



Back-up material of all warm-season reference collection plots plus additional cultivars are preserved in tubs at Redlands in an attempt to limit encroachment or contamination and maintain genetic purity

Redlands era comes to an end

Queensland Government budget cuts announced last September had a major impact on turf research in Australia with the Redlands Research Station closing. Departed lifestyle horticulture team leader Matt Roche looks back on the facility's research achievements of the past 13 years.



Above: DAFF has provided assurance that the Redlands warm-season reference collection, known as the Living Library, will be able to remain at the facility for the next 12 months

After nearly 13 years, research activities at Redlands Research Station in Queensland have come to an end. The termination of the Lifestyle Horticulture programme, which included flower, nursery and turf research, development and extension, was a result of the Queensland Government's decision to cease activities in this area in an effort to save money.

On 11 September 2012 all Redlands staff members, with the exception those associated with the \$8.6million glasshouse facility located at the site, were told that their substantive positions were no longer required. Permanent staff members, including those in the turf research team, were given the choice to take a voluntary redundancy or be redeployed elsewhere within the Queensland Public Service.

The decision came as a complete shock to all staff located at the site which is located about 45 minutes from Brisbane's CBD. The Department of Agriculture, Fisheries and Forestry (DAFF) site was one of many victims of the massive cuts announced by the state government with an estimated 14,000 full-time equivalent public sector jobs axed.

At the time of writing this article (December 2012), the future of the research facility remains unclear. The 60 hectare site will remain in-situ for a minimum or 12-24 months before any action is taken. It may take more than five years for the site's research capacity (infrastructure) to be 'lost'.

There is talk of potential development across the site which would see the western side of Hilliards Creek sold off first. This area used to house the chemical phytotoxicity testing facility, wear trial and poultry research centre and currently contains the Horticulture Australia Limited (HAL) funded project 'Erosion Demonstration Control Facility' (TU12005)

which is now being led by Shane Holborn of Biosciences Australia Pty Ltd.

As for the eastern side of Hilliards Creek, the infrastructure and (trial) borders which are situated on prime agricultural land (red krasnozem soil) is likely to stay in-situ for some time. This area also houses Australia's largest warm-season reference collection, encompassing some 178 genotypes of C₄ ornamental turfgrasses.

This reference collection, dubbed the turf industry's Living Library, was established in 2000. Vegetative material for this collection was largely acquired by former principal scientist Dr Don Loch from overseas universities and breeders and from sources across Australia. Since construction, the turf demonstration plots have been maintained at Redlands Research Station as part of the facility's efforts to supply vegetative material for research projects, but also education to the Australian turfgrass industry and wider community.

Matt Roche, former senior research scientist at Redlands, is working with DAFF management, Turf Australia and HAL to preserve the collection in its current form. DAFF has provided assurance that the collection, which also contains Genetic Resource Centre material for the purposes of Plant Breeder's Rights (PBR), will be able to remain at Redlands for just over 12 months.

After this time the collection will then have to be removed off site and Roche, who has since set up and is now director of Australian Sports Turf Consultants (ASTC), will be working with Turf Australia to achieve this goal, hopefully with the full support of the wider turfgrass industry.

IMPORTANT RESEARCH

Turf research at Redlands Research Station was undertaken to service the whole turf industry, from producers to facility managers, homeowners to professional turf managers, from roadsides and urban open space through to golf courses, bowling greens and sportsfields.

During this period Redlands (the lifestyle horticulture crew numbered 25), was involved in

many important industry research, development and extension activities including:

- Lead research group or primary collaborator in 19 HAL funded (VC and/or levy) projects (see Table 1 for the full list of projects);
- Forming guidelines for the Turf Accreditation Process (TAP);
- 25 Plant Breeder's Rights registrations;
- Between 2001 and 2010, a total of 76 products consisting of 187 different treatments were tested at the Redlands phytotoxicity site. During the first three years alone, 39 products were comprehensively examined, resulting in the registration of 12 new products for the Australian turf industry;
- Genetic improvement work and breeding;
- Sportsfield characterisation and benchmarking of elite and community sports fields;
- Extensive wear studies;
- Turf pest and diseases;
- Extension with a focus on providing the industry and general public with independent information. This was disseminated through websites, fact sheets, magazines, field days, phone and email, and national and international seminars;
- Desktop studies;
- Various confidential and fee-for-service studies.

On behalf of the turf industry I would like to thank the collaborators (e.g. HAL, Australian Golf Course Superintendent Association, University of Western Australia, Sports Turf Institute, University of Queensland, state golf, sports turf and turf producer associations, various councils and turf related companies) and the following persons who were part of the Redlands Turf Research team at some point during the facility's 13 years: **Dr Don Loch** (principal scientist), **Tarek Lees** (scientist),



Dr Rachel Poulter (scientist), **Cynthia Carson** (senior extension officer), **Alan Duff** (principal experimentalist), **Russel Durant** (technician), **Tony Troughton** (technician), **Bartley Bauer** (scientist), **Kaylene Bransgrove** (plant pathologist), **Mitch Wall** (technician), **Lin O'Brien** (technician), **Will Pearce** (technician), **Shane Holborn** (lifestyle horticulture team leader) and **Jon Penberthy** (principal chief experimentalist).

For further information or assistance regarding the Redlands site, contact Matt Roche on 0412 197 218, or email matt.roche@ASTCs.com.au.

EDITOR'S NOTE

Australian Turfgrass Management Journal, which has carried numerous research updates from the Redlands facility since its inception, wishes to sincerely thank the turf research team and its members for their contribution to turf industry research during the facility's operation. A list of articles attributed to Redlands which appeared in ATM from Volume 11 onwards can be viewed at www.agcsa.com.au/atm_journal/research. The AGCSA website also contains final reports and updates on the work undertaken at Redlands and these can be viewed at www.agcsa.com.au/agcsatech/research.



The traffic tolerance of warm-season turfgrasses under community sportsfield conditions was one of 19 HAL projects the Redlands team undertook during its operation

TABLE 1: HAL PROJECTS UNDERTAKEN AT REDLANDS RESEARCH STATION

Project Code	Description	Period
TU00001	Water use studies and implications for management of subtropical C ₄ turfgrasses in dryland and irrigated urban open space	2000-2003
TU00011	Chemical phytotoxicity testing facility for warm-season turfgrasses	2001-2004
TU02005	Amenity grasses for salt-affected parks in coastal Australia	2004-2006
TU02007	Best management practices for sustainable and safe playing surface of AFL league sports fields	2003-2007
TU04013	Adaptation and management of Australian buffalo grass cultivars for shade and water conservation	2005-2009
TU04006	Extension of chemical phytotoxicity testing facility for warm-season turfgrasses	2005-2006
TU05001	Management guideline for new warm-season grasses in Australia	2006-2009
TU06006	Establishment and maintenance of salt-tolerant amenity grasses to reduce urban salinity effect	2007-2010
TU06008	Extension of chemical phytotoxicity testing facility for warm-season turfgrasses	2007-2010
TU06019	Best use modelling for sustainable Australia sports field surfaces ¹	2007-2009
TU08018	Traffic tolerance of warm-season turfgrasses under community sportsfield conditions	2008-2012
TU08033	Optimising turf use to minimise soil erosion on construction sites ²	2008-2009
TU08034	Quantifying surfactant interaction effects on soil moisture and turf quality	2008-2009
TU09033	Status assessment of water use research in turf growth and maintenance	2010
TU09039	Developing new innovative technology for benchmarking turfgrass performance ¹	2010-2011
TU09001	Adaptation of warm-season turfgrasses for the tropics	2010-2012
TU09002	Improvement and maintenance of turf demonstration plots for national research and extension	2008-2012
TU10015	Ryegrass transitioning in couch turf ¹	2010-2012
TU10025	Erosion control – Turf research and development facility	2011-2012

NB: ¹ Lead agency Sports Turf Institute (STI); ² Lead agency Landloch Pty Ltd