

Environmental parameters,
limited resources and
rapid urbanisation are just
some of the many issues
exacerbating turfgrass
quality in Hong Kong
writes Matt Roche who
was part of a contingent
of Australian and New
Zealand agronomists to
conduct a two-week turf
education programme there

ituated on China's south coast, Hong Kong has a land mass of just 1104km² with a population of over seven million people. These figures make parks and recreational areas in Hong Kong scarce and heavily utilised and therefore the need to provide manageable recreational areas to enhance the health and wellbeing of Hong Kong's population is important.

To design and manage a sport and recreational facility in Hong Kong's humid subtropical climate is challenging. An initiative by the Hong Kong government which has been ongoing over the past 10 years is to provide free turf/agronomy educational seminars, in a block format, to Hong Kong turf managers.

Organised by the Hong Kong Leisure and Cultural Services Department, the programme allows turf managers to learn about practical subjects such as turfgrass physiology, soil science, principles and practices of irrigation, pests and diseases, nutrition, pesticide application and safety, species selection, drainage and how trees and shrubs interact within turfed areas.

To facilitate the successful delivery of such a diverse programme, every two years the Hong Kong Leisure and Cultural Services Department calls for educational groups or trained facilitators to submit a tender to undertake the workshop. This year the successful tender was submitted by Keith McAuliffe from the Sports Turf Institute (Aus.).

To assist with the delivery of the two week programme which contained practical, technical and scientific agronomic advice, expertise was sought from New Zealand and Australia. Block educational sessions and presentations to the 22 attending turfgrass managers were conducted by Keith McAuliffe, Everett Darlington (New Zealand Sports Turf Institute, NZSTI), David Howard (NZSTI) and Matt Roche (Queensland Department of Employment, Economic Development and Innovation).

The New Zealand and Australian turf agronomists also held a series of field trips to local community sports facilities, parks and gardens and elite venues such as The Hong Kong Jockey Club and Hong Kong Stadium where the international rugby sevens tournament is held.

During one of the scheduled field trips, attendees of the class and the presenters inspected three multiuse sports facilities in Hong Kong – Sai Tso Wan Sports Ground, Kwai Chung Sports Ground and Wo Yi Hop Road Sports Ground. Each of the three venues was used for a diverse range of sporting activities and their construction and management inputs varied immensely.

Sai Tso Wan Sports Ground was the first permanent recreational facility in Hong Kong built from landfill. The ground is primarily used for baseball and football, but also encompasses a children's playground and jogging/training track.



It is situated within a gated facility in Lam Tin (the playing field is inaccessible for non-scheduled games or events).

Designers of the sports facility placed significant emphasis on utilising environmental friendly resources such as wind turbines, solar panels and rain/water collection devices that have the ability to provide sufficient water to irrigate the playing field. They even went as far as using a recycled, lightweight, porous material made from cement and shredded old tyres as a sub-surface drainage layer positioned beneath a sand layer.

The design and turfgrass management techniques being undertaken of the combination sward (couchgrass oversown with ryegrass) playing surface are first-class given the intense user requirements (scheduled games and training).

Kwai Chung Sports Ground was like many community sports facilities in Hong Kong – heavily worn and limited by field specifications (e.g.: soil type, species selection, drainage, irrigation set up). The field was predominantly broadleaf carpetgrass (Axonopus compressus) with patches of green couch (Cynodon dactylon) being grown on a heavily compacted soil. The direction of play was evident with a wear pattern clearly seen up the centre of the field and surrounding both goal squares.

A major limitation of the sports facility is that it uses three large gun irrigators positioned along each sideline to irrigate the field. However, coverage of the playing surface is not efficient with approximately 20-30m of the centre of the field not being irrigated. The efforts to apply additional water are fruitless because of the slightly crowned field, but also with the presence of numerous undulations and 'blow outs' across the field.

The Wo Yi Hop Road Sports Ground was an interesting multiuse facility. In 1995 the Hong Kong Leisure and Cultural Services Department commissioned the set up of the Wo Yi Hop Road Golf Driving Range on the sports ground. The 60 yard (54.9m) driving range comprises of 15 bays which are open to the public through a booking scheme three days per week year round. The golfing experience attracts many persons and groups with heavy foot traffic noticeable on the couch/broadleaf

carpetgrass surface behind where the golfers tee off on the halfway line. At least divoting is not an issue with golf tee mats being installed.

The complex also accommodates soccer and athletics and a full size running track like that at Kwai Chung Sports Ground is installed. Both running tracks get used routinely as a place of exercise by members of the local community because of the limited space available for parks and recreational areas.

Species selection at these three and other venues across Hong Kong are concerning. However, limitations such as environmental conditions (low light intensity and heavy rainfall), resources (the majority of the turf comes from China; quality sand/soil and machinery to undertake turf installation and drainage etc... are in short supply), education (knowing that other species and cultivars to suit their user requirements are at hand) and available money are contributing factors as to why one grass species may be chosen over another.

It may take several years for the turfgrass industry to catch up to other amenity horticulture industries such as landscaping in Hong Kong. The beautifully landscaped roadways and parks and gardens comprising a vast array of exotic plant species are a testament of this. However, with turf managers like those who attended the Hong Kong Leisure and Cultural Services Department course in Kowloon and financial support from the Hong Kong government, there is evidence that greener fields await. The 22 Hong Kong turf managers passed all modules of the two week course and graduated following a ceremony and presentation of their certificate in late January 2011.



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Turfing being undertaken adjacent to a Hong Kong roadway



While high quality landscape plantings are widely evident across Hong Kong, turf quality at some of the sporting facilities by comparison is sometimes of a lesser standard

A universal turf industry mantra regardless of what language you speak

40 AUSTRALIAN TURFGRASS MANAGEMENT

in January.