Employers are obliged to provide information and training for employees to ensure knowledge of health risks, health surveillance, noise management systems, safe use of equipment, and awareness of noise problems in the workplace.

Assess

The first stage is assessment – "Do I have a problem?"

This can be achieved with a simple questionnaire asking the present workforce whether they are suffering from any symptoms of hearing loss.

The responses to the questionnaire will determine the next stage which is Health Surveillance, involving audiometric testing.

Potential employees should be questioned on previous work which may have entailed noise from power tools; and leisure activities which may involve high noise levels.

Health Surveillance

Employers are obliged to provide Health Surveillance for any of their workforce using equipment producing noise of 85 dB or over to prevent symptoms appearing or existing symptoms from becoming worse. Noise Induced Hearing Loss is incurable and if no precautions are taken then symptoms will usually get worse with time.

Specialist health surveillance may be necessary for employees with hearing loss symptoms, so they can be assessed as to the severity of hearing loss.

Noise Levels of Equipment

Sources from which employers can obtain noise data for tools, or machines are:

- · Manufacturer's Literature
- Equipment Suppliers
- Internet databases
- Research Organisations
- Trade Associations
- HSE
- Vibration Consultants
- · Measurements in the workplace

Of these, the most accurate tends to be Measurement in the workplace, which gives noise levels for YOUR tools or equipment operating under YOUR working conditions.

Having obtained noise levels under working conditions, employers should determine the highest noise producing tools, machines, or processes and attempt to re-design the job or process to eliminate the use of these tools in the processes. This may not always be possible, but should be the long term objective.

Noise Measurement & Definitions

Decibels (dB)

Intensity of sound is measured in decibels (dB). The scale runs from the faintest sound that the

human ear can detect, which is 0 dB, to over 180dB, the noise at a rocket pad during launch.

Decibels are measured logarithmically. This means that decibel intensity increases by units of 10, so each increase is 10 times the lower figure. Thus, 20dB is 10 times the intensity of 10 dB, and 30dB is 100 times as intense as 10 dB. As a rough guide, an increase of 3dB doubles the intensity.

Frequency Weighting (A) & (C)

To address the way that the human ear responds to sounds of different frequencies, measurement of noise is given a weighting to correct for this. This weighting is known as an 'A' weighting and measurements are expressed as dB(A). Impulse, or high intensity short duration sound, is measured similarly and classed as 'Peak' levels. Peak levels are also 'weighted' and expressed as dB(C).

The legislation set lower values for noise levels when it was implemented in April 2006.

Daily Exposure Lower Action Level 80 dB(A)

In practice, this means that workers exposed to noise at this level, up to the Upper Action level, who determine that hearing protection would be beneficial, can request such protection; must be issued with it, but it is not mandatory to wear it. A Lower Action Peak Level of 135 dB(C) was

also introduced.

Daily Exposure Upper Action Level 85 dB(A)

In practice this means that employers must issue suitable hearing protection to their workforce and this protection must be worn at, (or above) this level.

It should, however, be noted that issuing hearing protection for users should be considered in line with the Regulations, to prevent hearing damage – but should not be regarded as a permanent solution but only as an interim measure whilst other procedures to reduce noise are considered and implemented.

An Upper Action Peak Level of 137 dB(C) was also introduced.

Daily Exposure Limit Level 87 dB(A)

In practice this means that whatever type of hearing protection is issued, the noise reaching the wearer's ears (underneath the protection) must not exceed this level.

A Limit Peak Level of 140 dB(C) was also introduced.

Hearing Protection

- The main types of hearing protection are:
- ear muffs which completely cover the ear.
 ear plugs which are inserted in the ear canal
- semi-inserts which cover the entrance to the ear canal

There are many types of hearing protection on the market, and employers should ensure that the protection supplied is suitable for the highest noise level that may be present for the particular job, and employees are trained in fitting the particular type used.

Selecting hearing Protection

Ideally select a protector so that daily exposure is reduced to between 80 dB and 75 dB at the ear. Avoid protectors resulting in less than 70 dB at the ear - this is 'over-protection' and can cause 'isolation' of the operator.

Hearing protection is now available marked with an 'SNR' number (Single Number Rating) to indicate the degree of attenuation provided by the protector.

MONITOR, CONTROL AND MANAGE

Daily Noise Exposure Level

It is not only intensity of noise that can produce hearing loss, but also the length of time exposed to that noise. During noise measurements, an average noise level (Leq) is produced and this is used with the time exposed to that noise, to produce a Daily Noise Exposure Level, (L EPd).

If this noise level is the only noise that workers are exposed to, then monitoring and control of noise levels becomes relatively simple and this will be the workers' Daily Level. If, however, workers are exposed to several different noise levels, then each of these (along with time exposed) must be calculated. Using suitable formulae, these individual totals are combined to give a Total Daily Noise Exposure Level which is compared against the Action and Limit Levels, to determine if workers are at risk and what appropriate action to take, if necessary.

There are several methods in use to manage noise exposure, but the simplest is a system whereby noise values can be converted into 'points' (using suitable formulae) and the tool or equipment is 'tagged' with this information.

The operator simply has to note the number of points on the tag, and multiply by the time used (while noise is produced) to determine how many points have been used on each separate use of tools or equipment.

There is a 'daily' maximum number of points, and as long as this is not exceeded, then the operator will not exceed his daily noise level.

This is an effective, real time, management system, in use by many of Fivesquared's clients – including local authorities, public utility companies, large construction companies, and several golf greenkeeping departments.

Article written by Herbert Barker – Technical Manager Fivesquared – Vibration Management Solutions A Division of Earlsmere ID Systems Ltd www.5sqd.co.uk 0800 848 8052

LIVING ON THE EDGE

Scott MacCallum travelled all the way to the eastern edge of England to a golf club which has a history of producing fine greenkeepers.

North Foreland Golf Club couldn't be much closer to continental Europe if it tried. Just outside Broadstairs, in Kent, and set on a cliff top, the club boasts some of the finest views to be found anywhere – "A view of the sea from every tee" is the club slogan. North Foreland had a Lookout Post during the First World War which was permanently manned for four years.

And just to reinforce the fact that the course is perched on the edge of England and closer to mainland Europe than most of Britain's populations centres, Course Manager, Dan McGrath, finds that when he ventures onto the 13th green he gets a text message welcoming him to Belgian Telecom! When he heads a little inland again he's welcomed back by his home provider.

Dan has been Course Manager at North Foreland since 2005 and has not regretted the decision he made in taking the job for one minute.

"When I looked at the club I could see the huge potential. For one thing it's built on chalk which is the best thing to sand – some would say it's better than sand," said Dan, in his soft Irish accent.

"We are on greens all year round and we haven't got a single drainage pipe on the whole course. When we stripped the first bunker for renovation I asked where the drainage trench was, and was expecting to find shingle, but the guys said they'd never seen drainage here and had no experienced in how to install one. When I'm showing them how a herringbone system works I've got to take them to another course to see one in action."

North Foreland has an enviable record of producing high quality Head Greenkeepers, among them Peter Wisbey. Peter spent 22 years at the club, then spent a number of years in Portugal, before returning to the post of Courses Manager at Woodhall Spa with the EGU. Duncan Kelso, Course Manager at Kings Hill and Steve Byrne, at The Wisley, both worked under Peter before becoming successful Course Managers in their own right.

Dan worked under both Duncan and Steve and it was they who pointed their young protégé in the direction of their former proving ground.

"I worked at Fota Island, under Steve Byrne straight from college and gained experienced of



working at an Irish Amateur before going to the Old Head for the grow-in," recalled Dan.

At the age of 19, and hearing of another grow-in project, this time with Duncan Kelso at Kings Hill, in Kent, Dan took the brave step for a young lad and crossed the Irish Sea for a new life.

"Modern grow-ins are brilliant and are the best thing to learn how a golf course works," he explained.

He left Kings Hill in 2003 and joined Crown Golf, for a short spell before the job at North Foreland was advertised. Both Steve and Duncan encouraged him to put in for it.

Not having been with Crown Golf for long, Dan was a little apprehensive about applying for another job but he did so and was invited for interview.

"I basically went for the interview for the experience and felt that I had nothing to lose. That's when you are most relaxed. It all went well and a day later they called me and offered me the job," said Dan, recalling some good news which caused a few logistical problems at home.

"We were in the process of moving from

Maidstone to Surrey to be nearer my Crown Golf job and it was as we were filling boxes that the call came through. My in-laws were packing a van, expecting to drive up the M25, and I had to tell them that we'd be going in the opposite direction."

Since arriving at North Foreland Dan has become more admiring of the club.

"You couldn't buy this site," he explained.

"It has a good name, is known within the history of the game and was an Open Qualifier and really only needed tweaking around the edges."

He identified that the turf was good – indeed Alistair Beggs, of the STRI, recently said that North Foreland had the best fairways he'd seen in quite some time. The one problem was the greens which were a combination of rye, meadowgrass and bent.

"It's a combination that is notoriously difficult to manage," said Dan, whose first purchase on arriving was a Wiedenmann.

"We can pencil tine, top dress and roll and the golfers don't even realise we've been in. We're blessed with the machinery we have nowadays, but saying that the volume of golf has increased. We have 1100 members and over 40,000 rounds a year," he said.

"The fescue doesn't like verticutting but at certain times of the year the rye was getting very woody so we needed something to lift it up so we went for verticutting which was good in one way but which was having a negative effect on the fescue. It was a Catch 22 situation. It was good for rye but not much good for the fescue which we'd overseeded.

"So we decided on daily brushing to lift up the rye without removing it. That's what we've done for the last two years – using a drag mat every morning.

"I'd say we're winning the battle very slowly."

Among the other tweaks, since he took over, was to take a look at the staffing and the working practices of the greenkeeping team.

"I wanted to freshen things up a bit and change a few of the structures. For example, the guys had been going out cutting the greens, then coming in for a cup of tea, going out for their next job and then coming back in for lunch. I wanted them starting at 6am, actually working on the course at 6, and I needed to know who could buy into the new practices – who was on side and who wasn't. Everyone had the same chance to impress and, interestingly, it was the younger guys who left the club and the older ones who are still here.

"I'm absolutely delighted with the motivated and loyal team I now have."

Dan has a policy of recruiting people from the local area and has employed many who have been made redundant from their previous jobs and are looking for a second chance.

Dan sees a huge advantage in taking people who have had no previous experience.

"They haven't been tainted by low quality training so if they carry out jobs to a poor standard, and continue to do so, it's my fault, not the fault of anyone who has trained them before.

"For the first six to 12 months we train them from scratch in-house to find out if they are suited to the work, then send them to either Hadlow or Merrist Wood Colleges," said Dan, who revealed that he had 127 applicants for one trainee position.

"Nine times out of ten it has been successful and we get guys who are keen to take advantage of a second chance. You find they have worked in offices or factories and want a total change."

In addition to the fine 18 hole test of golf at North Foreland there is one of the finest short courses to be found anywhere, which enables many people to hone their short games or discover whether golf is going to be for them.

Out on the course the biggest project which has been undertaken in the last few years was a new irrigation system to replace the 34 year old version, which drew from the mains and which leaked constantly.

"We'd repair one leak and 20 metres down the line another leak would pop up and it was always on a Bank Holiday that it went wrong!"

An Irrigation Consultant was brought in

to design the system and put the work out to tender while the club chose to appoint Dan to project manage the work and appoint a series of contactors to undertake the various aspects of the project.

"We decided that we wanted a borehole and a reservoir to take away the reliance on mains water and earmarked an area of ground to the left of the 8th hole for the reservoir."

One company undertook the trenching and laid the pipe; one dug the reservoir; another put in the lining while another drilled the borehole. There was also an electrician contracted.

"We saved quite a bit of money overall and even more by installing the sprinkler heads ourselves in-house, which was brilliant for our guys who got a chance to do it. The pipework was all there and they had to put on the swing joints and then the heads themselves."

One problem emerged when an archaeological dig found some remains and a shelve had to be left in the reservoir floor so as not to disturb anything but they ended up with 850,000 gallons of capacity.

"They found a spear head and a piece of pottery, which, between you and me, looked like something from IKEA!"

The irrigation project was started in November 2007 and completed at the end of April, 2008.

Dan found it a tough but rewarding period – 14 hour days, and available and around wheneve the contractors were on-site.

"But now I have an irrigation system that I know inside out because it was done from scratch. The best thing we did was to get the borehole to feed the reservoir and the reservoir to feed our storage tank so if the reservoir pump goes down we still have the borehole which can go straight to our tank. If the borehole goes down we still have the mains."

Another on-going project is chalkland grassland regeneration.

"The site had been taken over by ivy, due to no management in the long chalkland rough and mothering the native grasses.

"Working with Kent Wildlife and with the backing of the STRI we are now three years into the programme and the results have been amazing It involves using a flail mower and scarified with all the cuttings being collected. This is done on a rotation cycle and the material is composted."

Dan has immersed himself in the area and horoughly enjoys the quality of life that working at North Foreland has afforded him.

"It's great for my wife here, while our two kids absolutely love it. We just live 200 metres from the beach and when I get home from work I meet the kids and a few minutes later they're swimming in the sea. I walk to work and I walk home. I don't have a car. As of six months ago now do have a truck for work but I keep it on site There's just no point in taking it home."

Having joined the long line of talented greenkeepers at North Foreland Dan is lapping up the experience, even if he has to go through Belgian Telecom to tell everyone about it.







MAKING THE 'APPLIANCE OF SCIENCE' SIMPLE

Scott MacCallum visited Scotts' Levington Research Station and learned just how much goes into producing the products you use on the golf course.

We all like things to be straight forward and get irritated when they become even a little bit complicated. For example, we love it when we switch on our computer and everything boots up perfectly, but when there is a little glitch and it doesn't work instantaneously we turn into Mr Angry, particularly if we are left hanging on a premium rate helpline.

It's the same on the golf course. You want to put an application on the course as part of a turf management programme, or to counter a disease which may have developed, you want to know that everything is in place to enable you to do just that. You also want to know that the action you are taking is going to be effective.

The Scotts Company, a BIGGA Golden Key supporter, prides itself on using cutting-edge technology to produce effective products for use on the golf course, and making life as simple as possible for its customers.

"We only develop a product if we are sure it is going to improve on what is already available or if it's a new addition to the product portfolio, one that is going to make a real difference to the end-user" explained UK & Ireland Sales Manager, Nick Martin. "Scotts is an extremely innovative company. We make a huge investment in research and development across the world and right here in the UK at Levington. The development of a new product can take many years, from the initial stage of identifying a need moving through the chemistry to testing and registration," he added.

Scotts was launched in 1868 when an American soldier, Orlando McLean Scott, left the Union Army and embarked on a new business venture with the mission statement, "Farmers need, and shall have, clean, weed-free fields". OM Scott made its name as one of the America's leading distributors of horse-drawn farm equipment before adding a farm seed business to its portfolio.

In 1907 Dwight Scott, his elder son, identified just how important the garden lawn would become in American culture and began offering grass seed by mail order and in 1916 the company received an order for 5,000 pounds of Kentucky Bluegrass from one of the first golf courses to open in the States – Brentwood-in-the-Pines, on Long Island, New York.

The UK business unit of Scotts Professional was formed in 1991 and is based in Ipswich. Its research station, unique to the UK, is located a few miles away in the village of Levington. It covers 7.1 hectares and boasts two 2,000 square metre golf greens, one built to USGA guidelines and the other a traditional push up green, as well as other areas which replicate the various areas on a golf course.

"The greens aren't the best in Europe but they're not meant to be. We use them to test our plant protection products for example, to measure how effective they are at preventing and treating turf diseases. Our greens are managed and maintained in a way that enables us to test those products in natural conditions," explained Dave Steward, UK & Ireland Marketing Manager, as we strolled around the impressive facility.

"The greens are large because we split them into three and use them on a three year rotation to give the trial areas time to recover," he added.

There is also an area which has been overseeded with weeds – more expensive than high quality grass seed, would you believe – so prototype herbicides can be given a genuine challenge.

Among greenkeepers, Scotts is probably best known for its fertilisers such as Greenmaster and Sierrablen. The company is at the forefront of controlled-release fertiliser development and the key roles of its scientists is to produce coatings which react in certain ways to specific temperatures and soil conditions. The Levington soil is high quality which is great in normal circumstances,







but to ensure fertiliser trials are not distorted by a soil rich in nutrient the Trial team - there are 15 people who work at the Research Station - have stripped an area and replaced the soil with a sand mix which is virtually nutrient-free. A small garden shed to the side of one of the trial areas contains a £30,000 piece of reverse osmosis equipment which, aside from something you'd expect to find in a Tardis, lowers the electrical conductivity of the borehole water. That way, any improvements are purely down to what is being tested and not from any of the existing nutrients in the soil or water.

In addition to the turfed areas there are greenhouse areas and flowerbeds as the Station is used for the testing of Scotts' consumer and ornamental horticulture products as well as those for the turf market. Indeed, testing on plants like poinsettia and cyclamen can amplify any pros and cons of a test more than a test on a particular grass type, so there are cross over benefits to be had from trialling such an extensive portfolio at one site.

We visited the area being used to test the company's new seed range.

"We acquired the rights to the Tee to Green range and have also been developing our own varieties which originally came from Oregon. These contain salt and drought tolerant varieties. We're carrying out extensive testing in European and UK conditions and have been extremely pleased with what we have seen so far," said Nick, as he took another opportunity to study the test plots.

Scotts' product development always has the job of the end-user in mind. Greenkeepers who are under pressure to have their course looking perfect prior to a tournament and to maintain its health and appearance despite difficult winter weather conditions look to applications of iron as a useful tool. To highlight the benefits of the site, Trials Officer Roger Page, undertook a demonstration of Effect Iron, a product which was launched at Saltex the following week after four years in development. A two metre square patch was sprayed with the promise that it would have noticeably greened up within three hours.

Not being able to resist a sneaky peak, we had a quick look 45 minutes later and there was a definite difference in the sprayed patch and the area around it. This was more pronounced when we did return after the full three hours.

Walking around the Station you can't fail to be blown away by the vivid colours and smells of some of the test plants but the experts are not distracted by this gardening explosion they are more concerned by objectively marking each plant to see how it measures up against its peers.

The investment in Levington is huge because product testing in the UK is tightly controlled by the PSD.

"All tests are carried out to the required regulatory standard so that products can be registered when required. Scotts regards compliance with legislation as a minimum requirement," explained Dave.

The trials, in addition to discovering whether Scotts is sitting on a new wonder product, also allow testing to see what application rates are optimum. Modern day pesticides, herbicides, fungicides and the like require much lower doses than their predecessors to produce the same, or significantly better results, because they used the latest, modern active ingredients in their formulation. That can only be beneficial for all.

All Scotts' development, production and operational processes are scrutinised to assess environmental impact and continually improve the company's environmental profile. Key to the structure of the process is ISO 14001, the international specification for environmental management systems which outlines the requirements for establishing an environmental policy. As well as its own corporate responsibility, Scotts is keen to promote environmental awareness among endusers and has been a key sponsor of BIGGA's Golf Environment Competition along with Ransomes Jacobsen, Syngenta and, as of this year, Golf Monthly. "We see tremendous benefits in being involved. Looking at some of the past winners they are superb ambassadors for the game of golf in showing just how much expert conservation and environmental work goes on. There is an amazing amount of diverse wildlife on a golf course that you wouldn't get if the golf course wasn't there and managed in an environmentally-responsible manner," said Dave.

In addition to environmental impact, efficacy has been at the forefront of the minds of all leading chemical companies. With so much attention being drawn to the game of golf and European-wide restrictions on chemicals, much research goes on to provide the most effective products at the lowest application rates and often replacing older products which complied with older regulations but which have been overtaken by more advanced chemistry.

Keen to promote the responsible use of pesticides, Scotts has sponsored the Amenity Forum's 'Check Your Sprayer' campaign launched at Saltex.

"We promote integrated pest management solutions. Sometimes a chemical is not the best option. It is just one of the tools in the kit that should only be used when it's needed. That is the advice we give," explained Dave, who added that their entire sales force are BASIS and FACTS qualified to give advice.

"If you have a healthy plant it is much less susceptible to disease, so it doesn't need as much outside help."

Scotts has no doubt about the benefits of being a BIGGA Golden Key Supporter and contributing to the Learning and Development Fund.

"We've always supported education and training not just in the golf world but also in the sports and the growers side of our business. Just as our scientists are working hard to find solutions to everyday problems on the golf course, greenkeepers' learning must continue, so we're pleased to support BIGGA in its ongoing provision of training and education to the industry." There is no denying that trees can make a huge difference to the look, feel and playability of a course. A good mix of young and mature specimen trees is common on more recently constructed courses. Here it can pay to consider managing the younger trees. Judicious pruning mixed with re-planting and even complete tree removal needs to be thought through. Although it is not easy, try and think how the trees will impact upon the course in 10, 15 and 20 years time.

KEEPING THE BITS YOU DON'T MOW TRIM

Managing hedges, trees and non-mown areas is all part and parcel of running a modern course. With increased pressure on labour and budgets, getting this work completed can be a headache. But less so if you think ahead and have the right kit to make maintenance easier.

Trees really do make a massive contribution to the golf environment, but they do bring with them a number of management issues. Leaves and pine needles in autumn, a great thirst for water in dry periods and hazards associated with low, dying or fallen branches. Managing trees may not be at the top of your agenda, but the influence they have ensures they cannot be ignored.

One area that often needs attention is dealing with low or dangerous branches. In most cases these may be fairly easy to get at. If the branch can be sawn off from the ground using a bow saw, then great. The chances are there will be few health and safety issues to worry about. More realistically, lopping off a branch will certainly involve getting up to the branch.

By James de Havilland

Start mixing a work cocktail that includes height, ropes, chainsaws and ladders and you have the ideal ingredients for a trip to Casualty or worse. Thankfully, modern risk assessment rules these practices out. Some courses will also have trained chainsaw operators who know how to lop branches at height safely. But what about those circumstances where an overhanging branch needs tackling and there is no-one on site with the training to deal with it?

It is here where a pole saw or power pruner can be useful. Used with care, these tools can remove a substantial branch without damaging the tree and, more importantly, with far less risk to the operator than using a chainsaw.

Most chainsaw and brushcutter manufacturers produce what is essentially a brushcutter power unit and pole with a chainsaw head in place of a blade or line trimmer. Indeed a number of manufactures can supply multipurpose units with hedge trimmer, brushcutter, chainsaw and other attachments.

There are essentially two main types of dedicated pole saw on offer. The first are fixed

length units with a reach to the tip of the saw to just under 3m. The second are telescopic units that may extend to perhaps 4.50 to 5m. The saw element, incidentally, will typically comprise a bar of 10, 12 or possibly 14". Professional backpack engine units, with a hydraulically powered saw, are also offered. These go up to 6m, but are not cheap at around £950 plus.

Telescopic pole saws are likely to be more versatile but also more expensive. A high quality rigid pole saw will be priced from £400, with telescopic units carrying a premium of at least $\pounds 50$ to £100. Reach, incidentally, should not be confused with actual cutting height. For safety, the pruner needs to be operated at 60 degrees to the branch. This is to allow the latter to fall and not land on the operator.

Pole saw two-stroke engines tend to span 20 to 30cc and 0.6 to 1.5kW output. In most cases, a body harness is supplied to help support the weight of the tool when moving it around, but a support harness may also be supplied for use in work. Dedicated pole saws will be supplied with a basic shoulder harness aimed at providing limited



A tractor mounted flail hedge cutter will produce a clean cut on regularly maintained hedges, with the capacity to reduce a hedge to a manageable height even if it has been left uncut for several years. As a rule, the thicker the material a flail has to cut, the less attractive the finish will be. Pictured unit typically used by an agricultural contractor. Great for course boundary hedges.

support. This is fine for occasional use, but it will not be as effective as the more complete harness designs that can be supplied by some manufactures as an option. These bear the weight of the engine and allow the operator to pivot the saw from the attachment point and onto the branch.

A big advantage of this system is that it spreads the weight of the pruner across both shoulders. When dealing with higher branches, however, the saw will still need to be raised out of the support to provide the necessary reach.

Working a pole sole is straightforward for thin, lighter branches. These can be cut in one action from the top down. Thicker and heavier branches need cutting with care. It is best to cut back towards the trunk progressively in sections to reduce both the weight and volume of material falling. This will help protect the tree and prevent a long branch swinging back and clouting the operator.

For a clean cut at the trunk, larger braches should be undercut by a third before sawing through from the top. The aim is to produce a clean cut that allows the 'wound' to heal quickly and prevent disease entering the tree. As a guide, keep the cut close to the trunk but retaining enough branch bark at its base to grow over and heal the 'wound'. In practice, getting a clean cut from a pole saw is not easy simply because the saw element is a long way from the operator.

Capacity wise, most pole pruners will tackle a 40cm diameter branch if the saw chain is sharp. Tackling a branch of this size is not necessarily recommended, but it does show engine power is not the key issue but a good sharp chain is the key.

As a rule, it is always better to prune lightly and leave a cleanly cut truncated large branch. In most cases it is best to leave cutting branches right back to the trunk to a trained arboriculturist, particularly on specimen trees.

Extended hedge trimmers

Although it is stating the obvious, the two key elements to a good hedge trimmer are the power unit and the blade. But a vital aspect that turns an effective tool into one that is easy to use and not over tiring is good ergonomics. This assumes added importance when it comes to using an extended unit; a heavy, poorly designed trimmer will soon fatigue the operator.

Dedicated extended reach hedge trimmers will come with a choice of double or single sided blades and cutting widths of up to about 0.60m or 24 inches. The length of these trimmers will vary, but as a guide 150 to 250cm is typical with retail prices ranging from £400 to £500 for a dedicated unit. A longer blade will weigh more and may not be more productive.

Multi-purpose units

Arguably the best option to look for is a unit that has interchangeable tools; these can include a saw, trimmer, brush and light cultivator, the latter possibly being an ideal tool for fluffing up a bunker. Such units are priced from around £400 and make a versatile choice for a golf club.



The Stihl CombiSystem is available with four different CombiEngines, and the eleven CombiTools. These include a choice of hedge trimmers, a pruner, cultivator and lawn edger, a grass trimmer, brushcutter, scrubcutter, powered sweeper and bristle brush. With the shaft extended using the HT-KM extension, the power pruner Pole Saw makes working on low branches safe and easy.



Powered by a 23.6cc two-stroke engine, the 6.2kg Echo PPT2400 power pruner from Countax has a telescopic shaft that will reach from 2.74m to 3.83m. The 12" cutting unit can reach up a further 1.59m when fitted with an additional extension. Tools like this are great for dealing with hard to reach branches.

Is your course subject to a TPO?

Tree Preservation Orders (TPOs) are made under the Town and Country Planning Act 1990 and the Town and Country Planning (Trees) Regulations 1999. A TPO is made by the local planning authority (usually a local council) to protect specific trees.

Although it is possible to make TPOs on any trees, in practice they are most commonly used in urban and semi-urban settings. A TPO is to protect trees for the public's enjoyment. It is made for the 'amenity' of the tree or woodland, and this can include its nature conservation value but more often means its visual amenity. However, it does mean that if a tree is not visible or accessible from a public place - even slightly - a TPO will not usually be enforced.

TPOs can be placed on any trees including hedgerow trees but not hedges themselves.

There are (presently) four types of TPO, although any one Order can contain any number of items which can be of one or more types. These types are as follows:

- 1. Individual: can be applied to an individual tree.
- Group: can be applied to a group of individual trees which, together, make up a feature of amenity value but which separately might not.
- 3. Area: a type of TPO not normally made now but still common, as formerly this type was used frequently. It covers all trees in a defined area at the time the order was made.
- 4. Woodland: covers all trees within a woodland area regardless of how old they are.

TPOs are public documents and can be inspected at the local planning authority's office, or sometimes online. Attached to the TPO are usually a schedule and a map. The schedule shows the type/s of TPO which make up the order, and often gives details of the species of trees affected. A map gives the location of the TPO and shows individual trees or areas as appropriate. How a TPO map and the Order itself are interpreted can be a bit tricky. If in doubt, it really pays to seek advice. A TPO can date back to 1949, so you may not be aware that tree in your care are protected. This will be less likely on any course that has been sold within recent years but if in doubt it can pay to check. TPO legislation has altered in recent years and continues to be reviewed.

Are trees within a Conversation Area automatically covered by a TPO?

Conservation Areas are designated by local authorities for building and landscape conservation. The definition does not cover nature conservation or trees in the broadest sense. To work on trees within a Conservation Area, however, it is necessary to give notice in writing to the local authority six weeks before undertaking any work. Some local authorities may place a TPO upon a tree subsequent to an application having been made to remove or work on the tree.