

The warm-season greens trial facility at Redlands Research Station has provided replicated data on nitrogen inputs and different cutting heights and the correlation between the two when applied to eight different *Cynodon* and four different *Paspalum vaginatum* varieties over the past four years



Redlands warm-season greens trials wraps up

Four years after the establishment of the Warm Season Greens Test Facility at Redlands Research Station in Cleveland, Queensland, the collection of data from the first research project undertaken at the site has been completed.

Over the life of the project, the Queensland Primary Industries and Fisheries facility has provided replicated data on nitrogen inputs and different cutting heights and the correlation between the two when applied to eight different *Cynodon* varieties and four different *Paspalum vaginatum* varieties. The site has also been an invaluable resource to conduct direct comparisons between varieties and how they perform under similar treatments and conditions in this region.

Originally planted out with the help of volunteers from the GCSAQ, the site has been the focus of several industry field days over the years and has been visited by many interested turf care professionals.

The *Cynodon* turf types planted were TifEagle, TifDwarf, TifGreen 328, Novotek, Mini Verde and MS Supreme. Champion and Flora Dwarf were also planted on the trial site but not in the replicated trial. The *Paspalum vaginatum* varieties planted were Sea Isle 2000, Sea Isle Supreme, Velvetreen and Sea Dwarf.

The differences between the two turf genuses soon became obvious with the



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Jon Penberthy updates ATM on one of the industry's major research projects which has recently come to an end.

paspalums holding colour through the bulk of the winter but generally proving to have a slower ball speed than the *Cynodon* species. The paspalums striped up well and usually attracted the most comment from visitors while the couches provided the better quality surface for ball roll.

Once the data collected from the site has been collated and examined, the findings of the project will be presented to the stakeholders and the wider turf industry. With the amount of raw data to be analysed, it will take considerable effort to extrapolate the data but the results will benefit the industry in the long run.

During the course of the study monthly measurements of colour, quality and thatch levels were taken. Every second month each subplot was measured using a modified stimp meter to gauge greens' speed. Maximum and average rooting depths were measured quarterly and thatch depth measurements were carried out twice per year.

With final stimp measurements, rooting depths, thatch measurements and colour, quality and thatch ratings taken in late September, the plots have since undergone a heavy renovation to get them back into uniform order. This process began in early October with heavy scarification of all the plots using a pedestrian scarifier set in deep enough to reach the bottom of the thatch layer in the

most heavily fertilised subplots. Each variety was treated separately with the most thatchy plots being run over in up to eight different directions.

The next step was to topdress the plots heavily before solid tining using a Weidenmann deep tyne aerator. The plots will then be fertilised and treated with fungicide before rubbing in and heavy watering to bring the whole site back to good condition ready for the next trial. It may be necessary to use a hollow tyne lawn aerator to pull out some of the more stubborn areas of thatch but we will be monitoring the progress of the plots as they recover.

In the near future the site will be retained in the expectation that ideas that have been suggested by industry can be developed into research projects that will attract their own funding in dealing with the new varieties of warm-season turfgrasses.

The involvement of the golf and bowls industry has been invaluable and special thanks must go to the original voluntary contributors to the project – Bowls Australia, QGU, VGA, SAGCSA, GCSAQ, Horton Park Golf Club, Sanctuary Cove, Indooroopilly Golf Club, Twin Waters Golf Club, the Jimboomba Turf Group, Tropical Lawns and of course the AGCSA.

Support from the trade has been fantastic with significant input from Globe Australia, Toro, Twin View Turf, PowerTurf, David Burrup Golf Design, BHM and the support of Horticulture Australia Limited. 🌱

With the trial now complete, the research plots were heavily renovated in early October