



#### about the author



#### Dr Terry Mabbett

Dr Terry Mabbett is a disease, pest and weed control specialist with forty years international experience covering research, advisory and journalism. His current fields of focus are professional turf and alien insect pests and pathogens of Britain's native and naturalised trees.

**The message on the grapevine is that oak processionary moth (OPM) could at last be controlled by aerial spraying in the UK. After five years of dithering, the UK Plant Health Authorities appear to be learning a lesson, taking the lead from their counterparts in Germany and trialling aerial application of insecticide against OPM.**

OPM (*Thaumetopoea processionea*) is moving mainly westwards and southwards from its initial twin infestation focus on oak trees imported from the Netherlands and planted in the London Boroughs of Richmond and Ealing during 2005/2006. A total of nine contiguous London Boroughs – Richmond, Ealing, Hounslow, Brent, Hammersmith and Fulham, Kensington and Chelsea, Kingston, Merton and Wandsworth are now affected by this main infestation. Last summer the infestation leapfrogged the Thames from its southern front at Hampton Court and into the Elmbridge area of North Surrey.

Two ongoing 'satellite' infestations, originating from later separate introductions of OPM on oak trees also imported from the Netherlands, are in the Pangbourne area of West Berkshire and the West Wickham area of the London Borough of Bromley. This latest infestation has spilled over into the neighbouring London Borough of Croydon.

Aerial spraying is not something done on the hoof with pilots leaping into cockpits wearing ten-gallon hats and shouting 'chocs away'. It requires thorough planning and regulatory hoops to be jumped through, especially since nearly all OPM affected oak trees in the UK are in urban and suburban areas.

Any aerial spraying undertaken will be carried out using helicopters to apply the biological insecticide *Bacillus thuringiensis* subsp. *kurstaki* (BT). Aerial spraying experts will carefully consider and calculate a comprehensive range of spray and formulation factors and parameters. These will include aircraft speed, height above the target, nature and concentration of the liquid formulation used, mean droplet diameter and droplet size distribution, spray volume and insecticide dose sprayed per unit area, as well as wind speed and wind direction on the day.

#### Biological perspectives

In addition, there will be key biological factors and requirements, related to OPM larva behaviour

and the canopy characteristics of oak trees, that must be understood and satisfied if the programme is going to work, irrespective of how nominally accurate aerial application might be.

Spray timing is crucially important for several reasons. BT kills OPM larvae via ingestion and stomach action through larvae feeding on the foliage. Consequently the target for spray droplets is the new oak leaves produced in spring, usually appearing from mid-April onwards with OPM larvae hatching sometime during the second half of April.

The twin synchronised starting points are therefore timing of oak tree re-foliation and hatching of the L1 (first instar) larvae from plaques of insect eggs on small branches at the top of the canopy. Both are dependent on temperature. An early spring with higher than normal temperature should realistically see earlier synchronised oak tree re-foliation and larval hatch, and vice versa.

Next thing to be established is when the larvae start to feed on bursting buds, young leaves and flowers. Is it immediately after hatching or sometime thereafter? If a contact insecticide is used spray operators would additionally benefit from knowing when larvae are most exposed to spray droplets by being, for instance, on the upper (adaxial) surface of oak leaves.

Synchronisation of aerial application with start of larval feeding is vital for another very important reason. Youngest small larvae (L1, L2 and early stage L3) are the easiest to kill with insecticide. The lower the larval body mass then a correspondingly lower dose of active insecticide ingredient is required to kill the larva.

Secondly this is the only time during the entire juvenile insect stage period that larvae will be permanently feeding on foliage in the outer shell of foliage at the top of the oak tree canopy where the bulk of spray droplets from aerial application will be deposited. Once larvae have successfully passed through the L3 (third instar) stage they are that much bigger and heavier with correspondingly higher doses of insecticide required to achieve mortality.

OPM larvae in the late L3 to L6 stages spend progressively more time during the day on the trunk and main scaffold branches and increasingly in their silken nests. As such they are less likely to be feeding in on the outer canopy shell at the tops of trees where BT depos-



**MAIN ABOVE:** Aerial spraying using a Robinson 244 helicopter fitted with Micronair AU700 atomisers (Picture Micron Sprayers Ltd)

**FAR LEFT:** The adult oak processionary moth lays its eggs in plaques (strips) on small branches in the upper reaches of the oak tree canopy (Picture Forestry Commission)

**SECOND LEFT:** Operators need to monitor the timing of egg hatch in spring. A plaque of OPM (Picture Forestry Commission)

**LEFT:** Older and larger larvae with their higher body mass require larger doses of insecticide to cause mortality (Picture Forestry Commission)

its are made, so they will become increasing difficult to 'reach' by aerial spraying.

Larvae start to develop the irritating hairs from L3 onwards, and last thing wanted is for thousands of dead larvae with still active stinging hairs falling out of oak trees after aerial application of insecticide.

The window of aerial spray application opportunity is clearly quite narrow and generally closed by mid-May.

Collection of biological data is standard practice when planning any spray programme against a lepidopterous (butterfly and moth) larval (caterpillar) insect pest, but is easier said than done on a 20m tall oak tree than a 1m high cotton plant.

Nevertheless it needs to be done and clearly requires entomologists in MEWPs (cherry pickers) to see exactly what is going in the tops of oak trees infested with OPM.

Longevity of BT on plant foliage is relatively short.

The product is applied as a water-dispersible granule and is therefore prone to wash off from the foliage by rainfall. Activity is also reduced by UV light levels which can clearly

be high at the tops of tall oak trees.

These factors, depending on spring weather experienced, may shorten the interval before a follow-up spray application is needed.

Aerial spraying trials on trees are ideally carried out on larger expanses of woodland and as such the majority of golf courses might not seem like the obvious place to start. However, word on the grapevine is that trials may involve (by necessity) spraying by helicopter of small groups of oak trees or even individual trees.

Provided it is carried out when play is not in progress, golf courses would appear to offer as good a place and opportunity as anywhere, within an urban or suburban area, to trial aerial application of insecticide against OPM.

A number of golf courses are already being forced to use ground spraying equipment against OPM every year with many more at risk. BT is completely harmless to humans. It has been used for many years as a bioinsecticide in agriculture and horticulture to control lepidopterous larvae on dozens of different everyday fruit and vegetable crops.

## Collateral cost: aerial spraying against OPM

One question sure to be asked by today's environmentally-aware greenkeeper is the extent of any collateral ecological damage from aerial application. Provided aerial spraying against OPM is well planned, well timed and carried out with the required precision any ecological fall-out should be minimal, and acceptable given the alternative of giving OPM a 'clear run' and 'free hand'.

BT is specifically active against the larval stages of the Lepidoptera (butterflies and moths) and only via ingestion and stomach action. OPM larvae have to eat BT covered oak foliage to pick up a potentially lethal dose.

No other class of insect or arthropod (e.g. woodlice) is affected. Only insects at potential risk are Lepidoptera which use oak as a larval food plant and only one native British butterfly falls into this category. Larvae of the purple hairstreak (*Neozephyrus quercus*) feed on pedunculate oak (*Quercus robur*) and sessile oak (*Q. petraea*) and sometimes Turkey oak (*Q.*



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cerris) and evergreen or holm oak (*Q. ilex*).

Whether the purple hair streak is at risk from sprays of BT will largely depend on timing of egg hatch and larval feeding and how this matches with that of OPM. However, 'oddities' in larval feeding behaviour indicate purple hairstreak could avoid significant collateral damage.

The female purple hairstreak lays eggs singly at bases of plump oak buds in late summer. It prefers mature trees outside of dense woodland, and often isolated hedgerow and landscape oaks with twisted and gnarled branches, just the sort of oak trees found on many golf courses.

Eggs hatch is synchronised with first signs of bud break. However, L1 (first instar) larvae do not start to feed from the outside but burrow into buds and stay there feeding safely until the first moult is complete. As larvae get larger and oak buds open, they spin silken protective retreats outside and feed only at night. During growth and development of the larva there are three moults prior to pupation.

These idiosyncrasies may be

enough to spare the purple hairstreak from most risk and damage. Egg hatch and appearance of L1 larvae starts well before that of OPM with some British butterfly websites indicating the first half of March, which means up to 8 weeks before any OPM spraying can be contemplated.

Situation for moths is more complicated in number at least. No less than 2400 different moth species have been recorded in Britain including 800 found regularly. In Northumberland over 50 different species of moth are recorded with either *Q. robur* or *Q. petraea* as a larval food plant.

However, the larval stage of many moth species is in June and July well after any anticipated spraying against OPM.

Last but not least is 'His Majesty', the male purple emperor butterfly (*Apatura iris*). Purple emperor butterflies are closely associated with oak woodland although the female lays its eggs on sallow, mainly great sallow (*Salix caprea*) and also called goat willow or pussy willow, growing at the woodland margin and along woodland rides.

With sallow as the larval food



ABOVE RIGHT: Late L3 to L6 larvae spend more daytime hours on the trunk and main scaffold branches and increasingly in their silken nests (Picture Forestry Commission)

plant the purple emperor should be safe. However, the adult butterflies drink oak sap and honeydew excretions from aphids feeding on oak foliage.

Whether or not they could pick up BT in this way, and indeed whether BT would be infective against the adult insect stage, is something which doesn't appear to have been considered.

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BIGGA members recently took part in a survey concerning the use of compost on golf courses. Here Tricia Scott, Research Analyst from the Waste and Resources Action Programme (WRAP) summarises your responses

# It's a WRAP

**As you will be aware, compost is produced from biodegradable organic waste such as garden clippings, grass cuttings and leaves as well as household kitchen waste.**

The survey results show two in five of you make your own compost on site using grass cuttings and leaves collected around the course, and the mixes vary from 70% grass/15% leaves to 10% grass/80% leaves. One respondent mentioned using kitchen waste, while another uses seaweed and leaves and one clearly had his own special recipe: "grass, wood chip, cardboard, kitchen waste, dung. I look for a 40 % green/high N content".

Composting is a great way to recycle nutrients from green and food waste. It contains slow release nitrogen, potash and phosphorus, as well as trace amounts of magnesium and iron. Most of you who responded to the survey said you used your compost in flowerbeds as well as for turf top dressings and repair (in divot mixes). Some said they use compost on fairways, roughs or for landscaping around the course.

There are a number of uses for compost on the golf course. It can

be blended with other materials such as sand to create reliable topdressings. It can also be blended with grass seed in divot mixes, and because compost contains nutrients and holds moisture effectively, it enables rapid regrowth of grass. The dark colour also absorbs heat from the sun, speeding up germination.

It can be used to establish or renovate turf by applying a 25-50mm layer on the surface and then incorporating it to a depth of around 100-150mm. Once this is done, a seed bed can be established by lightly brushing seed onto the surface. The mixture of nutrients and minerals in the compost provides a stable, reliable and sustained base for rapid growth.

The amount of compost applied to a site will depend on the properties of the compost to be applied, the characteristics of the receiving course and what the final requirements are. When compost is produced on a commercial scale, it is often made from a combination of green waste and municipal household kitchen waste.

These composts are produced under controlled conditions so that microbial activity drives the breakdown of the material, and can then

be used in a range of applications around the golf course.

It was clear that many of you are happy to use compost, however half of you were concerned about the effects of using it on finer turfs such as on greens, and were particularly concerned about possible fungal diseases.

Some of you also raised concerns over the consistency, quality and possible health risks associated with using it. Comments included "the local supervisor couldn't guarantee the quality. No temperature checks in place, rogue weeds getting through" and "Local supplier doesn't screen small enough, or risk of contamination if compost is not made properly."

These concerns are valid but can be avoided by using compost that is certified to the PAS 100 specification. This specification is a quality assurance scheme that puts in place a number of measures in the composting process to ensure minimum standards are met, to ensure compost is safe and consistent.

It includes restrictions on what materials can be used for composting thus reducing the likelihood of unwanted materials in the end product. It requires high temperatures to be consistently





**“Two in five of you make your own compost on site using grass cuttings and leaves collected around the course”**



**ABOVE RIGHT:** Carnoustie Golf Club used PAS100 Compost for turf maintenance and repair courtesy of WRAP

**INSET ABOVE:** PAS100 Compost produced in windrows courtesy of Fife Council

reached during the composting process, so that weed seeds are thermally destroyed, plus regular tests to ensure the product meets minimum quality standards.

Compost that meets the PAS 100 specification can also be screened to very fine particle sizes as low as 5mm and can be applied as top dressings both to fairways and greens.

Trials have demonstrated that using compost as a top dressing is just as effective as a traditional sand based topdressing. In fact, rather than increasing the prevalence of fusarium fungal diseases such as dollar spot, compost based top dressings have been shown to suppress them due to its slow release nitrogen.

Compost top dressings are best applied during spring or autumn. This helps to avoid run off and material loss during heavy rain. Periods of hot and dry weather should also be avoided as this may inhibit the level of incorporation of the compost into the underlying soil.

Many of you are aware of the benefits of using compost. We received comments such as: “this is a good way of controlling waste products on site and saves us money” and

“improves soil biology and soil food web to reduce chemical reliance”.

The environmental and sustainability benefits of using compost are clear. It recycles waste materials, helps reduce the need for artificial fertilisers and the addition of organic matter can help to improve soil structure. You can also save money too both by using your own compost and by using PAS100 compost.

Carnoustie Golf Links welcomes over 115,000 golfers a year and needs to maintain its courses to the highest standards. Following successful trials, the club took the decision to use quality compost in the repair and maintenance of the courses. Divot mixes comprise of 6mm grade compost at a ratio of 1:3 with sand which is then blended with seaweed meal and grass seed.

The blend creates a material close to a sandy soil which offers moisture retention and nutrients. It has been found to provide a practical cost effective and sustainable alternative to the virgin materials used in the past - such as fensoil and fertilisers. Using locally sourced PAS 100 compost led to cost savings of circa 30%, or around £13 per tonne as a result of the reduced haulage costs.

In a trial conducted at Monifieth

Golf Links, comparing divot mixes based on compost and fensoil, found that not only did the compost perform as well as the fensoil but also resulted in an annual cost saving of £1,480.

Some of you who responded to the survey are keen to use PAS 100 compost but either don't know enough about it, or have struggled to find a suitable local supplier.

We recognise these are issues that need to be addressed and are looking at ways to improve access to information.

A good practice guide is available on the WRAP website, providing information about how compost can be used successfully on golf courses.

**Also available is the Compost Suppliers Directory: [compostsuppliers.wrap.org.uk](http://compostsuppliers.wrap.org.uk)** This tool helps identify suppliers of compost and compost-based topdressing in your area. It will be updated over the coming months to include a wider range of suppliers who can deliver the most suitable products.

If you are interested in finding out more about the results of the survey, please contact [lee.best@wrap.org.uk](mailto:lee.best@wrap.org.uk)

# Selective weed control



Graham Paul's latest BASIS article looks at unusual turf weeds and how to identify them



**With spring weather hopefully around the corner, maybe it's time to consider some strategies for selective weed control. In the UK there are over 50 species of broad-leaved weeds that can be found in mown turf.**

Some species will be affected by mowing closer than they can tolerate, so these will only survive in more natural, less intensively managed areas. Coastal environments support a number of salt tolerant plants (halophiles) such as Buck's-horn plantain (*Plantago coronopus*) and Thrift (*Armeria maritima*) that are not normally found inland. Soil type, pH and the availability of water will reduce the list still further.

The first step in selective weed control is to identify the weeds present. Starting with seaside plants, 'bathed' in the salty mists that pervade coastal habitats. Their ability

to survive in this environment is due to a genetic adaptation that allows them to withstand conditions of high salinity. The salt mist coming from the sea will increase the levels of sodium chloride in the soil, which is then absorbed by the roots and accumulates in plant tissues. Abnormally high levels in plant cells will seriously affect the movement of water across cell membranes and as a consequence, growth is slowed or halted completely. This osmotic imbalance can cause the 'stunted growth habit' that some species exhibit in coastal regions or it can eliminate them altogether.

Three other weeds occasionally found in coastal turf include; Sea Plantain (*Plantago maritima*) similar in appearance to Ribwort Plantain but with narrower fleshy leaves, Sea Milkwort (*Glaux maritima*) a creeping perennial weed with stalkless fleshy leaves and



pink flowers and lastly Sea Stork's-bill (*Erodium maritimum*), which has simple lobed leaves and small pale pink or white flowers that rapidly lose their petals.

These species fall into the category of 'unusual turf weeds' and are relatively easy to control with what I have termed the 'general purpose' selective herbicides.

These are a group of similar products that contain MCPA, mecoprop-P and dicamba such as

MAIN ABOVE: Thrift *Armeria maritima*

INSET ABOVE: Plantain - Bucks Horn *Plantago coronopus*



'Longbow', 'Relay', 'Re-Act' or 'T2 Green'.

The common Dandelion (*Taraxacum officinale*) gets its name from the corrupted French description of the leaves ('dents de lion' – lion's teeth) but natives of France may also know this weed by the name 'pis en lit' – a reference to bed wetting that myth tells us can result from picking dandelion flowers! Most people can identify a dandelion but there are several other lookalikes that produce a similar single yellow flower-head, which can fool the untrained eye when the weed is found in mown turf. The first of these; Cat's-ear (*Hypochaeris radicata*) has fleshy, lobed, hairy leaves that (with a bit of imagination) resemble the 'fight-torn' ears of a tom cat! I have seen many different species of cat but never one with green ears! The flower stalk is quite different from a dandelion; being thinner, wiry and bearing a few scale-like dark-tipped bracts.

Cat's-ear is relatively easy to control with most general purpose selective herbicides but some products may require a further application.

The next of the dandelion 'look-

alikes' are the Hawkbits; Autumn Hawkbit (*Leontodon autumnalis*) and Rough Hawkbit (*Leontodon hispidus*). Rough Hawkbit is a very hairy plant in contrast to Autumn Hawkbit; which has more slender, often hairless leaves. Rough Hawkbit has un-branched flower stems whereas Autumn Hawkbit can have two or three branches in its flower stems.

These two Hawkbits can be controlled by with two applications of products containing MCPA, mecoprop-P and dicamba at a rate 3.5L/ha, such as 'T-2-Green' or 'Re-Act'

Another dandelion flower 'look alike' is Mouse-ear Hawkweed (*Pilosella officinarum* – formerly *Hieracium pilosella*) This perennial herb has long leafy runners and produces a rosette of grey-green leaves that have soft, dense, short white hairs on the underside and long stiff hairs on the upper surface.

The florets have red stripes on the under surface.

The leaves are quite different from the dandelion but the flowers can appear similar when fully open because the red stripes are not visible from above. Mouse-ear Hawkweed is fairly easy to control



with products containing 2,4-D, MCPA and mecoprop-P.

Selective herbicide products are usually formulated from two or more active ingredients in order to extend the spectrum of control to deal with as many turf weeds as possible in one spray. Manufacturers try to match the weaknesses of one active ingredient with strengths of another, to create a 'one product' answer to weed control in turf.

However, due to the diversity of weeds found in managed turf situations, the quest for complete control has so far been elusive. Further-

MAIN ABOVE: Hawkbit Autumn Composite

INSET ABOVE: Cats Ear Composite



MAIN ABOVE: Medick - Spotted  
*Medicago arabica*

INSET ABOVE: Black Medick  
*Medicago lupulina*

RIGHT PAGE BOTH IMAGES:  
Speedwell - Ivy Leaved  
*Veronica hederifolia*

more, repeated use of products that leave some weeds uncontrolled can, over several seasons, lead to domination by these resistant species. Two weed groups spring to mind in this respect; the yellow clovers and the speedwells can both increase in numbers to the extent that the small flowers become highly visible, requiring specialist herbicides to remove them.

The yellow clovers are all members of the pea family (Fabaceae); three species of Trefoils and two species of Medick. These five species can all be found in UK turf and are fairly difficult to control and even more difficult to identify!

To distinguish between the three yellow trefoils look for leaf hairs, leaf size and the number of flowers in the flower head.

- Hop Trefoil (*Trifolium camp-estri*) has sparsely hairy leaves and has 25 to 40 flowers per head.
- Lesser Trefoil (*Trifolium dubium* – also known as yellow suckling clover) has similar sized leaves to Hop Trefoil but they are usually hairless and there are between 15 and 25 flowers per head.
- Slender Trefoil (*Trifolium micranthum* – also known as Least Yellow Trefoil) has smaller leaves and flowers with only 2 to 10 flowers in the flower heads.

The yellow trefoils are best controlled with specialist selective herbicides containing mixtures with fluoxypyr such as 'Cabalex', 'Praxys', 'Swiftsure' and 'Trafalgar'. The general purpose products will give some control but re-growth

from early treatments may require a second spray.

The two species of Medick have similar shaped leaves and flowers to the Trefoils. Spotted Medick (*Medicago arabica*) has obvious dark spots on the leaves that easily separate it from all of the others.

Black Medick (*Medicago lupulina*), a perennial, can be distinguished from the yellow trefoils by its 'mucronate' leaf tips. These are short, abrupt points on the end of the leaf mid-vein. The seed pods are kidney shaped and turn black when ripe.

Black Medick can be controlled with the general purpose products at the highest dose (where a range of rates is recommended) but retreatment may be necessary in some cases. Best control is indicated with the specialist herbicides suggested for the yellow trefoils. Spotted Medick may also respond to these recommendations but I could not find a label or other reference to confirm this.

Speedwells are members of the genus *Veronica*, which includes about 15 UK species, many of which are found in turf and will require specialist selective herbicides to control them. All speedwells have flowers with only 2 stamens but vary considerably by the leaf shape, size, hairiness and by the colour of the flowers; which can range from deep blue to lilac, with some that are almost white.

The more common varieties found in turf include; Slender, Ivy-leaved, Thyme-leaved and

## SELF ASSESSMENT

Use the questions below to check your understanding of this topic. Readers can claim BASIS points if the questions are answered correctly

- 1) What is the term used for salt tolerant plants?
  - a) Halogenic, b) chlorophile, c) halophile, d) osmotrope
- 2) Alongside the weed Autumn Hawkbit, which other member of this family was mentioned?
  - a) Rough Hawkbit, b) Smooth Hawkbit, c) Lesser Hawkbit, d) Mouse-ear Hawkbit
- 3) What term describes a leaf or bract with an abrupt point at the tip?
  - a) Periodate, b) stylate, c) dentate, d) mucronate
- 4) What characteristic do all Speedwells have in common?
  - a) Blue flowers, b) hairy leaves, c) they are all annuals, d) flowers have only 2 stamen
- 5) Yellow clovers found in turf are all members of which botanical family?
  - a) Figwort (Scrophulariaceae), b) Pea (Fabaceae), c) Carrot (Apiaceae), d) Rose (Rosaceae)



**“Most speedwells flower very early in the spring so they are often difficult to control before the flowering stage”**



Germander Speedwell. The latter, Germander Speedwell (*Veronica chamaedrys*), has two opposite lines of long hairs on the stem and is notoriously difficult to control, with frequent reports from users of re-growth after 6 weeks of treatment with some products.

Other species occur in local environments and particular habitats such as Marsh and Heath Speedwell. Like the yellow clovers, if they are left uncontrolled by general broad spectrum herbicides, they can proliferate to the point that they dominate the sward. Most speedwells flower very early in the spring (March/April) so they are often difficult to control before the flowering stage.

The majority of speedwells can be controlled with specialist selective herbicides containing fluroxypyr, for instance; ‘Cabadex’, ‘Praxys’, ‘Swiftsure’ and ‘Trafalgar’. The dual purpose moss control product ‘Jewel’ that contains carfentrazone-ethyl and mecoprop-P will also give moderate control of speedwell species.

#### **Tank-mixing to increase weed spectrum**

In circumstances where the weeds present in turf include deep rooted or difficult to control weeds

such as thistle, speedwell or yellow trefoils then it may be prudent to treat the area with a tank-mix to extend the capabilities of a general purpose product such as ‘Relay’ or ‘T-2-Green’ with another amenity approved product.

To achieve control of deep-rooted weeds, consider using a mix with a product containing 2,4-D amine, such as ‘Depitox’. Difficult weeds, for example speedwell or yellow trefoil would require a mix with one of the specialist herbicides referred to in the relevant sections above.

#### **In order to stay legal when tank-mixing it is important to stick with the following guidelines:**

- Check with your supplier that the proposed mixture is suitable for the intended use. A supplier offering to support a mix should have tested it and will know if there are any compatibility issues or effects on the performance of the products.
- Note that when mixing two or more pesticides in a tank-mix all conditions of approval on all of the product labels and safety data sheets must be complied with.
- If any product in the mix is subject to a LERAP requirement, then this applies to the tank-mix as well.



## Section Notes

Please email your notes to [steve.castle@bigga.co.uk](mailto:steve.castle@bigga.co.uk) by the 15th of the month

All the latest news from your Section

# Around The Green



## SCOTLAND



### CENTRAL

Congratulations to Stephen Jack who has been appointed Head Greenkeeper at Pitreavie GC. Stephen, who comes from Leuchars in Fife, started his career as an apprentice at St Andrews before moving to Loch Lomond GC. He then moved to England and worked at The Buckinghamshire and other courses in the London area before deciding to move back to Scotland.

Also new to the area is James Lindsay, the new Course Manager at Stirling GC who took up his position a few months back. Welcome to the Central Section to both of them. Congratulations also to Richard Colley of Dunfermline GC who got married in Lapland at the beginning of March. As I write this you could have stayed in Fife and got more snow Richard!

The Pairs competition is up and running again with over 20 teams which is an increase again from last year. There are a few new ones this time round so it should be a good competition again.

The spring outing is at Carnoustie on 17 April, entries close on 11 April and a report will appear in the May edition as well as on our website [www.biggacentralsection.org.uk](http://www.biggacentralsection.org.uk). Amazingly, out of 280 members in the section, over 80 have not supplied us with an email address. As this is the main method of communicating with members about education and other events 30% of members are missing out.

Gordon



### EAST

Unfortunately due to work commitments I was unable to attend the Scottish Conference, by all accounts I missed out on a very good day with some great topics, well done to all involved with a maximum turnout on the day showing how highly this event is held in the greenkeeping calendar each year. I would like to welcome and introduce Jamie Martin (Gifford GC) as my Vice Chairman, I look forward to working with Jamie over the new few years. Various events may be held for our section over the year with a possible course walk at Muirfield prior to The Open this year, and we are also looking at holding a get together at Mussleburgh Races with the possible date of May 24, first race at 6.15pm. By the time this report goes to publication the Masters will be on our screens with the golfing world expecting all the golf courses to resemble the magnificent Augusta track, spare a thought for the poor greenkeepers fighting the elements - snow, rain and cold winds. G

ood wishes to Alan Lawrie who has taken over as Head Greenkeeper at Royal Mussleburgh GC - the section wishes you well Alan in your new post. We have had a good response for our spring outing to Seahouses (23 April) and at present we have 26 golfers (well 25 golfers and Charlie Allison) looking to attend so we still have some space for any latecomers, just get in touch if you would like to attend. If any members would like to volunteer to write a piece for GI drop me a line - till next month enjoy the spring weather.

Scott Corrigan [scottcorrigan4@aol.com](mailto:scottcorrigan4@aol.com) or 07877098237



### NORTH

We would like to start of this month's report by saying congratulations to Steve Frost Deputy Head Greenkeeper at Royal Aberdeen Golf Club. Robert Patterson got in touch to say that Steve has been at the club now for over 30 years which is a great achievement in the modern age so well done and keep up the good work.

We also heard that Billy Craig has taken over from Jim McCormack as Head Greenkeeper at Kirriemuir Golf Club so best wishes to Billy in his new position and hopefully the weather will be kind to you in your first year in charge.

The Section would also like to pass on their best wishes to John Robertson from Aitkens who we believe has retired, John has been a regular at our section outings over the years so thanks very much for your support and hopefully it is not the last we will see of you.

Another section member in the news is Scott Davidson for Newmachar Golf Club who has been chosen in the final 20 delegates (only two in Scotland) for the inaugural Jacobsen Future Turf Managers Initiative.

Scott's looking forward to a very intensive two days of seminars and workshops at the Jacobsen Headquarters in Ipswich. By the time you read this report you will have your 200 club tickets and entry form for the Duff House Royal outing on 25 April so it will be good to catch up with everybody again.

Please remember to send in any news to no matter how big or small to Dale Robertson on mob 07784517534 or Robert Patterson on mob 07931639548



### WEST

Not going to start with the weather just want to wish everybody a great season and hope this is a good one for a change.

We have the spring outing at Buchanan Castle golf club 25 April courtesy of Ronnie Mills and his council, secretaries match at Douglas Park golf club on 8 May, and a football match on Sunday 28 April at Fir Hill against a select team.

Congratulations to Gary Divers who has secured the job at Crow wood golf club. Gary used to look after Ralston golf club but moved off to pastures new, we wish him well.

The site visit to Loch Lomond has been cancelled as David Cole would prefer to conduct the tour at a more beneficial time for him and the club. David feels he can deliver a better talk when his workload is slightly reduced at the present time all guns are blazing to get things ready for the start of the season. November is the planned date but members will be informed well in advance, thanks to David and Loch Lomond for their help.

Finally John Robertson of Aitkens is taking early retirement after 26 years with the company this being due to ill health, John covered the East Section more than the West but I had bumped into him on a few occasions at the Scottish outings at one of those venues (Kingknowe) I remember him shooting 59, a remarkable score for anybody and I doubt if it will ever be matched. The West Section would like to wish him well and hope he enjoys his retirement.

Remember if you need to get in touch then call 07790823914 or e-mail me at [stuart.taylor@glasgowgolfclub.com](mailto:stuart.taylor@glasgowgolfclub.com)