

UK is fast approaching complete self-sufficiency in Christmas trees.

Options and choices for the clubhouse Christmas tree have changed out of all proportion over the last twenty years, in the range of trees on offer, country of origin, method of production and even in the method of marketing.

Childhood Christmas tree memories for those the other side of fifty will be of Norway spruce, the traditional and often gangly conifer that dropped its needles en masse as Christmas moved into the New Year.

Norway spruce is still used to today and continues to take a healthy slice of the lower cheaper end of the Christmas tree market, but has long been overtaken by the Nordmann fir.

Nordmann fir is a much more compact and better looking tree and providing it has not been harvested too early will retain its needles when taken inside for decoration.

Ironically Norway was never the main supplier of Norway spruce as Christmas trees and in the same way the Nordic sounding name of 'Nordmann fir' belies the tree's true native origins.

The wild native distribution of the Nordmann fir is the Caucasus where Europe becomes Asia in countries like Turkey and Georgia from where the best seed originates.

Denmark was always the biggest producer and supplier of Christmas trees for the European market and is originally responsible for the runaway success of Nordmann fir as a commercial Christmas tree, not only in the UK but all over Europe as well.

It was Danish Christmas tree growers who went into Georgia and collected the seed which started the contemporary Christmas tree industry based on Nordmann fir.

The other big change relates to country of origin.

Ten years ago a Christmas tree purchased in the UK, whether Nordmann fir or Norway spruce, would more than likely have been grown in Europe (probably Denmark), and shipped to the UK for Christmas.

Today your tree's roots will almost certainly have been embedded in British (or Irish) soil.

The British Christmas tree industry is one of unparalleled success with the UK going from dependency on European (mainly Danish grown) Christmas trees (mostly Nordmann fir) to virtual self-sufficiency in little more than five years.

In yet another irony, we have the Danes - and the European Union (EU) - to thank for the UK's ongoing

INSET BELOW: Colorado blue spruce is much admired for its attractive coloured foliage



success in producing of homegrown Christmas trees.

Around ten years ago changes in EU policy emanating from Brussels made it increasingly uneconomical for Danish Christmas tree growers (always the best in Europe) to ply their traditional craft and trade in trees. Many upped sticks and moved from Denmark to Britain to take advantage of our rich soil, kind climate and relatively low land prices as well as a ready market for Christmas trees.

The market aspect was not so important because Christmas tree production and marketing is now a highly integrated pan European business with increasing numbers of Christmas trees now shipped from the UK to continental Europe instead of the other way round.

However, not all is plain sailing because this overnight success for British (and Irish) grown Nordmann fir and its growers has led to the current shortage of larger trees which started to materialise two years ago. Such is the demand for Nordmann fir currently taking 55 per cent of the market that many UK growers have been cutting and lifting trees for Christmas sale before they have attained the most popular size of 2 metres.

This type of shortage will clearly pose a problem for buyers like golf clubs that will need a good sized tree of between 7 and 10 feet. To make matters worse, Nordmann fir is not a particularly fast growing tree and requires 8 years to achieve 2 metres in height. This has aggravated the shortage of 2 m+ trees on the market.

Timing of purchase

Christmas as a commercial rather than a religious and cultural event is being forced on consumers earlier and earlier.

The Christmas tree industry is not altogether without blame in this respect. Every year starting in July we hear the same old story urging buyers right along the chain to place orders and to purchase early to avoid disappointment. The industry obliges by forcing growers to harvest their trees earlier and earlier with the traditional first big delivery date of the first week of December now brought forward to the third week of November.

Those two weeks are crucial as far as living Christmas trees are concerned because these conifers require a period of sustained cold to make sure the needles (leaves) are firmly fixed (set).

What's more, harvesting in mid-November means the average tree

is going to be out of the ground and devoid of roots for almost two months before being finally taken down and hopefully recycled.

Even species like the Nordmann fir with one of the finest reputations for needle retention cannot cope with such a long pre-Christmas marketing period. Increasing reports over the last few years of 'needle drop' in Nordmann fir are ascribed to the industry marketing trees much too early before Christmas.

One way around this 'catch-22' situation for consumers, of either purchasing a Christmas tree too early or being left disappointed without a suitable tree, is to place an order early in the year and preferably with a grower that allows you to visit the farm and 'pick your own' tree.

Type of tree

Nordmann fir and Norway spruce at the top and bottom of the market, respectively, are not the only conifers the UK market can offer as Christmas trees. There are nowhere near as many as on the North American market (where believe it not Leylandii cypress is used as a Christmas tree) but nevertheless an increasingly interesting selection is available in the UK.

Scots pine, one of only three native British conifers (the other two are English yew and common juniper), and to a lesser extent lodgepole pine have niche markets in Scotland and northern England, while two North American favourites, noble fir and Douglas fir, are making their presence felt.

Each four of these conifer species, like Nordmann fir, has a good reputation for needle retention after harvest. Colorado blue spruce is always a firm favourite due to its attractive blue-green foliage and pleasant aroma (and good needle retention) while the more open canopied Serbian spruce, a favourite in central Europe, makes a good centre display.

The vast majority of Christmas trees are harvested by cutting and sold rootless but an increasing number of consumers are going for root-balled or container-grown trees on the basis that 'a Christmas tree is not just for Christmas', and subsequently chancing their luck by planting the tree and perhaps using it in years to come.

Colorado blue spruce has one of the best survival rates in this respect.

Increasing numbers of consumers are also opting for organically

grown trees without use of artificial fertilizers or pesticides. One possible problem with organically grown trees is that organic growers are not allowed to use chemical pesticides and may therefore find it hard to manage insect pests like aphids.

These insect pests may infest and damage new foliage in spring and spoil the shape of the tree and cause it to lose colour.

Time permitting you can't beat a visit to the Christmas tree farm to choose your own tree.

This will help you secure the right quality tree as near to Christmas as possible. One other interesting option is to 'rent' a container grown tree which will be delivered to your door shortly before Christmas, and collected after the '12th day' which tradition says is when the Christmas tree and decorations should be taken down.

You can even opt for a long term contract and rent the same tree year after year.

The supplier provides the tree with tender loving care on the farm throughout the year and will deliver the tree to your door the following Christmas.

Increasing cost

Real live, good quality Christmas trees do not come cheap.

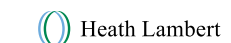
Two metre Nordmann firs, which set the market price, hovered below £50 for several years until 2010 when they broke through this ceiling.

There are significant regional differences in price with London consumers paying a hefty premium.

Customers using garden centres and other mainstream retailers should now expect to pay at least £50 for a 2m Nordmann fir, irrespective of location in the UK, with a same size Norway spruce somewhat less.

Golf clubs and greenkeepers are in an ideal position and situation to beat any shortages and price increases in Christmas trees.

Next time a small plantation of trees is planned for an area of rough on the golf course plant Nordmann fir, Norway spruce, Colorado blue spruce, Scot's pine, or whatever takes your fancy, and then harvest a Christmas tree for the clubhouse in December for years to come.



This article comes to you courtesy of the BIGGA Learning and Development Fund. Thankyou to all our key sponsors



ABOVE: Quality Nordmann fir now take around 55 per cent of the UK market

MAIN RIGHT: Predictions are for a shortage of larger trees in 2013.

Picture courtesy BCTGA

BELOW: Trees benefit from a period of low temperature prior to harvest.

Picture courtesy BCTGA



**“Predictions are for
a shortage of larger
trees in 2013”**



Behind the scenes at Toro



We lift the lid on the secrets behind the success of Toro, a BIGGA Gold Key sponsor, and its UK distributor Lely

If you follow sport, the chances are Toro's footprint will have made its mark on some of the famous competitions you've enjoyed from the comfort of your armchair.

As well as supplying machinery to the likes of St Andrews, The Belfry and Celtic Manor, Toro have a presence at Wimbledon, the Olympics and the Super Bowl as well as other glittering events.

The company's HQ is in Minneapolis in the US state of Minnesota, and also has manufacturing bases in Australia and across Europe.

My introduction to the UK operation begins in the hamlet of Spellbrook close to Bishop's Stortford at just one of these bases. Accessed via a narrow and winding lane and surrounded by rolling countryside, it initially seems an unlikely location for a manufacturer of large scale consumer and commercial products.

In 2005 Toro acquired the British mower manufacturer Hayter – who were based at Spellbrook – and now manufacture thousands of machines on site, as Chris Cooper, Product Marketing Manager, explains.

“The location may seem a little unusual but in fact it's ideal for us. Its close proximity to Stansted airport allows us to host manufacturers, clients and potential clients from across the world.

They can see how it all works and also see the machines in action.

“Although most machines manufactured and distributed here are for landscape contractors, councils and homeowners, it's a great insight into the Toro manufacturing process.”

Chris goes on to provide an interesting potted history of the Toro organisation.

Originally founded in 1914 to build tractor engines, they were

almost immediately mobilised to manufacture steam engines for merchant ships when the First World War broke out.

As if war wasn't enough of a hurdle, the Great Depression was approaching which slashed the company's agricultural sales.

However, in 1920 a Minnesota golf club approached Toro to create a motorised fairway mower. Five reel mowers were mounted on to the front of a Toro tractor – and the motorised golf course equipment industry was born.

“For us, establishing a long-term relationship with the customer is key. We talk to our customer base constantly – this is absolutely vital”

Over the last decade, Toro have acquired several organisations – including Hayter – to enhance various aspects of the business. The likes of Lawn Boy have helped them expand their consumer mower operation, while Exmark expanded their commercial mower line.

Chris takes me for an autumn stroll outside to cast an eye over the brand new GreensPro 1200 greens roller – and also points out a field on site where they're rigorously tested for hours on end in all weathers.

He says: “It's far from the most glamorous job, but it's an absolutely vital one.

In this industry it's common to see the fourth or fifth version of a machine, but that's not the way we operate. We insist that every product is tested intensely so the customer receives the finished article.

“It's a false economy to keep producing different versions to remedy problems.”

The next stage of my education sees me head north to St Neots in Cambridgeshire to Lely UK, long-term distributor for Toro golf, grounds and irrigation systems in the UK and Ireland.

It's based in a fairly unassuming building – but behind this quiet facade lies a hive of activity.

Intriguingly, turf machinery is just one arm of this organisation.

Another is the remarkable procedure of robotic milking.

I'm not sure words can do justice to this procedure which Lely have

led the way in automating so check out www.lely.com/en/milking for more if you're interested...

As well as the world of bovine manipulation, the company also offers forage harvesting solutions such as bales, rakes and harvesters plus much more – but it's the golf-related stuff I really want to get my teeth into.

It's a welcome opportunity to see the the likes of the Greensmaster TriFlex greensmower and other staples of the Toro range being painstakingly constructed, tweaked and finally completed before they become fixtures on golf courses across the world.

I also get the chance to meet the sales team who impress on me the importance of providing a friendly and personalised service.

Lely's Toro Key Account Manager Trevor Chard, who accompanies me on the visit alongside Marketing Manager Holly Jones, is particularly proud of this.





“For us, establishing a long-term relationship with the customer is key. We don’t conclude a transaction then abandon the customer. We’re proud of our aftercare service, and many of our customers are on first name terms with our colleagues which is superb.

“We talk to our customer base constantly – this is absolutely vital. We like to think we’re set apart by the quality of service we provide, our experience, product knowledge and ability to meet our customers’ long-term needs.

“The technology really has improved greatly during my time in the industry. It’s more durable as it’s of a better quality, is quicker, does a more professional job and is easier to operate.”

Lely was founded in 1948 and successful innovations such as the finger wheel rake and the Lely fertiliser spreader made an impact on the market.

But the big breakthrough came 20 years later with the launch of the Lelyterra power harrow – leading to a huge growth in sales.

Over the next decades, the company became synonymous with innovation, including patenting the unique modular cutting bar which was fitted to the Splendimo disc mower and various new versions of the aforementioned Astronaut automated milking system.

As always, the proof is in the pudding so the final destination is the prestigious John O’Gaunt Golf Club in Pottton, Bedfordshire.

Here, experienced mechanic and workshop manager Stuart Hall demonstrates the benefits of the

machinery, explains the process of grinding and enthusiastically praises Toro’s new ‘myTurf’ fleet management system.

Each machine at John O’Gaunt is fitted with a wireless hour meter which transmits data to a control box – similar in size to a wireless router.

Every time the vehicle passes this it sends information to the box.

This means a greenkeeper simply has to log on to the myTurf system to get every imaginable detail about every vehicle on their fleet.

It also offers online access to Toro manuals – a real space saver – and the ability to order parts at any time.

Because each vehicle in the fleet is monitored, myTurf ensures the correct part is ordered.

The system is currently more widely available in the US, and John O’Gaunt is one of the test sites – something which has delighted Stuart.

Stuart says: “I can’t imagine why any club of reasonable size would not have myTurf. The key is, you can view how much a machine has cost you in labour time, parts and repairs.

“This means at the end of the year you can see that if a machine has cost you £500 it’s worth keeping. But if it’s cost you £3,000 you have a strong case with clear evidence to go to your committee and ask for a new machine.

“It’s a no-brainer and I hope more clubs get to take advantage of it.”

Thanks to Trevor Chard, Holly Jones, Chris Cooper, Stuart Hall and all at John O’Gaunt Golf Club.



UK clubs show world-class environmental credentials



Richard Stuttard from the STRI hands out the awards, supported by BIGGA, for 2012's most environmentally aware golf clubs

This year, golf clubs throughout the UK have shown STRI judges just how committed they are to adopting environmentally sensitive best practice management techniques. As always, after the difficult task of selecting 32 finalists from a large number of applicants the judging team have visited all corners of the UK witnessing the very best that environmentally focused UK golf has to offer.

This year more clubs new to the Golf Environment Awards have become involved, providing our team of assessors with a fascinating insight into how the role of environmental management is becoming an increasingly common factor among our course managers, greenstaff and club representatives.

For those not familiar with the Golf Environment Awards the premise is that by applying for this free to enter programme and informing the team of judges of all environmentally positive works you are undertaking, there are a number of benefits to both the individual golf club and the golf industry as a whole. Firstly, simply by applying, the club are sending out a message that the environment is important to them. Secondly, if you apply and become one of our 32 finalists, you receive a visit from an STRI consultant to view and discuss your work and provide advice on how things can progress even further. Accompanying this visit is a feedback report which you can use to help promote your achievements as a finalist within the programme and gain external support for the work you have been doing as well as using this as a valuable marketing



ABOVE and INSET ABOVE: Thorpeness Golf Club

2012 Golf Environment Awards, supported by BIGGA



RIGHT PAGE ABOVE AND INSET RIGHT: North Foreland Golf Club





tool. Finally, if you become a prize winner you will be exposed to a considerable amount of marketing publicity both in the media and at key media events including BTME and our own marketing event held at Wentworth.

So, if you haven't already, why not give it a try next year! Here are our ten winners from 2012:

Overall Achievement Award – Thorpeness Golf Club
Conservation Greenkeeper of the Year – Dan McGrath, North Foreland Golf Club
Scottish Region – Dundonald Links
Northern Region – Lee Park Golf Club
Welsh Region – Aberdovey Golf Club
Southern Region – Hankley Common Golf Club
Nature Conservation Award – John O' Gaunt Golf Club
Water Management Award – The Roehampton Club
Waste Management Awards – Fairhaven Golf Club
Turfgrass Management Award – Royal Aberdeen Golf Club

Many congratulations to all our winners - their attention to detail and enthusiasm was hugely impressive and we are delighted to see such a broad range of clubs involved.

Thorpeness Golf Club, located in an idyllic area of Suffolk, has long been an advocate of environmentally friendly golf course management and has been involved in the Golf Environment Awards for many years. Course Manager Ian Willett has stressed that it is the enthusiasm and dedication of his greenstaff that has enabled them to achieve so much in just a 12-month period – and they have certainly achieved a lot. The course supports a wealth of different habitats – from fine leaved grasslands and broad leaved trees, to heather, gorse, bracken and water features and all are being managed for the good of golf course strategy, visual appearance and biodiversity value.

The result is a golf course which provides great pleasure to all who play there.

Dan McGrath is a first time entrant, and over the last few years he's made quite an impact at North

Foreland. Prior to his arrival the classic chalk grassland characteristics of the course were becoming lost to an influx of coarse leaved grass species, scrub and ground ivy.

Dan has however managed to turn this around through the application of well-timed cultural management techniques include cutting and scarification and scrub removal. The club are now at a point where there are huge expanses of fine leaved grasslands providing stunning definition to the fairways and providing invaluable habitat for a wide range of species.

Congratulations again to all of our winners and on behalf of STRI I would like to extend our sincere thanks to BIGGA for their continued support of the awards and to our sponsors, Ransomes Jacobsen, Everris, Syngenta, County Turf, Golf Monthly, Greenkeeping and Operation Pollinator, without whom this free to enter scheme could not occur.

For more information on this year's winners and details on how to apply for next year's awards please visit www.golfenvironmentawards.com

ABOVE: North Foreland Golf Club

2012 Golf Environment Awards sponsors

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Compost tea use a case study



The question of adding soil microbes to an existing putting green surface has stimulated much discussion within the world of turfgrass management recently.

Those who are in favour of this 'organic' approach have been keen to advocate its use, whereas others have raised the question of the seemingly lack of independent evidence to support some of the claims being made.

In order to shed more light on this topic, Turf Master One visited James Braithwaite at Long Ashton GC in Bristol, to find out more about the use of Compost Teas and to look at what improvements have been made

Introduction

Long Ashton Golf Club was founded in 1893, first as a 9 hole course then extended to 18 holes twelve years later. The current layout largely dates back to a Hawtree & Taylor design in 1937 although more recent changes have since taken place, namely holes 6 and 7. Extensive views over Bristol, a mere 3 miles from the city centre, can be seen from the limestone ridge on which the course is located.

The site consists of around 220 acres, with 140 acres being maintained as golf course and the remainder consisting of deciduous woodland. Although the soil type is classified as Red Kyper Marle, clay/silt mainly, drainage is reasonably good with only a few low lying areas requiring drainage. With an average of 36,000 rounds per annum, it is a popular, private members club that attracts visitors throughout the south west. 15 of the greens which are 75 years old, are soil 'push-ups' with the remaining 3 being of a modern sand construction. A Hydroway drainage system was installed on 4 greens several years ago which has led to a significant improvement.

James Braithwaite, a previous Toro Student of the Year winner and now 46, has been at Long Ashton since 1996. Following previous work at Hallgarth Golf and Country Hotel in Darlington, James was first employed as Deputy Head Greenkeeper before becoming Course Manager in 2007; following on from past BIGGA Chairman Ivor Scoones. James heads up a team of 6 full time staff plus a part time gardener & handyman. With a good range of modern equipment and a recent upgrade to the Rainbird Nimbus 2 irrigation system, Long Ashton is a progressive club and keen to invest in its main asset in order to continue to be one of the best clubs in the area.

Previous Greens Maintenance

Until 2005, the greens were first fertilised with an 'in-house' mix of traditional fertiliser consisting of dried blood, hoof & horn and sulphate of ammonia, followed by the proprietary SSD brand of 8-0-0. This was applied during April and August with an annual input of around 80kgs N/Ha. Greens which are barely 400m² were cut daily at 5mm, lowered to 4mm for key tournaments with aeration consisting of regular solid and slit tining. Pressure from Fusarium Patch disease was high, requiring up to 8 applications of Chlorothalonil,

Carbendazim or Iprodione each year preventing severe scarring. Surfaces on the Poa/Bent greens tended to be soft with a fibrous mat layer of up to 35mm present. For the following 3 years, a change in fertiliser application was made using another standard granular product but this time supplying equal amounts of Nitrogen and Potassium, giving an average annual input of N79, P6 & K82 Kgs per Ha. A more intensive aeration program was put in place whereby greens were being hollow-cored for the first time in many years along with an increase in top dressing. Fungicide requirements remained much the same. In 2009, greater use was made of foliar fertiliser although the overall Nitrogen amount remained much the same.

However, there was a dramatic increase in Potassium in the attempt to strengthen the plant against disease attack. Increased aeration continued and the level of OM content started to reduce slightly but fungicide use remained high, mostly in preventative mode. This program continued in 2010 but with the addition of Symbio products for thatch reduction such as Thatch eater, Greens circle, Phyto-gro 0-0-18 liquid, Fungi booster and a granular Mycro-gro 5-0-29 at start and end of the summer season.

Key Challenges and Revised Strategy

Having been in charge for 3 years, the improvements in greens performance and playability that James had hoped for were fairly minimal. James takes up the story. 'Although the members were reasonably content, there was still too much OM present and too much dependence on fungicides, which were adding to the cost of maintenance. I was aware that in order to produce healthy turf, the rootzone too needed to be healthier and that meant increasing the microbial activity. Following further discussions with Symbio, I decided that a different approach was needed and that part of the answer lay in the brewing and application of composted tea. At least to start with, the current fertiliser program would continue but with a reduced amount of N and K. In preparation for 2011, a 600 litre brewer was purchased costing £1,800 and a new phase began.'

Compost Tea Program

James continues; 'The program in use since 2011 consists of monthly applications from April to



September of 1 Bacterial followed by 5 fungal brews which cost around £360 each to apply. The former requires 16 hours to brew and is applied through a conventional Gambetti sprayer at the rate of 500 lts per Ha. The Fungal brews which favour thatch degradation take 24hrs to produce and are applied at the same rate. However, this brew contains the following additives of

FROM TOP TO BOTTOM: 2. 3rd hole, 6th hole and View over 16th green Long Ashton



MAIN ABOVE: 7.
Par 3 on the 2nd green Long
Ashton
INSET ABOVE: Adding the brew
to the sprayer

Seaweed 3-0-15, Bio Booster 8-7-7 and both Humic and Fulvic Acid amendments, totalling 55 litres. The total cost for the 6 applications is around £2,100. Fertiliser applications have continued largely as before, rising in 2011 but falling back this year with an expected total of N75-P3-K160 being applied.

The greens have been regularly aerified throughout the past 3 years using a mixture of tine sizes and depths. All greens were recently hollow-cored with 13mm tines at 50mm centres and deep tined in March. About 100 tons of sand top dressing are applied each year in monthly applications.

The PGR Primo Maxx is applied every 2 weeks in season, mixed with a small amount of foliar N. After being cored, Bent was over-seeded broadcast style in mid-September. Summer mowing height is usually 3mm, but this season it has remained at 4mm due to the high rainfall and limited use of vibrating rollers. This year, Liquid Air was applied after coring and also on occasions when aeration couldn't take place due to the wetness of greens surfaces: this being a trial otherwise this program has been consistent for the past 2 years.'

Results to date

So after 2 years have the objectives been achieved? James concludes; 'The greatest difference has been the reduction in OM content, falling from around 35mm to 20mm,

this in spite of a very wet summer. Root depth has generally increased, with most greens supporting a root depth of between 60 and 70mm. Disease pressure is still a threat but not as virulent as before and the number of fungicide applications have been reduced to 5, with most now being preventative to ward off Anthracnose and Fusarium as opposed to being curative.

Whether or not this number of applications is still required remains to be seen but with memories of severe scarring in the past, perhaps I'm erring on the side of caution.

There may be no hard evidence to vindicate the use of compost teas, nevertheless the health of the greens have improved and more progress has been made since 2010 than in the previous decade so something must be working.'

James adds, 'the next step is to take measurable data of bacteria counts before and after and to compare greens with fairways and that is on the agenda for my next meeting with Symbio.

I aim to make a few tweaks to the current program by introducing Phosphite into the tank mixes during the latter part of the year and to increase the amount of top dressing by 20 to 40 tons. That apart, I am satisfied that the investment made in applying composted tea has led to a steady improvement and will help Long Ashton to become more sustainable in the future.'

Summary

A healthy living soil with a good microbial population will give the best opportunity for growing and managing fine turf. That is without doubt. What is in doubt is whether adding additional soil microbes in whatever form to a greens root-zone will help to achieve this objective for a sustained period of time. Those who have used a compost tea program for a number of years certainly think so and appear to be seeing a reduction in disease and lower requirements in fertiliser. What needs to be established is a measurable threshold of soil bacteria on a green whereby it can be accurately measured to indicate sufficient numbers or deficiencies. It would also help to compare these numbers on the same greens 1 day and 7 days after compost tea was applied in order to verify that an improvement in numbers had taken place. There are numerous other questions to answer, too many to list in this article but there is an overwhelming need to have greater clarity supported by measurable facts and figures. Only when this is achieved and hopefully vindicated is there likely to be a concerted move away from current greens management and less reliance on plant protectants.

Turf Master One Ltd is grateful to James Braithwaite and Long Ashton GC for their support in producing this article.

BELOW: The green profile

