Professor Steve Adkins

(a) Contribution to the science, technology and practice of weed management through research, teaching, administration, extension, and/or implementation of programs:

Steve Adkins is a Professor of Weed Science and Plant Physiology at The University of Queensland (UQ). He obtained a degree in Botany and Zoology from the University of London and a PhD in Seed Physiology from the University of Reading (UK). He joined UQ in 1988, founding the Integrated Seed Research Unit. His research has focused on the dormancy mechanisms of weeds and native plants, the management of invasive plants and the improvement of tropical crops using tissue culture. He is recognised as a global authority in invasive plants management, especially for his work on biology and management of parthenium weed (*Parthenium hysterophorus*). Steve's impactful career in Weed Science has benefited the weeds community across the Asian-Pacific region with significant outcomes applied across many regions worldwide.

Research

Prof Adkins is a prolific researcher with outstanding grantsmanship, publishing and engagement track record and influential outcomes in the field of weed science. Some of the key career R&D highlights include the following:

- Career Grant earnings $14,496,323 [for Weed Science $7,131,169]
- Career publications: Journal articles 240 [40 with an impact factor > 5.0, including Nature Plants, Proceedings of the National Academy of Sciences of the United States of America, New Phytologist; Google Scholar Career Citations: 12,505, Google Scholar Career h-index: 50]. Full list available at: https://scholar.google.com.au/citations?hl=en&user=z9JWs4YAAAAJ&view_op=list_works
- Four Edited books: including Parthenium Weed: Biology, Ecology and Management, CABI, UK. Career Book Chapters: 35
- Career Conference articles and abstracts: 250
- Career Conference presentations: 78 [25 countries including 12 Keynote and 15 Lead papers]
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Teaching and Mentoring

Steve has spent his career teaching and training numerous students in weed science and plant physiology. One of his major achievements in teaching has been the introduction of the first UQ undergraduate and postgraduate program in weed science in 1990 [program ran for 32 years and provided weed science content to ca. 2,500 undergraduate and 500 postgraduate coursework students].

In addition to classroom teaching, Prof Adkins provided research training as Principle Advisor for 61 doctoral (PhD) students, 39 in Weed Science [Countries represented in the weed science doctoral program: Australia (10), Pakistan (9), China (4), Vietnam (3), Bangladesh (2), Thailand (1), Indonesia (1), Cambodia (1), Nepal (1), India (1), Iran (1), Fiji (1), Uruguay (1), USA (1), Sri Lanka (1), Bhutan (1)]. This is in addition to numerous Masters and Honours research graduates.

Service and Administration

Throughout his career, Prof Adkins has served the Weed Science community immensely. He not only held several important roles in professional societies, but also improved international coordination and collaboration in weed science. In particular, in his leadership roles in the Asian Pacific Weed Science Society (APWSS) he represented Australia tremendously, while mentoring weed scientists from several developing countries across the region. Below a snapshot of his key professional service and administrative roles:

Year	Description
2014 - 2024	**Chair,** Asian Pacific Weed Science Society, Senior Advisory Committee
2012 - 2014	**President**, Asian Pacific Weed Science Society (APWSS)
2010 - 2012	**President**, Asian Pacific Weed Science Society (APWSS)
2009 - 2024	International Parthenium Weed Network, **Coordinator**
2009 - 2012	**Chair,** Organising Committee for 23rd Asian-Pacific Weed Society Conference, Australia
2005 - 2008	Member of the International Society for Seed Science (ISSS), **Executive Committee**
2002 - 2010	**Treasurer** Asian Pacific Weed Science Society (APWSS)
2001 - 2005	**Chair,** Organising Committee for 8th International Workshop on Seeds, Brisbane
2001 - 2009	Council of Australian Weed Science Societies, **Australian Representative** on APWSS Advisory Committee

(b) Peer recognition for substance, objectives, methods and results of work:

Prof Adkins has been widely recognised by the weed science and more broadly plant science community for his impactful weed science research, education, extension and professional service. His highly cited publications, invited talks all over the world and enthusiastic advocacy for high quality science has been recognised with following major awards:

Year	Award/Recognition
2017	Asian Pacific Weed Science Society, **Special Recognition Award**, Meritorious Service
2012	UQ Award (**Excellence in Research Higher Degree Supervision**)
2006	**National Carrick Citation** (Teaching Excellence in Higher Education)
2006	**UQ Citation** (Outstanding Contribution to Student Learning)
2004	National Finalist 'Seeds for Life' (**Banksia Awards** - Plant Conservation)
2002	School Award for **Teaching,** SLAFS, UQ
2001	UQ Award (**Excellence in Research Higher Degree Supervision**)
2000	UQ Commendation (**Excellence in Research Higher Degree Supervision**) Research
1981	NSERC Research **Fellowship**, University of Saskatchewan (Canada)
1977	**Jelf Medal** (joint award), for academic achievement, University of London (UK)

Recognising Steve's expertise, he has been invited to many prestigious international institutes as a visiting fellow over the years, where he spent time training fellow scientists, junior researchers and advised on policy matters relating weed management and plant physiology.

Dates	Description
2018	Visiting Fellow, University of British Colombia, Canada
2004	Visiting Fellow, University of California, Riverside, USA

2003	Visiting Fellow, Kirstenbosch Botanic Gardens, Cape Town, South Africa
2006	Visiting Fellow, Kew Gardens, Wakehurst Place, UK
2003	Visiting Fellow, Kew Gardens, Wakehurst Place, UK
1998	Visiting Fellow, University of Bristol, Long Ashton, UK
1996	Visiting Fellow, University of Bristol, Long Ashton, UK
1993	Visiting Fellow, University of Saskatchewan, Saskatoon, Canada

These recognitions and engagements have fostered great collaborations in weed science benefiting the discipline in Australia and overseas.

(c) Impact on the work of others:

Steve's outstanding leadership in education and research have made positive difference in the lives of many weed science researchers and practitioners. For instance, excellent career outcomes for many doctoral graduates from his Lab are great testament to his influential leadership and mentoring. His former PhD students are represented in the community as University Department Chair (1), University Professors (3), University Honorary Senior Fellows (1), CRDC Executive Director (1), National Research Institute Members (12), University Academics (10), Government Department Officers (2), Consultants (3), and Secondary School Teachers (4) nationally and internationally.

Prof Adkins' research has also led to the development of significant printed and digital training material relating weed management that have helped numerous researchers, practitioners and policy makers. Some examples given below:

Educational / Training Material Developed	
1	Navie, S.C., and **ADKINS, S.W.** Environmental Weeds of Australia. Windows 95/98/ME/NT4 (SP6) or higher/2000/XP. Centre for Biological Information Technology, University of Queensland. 2008
2	Navie, S.C., and **ADKINS, S.W.** Crop Weeds of Australia: An identification and information System. Windows 95/98/ME/NT4 (SP6) or higher/2000/XP. Centre for Biological Information Technology, University of Queensland. 2004
3	Navie, S.C., and **ADKINS, S.W.** Declared Plants of Australia: An identification and information System. Windows 95/98/ME/NT4 (SP6) or higher/2000/XP. Centre for Biological Information Technology, University of Queensland. 2004
4	**ADKINS, S.W.** and Navie, S.C., Agricultural Pests AGRC2002: An undergraduate course in plant protection. Windows 95/98/ME/NT4 (SP6) or higher/2000/XP. TEDI, University of Queensland. 2004.
5	**ADKINS, S.W.** and Navie, S.C., Weed Science PLNT3012: An undergraduate course in weed science. Windows 95/98/ME/NT4 (SP6) or higher/2000/XP. TEDI, University of Queensland. 2004.
6	Navie, S.C., **ADKINS, S.W.**, Playford, J. and Norton, G. Suburban and Environmental Weeds. An identification and information system. Windows 95/98/ME/NT4 (SP6) or higher/2000/XP. Centre for Biological Information Technology, University of Queensland. 2002

(d) Period of time over which work has continued:

Prof Adkins career spans over 4 decades. Specific details of various official positions held are given below:

Duration	Position
2009-24	**Professor** (Agricultural Plant Science), University of Queensland
2002-03	**Acting Director** (UQ Centre Plant Architecture Informatics), University of Queensland
1999-24	**Director** (Tropical & Subtropical Weed Research Unit), University of Queensland
1998-08	**Associate Professor** (Agricultural Plant Science), University of Queensland

1993-97	**Senior Lecturer** (Crop and Weed Science), University of Queensland
1988-92	**Lecturer** (Crop Science/Physiology), University of Queensland
1984-87	**ACIAR Research Fellow** (Plant Physiology), Murdoch University
1981-84	**Professional Research Associate** (Seed Biology), University of Saskatchewan.
1977-80	**CASE Studentship** (Weed Seed Physiology), University of Reading

(e) Evidence of national and international impact and recognition:

Prof Adkins is globally recognised as a subject matter specialist and have been invited to share his opinion and expertise for various higher-level research, policy and management reviews, frameworks and programs. Some examples are given below:

Expert Input / Policy Advice
National
1. Expert opinion and report - Parthenium Weed 'Theodore' 2012/13 - McInnes Wilson Lawyers, Brisbane.
2. Expert opinion and report - Parthenium Weed 'Overstone' 2013/15 - Shine Lawyers Brisbane.
3. Expert opinion and report – African Lovegrass 'Kildare' 2016 - Creevey Russell Lawyers Brisbane.
4. Expert opinion and report – Parthenium Weed 'Glendora Downs' 2020/23 - Hede Byrne & Hall, Roma.
5. Expert opinion and report – Invasive Weed Control Lord Howe Island 2024 - Nexus, Sydney.
International
1. Review - Feasibility for a 'Safety Back-up Cryopreservation Facility', Germany, 2017, - Bioversity Internat.
2. Review - SPC's Centre for Pacific Crops and Trees, Suva, Fiji, July 31 to August 4, 2017 - Crop Trust.
3. Review - CIP's Genebank, Lima, Peru, December 9 to 13 2019 - Crop Trust.
4. Review - Bioversity Genebank, Leuven, Belgium February 29 to March 7, 2020 - Crop Trust.
5. Review - Lao National Genebank, Vientiane, Laos, October 3 to 7, 2022 - Crop Trust's BOLD program.
6. Review - Plant Resources Center, Hanoi, Vietnam, October 22 to 30, 2022 - Crop Trust's BOLD program.
7. Review - National Biodiversity Centre, Thimphu, Bhutan, Nov 22 to 30, 2022 - Crop Trust's BOLD program.

Steve's international reputation in Weed Science RD&E is also demonstrated by his extensive collaborative network. Some of the key stakeholders he has engaged with throughout his career include:

National:

- Queensland Department of Agriculture and Fisheries (long-term research collaborations with teams in Brisbane, Toowoomba and Charters Towers)
- Australian Centre for International Agricultural Research
- Groundworks Burnett Mary Regional Group
- Powerlink Australia
- Greening Australia Queensland
- Queensland Murray-Darling Committee
- Brisbane Botanic Gardens
- Australian Seed Bank Partnership
- Centre for Mine Land Rehabilitation
- AgriTech, Toowoomba
- Heritage Seeds Ltd.

International:

- Kunming Institute of Botany, Kunming, China
- Grasslands Research Institute, Xining, China
- NWFP Agricultural University and University of the Punjab, Pakistan
- Virginia State University, USA
- Millennium Seed Bank Project, Kew Gardens, UK
- ICAR-Long Ashton Research Station, UK
- Reading University, UK
- CABI Wallingford, UK