty regards this final year research training as a major strength of the undergraduate programs. It provides an interface between university and later professional activity and is considered by students and employers to enhance the employability of graduates.

In some sections of the Faculty, more general training is offered covering preparation of CVs, job applications, interview skills, intellectual property, and ethics. The Faculty aims to make this type of training available to all students

The Faculty has close links to industry and research centres and organisations (eg, CRCs, ABARE). These links are fostered through research collaborations and the Faculty Scholarship Program. With the active encouragement of Faculty, a significant number of students complete part of their professional work experience with such organisations. Students also accept opportunities to join the Student Landcare Society to participate in various environmental projects.

A research project is a component of all postgraduate coursework degrees and is the main focus of research-based degrees. Postgraduate students who have not had basic training in research methods (eg, students from some other institutions) participate in the research training given to the Faculty's undergraduate students, as well as in the training given to all postgraduates.

How does the Faculty ensure that student assessment is effective and contributes to learning, and that the assessment process is well understood by students

Staff provide students with information at the start of each unit on the assessment procedures. Students are also advised on processes that may be pursued if there are any grievances, namely that they may raise concerns with the lecturer, unit coordinator, Head of Department, Associate Dean and Dean, as appropriate. Issues of a more general nature on assessments and student workload are usually dealt with through the Faculty's Staff/Student Liaison Committee. The appropriateness of assessment procedures is also monitored from responses in student surveys.

Final results in most units are based on multiple components of assessment, involving different types of tasks (eg, examinations, quizzes, assignments, essays, laboratory reports, tutorial papers) assessed by multiple staff, rather than just one person providing the entire return. Almost all units contain a formal written examination as part of the final assessment. All departments have a Board of Examiners, which considers the effectiveness of assessment practices as well as students' results before they are released. The final results are reviewed by the Associate Deans.

Course evaluation questionnaires and SCEQ data indicate some student dissatisfaction that the amount of feedback given on formative assessment tasks is too limited during the teaching period. Staff are aware of this too, and are conscious of the benefits of giving timely feedback. This issue is being addressed as resources permit. Making previous assessment tasks available on the web, as is done in Soil Science, is one way of using assessments to improve teaching and learning.

Students complain about an apparent lack of co-ordination of assessment tasks, which may result in due dates for assignments being close together in different units. Faculty has already attempted to address this issue, but the problem is hard to overcome because there is a need to teach a certain amount of material before meaningful assessment tasks can be given. Further, time management and meeting deadlines are considered to be important generic skills that students need to develop. The Faculty will be reviewing its curricula and will give further attention to better coordinating the assessment process between units. Development of a Faculty calendar of events is under way and should also help coordination.

How does the Faculty ensure the quality of teaching and recognise good teaching

Comments at the Faculty/Student Liaison Committee and the small size of the Faculty, departments and disciplines facilitate close interaction between staff and students and provide opportunities to monitor the effectiveness of particular teaching strategies in relation to student learning outcomes. Much of the monitoring is informal and varies with nature of opportunities in different disciplines (eg, laboratory classes, field trips).

All new teaching staff are strongly encouraged to undertake training in teaching at the tertiary level. Staff are encouraged to undertake Teaching and Learning Centre courses and heads of departments monitor capabilities of staff and abilities within department, but this needs to be addressed across the Faculty. Heavy teaching loads limit time for staff development and development of alternative ways of presenting material. During 2000 Faculty employed an Instructional designer to assist academic staff in the application of information technology to new units of study.

The Faculty has no formal mechanism at present to acknowledge good teaching, an area that it recognises needs to be developed. This matter will be considered by the Faculty's Management and Advisory Committee and Teaching and Learning Committee in the near future.

What arrangements does the Faculty have in place to monitor and support student progression

Small class sizes in later year levels allow close departmental monitoring of learning. The Associate Deans (Undergraduate) and the Development Officer monitor at-risk students in Mathematics and Chemistry (based on HSC results) at entry to the degree. Such students are encouraged to do bridging courses before the semester begins. Mathematical skills are surveyed early in 1st Year to identify students in need of remedial assistance. However, not all students identified in this way avail themselves of such assistance. In respect of First year Chemistry, the Faculty arranges extra tutorial classes throughout both semesters. Students are encouraged to make use of these for a small charge. Two Faculty computer laboratories are available, when not in use by classes, for word processing and internet access to assist student learning. Increasing amounts of teaching material are being placed on the web, and many lecturers give out printed notes. There are a number of small discipline-based resource libraries.

The Associate Dean for the BAgEc and BResEc degrees invites all students who fail one or more subjects to a formal interview. Students who re-enrol in person (usually because their pre-enrolments indicated problems) are also interviewed, and at the beginning of the July Semester an extra class is held to explain limitations in choice of subjects. The Associate Dean for the science degrees also interviews students perceived to be in difficulty.

Until recently Faculty regularly received advice on progress of students in Year 1 Chemistry and Year 1 Econometrics, which enabled the Associate Deans to seek a meeting with students at risk in these units. Work pressure on staff in the other faculties has curtailed the provision of this information.

Student attendance is monitored formally in laboratory classes and most tutorials, and informally in lectures. Lecturers try to find out why students are missing. Attendance in some classes tends to be variable, in large part due to a high proportion of students having part-time work. This is seen as hampering effective teaching and learning, but Faculty does not have an answer to this problem.

Student surveys generally comment favourably on the approachability of staff. The Faculty's size is likely to be a factor in this, as is the generally good rapport between staff and students, and the practice by most staff of waiting in class after lectures to answer questions. Most staff are readily available for consultation, or give notice of consultation hours.

How does the Faculty ensure the quality of research supervision and training

Faculty is implementing the College of Science and Technology's 10 point Postgraduate Strategies. Most students have a close interaction with supervisors or associate supervisors, in many cases on a daily basis. The faculty has a good database on postgraduate students and all departments have an appointed postgraduate coordinator, who assists students with general problems and monitors students' progress at close hand. All postgraduate research students are required to give seminars must submit a satisfactory Annual Progress Report (strictly enforced) signed by supervisor and Head of Department before they are allowed to re-enrol. Progress Reports are monitored by the Associate Dean (Postgraduate).

Many students work on research projects with external support and are involved in preparing and presenting reports to a funding agency. Many of these external funding agencies (eg, CRCs) have special programs for postgraduate research students, covering both technical and generic skills relevant to the industry.

What are the Faculty's arrangements for evaluation and quality improvement, including the use of student and graduate feedback and other performance indicators to monitor enhancement of performance

The Faculty is implementing plans to review the BScAgr and BHortSc degrees in 2001 as indicated in its Teaching Plan. One of the terms of reference for this review will be to recommend ways of improving coherence between units of study. There is co-ordination through the Faculty's Teaching and Learning Committee to minimise duplication of material and unwanted gaps in intra-discipline areas. However, there is a need to improve the interface between faculties and our own departments, especially to monitor evolutionary changes in the content of units taken from other faculties.

The Faculty has in the past surveyed most units on an annual basis, but recently adopted a policy of surveying units on a three year roster, to reduce perceived "survey fatigue" among students, especially since more comprehensive SCEQ data have been collected. Collecting and acting on results of feedback has largely been conducted in departments/disciplines. To monitor and follow-up at Faculty level, the Institute of Teaching and Learning will be asked to analyse results, and summaries of surveys will be reported by Heads of Department to the Faculty's Teaching and Learning Committee. The Faculty has noted that some students tend to express a higher degree of satisfaction with elective units in areas of their interests than in some essential core units of the curriculum.

All staff in the Faculty have had the most recent SCEQ results brought to their attention. While there seems to be a pleasing overall level of satisfaction within the undergraduate degrees, the Faculty recognises the following areas in which there was least satisfaction, and hence should be targeted as a priority for improvement:

- (i) providing timely feedback on assessments (Q17, Q27)
- (ii) ensuring that students are better informed about the amount of work expected of them

- (iii) attempting to assess knowledge learned rather than testing memory (Q13)
- (iv) perceived heavy workload (Q15, Q24).

These areas will be addressed through analysis of the type and frequency of assessment tasks, better coordination between units of the timing of tasks, and a review of the material communicated to students about aims and expected outcomes. The Faculty will raise these issues, where appropriate, with departments in other faculties that provide teaching for our students.

With the results of course evaluation questionnaires averaged over several degrees it is hard to assess whether a concern is universal or relates to particular discipline areas. The Faculty also notes that it has limited scope for comparison with other institutions, because of the widely differing types of programs that come under the heading of agriculture and natural resources. Nevertheless, the overall level of satisfaction with degrees offered through the Faculty (expressed in student questionnaires and through personal contact with graduates) is taken as an indication that existing quality assurance procedures are effective, and that further improvements would be best gained by refining those procedures, rather than introducing radical changes.

The preparation of this document followed discussions within the Faculty's Management and Advisory Committee and Teaching and Learning Committee, and discussions between members of the Faculty and the PVC Teaching. A draft version, prepared with the assistance of a working party established by the Teaching and Learning Committee, was circulated widely in the Faculty for comment.

Les Copeland

Dean of Agriculture
9 July 2001

**The University of Sydney
Faculty of Agriculture**

Teaching and Learning Strategic Plan, 2002 - 2006

This version of the Plan was revised in September 2001.

Executive summary

The Faculty of Agriculture's Strategic Plan for Teaching and Learning 2002-2006 analyses the challenging position of the Faculty and has three objectives intended to address the challenges and make valuable improvements to teaching and learning in the Faculty. Each of the objectives is supported by strategies with transparent indicators of performance.

The objectives are –

1. To improve the teaching and learning experience of the Faculty's students
2. To maintain and enhance the quality of the Faculty's programs
3. To improve the educational and physical environment for students and staff.

Introduction

The Faculty offers six undergraduate degree programs –

Bachelor of Science in Agriculture
Bachelor of Horticultural Science
Bachelor of Agricultural Economics
Bachelor of Land and Water Science
Bachelor of Resource Economics
Bachelor of Animal Science

The BAnimSc program commences in 2002.

The Faculty also offers postgraduate coursework programs at Masters and Graduate Diploma levels. Student load in 2000 and 2001 in undergraduate and postgraduate coursework programs totalled 432.2 and 452.6 respectively. From 2002, student load will decrease by approximately 139 as a result of the Department of Microbiology moving into the Faculty of Science.

The Departments of Agricultural Chemistry and Soil Science, Crop Sciences, and the Plant Breeding Institute will amalgamate from 2002 and the Faculty is reviewing its internal organisation and operating procedures.

Strengths and weaknesses, opportunities and challenges

The Faculty's small size fosters strong interactions between staff and between staff and students, and makes it easier for students to develop strong bonds of friendship and co-operation, both within their own year cohorts and across them. The broad range of excursions in which students participate and the

professional work experience requirement offer unique educational experiences and are strengths of the Faculty's degree programs.

Major issues for the Faculty include –

- aligning the curricula with a sustainable staffing profile
- the age profile of the academic staff
- its scattered accommodation and outmoded teaching laboratories.

The objectives in this plan are designed to address these major issues and to contribute to the achievement of the goals of the University set out in its Strategic Plan.

Goals of the University and the Faculty in teaching and learning

The aim of the Faculty's goals in its Teaching and Learning Plan are to support the University's goals and strategies in teaching and learning. Goal 1 in the University's Strategic Plan is –

The University of Sydney will maintain and enhance its position as an outstanding provider of high quality undergraduate and postgraduate teaching, both in Australia and internationally.

In working to achieve this goal, the University's strategies will, inter alia –

- provide scholarship schemes; special admissions schemes for disadvantaged students; improved information for prospective students, parents and teachers; programs for ensuring effective transition from school to university; student support services; monitor progression rates; evaluate teaching; and regularly review programs.
- provide a wide variety of course offerings; regularly review curricula with input from employers and the professions; and encourage and support innovative teaching; and
- emphasise the provision of high quality space for teaching; and improve access to information technology.
- work in partnership with the Life Sciences Libraries Team to integrate an information literacy program into the curriculum, both at undergraduate and postgraduate levels.

The University will also continue to provide access to tertiary study and appropriate support for students from a diversity of backgrounds.

The objectives and strategies in the Faculty's plan complement and support the achievement of the goals in teaching and learning and access within the University, including its ongoing and new strategies.

Objective 1: student course experience

The Faculty will continue to improve the teaching and learning experience of its students.

Strategies

Institute a program to ensure that the information from the Student Course Experience and Graduate Course Experience questionnaires is analysed and used as the basis for improvements in the teaching and learning within the Faculty. The Faculty is small enough to receive direct feedback from students and make improvements even while a semester is in progress. The Faculty/Student Liaison Committee assists in this, along with direct responses by individual lecturers.

Indicators

SCEQ (current students surveyed in October by the University), CEQ (graduates surveyed nationally) and ITL and/or Faculty/Department student survey scores for the Faculty.

Links to the University's Strategic Plan

These Faculty strategies address Goal 1 and the associated strategies in the University's Strategic Plan.

Objective 2: curriculum development and renewal

The Faculty will maintain and enhance the quality of its programs.

Context

The Faculty affirms a continuing responsibility to ensure that its programs, both new and continuing –

- are informed by research and scholarship of the highest quality
- are delivered with the highest quality teaching and administration
- are responsive to the needs of its communities, and
- produce graduates well equipped to contribute to the society in which they work.

Strategy

The Faculty will appoint a degree review panel for each degree to review all aspects of the degree to ensure that its quality is maintained and enhanced. The review panels will comprise members of staff from the Faculty and the University, current students, graduates and employers. Information to be used in the review will include SCEQ and GCCA survey data. One degree will be reviewed each year, so that a five-year cycle can be maintained.

The BScAgr and BHortSc degrees are being reviewed in 2001.

Indicators

SCEQ, CEQ and ITL or Faculty/Department student survey scores for the Faculty.

Links to the University's Strategic Plan

The Faculty strategy addresses Goal 1 and the associated strategies in the University's Strategic Plan.

Objective 3: the student environment

The Faculty will improve the educational and physical environment for its students

Context

The Faculty has established a wide range of support mechanisms, academic, financial, professional and social, for its students, and it recognises the need to improve the range and extent of these services.

The Faculty's buildings on the Camperdown campus are of considerable age and, to varying degrees, out-moded. In particular, the existing laboratories in the Ross St Building and the Badham complex, used by the Faculty for teaching years 1 to 4, are of an extremely low standard, including grossly inferior acoustics. Excellent teaching is less likely to be recognised, let alone achieved, in second-rate, inadequate accommodation and facilities.

Strategies

To achieve this objective, the Faculty will –

- assist the transition of new first year students to the University environment

- provide extracurricular activities to complement the formal degree structure and foster broad interest in agriculture and the environment
- continue to press for the construction of a new building.
- support the University Library in the creation of a rich and relevant collection of print and electronic resources to support teaching and learning, and research in the Faculty.

Indicators

- retention rates into second year from first year
- student evaluations of the programs and membership of the Landcare Society
- completion of various stages of planning for the building.

Links to the University's Strategic Plan

These Faculty strategies address several aspects of Goals 1 and 5 and the associated strategies in the University's Strategic Plan.

Faculty of Agriculture - Operational Plan, 2002

Objective 1

The Faculty will improve the teaching and learning experience of its students.

Overall Target

Maintain and, where appropriate, improve the Faculty average in the Good Teaching, Clear Goals and Standards, Appropriate Assessment and Appropriate Workload scales so that they at least equal, if not exceed, the national Faculty average for each of the scales.

Strategies for 2002

- (i) Detailed analysis of the responses of course surveys, including –
 1. Identification of aspects of the student experience that require improvement.
 2. Identification of the means by which such improvement may be achieved
 3. Implementation of action to achieve the improvements
 4. Review of action taken through individual student feedback and SCEQ response scores
- (ii) Enhanced promotional activities, including –
 - Visits by undergraduate students to their schools of origin
 - Liaison with careers advisers and heads of school Science, Economics and Agriculture departments
- (iii) Evaluate and enhance initiatives for 2002, co-ordinated by the Faculty's Development Manager, including -
 - Roll-up displays for the new degrees
 - Submission of articles by Faculty members to Science, Agriculture and Economics Teachers' Associations newsletters and to *The Land* newspaper
 - Poster displays for Science, Agriculture and Economics Teachers' Conferences

Indicators

- (i) SCEQ and GCCA CEQ scores for individual items, particular scales, and overall satisfaction
- (ii) Proportion of First year enrolments with a UAI above 90.
- (iii) Retention rates from first to second year

Targets for the period

- (i) Improvement of the Faculty average in each scale so that it at least equals, if not exceeds, the national Faculty average for the scale by the end of 2003
- (ii) Increase median UAI by 5% during the period 2002 – 2006
- (iii) Retention rates from first to second year improve by at least 5% during the period 2002 – 2006

Objective 2

The Faculty will maintain and enhance the quality of its programs.

Target

Improvement of the degree average in the Generic Skills and Overall Satisfaction scales so that they at least equal, if not exceed, the national Faculty average for each of the scales.

Strategies for 2002

- (i) Revise curricula for BScAgr and BHortSc for implementation in 2003
- (ii) Continue to provide standardised outlines, including details of assessment, goals and expectations for all units of study. Progressively make outlines available electronically
- (iii) Give careful attention to the relevance of assessment to learning objectives specified in unit outlines
- (iv) Provide better feedback on marking of assignments, where resources permit, by giving critical comments in addition to a grade
- (v) Review the level of progressive assessment in all units in the light of student concerns about excessive pressure
- (vi) Work in partnership with the information professionals at the University Library to create information and knowledge management systems, to benefit the Faculty, and the national and international community.
- (vii) Work in partnership with the University Library to digitise high demand course materials for access via the Library Catalogue and WebCT based units of study.
- (viii) Continue discussions with the School of Biological Sciences about integration of teaching programs related to Plant Sciences and other areas of mutual interest.

Indicators for the above strategies

- (i) Response of employers and students to proposed curricula
- (ii) -(v) Student surveys
- (vi) Incorporation of the program in course outlines during their review; student assignments related to information retrieval
- (vii) New modules developed for WebCT
- (viii) Success in the development of suitable units of study in Plant Sciences.

Targets for the period (relate to the above indicators)

- (i) Revised curricula for BScAgr and BHortSc degrees available
- (ii) Outlines of goals and expectations available for all units
- (iii) Assessment procedures and items reviewed progressively until completed for the 2003 academic year
- (iv) Implementation in 2002
- (v) See (iii)
- (vi) Incorporation of an information retrieval assignment into all units for which such an assignment is appropriate
- (vii) Development of new models for WebCT in at least 2 units

- (viii) Proposals for new integrated units with the School of Biological Sciences for approval in 2002, and for implementation in 2003.

Objective 3

The Faculty will improve the educational and physical environment for its students.

Strategies

- (i) The Faculty will assist the transition of new first year students to the University environment by:
- continuing its 'Bridging the Gap' program in O-week
 - continuing its 'Students at Risk' program, monitoring performance in first year and counselling students who are experiencing difficulties
 - offering special first year tutorials (paid for by students), eg, as already available in Chemistry
- (ii) The Faculty will provide extracurricular activities to complement the formal degree structures and foster broad interest in agriculture and the environment, including –
- The Undergraduate Achievers' Program
 - Field Studies Program in Central Australia
 - Student Landcare Society
- (iii) The Faculty will continue to press for the construction of a new building to replace the Ross St building with new and up-to-date facilities and enable the Faculty to concentrate its teaching activities near the Watt and McMillan Buildings

Indicators

- (i) retention rates into second year from first year, and performance of students in first-year units
- (ii) student evaluations of the programs and membership of the Landcare Society
- (iii) completion of various stages of planning for the building

Targets

- (i) progression rates improve by 5% over the period
- (ii) student evaluations reveal overall satisfaction with the programs and satisfaction with individual aspects; the Landcare Society develops into a vibrant student group
- (iii) as for (iii) above

Progress Report on the Operational Plan for 2000 – 2001

(See Appendix for Plan)

Objective 1

The Faculty will continue to improve the teaching and learning experience of its students

Performance against targets

The progression rates in our Science programs compare favourably to similar degree programs in other Go8 universities. The other Go8 programs do not include degrees in Agricultural Economics in their Agriculture returns, so comparison of BAgEc programs with Economic programs is more appropriate. Overall, progress rates in the BAgEc compare favourably with the Economic programs in the University of Sydney and the other Go8 universities, with the exception of the University of Melbourne.

In respect of CEQ data, the Faculty compares favourably with other Go8 universities in Good Teaching and Overall satisfaction, but is below the Go8 average for Generic Skills. Graduate numbers in full-time work is above the Go8 average.

It is gratifying to see that the CEQ results compare favourably against the SCEQ results and confirm the view held by Faculty that the graduates appreciate their training after they have seen how they are faring in the workplace. Students who are currently enrolled often answer questionnaires in October according to their mood, influenced by topical factors such as looming examinations and self imposed immediate workloads often induced by poor use of time.

Within the University as a whole, the Faculty ranks highly for overall student satisfaction.

In comparing 1999 and 2000: -

- the retention rates (1st to 2nd year) have decreased slightly(79% to 76%), but may be attributable to the new method of determining academic year adopted by the FLEXSIS system, or could be an aberration for a particular year.
- there has been a small improvement in Good Teaching Skills and a larger improvement in Generic Skills

Objective 2

The Faculty will maintain and enhance the quality of its programs.

Strategies for 2000 and 2001

- (i) Standardised outlines are available for all units and progress is being made on putting the outlines on the Internet
- (ii) Goals and expectations of standards are made clear to students
- (iii) Efforts are being made within the resources available to ensure that assessment is relevant to learning objectives
- (iv) Staff are encouraged to provide better feedback on marking of assignments
- (v) We are reviewing the level of progressive assessment in all units in the light of student concerns about excessive pressure
- (vi) not yet addressed (increased motivation of BAgREc students)
- (vii) A review of content of 4th year programs has commenced
- (viii) Progress is being made within the resources available to assist academic staff in the application of information technology to new units of study
- (ix) Appropriate staff have begun integrating the program being developed by Badham Library to improve the information literacy skills.

Objective 3

The Faculty will improve the educational and physical environment for its students.

Strategies

- (i) The Faculty will continue its successful initiatives in assisting the transition of new first year students to the University environment by:
 - continuing its 'Bridging the Gap' program in O-week
 - continuing its 'Students at Risk' program, monitoring performance in first year and counselling students who are experiencing difficulties
 - offering special first year tutorials (paid for by students), eg, as already available in Chemistry

- (ii) The Faculty is continuing to provide extracurricular activities to complement the formal degree structures and foster broad interest in agriculture and the environment, including:
- Field Studies Program in Central Australia (was oversubscribed in 2001)
 - Student Landcare Society (received a grant of \$7,884 from the Sydney Catchment Authority in 2001 and has increased its activity)
 - The Undergraduate Achievers' Program (is being re-evaluated)
- (iii) The Faculty will continue to push for the construction of a new building to replace the Ross St building with new and up-to-date facilities and enable the Faculty to concentrate its teaching activities
- The Faculty is currently restructuring and reviewing its activities in relation to community and professional links and its strategy in regard to establishing a Foundation.

Faculty has received strong support for new merit scholarship awards, but the climate for attracting new entry undergraduate scholarships has proved difficult.