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Coming up Trumps

The new Trump International Golf Links, in Aberdeen, has created numerous headlines and, as Scott MacCallum found out when he visited, it looks set to live up to all the hype



The spectacular par-five 14th is likely to become the signature hole





“I want this to be the best golf course in the world.” Those are the words Donald Trump has spoken to everyone involved in the development of Trump International Golf Links.

Quite a challenge, but for those lucky enough to have had a preview of the work being carried out on the Menie Estate, which hugs the rugged North Sea coastline, to the north of Aberdeen, it will certainly not fall short because of the quality of the land, or as a result of any lack of effort or attention to detail.

The course is built on a stretch of links land that could have been created especially for the game of

4th hole being seeded above and from a different angle, below, showing the interesting square tees

golf. Dunes the size of tower blocks, with valleys, the size and shape of fairways, running between them, were the raw material, but Architect, Martin Hawtree, Constructor, Sol Golf, and John Bambury of Create Turfgrass, have provided the skills to make the very most of what was there.

“Mr Trump promised the world the greatest golf course in the world and he isn’t a man to renege on a promise. We all genuinely believe that it will become the world’s greatest golf course,” said John, as we sat in the Trump offices, housed in an ancient stone lodge beside the course.

“When Mr Trump told me what he intended for the course my first thoughts were that it was an incredible challenge. That said, if my initial reaction was to have been daunted I would have steered clear, as this challenge is only going to grow and grow,” explained John, an Irishman who carries the relaxed air of confidence of a man in control of whatever circumstance should come his way.

So how do you face up to the challenge of producing a golf course so good that it is unmatched by anything else in the world?

“It’s a very simple thought process really. Everything you do, you then think - ‘How can I do it better tomorrow?’

“The bar is set very high. Our tee boxes have to be better than the best greens; our fairways have to be better than the best tee boxes and our greens have to be better than all the rest.”

John arrived on site in April, when just a handful of the holes had been shaped but none of the greens had been built. Since then the quality of the work and the pace at which this has been completed has been truly remarkable. Indeed, on the day of Greenkeeper International’s visit, at the end of September, the final fairway, the 4th, was being seeded, while all of the greens and bunkers had been finished.

John, a graduate of Penn State University, arrived in Aberdeen having worked on a number of grow-in projects in Ireland and with experience of working with Sol Golf.

“I think I ticked a lot of the boxes for the Trump Organisation and we got on very well. I presented them with a plan on how I would tackle the grow-in and I think they were impressed with this.

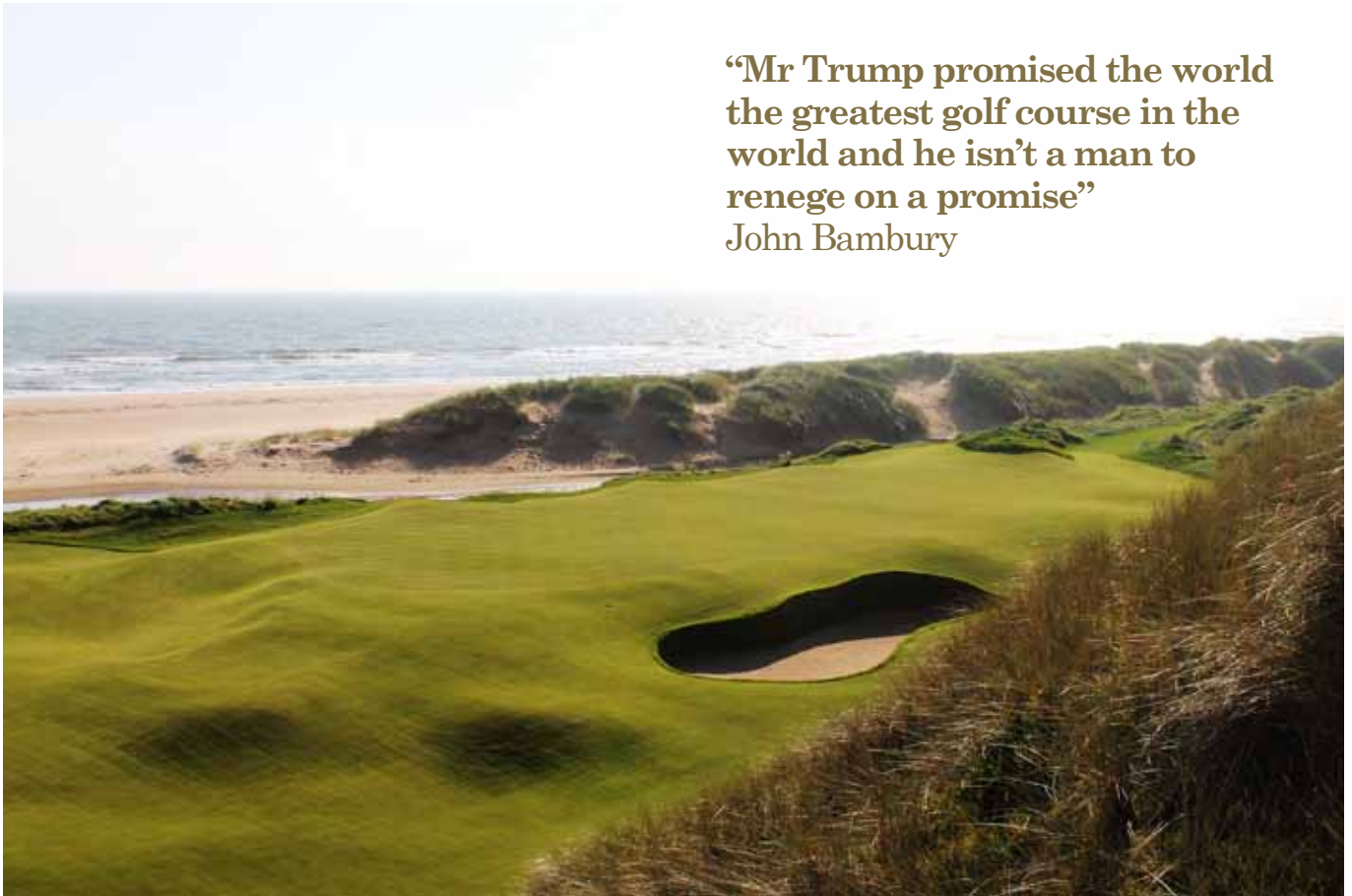
“It isn’t just about the turf, it’s about putting structures in place to cover every area.”

John’s first meeting was to compile an equipment list and this was carried out, with the Trump Organisation’s preferred supplier, John Deere, working closely with National Turf Manager for Turf



“Mr Trump promised the world the greatest golf course in the world and he isn’t a man to renege on a promise”

John Bambury



Equipment, Paul Trowman, in the space of five days.

“We turned it around very quickly, but life is only as complicated as you make it and we gave John Deere what we needed, together with the specifications, and we agreed a deal.

The equipment has worked very well for us. You don’t want to bring in a whole fleet of equipment at the same time and have it sitting there, so John Deere worked with our timelines on this.

It all had to be suitable for ongoing maintenance as well as the grow-in,” said John, whose local dealer is Double A.

The new maintenance facility will come on stream before the winter begins to hit hard.

Having conducted a full evaluation of the site and its topography, much of which influenced the equipment requirements, the greenkeeping team was assembled.

“People have always been hired here based on enthusiasm and commitment and we undertook a robust interview process which identified a number of staff from the local area, which was always one of Mr Trump’s objectives.

“It wasn’t hard to find local guys, because there is a wealth of talent in the area,” said John, who revealed that Donald Trump, himself, is a 4 handicapper with a very keen

knowledge of course building and construction.”

With equipment and team in place the next biggest issue was the agronomic plan for the grow-in.

“Temperatures get down very low up here, even in the middle of summer, and any given day it can be five or six degrees in the morning and be up at 18 by three o’clock in the afternoon,” explained John, who was quick to thank Robert Patterson, Course Manager at Royal Aberdeen, for bringing him up to speed on the local climatic conditions.

“What I learned from Robert in half an hour would have taken two years to figure out otherwise.”

The information gleaned helped influence the programmes that were subsequently put in place.

“For example, for the fairway programme we mixed in a slow release mixture in with our seed mixture but found very quickly that the low temperatures were not allowing this to work effectively, so we had to come across with straight fertiliser very quickly after germination.

“We couldn’t take a long term – six to eight week – view, in terms of fertiliser programmes. The fairways had to be managed on a five to seven day basis and this made us very conscious of the disease potential.

“With the traditional bent fescue mix on greens, and the grown-in nutrition programme, you’ve really

ABOVE: The 3rd green skirts the beach



John Bambury

got to watch for disease. On top of that, you’ve got to factor in that it is young turf which has been grown in a completely different environment so careful management is even more vital.

“For that reason we used a lot of traditional cultural practices. For example, our greens were aerated within four to five weeks of going down to encourage the root structure to develop quickly.”

To create a rootzone, top soil which had been cultivated a couple of times a year by local farmers around the Estate, was used.

“We mixed this 80-20 with the sand, for the green surfaces, and this enabled us to hold a little more moisture in there, again to encourage better root development.

One of the main stand out features of the course will be those

Thank you to John Deere (right), The Trump Organisation and Martin Hawtree Associates for making this feature possible.





greens and surrounds which have been turfed with bent fescue, supplied by Tillers Turf, and transported to the north east.

"It was a bespoke mixture and Tiller's were harvesting it at 4.30am and transporting it to us in refrigerated lorries so that it would be fresh when it arrived.

"We are using 4.3 hectares of turf for the green and surround areas, We are creating a frame around the green, using the same turf for the approaches and the green surfaces - the only difference will be the height of cut - everything else, including the nutrient and the cultural programmes, is the same. Our fairways and tees are pure fescue so we will have this beautiful contrast between the pure fescue fairway and the frame of the green and surround of bent fescue. It works very well."

The team had to prepare for the possibility that the site wasn't going to have any rain at all and as it turned out it had very little moisture for the grow-in.

"We have an excellent Rainbird irrigation system, 64,000 metres of pipe throughout the site, and this was vital during the summer and autumn."

The striking feature of the course is the amazing dunes. Martin Hawtree has ensured that none of the tees can be seen from anywhere else on the golf course to maintain the natural feel. That can cause

issues however, as during a sand storm earlier in the year, four inches of sand was dumped over the entire course.

"We had planned for the eventuality but it was the afternoon from hell and it took seven guys three hours per tee working 15 hour days to clear all the sand. Looking on the positive, it was a hell of a top dressing application!"

The on-going work that has gone into stabilising the dunes, to prevent this from happening again, was genuinely eye watering.

"We had a dedicated team which hand planted 5.6 million sprigs of marram grass over the period of six months. They were brought in by Sol and once they had hit on a method that worked they were very quick, and we've had a 95% success rate," said John, who added that more marram planting will be carried out this winter.

John's next comment is one which almost goes without saying.

"Only a company with the vision and the resources of the Trump Organisation could contemplate such a planting process."

However, the accusation that any project could only hit such heights if budgets could be tweaked with the simple addition of an extra zero at the end doesn't wash with John.

"Money is spent very wisely in the Trump Organisation and every penny is thought about. I would say that 70% of my time is dealing

ABOVE: the recently seeded 18th hole with its 18 bunkers

with costs and making sure we are on budget. Obviously we do have contingencies in place.

"You can't just throw money at the equation. Money isn't the answer, planning is, and having structures in place is the answer. It's a business and everyone is in business to make money but you can make money and still deliver the best golf course in the world.

"Mr Trump is a wealthy man and Trump is a profitable organisation. If you visit any Trump golf course, or one of the company's buildings, you will find perfection. It is about achieving perfection but there are always budgets in place and it is sensibly resourced."

But that will never detract from the sheer scale of the golf course. The driving range, for example, is 22 acres in total with the ability to play for a North Tee or a South Tee while the putting green is an enormous 3,000 square metres.

"What Martin wanted to achieve was to take a little bit of inspira-

RIGHT: Donald Trump with the team at Trump International Golf Links

If you visit any Trump golf course, or one of the company's buildings, you will find perfection. It is about achieving perfection but there are always budgets in place and it is sensibly resourced"
John Bambury





tion from each of the holes and put that into the putting green. He has actually done the same on the 18th hole, on which, in addition to 18 bunkers, he has tried to bring in everything which brings you to the 18th," he enthused.

"This is not just a project. Everyone who works on it knows that they are taking part in history in the making and the holes we are producing will be known the world over will quickly become one of the world's elite courses. As a golf course it is always exceeding people's expectations."

There is no doubt that International Golf Links will become one of the world's elite golf courses in a very short space of time and, with the might of the Trump Organisation ensuring its high profile, a glittering future is guaranteed.

It will go straight into the upper reaches of the personal top 10s of anyone lucky enough to play when it opens next July, and undoubtedly beguile the golf magazine judges in time for the next ranking lists.



Architect, Martin Hawtree, takes time to answer a few Greenkeeper International questions about Trump International Golf Links



1. How did you come to be chosen for the most sought after new course project in world golf?

The introduction came through the R&A with whom I had been working at a number of Championship venues. I was at first appointed as a consultant, with Tommy Fazio taking the lead role, Fazio had worked on many Trump projects.

2 What were your initial impressions when you saw the land?

It was by far the most stimulating site I had seen in 40 years of working as a golf architect. It was Royal Aberdeen, Royal Birkdale, Ballyunion, rolled into one and more. The scale of the dunes is very hard to imagine.

3. Where do you start when the remit is to design the greatest golf course in the world?

Just like any other project the aim is to get the best out of a piece of land. If the site itself promises to be the best in the world then there is much to help you.

The most important need is for self-control; let the site do its work and don't try too hard to do something very special: otherwise you may get it wrong and the result may be artificial. In this case the site was also environmentally very sensitive so I allowed the golf course to develop naturally from the site and to fit it to the site.

It was a balance between exploiting the extraordinary assets of the site and blending the course environmentally. For the layout, some areas we avoided altogether; for the detailed design we replaced or translocated as much of the existing vegetation as possible.

4. What are you particularly pleased about as the course stands at the moment?

I know that the fact that the tees cannot be seen while out on the course is regarded as a masterstroke.

What pleases me most about the course is the sequence of holes, the way in which the holes move around the site, exploiting different views and site characteristics.

The site has a particularly rich vegetative tapestry. So few holes are seen before they are played; each hole a surprise, now broad, then narrow; now marram framed, then heather framed, now flanked by ecological zones, then flanked by winter lochs.

An extraordinary perambulation.

5. John Bambury said that the course builds to a conclusion with elements of holes all brought together on the spectacular 18th and its 18 bunkers. Can you explain a little more about that?

I am enthusiastic about the final holes, turning at the 16th tee and rising progressively through the 16th and 17th, demanding holes played the prevailing wind; and as you climb you have an inkling of what may come because you have seen spectacular holes at the 14th, but when it comes it is still a surprise and a wonderfully exhilarating experience as you look south across the whole course and on towards Aberdeen.

The styles of bunker on previous holes are all here, the variety of tee alignments and distances, the dividing of fairways, a large green best attacked from different angles depending on the position of the pin. Lots of options bound in a heady montage of sand, dune, marram, fescue, and water.

6. I understand Mr Trump and Mr Trump Jnr have been involved and suggested a few spectacular tees. What has Mr Trump been like to work with?

Mr Trump has been great to work with. Always helpful and willing to listen; always accessible whatever the time zone; always stimulating and asking questions; all couched in an extraordinary memory for the details of the site.

7. The opening of the course coincides with the centenary of Hawtree. You must be delighted to have it in the company portfolio?

Yes, it is a great way to move into our centenary year with the opening of the Trump course. There are few enough new courses about at the moment for the comfort of a new project to turn into a rare privilege. And I hope privilege is the key-note of this course, for those who have helped design and build and grow-in the course – which has depended upon an extraordinarily bonded teamwork - and for those who come and play in this wonderfully rich and spectacular landscape.

Avoid the Yarrow March

Dr Terry Mabbett looks at Yarrow, the turf weed with it all



Yarrow (*Achillea millefolium*) is a successful and serious weed of managed turf. By nature all broad-leaf plants in managed turf will display at least some of well-established turf weed attributes but yarrow has virtually the lot.

Underground stems (rhizomes) and surface spreading creeping stems which root at the nodes and like most members of the plant family Asteraceae (better known as Compositae) prolific seed production.

However, there is another key attribute related to its leaves and accounting for much of yarrow's

success and prowess as a weed of managed turf. Yarrow's waxy and finely divided fern-like leaves contribute to the plant's strong drought resistance and high tolerance to herbicide because the foliage is hard to wet and therefore difficult to adequately cover with spray.

Yarrow profiled

Yarrow is a ubiquitous perennial weed occurring in most types of grassland. The name yarrow is derived from the Anglo Saxon 'gearwe' or 'giewan' meaning 'to be ready' (because of its healing properties) and turf managers faced

with this weed should certainly be ready for a difficult time.

Yarrow flourishes on dry, sandy and undernourished soils, calcareous or slightly acidic in reaction. Along with white clover and cat's ear, yarrow is one of the most drought hardy of all turf weeds.

During long hot summers, yarrow will persist as broad green patches while most other plants, turf grasses and weeds alike, are dried out, brown and seemingly dead.

Beneath the soil lays a sturdy system of underground stems called rhizomes spreading laterally from the parent plant at 7 to



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long hot summers when turf grass is at its lowest ebb.

First glimpse of the flower heads makes many think that yarrow is related to wild carrot, cow parsley, pig nut, hogweed, ground elder and other 'sometime' amenity weeds belonging to the family 'Umbelliferae'. But closer inspection reveals a flat-topped inflorescence comprising a cluster of tiny daisy-like flowers each composed of many florets. This places yarrow firmly in the Asteraceae (Compositae) 'camp'. Individual flowers are 3-6mm across with white or cream coloured disc florets, and five pinkish purple ray florets. Like most other members of the Asteraceae, including dandelion and ragwort, yarrow displays high seed production with up to 6000 seeds per plant.

And the finely dissected fern-like leaves of yarrow give extra clues to its classification status because they resemble the feathery, lace-like and highly segmented leaves of other members of the Asteraceae such as scentless mayweed, corn chamomile, pineapple weed and ragwort. The alternative common name 'Milfoil' derived from yarrow's Latin name 'millefolium' literally means 'thousand leaf'.

In the wider environment

Yarrow in flower is a common sight on infrequently mown grass or waste ground but hardly so on well managed turf. Regular mowing ensures the white flat flower heads are rarely seen in sports and amenity turf. And this together with a late and relatively short flowering window covering June-September should help to curtail its spread. But the secret of yarrow's success as with so many other turf weeds does not necessarily lie in sexual reproduction and the setting and dissemination of seed.

Ground hugging rosettes of stalked basal leaves, which largely escape the mower blades, hide an efficient means of vegetative reproduction through prostrate stems which develop into soil surface creeping stems (stolons) that root readily at the nodes. In contrast leaves borne on flowering stems are without stalks. The tough and fine-cut form of the yarrow leaf minimises loss of water by evaporation.

Yarrow has healing properties and when the leaf segments are crushed they release a strong though not unpleasant aromatic smell claimed to provide at least one good use for this troublesome weed

in another time and place. Yarrow is claimed as excellent fodder for farm animals, and some dairy farmers encourage yarrow in their pastures to impart a pleasant taste to cow's milk and yarrow flavoured yoghurt thus made. Yarrow was popular as a cooked leaf vegetable in the sixteenth century.

Back to basics on managed turf

Back on the sports turf surface yarrow is notoriously difficult to control and a single application of herbicide is rarely sufficient to eliminate the weed. It's creeping, running stems root at intervals to produce large drought resistant patches of weed growth during hot and dry summers when turf grasses and most other weeds alike are stopped dead in their tracks. There is little that can be done because herbicide application is clearly not effective or advised during drought conditions.

When the rains resume in early autumn yarrow clearly has a head start over drought stricken grass and by late September turf grass swards may be riddled with the weed. The leaves are waxy which together with their finely divided structure makes them difficult to wet and cover with spray, as well as presenting a barrier to the entry of systemically acting (translocated) herbicide.

It is not a good idea to rely solely on herbicides for control of yarrow since the majority will struggle to eliminate this weed, especially with a single spray application. Carefully prise out isolated yarrow plants when they first appear and scarify (groom) the turf to raise the weed leaves prior to mowing. Nitrogen rich fertiliser in spring helps the grass to get a head start over yarrow.

Regular feeding and watering, especially during drought, maintains sward thickness and helps to suppress this aggressive weed. Round off the growing season with an autumn applied top dressing. Year on year persistence of yarrow indicates that turf requires at least a good tonic and more likely some serious soil conditioning or amendment.

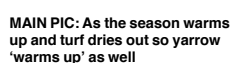
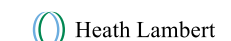
Yarrow and herbicides

Most turf weeds are relatively easy to control with proprietary selective herbicides at standard dose rates and frequencies, but others are more difficult to shift. The situation surrounding yarrow and other hard to control weeds

20 cm a year and a deep fibrous root system which anchors plants securely in the turf grass sward.

This erect, tough and aromatic perennial is usually 30-60 cm high in uncut swards, forming ubiquitous clumps and patches on dry grassland, hedge-banks, roadside verges and waste places. That said yarrow can tolerate close mowing, readily adapting its growth habit in accordance with cutting height.

There are custom-bred varieties with yellow and pink flowers sought after by cottage garden enthusiasts. But turf managers are hardly enthusiastic about this 'dry-loving' weed which performs best during



MAIN PIC: As the season warms up and turf dries out so yarrow 'warms up' as well



TOP: Some dairy farmers encourage yarrow to produce pleasantly flavoured milk and yoghurt

ABOVE: Yarrow is a valued component of wild flower meadows in late summer

LEFT: Clearly severe drought conditions but yarrow still manages to flower

BELOW: Close up on conditions that allow yarrow to take over

BELOW RIGHT: Yarrow is usually the last weed left standing in drought stricken turf

is complex with various factors at work either on their own or in combination.

Thus weeds like yarrow which are difficult to control with herbicides may:

- Be hard to wet and cover with spray due to shape and disposition shape or surface properties of the foliage
- Present a barrier to herbicide penetration due to a wax bloom layer, a thick cuticle or hairs on the leaves or a combination of such surface properties.
- Be inherently resistant to herbicide due to aspects of natural metabolism like having specific enzymes that can detoxify a specific herbicide molecule.
- Have acquired resistance to specific selective herbicides due to their over use and abuse.

Product Labels of some single active ingredient herbicides claim control of yarrow but only by using the highest allowed dosage or repeat applications and often both.

Biggest and best clout is delivered by herbicide products containing two or more active ingredients, usually with completely different modes of action, but even these can come with some reservation over rapid and complete control of yarrow.

Fluroxpyr and florasulam in combination are acknowledged to achieve comprehensive control of weeds in managed turf, including those which are traditionally regarded as the most difficult to control. This combination has the benefit of using two 'modern' actives with completely different modes of action. Both disrupt the normal growth of broad leaved weeds, the former by mimicking the effect of auxins and the latter by inhibiting synthesis of branched chain essential amino acids the building blocks of protein.

Fluroxpyr is taken up by the leaves and florasulam by the roots also, and together with rapid

translocation in xylem and phloem means they can rapidly reach all growing points where their effect is felt. In spite of all these attributes control of yarrow is only defined as moderate in comparison to most other turf weeds.

Positive points for yarrow

As with other turf weeds there are positive sides to yarrow. Yarrow is a valued component of wild flower meadows providing a rash of striking white across the yellowing tall grass in late summer and ideal for attracting butterflies.

Some cavity nesting birds like starlings use yarrow foliage to line their nests and research in this respect with nesting tree swallows in North America showed that yarrow inhibits the growth of avian parasites.

The plant has a long history of use in herbal medicine including the ability to heal wounds. Indeed the Linnean name 'Achillea' is after 'Achilles' of Greek Mythology fame, and the foremost hero of the Trojan Wars, who is said to have first used yarrow to heal his soldiers' injuries.

A whole string of alternative common names such as soldier's woundwort, knight's milefoil, staunch weed and thousand-seal give credence to these claims. In antiquity yarrow was known as 'Herbal Militaris' because it would staunch the flow of blood from wounds sustained in battle.

In herbal medicine yarrow is recommended for fortification and decongestion as well as its anti-haemorrhagic properties, but a specific traditional recommendation for stemming blood flow and relieving toothache following molar extraction is of little consolation to the greenkeeper suffering the 'headache' of yarrow as a turf weed.

Or its use as a skin lotion to improve complexion and looks when this is the last thing yarrow does for fine turf.

