

Around 45 turf industry personnel attended Redlands Research Station to view progress of the warm-season greens grass trials being conducted by DEEDI and the AGCSA

◀ WARM-SEASON GREENS GRASS TRIAL FIELD DAY – MAY 09



Since 2005 the Department of Employment, Economic Development and Innovation (DEEDI) (formerly the Department of Primary Industries & Fisheries) and the Australian Golf Course Superintendents Association (AGCSA) have been collaboratively undertaking research activities to determine the geographic adaptation and optimum management inputs to provide high quality golf and bowls playing surfaces.

The four-year Horticulture Australia (HAL) funded study has seen eight regional trial sites set up within South Australian, Victoria, New South Wales and Queensland including a centralised test facility located at Redlands Research Station, Queensland.

Each regional site, positioned predominantly down the east coast of Australia, were provided with the opportunity to grow-in and trial up to 12 greens quality grasses – eight *Cynodon dactylon* x *C. transvaalensis* (hybrid green couch) cultivars MiniVerde, MS-Supreme, TifEagle, Novotek, Tifgreen, Tifdwarf, Champion Dwarf and FloraDwarf; and four *Paspalum vaginatum* (seashore paspalum) cultivars Sea Isle 2000, Velvetene, Sea Isle Supreme and SeaDwarf – depending on their available space and budget. We would like to acknowledge each superintendent, club and committee for their support and efforts in being involved in this study.

The centralised test facility located at Redlands Research Station was purposely built to USGA specifications to compare all of the cultivars under a similar management programme. The coordinated approach has enabled DEEDI and collaborative AGCSA staff to speed up rational assessment of the new cultivars and thus greatly improve the understanding of their characteristics and management requirements such as nitrogen fertiliser rates, cutting height and grooming treatments. The end result will provide faster, more affordable determinations by each club/course/facility of the replacement strategy which best meet its requirements.

One such method to inform the superintendents and clubs/courses/facilities of the developments was to hold a field day. The latter occurred on 12 May 2009 at Redlands Research Station and was attended by over



45 industry personnel. Presentations were made by DEEDI research staff about how they tested and evaluated the *Cynodon* hybrid and seashore paspalum cultivars that were set up in a two-way strip plot design to facilitate varied mowing (including mowing and rolling) and nutrition programmes to assess turfgrass colour, quality and thatch among others.

They also spoke about the rigorous scientific testing that commenced in early 2007 following the grow-in and the achievement of the desired management programme obtained by Jon Penberthy, DEEDI's own qualified greenkeeper. Measurements taken over several seasons included:

- Greens speed using a modified stimpmeter;
- Turf colour (subjective and quantitative);
- Turf quality;
- Thatching (subjective and quantitative);
- Rooting depth; and
- Pest and disease incidence.

Temperature buttons were also positioned 1.5m above ground (air) and 150mm below the surface to measure soil temperatures. Both buttons logged data at two hourly intervals and will prove handy when comparing temperature variation between the sites.

AGCSA agronomist John Geary presented data to the predominantly Queensland attendees on the results acquired from the regional trial sites located in Victoria (Bruce Macphee, Chisholm TAFE), South Australia (Daryl Sellar, Glenelg Golf Club) and NSW (David Thomson, Bermagui Golf Club). Some of the results indicated that a selection of the warm-season grasses would have little to no use in southern parts of Australia where bentgrass greens dominate.

Presentations were also made by the three Queensland superintendents involved in the trial – Pat Pauli (Horton Park Golf Club), Gary Topp (Twin Waters Golf Club) and Charlie Gifford (Indooroopilly Golf Club) – as well as Peter Lonergan from Coolangatta & Tweed Heads Golf Club. It was interesting to hear that geographic location even within such a close proximity resulted in different grasses providing better results. This was even before

various forms of management practices were implemented. Such a finding emphasises the need for multiple trial sites to be set up in varied locations when conducting trials looking at the performance of different grasses.

To date DEEDI and AGCSA staff have had the opportunity to collect and analyse a mass of data that has been acquired during the course of this trial. Research staff from both groups expect to get good information about the performance of these new turfgrass cultivars in comparison to the older industry standards (Tifgreen and Tifdwarf) enabling golf and bowls clubs to make effective decisions about which greens cultivars are likely to perform well in their situation.

DEEDI and AGCSA staff would like to thank Globe for sponsoring the day, and presenters Pat Pauli, Gary Topp, Peter Lonergan, Charlie Gifford, John Geary and Jon Penberthy for providing their time in addressing the audience. Special thanks must also be given to Cynthia Carson, senior extension officer of DEEDI, for her time and effort in organising the event.

The current HAL funded trial (TU05001) ends in December 2009. As a result, discussions are being undertaken between DEEDI and AGCSA technical staff about potential research opportunities with the Redlands centralised test facility. To have the infrastructure in place and to be able to continue to trial these new greens quality grasses, there is significant opportunity to gather information which has previously not been made possible.

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Editor's Note: For more in-depth results from these trials see John Neylan's AGCSATech Update in recent editions of ATM or visit the AGCSATech Research section on the AGCSA website www.agcsa.com.au/agcsatech/research which houses a series of newsletter updates about this project.

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