

CURRICULUM VITAE

For the position of
Laboratory Technical Officer (Teaching/Field)
Job No: 0029659

PERSONAL DETAILS

Name: Cheryl Irene Bawhey

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Nationality: Australian

Licence: Car Licence (Class C), South Australia

Qualifications: **Doctor of Philosophy**
The Flinders University of South Australia
Honours Degree (First Class) by Thesis and Coursework
The Flinders University of South Australia
Bachelor of Science
The Flinders University of South Australia

First Aid: St Johns – Senior First Aid Certificate, 2006, CPR refresher course, 2007
DECS – Basic Emergency Life Support (renewal), 2010

Technical: In Service Safety Inspection and Testing of Electrical Equipment from TAFE at
Marleston, SA, 2007
Mandatory Notification (renewal), Blackfriars Priory School, 2010
Various OHSW courses as required by Education sector, including:
Manual Handling, ChemWatch Hazard Management, Fire Warden

CAREER OBJECTIVES

To provide excellence in laboratory management and thereby assist colleagues in their pursuit of innovative and ground-breaking research while acting as a worthwhile contributor to the successful operation of the University as a whole. To achieve this, I am willing to undertake further professional development to widen my range of management and administrative skills.

PROFESSIONAL MEMBERSHIPS

- Laboratory Managers Association of South Australia
- The Electrical Energy Society of Australia

EMPLOYMENT HISTORY

2007 - now Laboratory Assistant – Blackfriars Priory School
(also in term 1 2007 and term 2 in 2004)

Duties:

- Preparation, setup, dismantle and removal of scientific experiments and apparatus for Senior School chemistry and physics practicals and Middle School general science practicals, and demonstrate new procedures when required
- Preparation of standard and special solutions for chemistry practicals
- Maintain an efficient, clean and safe laboratory environment
- Ensure laboratory equipment is serviced and/or repaired
- Responsible for monitoring and maintaining stocks of chemicals and other scientific equipment associated with the student practicals; refill and re-order when necessary
- Liaise with Science teaching staff regarding requirements for laboratory work including supply of chemicals and apparatus, and attend practical sessions when requested
- Provide training for staff on the use of new equipment and apparatus, calibrating equipment where necessary, and drawing staff's attention to Safe Operating Procedures
- Comply with OHSW policies and ensure safe work practices are followed by all laboratory users including training staff in the use of the new *RiskAssess* program, producing risk assessments, and updating Standard Operating Procedures (SOPs)
- Provide administrative support that includes organising Science Department functions
- Conduct "demonstration" lessons for younger students (Junior, Middle School and visiting schools)
- Responsible for accurate records of all chemicals, resources and equipment, including Hazards Register and Chemicals Manifest, and keeping these records up-to-date and secure
- Support OHSW requirements and adhere to safe work practices
- Ordering and cataloguing new science equipment and supplies, and arranging storage

Achievements:

- Organised the PASCO training workshops in May 2011 and June 2012 for up to 60 attendees (staff, students and external), the Year 10 *Case for Conspiracy* workshops in 2011 and 2012, and the senior school participation in the annual RACI Chemistry Quiz and ICAS University of NSW science competitions
- Initiated the science department's use of the *RiskAssess* program to produce detailed risk assessments for science practicals
- Instigated new and replacement safety equipment in the two main laboratory areas
- Developing a more efficient use of the storage spaces (in progress)
- Initiated the installation of a new air-exhaust system in the two senior laboratories and a replacement Corrosives cabinet in the preparation area
- Instigated and co-authored a successful grant application to (a) Zero Waste SA – for the school's new Waste Management plan, and (b) S.A. Science Teachers' Association for *National Science Week 2010* activities
- Assist with two student clubs: *Writers' Club* and *Justice League*

2007 Laboratory Assistant – The Heights Secondary School

Contract for one term, April-July 2007. Laboratory duties as previously described, and:

- Administrative duties including instruction in the use of the *Business Manager* program to monitor the school's OHSW and buildings maintenance programs

Achievements:

- Improvements to chemical storage, labelling and safety in the Preparation Area

- Initiated a request for a ramp access into Senior and Middle School laboratories for equipment trolley and deliveries

2006 Laboratory Assistant – Christian Brothers College

Full-time position at Christian Brothers College, with casual work during school holiday periods. Laboratory duties in Senior and Middle Schools as previously described and:

- Organised and managed the *Science Club* activities, including practicals, fund raising activities and excursions
- Care and management of native and exotic animals housed at the school, including reptiles, birds and aquatic animals

Achievements:

- Organised and raised funds for a new enclosure for the school's carpet python
- Initiated a stock record system for the chemicals and science apparatus

2005 Laboratory Assistant – St Peter's College

Contract for one term, full-time, Chemistry Department, July-September 2005.

- Preparation, setup, dismantle and removal of chemistry experiments and apparatus for Year 8-12 and International Baccalaureate (IB) Chemistry practicals
- Photocopying of exams, tests and handout sheets

Achievements:

- Initiated a stock record system for the chemicals

2004 - 2005 Short term Temporary Contracts – Laboratory assistant and data entry

- (1) Trinity College, North Campus, Gawler, 5 weeks, November-December 2005
- (2) Windsor Gardens Vocational College, 4 weeks, October-November 2005
- (3) University of South Australia, June-July 2005
- (4) Defence Housing Authority, August 2004-February 2005

2001 - 2003 Post-doctoral Research Assistant at Purdue University, Indiana, USA

Full-time position in the Agronomy Department, January 2001-December 2003 researching the effects of ultraviolet radiation on soybean and sorghum crops.

Principal Researcher: Dr Richard H. Grant

- Prioritised tasks to ensure that the greenhouse and field experiments were ready at the optimum times
- Organised provision of seed, equipment and supplies including UV lamps and seedling containers for the greenhouse experiments
- Coordinated provision of greenhouse space and soil supplies with Greenhouse staff
- Monitored and maintained the soybeans and sorghum plants in the greenhouse and field
- Liaised with Agronomy Farm staff for seed supply and weed control
- Supervised an undergraduate assistant in the collection of field and greenhouse data
- Analysed and processed the data
- Developed the Standard Operating Procedures for field and greenhouse experiments
- Presented data at Conferences and in reports to the funding body: the USDA

Casual Employment at Flinders University while pursuing full time study:

1993 - 1995 Tutor, *Applied Astronomy*, Second Year Undergraduate Science

Lecturer: Dr Roland Byron-Scott

1990 - 1994 Teaching Assistant, *Earth Science 1 Laboratory*, First Year Undergraduate Science

Lecturer: Dr John M. Bennett

EDUCATION AND TRAINING

TERTIARY:

1991 - 2001 **Doctor of Philosophy**

The Flinders University of South Australia, Bedford Park

Thesis Title: *Airborne UVB Radiation Measurements and Attenuation: Clear and Cloudy Conditions*

Supervisors: Dr John M. Bennett, Professor Peter Schwerdtfeger

Final submission date 6 September 2005, Approved 12 September, 2005.

- Granted a Priority Australian Postgraduate Research Award (APRA) Scholarship, 1991-1995
- Granted a Don and Joyce Schultz Scholarship, 1995-1996
- Granted a Flinders University scholarship
- Granted the Barbara Crase Bursary from the Australian Federation of University Women Inc. – S.A. Branch in June 1997

Research Field: *Atmospheric Radiation, Airborne Meteorology*

Subject: *Design and development of new scientific instruments to measure the transmission of Ultraviolet-B radiation above and below a cloud layer*

A new type of light-weight radiometer was designed and affixed to the University's light aircraft to measure UVB transmission through a cloud layer, and the data compared with measurements recorded in clear sky conditions. The project involved direct liaison and collaboration with the University's workshops and aircraft group, experimental testing of the components, data analysis, organising and supervising the field experiments – all of which involved a high degree of professionalism and teamwork.

1990 **Honours Degree (First Class) by Thesis and Coursework**

The Flinders University of South Australia, Bedford Park

Thesis Title: *Airborne Vegetation Measurements over Hincks Conservation Park, South Australia*

Supervisors: Dr Lutz Bannehr, Professor Peter Schwerdtfeger

- Granted a Flinders University Scholarship

Research Field: *Atmospheric Radiation*

A forerunner to the PhD, this project analysed albedo measurements above Hincks Park in S.A., and involved researching the instrument design, direct liaison with the University's aircraft group, data analysis, collaboration with PhD researchers, and teamwork.

1987 - 1989 **Bachelor of Science Degree**

The Flinders University of South Australia, Bedford Park

Topics in Meteorology, Oceanography, Chemistry, Physics, Mathematics, Hydrology and Geology, Solar Radiation, Spherical Astronomy

SHORT and CERTIFICATE COURSES: TAFE, Hamilton Secondary College, WEA

Adobe Photoshop, and Photoshop Techniques

Adobe Flash 8, Illustrator; Dreamweaver; Flash animation 2

Creating your own Web Page; Web Page Creation using Front Page

COMPUTER and DATA ENTRY SKILLS

- Extensive experience with the Microsoft Office suite of products, including Word, Excel, PowerPoint, Access, Publisher, Outlook
- Adobe *Photoshop*, *Dreamweaver*, *Illustrator* and *Flash 8*
- *ChemWatch* program (online and CD versions) for updating MSDS sheets and chemical labels
- *RiskAssess* program for producing risk assessments for science practicals
- Internet and email using Internet Explorer, Firefox and Outlook
- *Rhino3-D* imaging software, Golden Software *Grapher* and *Surfer*
- Web page creation – Internet Explorer, *FrontPage* and *Dreamweaver*, and *Weebly* for my own webpage and blog

REFEREES

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LIST OF PUBLICATIONS

Bawhey, C.I., Grant, R.H. and Gao, W.:

Digital measurement of heliotropic leaf response in soybean cultivars and leaf exposure to solar UVB radiation, 2003, *Agricultural and Forest Meteorology*, 120, 161-175

LIST OF PRESENTATIONS

Bawhey, C.I. and Grant, R.H.:

Effect of epicuticular wax on UV scattering of sorghum leaves and canopies, 2003, In: Proceedings of SPIE, Vol. 5156, *Ultraviolet Ground- and Space-based Measurements, Models, and Effects III*, Eds: J.R. Slusser, J.R. Herman, W. Gao, 4-6 August 2003, San Diego, CA, 236-244

Bawhey, C.I., Grant, R.H. and Gao, W.:

Soybean Heliotropism and UVB dose estimation, 2002, 25th Conference on Agricultural and Forest Meteorology, American Meteorological Society, 20-24 May 2002, Norfolk, Virginia, USA

Bawhey, C.I. and Grant, R.H.:

Genetic association of UVB impacts on soybean, 2002, 15th Conference on Biometeorology/ Aerobiology and 16th Congress of Biometeorology, International Society of Biometeorology, Kansas City, MO, USA, 28 October- 1 November, 2002

Bawhey, C.I. and Grant, R.H.:

Effects of UVB on sorghum wax production and reflectance, 2002, 15th Conference on Biometeorology/ Aerobiology and 16th Congress of Biometeorology, International Society of Biometeorology, Kansas City, Missouri, USA, 28 October-1 November 2002

LIST OF POSTER PRESENTATIONS

Bawhey, C.I. and Grant, R.H.:

Influence of UVB light distribution and soybean leaf angles on leaf exposures, 2002, Proceedings of the American Society of Agronomy (ASA-CSSA-SSSA) Annual Meeting, November 10-14 2002, Indianapolis, Indiana, USA

Grant, R.H. and Bawhey, C.I.:

Climate Change: Are there limits to UV effects on soybean? Proceedings of the American Society of Agronomy (ASA-CSSA-SSSA) Annual Meeting, November 10-14 2002, Indianapolis, Indiana, USA

Bawhey, C.I.:

Spectral Ultraviolet-B Radiation Measurements over Bushland and Rural Areas, 1997, Proceedings of the First SPARC General Assembly, "Stratospheric Processes and Their Role in Climate", Melbourne, Victoria, 2-6 December, 1996, World Climate Research Programme, WCRP-99, WMO/TD-NO. 814, 672 pp

Bawhey, C.I., Hacker, J.M. and Schwerdtfeger P.:

Effects of Bushland and Rural Areas on Ultraviolet and Visible Radiation, 1993, Proceedings of the Fourth International Conference on Southern Hemisphere Meteorology and Oceanography, Hobart, Tasmania

CO-AUTHOR

Apostol, K.G., Grant, R.H., Bawhey, C.I. and Gao, W.:

Short-term impacts of elevated UV-B radiation on soybeans, 2005, In: Proceedings of SPIE, Vol. 5886, 58860I (2005); <http://dx.doi.org/10.1117/12.613320>, Online Publication Date: Sep 12, 2005

Grant, R.H., W. Vermerris, J. Campos; C. Bawhey; K. Apostol and T. Housley:

Characteristics of the UVB-induced biosynthesis of phenolic compounds in Glycine max (L), MPM-1d, 2006, 33rd Annual Meeting of the American Society of Photobiology, Puerto Rico