

Warm Season

Newsletter No 1. August 2006

Grass Trials

It has taken sometime to organize, however, the warm-season grass trials are now under way. The trial site at Redlands Research Station is now up and running and we are now gearing up to establish the golf course and bowling green trials.

Background on the project

After more than 30 years in which Tifgreen and Tifdwarf were the only greens-quality varieties available, the choice for golf courses in northern Australia has been expanded to include four new hybrid *Cynodons* (bermudagrasses).

Three of these; MS-Supreme, TifEagle and Mini Verde are from US breeding programs, while the fourth, Novotec was selected in north Queensland. In addition two new greens type *Paspalum vaginatum* (seashore paspalum) cultivars Sealsle 2000 and Sealsle Supreme (where tolerance of salty water is required) expand the range of choices for greens in difficult environments. A third Seashore Paspalum, Velvetene, which is an Australian selection, is also available but to date has not been used in a greens situation.

The Australian Golf Course Superintendents Association in conjunction with the Queensland Department of Primary Industries and Fisheries, will be undertaking trials into these new grasses with funding assistance from Horticulture Australia Limited (HAL).

Trials at Redlands Research Station

On Redlands Research Station, a replicated comparison of the nine grasses has been established on a sand profile green constructed to USGA specifications. The trial was planted in late December 2006 and many of the plots are well established. The Seashore Paspalum has established relatively quickly as has the Tifgreen, whereas the new hybrid *Cynodons* have been very slow to fill in.

The varieties established are;

Hybrid *Cynodons*



MS-Supreme, TifEagle, Mini Verde, Novotec, Tifdwarf and Tifgreen.

Paspalum vaginatum

Sealsle 2000

Sealsle Supreme

Velvetene

Non-replicated plots

SeaDwarf paspalum

Champion Dwarf bermudagrass

Flora Dwarf bermudagrass

The individual varieties have been established in 3 m x 3 m main plots, each to be criss-crossed later by three nitrogen fertiliser levels and three cutting heights. In line with commercial practice, mowing at the designated heights will be carried out 5 days of the week. Fertilising with slow release fertiliser will be carried out at one- or two-month intervals according to the pre-determined schedules.

The Redlands experiment will make detailed measurements of growth rates, turf structure and condition through all seasons, and will be closely monitored for pests and diseases. Initially, thatch management treatments, if used, will be imposed uniformly on all grasses. The initial study will run for three years, after which the mature greens will be maintained

under optimum management for each of the 3 m x 3 m main plots and be available for other studies (e.g. thatch management, winter over-seeding and growth physiology).

Golf Course and Bowling Green trials

In order to develop a comprehensive data base on the climatic adaptation and management of these new grasses individual golf courses and bowling clubs will act as regional collaborators. At each site plots will be established of each of the grasses under trial and assessed for quality, density, disease, insects and management inputs.

Maintenance of each site will be the responsibility of the host superintendent/greenkeeper in collaboration with the Principal Investigator.

Each of the regional comparisons and the Redlands site will be accessible to other superintendents/greenkeepers for personal visits and periodic group activities. Records of performance will be available to all participating clubs. The Principal Investigator will compile an annual report incorporating an overview across all regions as well as the Redlands investigations for all participants.

Plant material available for spring planting

For all the Clubs participating in the regional trials plant material will be available for a spring planting.

We would prefer all of the species/cultivars to be incorporated in the trials, however, if there are constraints on the available are we would require at least 3 cultivars with 2 replicates. The individual plot size needs to be at least 5 square metres.

If 5 species/cultivars are to be planted with 2 replicates there will be 10 individual plots. With each plot being 5 square metres the total trial area will be 50 square metres. The individual plots should ideally be about 5 metres long so that they can be used for putting or rolling a bowl.

The trial area will ideally be on a sand profile similar to that used for greens construction. DPI will negotiate Materials Transfer Agreements with co-operating clubs/courses to prevent unauthorized propagation from experimental plots.

Please contact Don Loch on Donald.Loch@dpi.qld.gov.au or John Neylan on john@agcsa.com.au as soon as possible. We need to know the varieties required and the area

to be planted.

Inspection of trial area at Redlands Research Station

The trial site is available for inspection and if you wish to visit please contact Don Loch on 07 32861488.

Acknowledgements

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- ◆ Horticulture Australia Limited
- ◆ Bowls Australia
- ◆ Queensland Golf Union
- ◆ Victorian Golf Association
- ◆ South Australian Golf Course Superintendents Association
- ◆ Golf Course Superintendents Association of Queensland
- ◆ Australian Golf Course Superintendents Association
- ◆ Horton Park GC
- ◆ Sanctuary Cove
- ◆ Indooroopilly GC
- ◆ Twin Waters GC
- ◆ Jimboomba Turf Group
- ◆ Tropical Lawns P/L
- ◆ David Hanby – Irrigation design
- ◆ David Burrup – Profile design and construction
- ◆ John Cooper (Globe) – Fertiliser

Trial plot overview



Turf inspection during turf 2006 conference

