



Transformation of Royal Agricultural Society's

Legend nursery produces elite surface

The Royal Agricultural Society of NSW (RAS) Sydney Showground Stadium (Homebush) has been reconfigured in size and shape and the profile re-constructed as part of a New South Wales Government, Australian Football League (AFL) and RAS capital development program.

Sydney Showground Stadium is a multi-purpose facility and a venue for hosting numerous national and state sporting and non-sporting events.

The events held at the Sydney Showground Stadium have included the Sydney 2000 Olympic baseball finals, the annual Sydney Royal Easter Show (April) together with well-known music events Big Day Out (January) and Sound Wave Concert (February).

As from May this year, the Greater Western Sydney Giants (GWS) AFL team will be based at Homebush and the RAS has undertaken to upgrade the main arena to provide an elite facility and has also recently appointed Terry O'Keefe, as ground manager.

The Sydney-based sportsground construction company M Collins and Sons (Contractors) Pty Ltd was awarded the main arena re-construction and re-grassing project which was completed in February 2012.

A key element to support the Sydney Showground Stadium reconstruction project involved construction of an off-site, purpose-built natural turfgrass replacement nursery by M Collins at its Camden turf farm, outside Sydney.

"The decision to design and construct a natural turfgrass replacement nursery represents an unprecedented step in the Australian turfgrass production industry and a huge investment by our company", managing director Matt Collins said.

The frequent use and increasing demands now placed on elite sportsground facilities to host sporting and non-sporting events at the state, national and international levels, requires these venues to provide safe and high-quality natural turfgrass surfaces. Venue management as well as financial sponsors of these elite facilities recognise that presentation and preparation of consistent turfgrass surfaces can only be supported by natural turfgrass surface replacement technology.

The natural turfgrass replacement technology chosen for the design and construction of the replacement nursery was the same chosen for the re-construction of Sydney Showground Stadium, the StrathAyr Legend sand reinforced 'Netlon' system comprising Legend couchgrass, for which M Collins is the NSW licensee.

A primary function of this natural turfgrass replacement, Legend nursery was to provide a replacement Legend couchgrass surface following staging of the 2012 Sydney Royal Easter Show. The Legend couchgrass nursery constructed during 2011 represents one of the largest sand reinforced, natural turfgrass nurseries ever constructed in Australia with a mown area of more than 12,000 squares metres.

Replacement Nursery Scope of Works

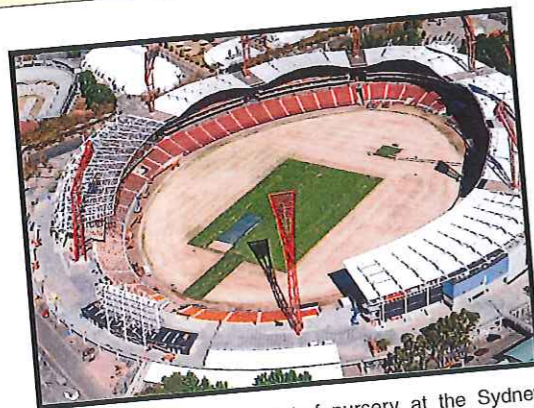
The replacement nursery project commitment on the turf farm commenced with allocation of sufficient elevated land together with importation of compactable clay fill for site levelling purposes.

About 20,000 tonnes of compactable clay soil was imported, spread and laser-levelled to finish on the designated site.

Following final surveying to determine correct configuration and basal slope, the next phase consisted of mechanically trenching into the compacted clay soil to allow the installation of the drainage pipe system in conjunction with the automatic pop-up sprinkler system together with associated pipework, exit points.

The replacement nursery drainage system comprised a series of parallel plastic pipes enveloped in drainage aggregate within the base with two outlet locations. Inclusion of a sub-surface drainage pipe system was fundamental in allowing the harvest of the Legend couchgrass irrespective of weather conditions. The automatic sprinkler system comprised 80 Hunter full-circle sprinkler heads.

A key design element of the replacement nursery was installation of an impermeable plastic layer, placed directly on the formed clay base, onto which the amended sand media was placed. The plastic layer was carefully located between and into each drainage trench and placed over the entire formed base.



Installation of replacement turf nursery at the Sydney Showgrounds following the 2012 Royal Easter Show.



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The nursery was vegetatively propagated using foundation stock harvested and mechanically washed at the company's turf farm at Camden.

Main Arena into a Multi-Use AFL Homeground for Greater Western Sydney

The consolidated depth of amended growing media was 40 millimetres. The amended high-sand content growing media was produced and quality controlled using a washed quartz-sand, amended with Canadian peat and finally mixed with Netlon mesh element at the company's Spring Farm Sand Quarry, outside Camden.

Quality control of the reinforced sand media involved a sampling and testing frequency conducted on the production stockpiles before and after organic amendment using the NATA-registered laboratory, Ground Science Pty Ltd (Melbourne) in conjunction with Andrew Peart (AGCSA). In addition to the physical and chemical analyses requirements of the amended sand, pathology and nematology assessments were also conducted and approved.

The 900 tonnes of amended growing media was spread and laser-levelled using specialised technology to achieve precise consistency and depth control of the required sand growing media.

"Achievement of uniform depth and consistent high-quality of the reinforced sand growing media is paramount for replacement natural turfgrass applications for elite sports stadia," Mr Collins said. The amended sand media matched the growing media specified and supplied for the recent re-construction of Sydney Showground Stadium.

The replacement turfgrass nursery was vegetatively propagated using foundation stock harvested and mechanically washed at the company's turf farm at Camden.

The Legend couchgrass foundation stock was pre-grown during 2011 within an additional dedicated site under a management plan. The replacement turfgrass supply contract included that the Legend foundation stock be inspected and approved by an independent consultant, prior to harvest before placement.

Grassing of the entire Legend couchgrass replacement nursery was achieved using washed max-roll width sod harvested in lengths up to 20 metres. Grassing of the replacement nursery was conducted during April, 2011 to allow for a mature sward with a well-developed root system to ensure high sod strength for harvest, installation and finally as an elite playing surface at RAS.

The prescribed maintenance program included numerous turfgrass quality fertilisers, chemical treatments including growth stimulants, mowing and finally ryegrass oversowing in March, 2012.



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