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Heather as a feature of the golf course

A feature of many heathland golf courses is the abundance of heather, presenting an impressive background to the golfing landscape. The view from the tee of a heather-lined fairway can be an intimidating sight to most golfers who have learned to respect its penal effects. Many good scores have been ruined by the heavy punishment meted out by this wild shrub when attempting to play recovery shots from a tangled mass of wiry stems.

Heather can be controlled in a number of ways and one of the most popular methods with greenkeepers nowadays is to trim it in the spring or autumn with a tractor mounted rotary mower. Another and much older method is judicial burning, which helps perpetuate the heathland habitat and keeps in check the unwanted growth of saplings. Unfortunately, the burning operation is not always acceptable, or possible, on golf courses, which means that the heather has to be cut and any unwanted invasion of trees dealt with by pulling them out. Many courses have started out as open heathland and have become more and more woodland due to the uncontrolled encroachment of birch and other common species of tree.

When the heather gets too long and dense, it can be frustrating and time consuming for golfers searching for balls. At Sunningdale, I prefer to control the heather with the use of a tractor mounted rotary mower. It does quite a good job of topping the shrub to a reasonable height. This work is usually done in the spring or autumn after the plant has flowered without any evident detrimental effects to its growth or vigour.

On the natural heathland courses in Surrey, heather is a more resilient plant than it would seem to be. While it

**By Jack McMillan of Sunningdale GC
and president of EIGGA**

does not cope well with the effects of concentrated traffic, it usually has the ability to recover well if traffic can be stopped or diverted. It is also shallow rooted and I have found that this characteristic allows it to be transplanted successfully to feature the steep slopes of bunker faces, tees and other suitable spots on the course, adding a touch of colour to the scene.

I have found that transplanting heather is a relatively simple operation during the winter months and it is the same kind of job as lifting and relaying turf. When the sods are cut at a reasonable thickness, they handle well in transport and laying.

The stages of this work are as follows:

1. A suitable area well out of play should be chosen for transplanting.
2. Top it over with a rotary mower and rake up the debris.
3. Cut with a sod cutting machine around 1½in to 2in thick.
4. Lift and stack carefully for transport to the site.
5. When laying on steep slopes always work from the bottom upwards and butt each section firmly together.
6. On the steep slopes of bunker faces it is sometimes necessary to anchor transplant sods with wooden pegs or small wire hoops until they are firmly rooted.

In my experience, heather transplanted by this method generally takes root fairly quickly provided it is laid on a

soil bed similar to that from which it was lifted. Using the plant as a special feature on awkward background slopes helps to reduce time-consuming maintenance work, which is a prime consideration nowadays.

At my club, we jealously try to preserve as much as possible of the traditional heathland flora and fauna with which we are richly endowed. The heather is one of our precious assets. It adds a dash of colour and is a vital factor in the playing strategy of the courses and long may it continue to flourish!



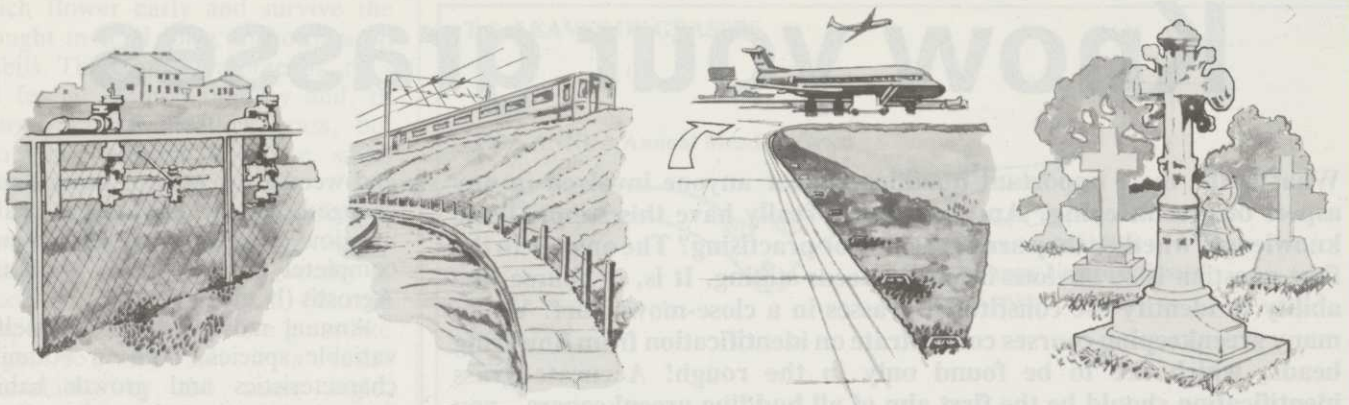
Heather planted on the steep slopes of a tee makes an attractive setting...



An area where heather is being transplanted.



Heather growing around the fringes of a Sunningdale bunker...



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Know your grasses

What is the most important qualification for anyone involved in any aspect of greenkeeping? And how many really have this simple basic knowledge, whether they are preaching or practising? The answer to the first question is so obvious it hardly needs stating. It is, of course, the ability to identify the constituent grasses in a close-mown turf. Yet so many greenkeeping courses concentrate on identification from flowering heads, which are to be found only in the rough! Accurate grass identification should be the first aim of all budding greenkeepers—you must always know your 'friends' and, even more, your 'enemies'.

Once a relatively few grasses can be identified accurately and with confidence, you immediately establish a considerable advantage over the vast majority of those involved at all levels in the management of fine turf! It is really surprising how many of those who should know one grass from another when it is mown at 3/16in do not.

I well remember an acrimonious discussion with one head greenkeeper, who swore that the large zones of pure fine fescues returning to his greens were annual meadow grass! What was even more surprising was to find an eminent professor of botany failing to recognise annual meadow grass in a close-mown turf, yet he was hot stuff on rare weeds and, incidentally, a fund of highly valuable ecological information.

I would be the first to admit that I have been corrected on more than one occasion, and by young greenkeepers at that, when I was rashly assuming that what I had seen on one green was the same grass on another and did not bother to use my spectacles!

Identification of grasses depends not so much on precise botanical characteristics, but more on what the Irish term 'the jizz of the thing'—in other words, its characteristic look and habit. Fine fescues can be picked up with fair accuracy at long range, partly because they often do not blend or mix with other grasses and so form zones and partly by their colour—a paler yellow to grey-green—as well as by their needle leaves.

Creeping bent often turns purple under frosty conditions, which bleach Yorkshire fog. All the *Agrostis* species—save, perhaps, the very fine-leaved velvet bent (*Agrostis canina*) and its distant relative Penncross (both thatch-formers)—are easy to pick out, since the markedly ribbed upper surfaces of their leaves do not reflect light and so they always look dull, as well as a darker grey-green.

Velvet bent is not only a very

different colour to fine fescues—a characteristic blue-green—but also grows under much wetter conditions. Annual meadow grass generally looks sickly and yellow, or even very thin, in winter.

Perennial ryegrass and crested dog's tail may be mistaken for each other, but for no other turf species, possessing fibrous, dark-green leaves, with shiny under-surfaces. One has a bright maroon base to the leaf sheath and the other a golden yellow—but what really makes both obvious at a distance is that only a very tight set, sharp-bladed mower will cut them cleanly, so the 'skinned' leaf blades and ragged cut tends to give it away.

The meadow grasses (*Poa* spp.) are among the most widespread of all grasses in temperate zones, being found throughout all the northern temperate climes in the old and new

By Jim Arthur

worlds. There are no less than seven distinct species, each generally with a specific habitat—for instance, *Poa nemoralis* in shaded situations; *Poa pratensis* on more fertile, moist soils; *Poa bulbosa* on thin, sandy soils.

The commonest of all is *Poa annua* and it is found everywhere it can gain a foothold and where it is able to exploit a gap in the competitive armour of other grasses.

A good, hard look where annual meadow grass dominates gives the clue as to what encourages it and what, by deduction, can be done to discourage it. It is the common grass of paths and compacted, worn areas, where soil consolidation inhibits deep-rooting species. It invades wherever fertility rises, so keeping soil 'poor' keeps it at bay.

Look at the old marking-out lines of an abandoned tennis court or even the lines marked with lime used to keep trolleys at bay on approaches to greens. Quite apart from the worms

and weeds, the grass is dramatically changed, just on that line, to annual meadow grass, which has almost completely displaced the wiry, native *Agrostis* (bent) turf.

Annual meadow grass is itself a variable species, both in botanical characteristics and growth habits. Sometimes it is short-lived, ephemeral, vigorous, coarse-textured, free-seeding and with a ten-week life cycle. In other forms, it can be a biennial, relatively fine leaved and shy seeding, in extreme forms looking almost like pads of pearlwort, almost a different species.

A host of other grasses can be occasionally found in close-mown turf—perhaps more so on fairways than greens—in addition to those mentioned.

Some are obviously only just surviving, under the influence of mowing, but I have seen even cocksfoot, whose coarse, flattened, pale stems distinguish it at once from the equally pale but hairy Yorkshire fog.

Mat grass (*Nardus stricta*) is fairly common on acid moorland fairways. The couch grasses (*Agropyron*) will not stand mowing, but can usefully stabilise shifting sand—along with Marram and Sea Lyme grasses—those dune-building grasses that demand to be constantly smothered by building up wind-blown sand if they are to survive and not 'grow themselves out' of the sand.

I have quite often found wall barley (*Hordeum maritimum*) looking very yellow and an unattractive constituent of fine turf, perhaps more on heavier soils, despite its name. The timothys (*Phleum* spp.) are, quite wrongly, assumed to prefer wet conditions. Several do thrive on sand dunes, but they are neither necessary nor desirable as constituents of seeds mixtures and are difficult to establish and resent competition—hence their preference for environments that are either too wet or too dry for more aggressive species, which would otherwise compete with them.

There are lots of other grasses—foxtails, sweet vernal grass, *Sesleria*, Aira, even the bromes, which can be found in mown turf—but the beginner can safely dismiss the lot as weeds of no significance!

There are a number of annual grasses that are characteristic of drought-susceptible, sandy soils,

which flower early and survive the drought in seed form and others on bulbils. These are *Aira praecox*, rat's tail fescue, annual timothy and, of course, annual meadow grass, but also *Poa bulbosa* and the small timothys.

To trap the over-confident, however, there are some non-grass species, of which two are worthy of attention. Field woodrush (*Luzula campestris*) is an attractive grass-like sedge, so why call it a rush? Presumably by the same logic, *Polygonum aviculare* is called knot grass because it is less like a grass than anything!

This sedge occurs on many heathland and other courses, contributes to good, fine-textured fairways and even if it does put up attractive brown flowering heads early in the year, never warrants control.

Toadrush (*Juncus bufonis*) is a true rush and can be a nuisance on wet greens as its small 'tussocks', surviving quite happily under the blades of the mower, can ruin putting surfaces—but generally only where they have already been ruined by thatch and waterlogging. It is, however, a useful indicator of bad surface drainage and a warning to increase deep aeration and to break down thatch.

From this, we may deduce that there are only two or three grasses of value in greenkeeping—namely the bents (*Agrostis* spp.) and fine fescues and one *Poa*—*Poa pratensis* (smooth stalked meadow grass). There are a number of common weeds—chief of these being perennial ryegrass, for years unthinkingly included in fairway and tee mixtures to 'get a quick take', or to produce a hard-wearing turf.

It is arguable whether it is any quicker in establishing than the fine grasses, but it is certain that it never dies out, though it may be kept suppressed. It is coarse and strong, never really forms a turf with other grasses and produces impossible 'football pitches' of fairways and coarse, open tees, usually in conjunction with that worst of all contaminators, annual meadow grass.

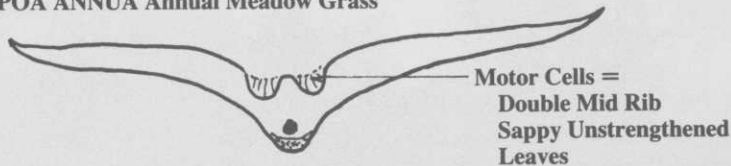
Dr Hayes' assurance that Bingley will no longer advise its inclusion in any seeds mixture, including tees, on any golf course—so-called dwarf strains notwithstanding—is welcome.

I spend too much time actually lifting and replacing ryegrass-contaminated turf around greens, originating perhaps 50 years ago, when patching traditionally worn

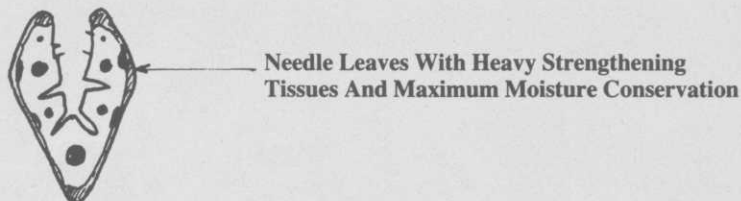
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T.S. LEAVES OF GRASSES

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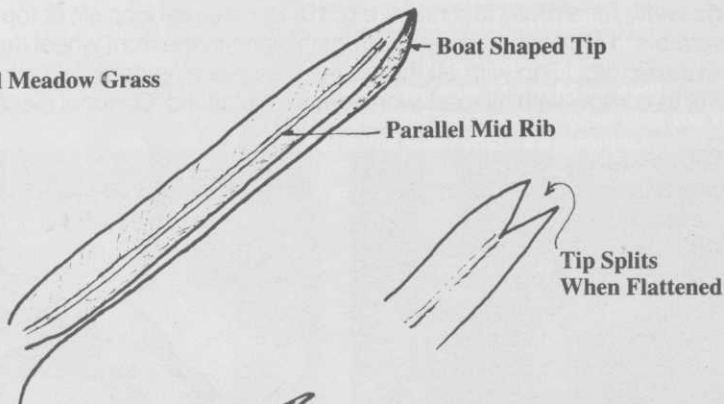


AGROSTIS TENUIS Bent Grass



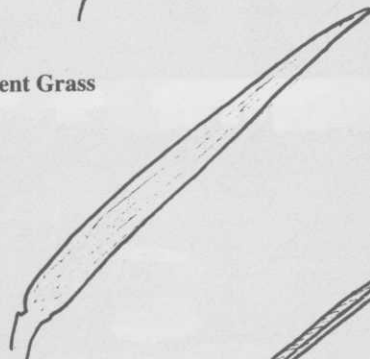
LEAVES OF GRASSES

Annual Meadow Grass



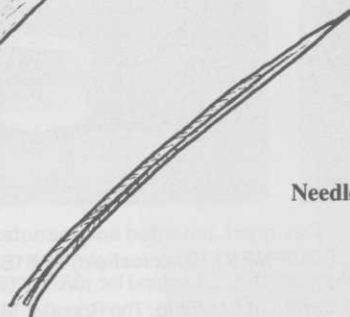
Bent Grass

Narrow Flattened Ribbed Leaf



Fine Fescue

Needle Like Leaf



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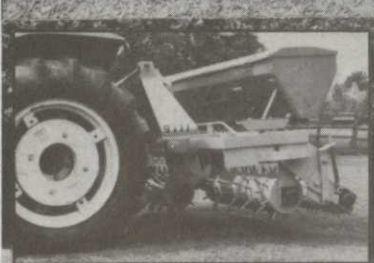
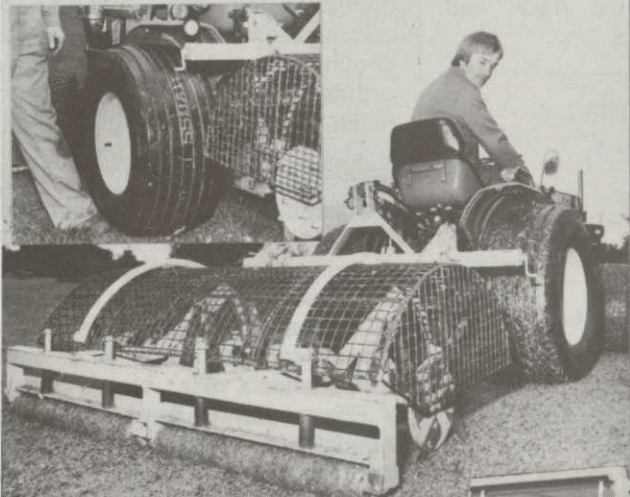
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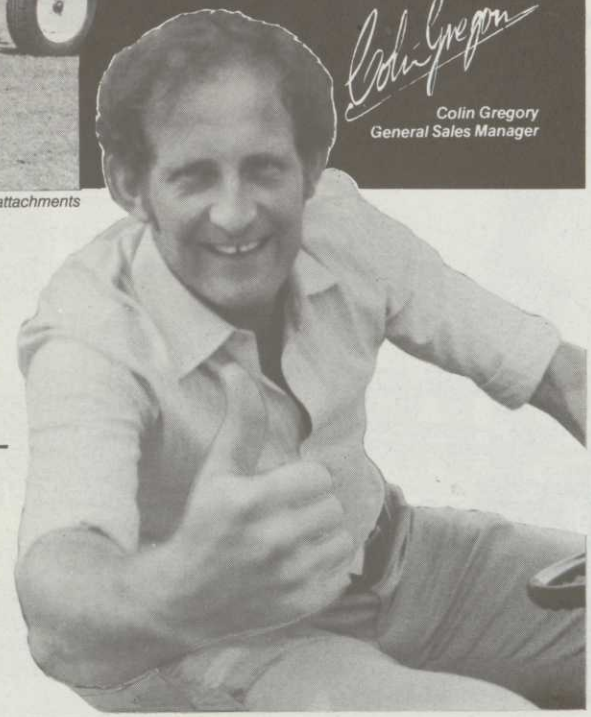
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Greenkeepers' Education And Training

Year by year, new machinery and more advanced techniques are being introduced specially for the maintenance of golf courses and the question arises what is being done to enable greenkeepers to keep pace with this technical progress? Automatic watering systems, the application of fungicides and fertilisers and health and safety regulations are some cases in point.

The craft of greenkeeping has evolved from being an odd job occupation to a highly technical business through many years of trial and error. In recent years, the expertise has increased by leaps and bounds with the assistance of technical colleges, the Sports Turf Research Institute, advice of commercial concerns and informed opinion of agronomists.

Today, many greenkeepers enjoy the respect and admiration of the golfing world but, in the absence of a uniform training system, standards throughout greenkeeping are so varied that the profession itself has not yet been accorded the status commensurate with its importance.

Elmwood College, located just a few miles from St Andrews, is regarded as one of the leaders in the field of greenkeeping education. During 1976, part-time courses were formulated and, since then, they have improved.

At the moment, there is a first-year SCOTEC course, which contains the

basic soil/grass chemistry relationship, basic horticulture and an introduction to greenkeeping.

The second and third year is a progression related entirely to greenkeeping.

Just recently, however, a new fourth year course has been established mainly to allow suitable candidates the opportunity to continue further in turf management at a supervisory level.

To assist the college and to provide guidelines, an advisory committee was formed—members of which were drawn from the trade and greenkeeping industry.

By Walter Woods Links Supervisor, St Andrews

Each year, a greenkeepers' conference is organised. This usually takes place during March. Top speakers are invited and special encouragement given to greenkeepers wishing to speak on a chosen subject. Conferences and lectures are considered necessary to highlight a chosen subject. Conferences and lectures are considered necessary to highlight and improve greenkeepers' knowledge.

To assist head greenkeepers and first assistants who might have a wealth of experience, a week-long supervisory course was organised. This course contained advice on budgets, report writing and health and safety.

This area of education is of the

utmost importance, providing a balance of learning and giving a relationship between the head greenkeeper, apprentice and technical colleges.

SIGGA is aware of the benefits received from education. We do not want a situation like that in America where only rich, aspiring superintendents receive education.

Attempts are being made to provide learning at apprentice level, combining this with a sound grounding of practical experience. Our organisation consists of an education director and a sub-committee, who take part in college committee activities. The director co-ordinates all information and reports to the SIGGA executive committee.

The main and most important co-ordinator of education, however, is the greenkeeping training committee, which is in dire straits financially. This is a sad reflection on the golf industry.

The Scottish Golf Union and Scottish greenkeepers have representatives on this important committee, which meets twice a year.

Efforts are made to have similar educational studies adopted in England but, unfortunately, the position is far more complex and solutions more difficult to find. Serious problems arise because colleges, which can offer similar courses, are under the control of independent local authorities and, owing to the distances between colleges, it is extremely difficult for organisation to take place.

However, attempts are being made to organise a link between the appropriate golf unions, the greenkeeper associations and certain colleges that might be prepared to accept training in greenkeeping.

The greater part of a young apprentice's training takes place during his working hours on the golf course and the monitoring of his training will be by a log book which, when completed, will provide the second half of the basic qualification.

Unfortunately, this is the area where problems arise. Most golf clubs keep manpower to the lowest level, compelling the apprentice to continual manual labour. The head greenkeeper usually has no time to teach the apprentice some of the more important and skillful work. This is an insular method of achievement and does nothing to promote golf or golf courses. Little do they know that, having a well-maintained course,



Foremost in greenkeeper training—Elmwood College.



The greater part of training takes place during working hours...

guarantees a well-filled clubhouse.

Although criticism is directed here at the golf club, a considerable amount should also be directed towards the head greenkeeper. He should allocate more time for the

apprentice to digest his training and by altering daily work programmes he instantly creates more interest in the work.

It's a good feeling to see a young man mature and develop into a good

greenkeeper. Sound individual and practical education, coupled with the theory received at college, gives a solid foundation and a stepping stone from which he can progress with confidence.

Perhaps if we adopt the motto of Elmwood College—Growth through Knowledge—the whole greenkeeping industry will benefit.

Forthcoming Events

- National AGM—27th March in Edinburgh
- SIGGA versus the club secretaries for the Gillies & Henderson Trophy at Gullane Golf Club on 2nd April
- East Section—outing to Glencorse GC on 10th April
- Central Section—outing to Elie GC on 18th April
- Ayrshire Section—Outing to Ayr Belleisle on 23rd April
- West Section—outing to Bellshill GC on 8th May
- North Section—outing to Carnoustie on 24th May
- The national outing will probably be in early August

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