
Capability Statement

TIA Vegetable Centre

Introduction

The Vegetable Centre in the Tasmanian Institute of Agriculture includes Research, Development and Extension activities (RD&E), and within research undertakes strategic (knowledge generation) and applied research in relevant disciplines. It was established as a Centre devoted to RD&E for the vegetable and associated industries, and has a strong mandate to engage with other Centres and Programs in the Institute. Though located in Tasmania, the Centre has a national and international outlook, and is actively seeking national and international partners in R, D and E to add to existing collaborative arrangements. It is particularly interested in Vegetable RD&E in the Pacific South West and South and South East Asia. Centre staff have been active in research and industry training through research degree programs, hosting industry workshops and international visitors, and undertaking international collaborations.

Staff

The Vegetable Centre has 14 academic and professional staff in RD&E, nine support staff, including three specialist seed potato certification officers, and a number of PhD students. In addition, the Vegetable Centre can utilise the skills of specialists in soil science, extension and sociology, natural resource management and a wide range of underpinning disciplines from other organisational units in the University through team construction and project collaboration.

Several staff have significant experience working in developing countries and/or supervising students undertaking projects in developing countries. Most senior staff have been invited to participate in international conferences in their area of expertise. Staff have supervised research higher degree, coursework masters and honours students from both Australia and developing countries undertaking projects

in Australia or their home countries demonstrating a capacity to deliver research and educational outcomes internationally. International activities include extended periods of research and development in both developed and developing countries, for example, Indonesia, Papua New Guinea, China, Thailand, USA, Europe (Netherlands, France, Italy, Germany). Most academic staff have also supervised students from developed and developing countries.

Key Competencies and Collaboration

Key competencies of staff of the Centre are in agricultural and horticultural systems, climate, plant physiology, agronomy, plant nutrition and soil management, plant pathology, entomology, systems and decision support modelling, industry development and extension, all being relevant to potatoes, other vegetables and associated extractive (poppies, pyrethrum) and rotation crops. The Vegetable Centre is particularly interested in collaboration with local, national and international providers of RD&E in these and in underpinning discipline oriented research, and for example, has active collaborations with other State based providers in Australia, CSIRO, Universities, Department of Agriculture, Fisheries and Forestry, NZ Plant and Food, Universities in the USA and Europe, and with RD&E providers in Papua New Guinea.

Facilities

The Vegetable Centre has access to research laboratories, glasshouses and associated equipment at Burnie (Cuthbertson Research Laboratories), Newtown Research Laboratories and at Sandy Bay Campus of the University of Tasmania. It operates the Forthside Vegetable Research Facility near Devonport. This facility has recently been upgraded to modern infrastructure and equipment, and is available for use by both University and non-University research providers, and for development and extension projects.

Funding

The Vegetable Centre receives funding from a number of sources, the principal one being the Joint Venture of the University of Tasmania and the Tasmanian Government through the Department of Primary Industries, Parks, Water and Environment. Significant funds for RD&E activities are also gained from sources such as the Rural Research and Development Corporations (principally Horticulture Australia Limited), the Australian Research Council, Australian Centre for International Agricultural Research, and importantly from Voluntary Contributions by Industry.

Publications

- Cave, RL* and Erwin, JE* and Hammer, GL* and Birch, CJ and Johnston, ME*, 'An Experimental Approach for Developing Seed Lines of New Australian Native Flowering Pot Plants', *Acta Horticulturae*, 937 pp. 37-43. ISSN 0567-7572 (2012).
- Boersma, M and Gracie, AJ and Brown, PH, 'Moisture stress at transplanting reduces harvest uniformity in broccoli', *Proceedings of the International Horticultural Congress*, 22-27 August 2010, Lisboa, Portugal.
- Wilson, CR and Lambert, SJ and Dann, AL and Cross, p* and Hay, FS, 'Occurrence of viruses within Tasmanian vegetable crops and identification of a novel Polorovirus infecting pea', *Australasian Plant Pathology*, 41 (3) pp. 311-319. ISSN 0815-3191 (2012).
- Lambert, SJ and Hay, FS and Cotching, WE and Norton, TW, 'Irrigation and telemetry technology for energy and water use efficiency in irrigation of carrots', *Proceedings of Horticulture for the Future Conference*, 18-22nd September 2011, Mantra Erskine Beach Resort, Lorne Victoria.
- Nyalugwe, EP* and Wilson, CR and Coutts, BA* and Jones, RAC*, 'Biological properties of potato virus X in potato: effects of mixed infection with potato virus S and resistance phenotypes in cultivars from three continents', *Plant Disease: An International Journal of Applied Plant Pathology*, 96 (January) pp. 43-54. ISSN 0191-2917 (2012).